



City of South Lyon  
**Professional Engineering  
Services**  
Statement of Qualifications



**South Lyon**  
MICHIGAN

**ORIGINAL**

December 06, 2022

Prepared by:



HUBBELL, ROTH & CLARK, INC.  
CONSULTING ENGINEERS SINCE 1915

555 Hulet Drive  
Bloomfield Hills, MI 48302

ENGINEERING. ENVIRONMENT. EXCELLENCE.  
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City of South Lyon  
335 S. Warren Street  
South Lyon, Michigan 48178

Attn: Mr. Paul Zelenak, City Manager

Re: Statement of Qualifications for Professional Engineering Services

Dear Mr. Zelenak:

Hubbell, Roth & Clark, Inc. (HRC) is pleased to offer this Statement of Qualifications for Professional Engineering Services to the City of South Lyon. We highly value the professional relationship we have established with the City over the last 28 years and look forward to continuing our partnership with the City in the future.

As you know, HRC is a multi-disciplined engineering firm that offers a vast array of capabilities to meet the needs of our municipal clientele. For over 105 years, we have provided comparable services to Southeast Michigan communities, and we continue to refine our structure and approach to best match the needs of each community we serve. We believe that our firm will prove to be a highly qualified, ethical and valuable partner with the City for the following reasons:

- ≡ HRC has assisted the City of South Lyon with many successful projects over the years. Highlights include:
  - *Grant Funding Applications*
  - *2022 Road Improvement Bond Assistance*
  - *Water and Sewer Asset Management Planning*
  - *Water System Reliability Studies*
  - *Water Supply System CIP*
  - *Phase 1 Water Treatment Plant Improvements*
  - *Well 7 Connection to WTP*
  - *DPW Complex Site Improvements*
  - *Sanitary Sewer Distribution System Evaluation*
  - *Watermain and Sanitary Sewer Improvements*
  - *Traffic and Signal Studies and Improvements*
  - *Liberty Street Concrete Improvements*
  - *Park Improvements*
  - *Parking Lot Improvements*
  - *Construction Administration and Observation*
  - *Creation and Expansion of GIS Databases*
- ≡ Our depth of experience and a wide range of technical expertise allows HRC to provide professional and cost-effective services for virtually any type of engineering project you might encounter.
- ≡ Our knowledge of Oakland County and state agencies, including the Road Commission, Water Resource Commissioner, the Michigan Department of Transportation (MDOT), Great Lakes Water Authority (GLWA), and Southeastern Michigan Council of Governments (SEMCOG) gives HRC the ability to interface seamlessly with those entities when the need arises.
- ≡ Our record of long-time service with numerous communities in Southeast Michigan, including our partnership with the City of South Lyon for over 28 years, highlights the trust we have developed with our clients over decades of projects.
- ≡ The strength of our knowledge of the City's infrastructure is demonstrated by Mr. Michael Darga, who has over 24 years of experience managing municipal projects and has been working with the City of South Lyon for 10 years. Mr. Darga will continue to serve as Project Manager and the primary point of contact for day-to-day activities with the City.

- ≡ Our commitment to individual attention. As has been demonstrated over the years, HRC has a principal of the firm (first Mr. Keith McCormack, followed by Mr. Jesse VanDeCreek and currently Mr. Roland Alix) assigned to monitor the activities of the account and actively participate during project scoping and administration. This role provides the City with direct access to someone with control of the firm's resources.
- ≡ We are proud of our highly qualified staff who will continue to be available to meet the variety of engineering needs that arise in the City. Our staff would be available to serve on short notice and an as-needed basis. Our proposed project team regularly provides engineering and surveying services to a variety of communities requiring services, which are comparable to the City of Sout Lyon. We understand the need to provide our services efficiently, responsively, and cost-effectively.
- ≡ HRC excels in finding ways to maximize our client's infrastructure improvement resources by utilizing emerging technologies, considering life-cycle costs for recommended improvements, and developing contract documents that minimize project overruns. Additionally, we have dedicated professionals leading our clients' the asset management charge, which increases municipal responsibility for maintaining its assets and in turn improving the efficiency and effectiveness of city governments.

Thank you again, and we look forward to the opportunity to continue to provide our services to the City of South Lyon. If you have any questions or require any additional information, please feel free to contact Mr. Alix at 248-736-8704.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.



Roland N. Alix, PE  
Principal/Vice President

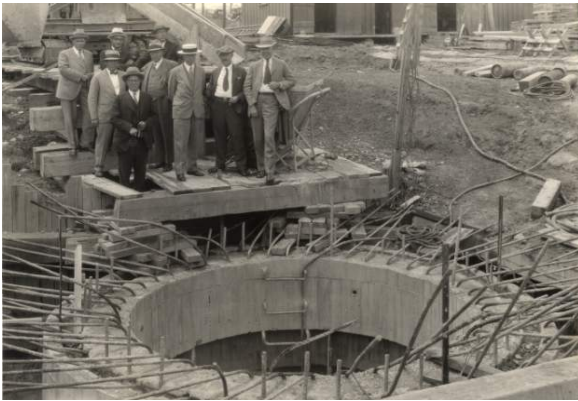


Michael Darga, PE  
Associate



## 2. Company/Firm Overview

### FIRM BACKGROUND



Infrastructure is the backbone of the U.S. economy. It is critical to the nation's prosperity and the public's health and welfare. We understand that communities today face aging infrastructure challenges. Failing infrastructure interrupts daily life, slows commerce, jeopardizes public health, pollutes the environment and damages quality of life. Our infrastructure problems are solvable if you have the right partner able to identify a wide range of solutions.

Hubbell, Roth & Clark, Inc. was founded on developing innovative engineering solutions for growing infrastructure and wastewater handling needs. We utilize industry-leading approaches, materials, and technologies to ensure infrastructures are more resilient. We have had the good fortune of serving Michigan communities for over 105 years on a wide range of projects. HRC's longevity is due to the strength of more than 260 engineers, scientists, architects, surveyors, and technicians. Our personnel stays focused on our clients' desired outcomes, addressing project challenges with superior solutions. From the beginning of the project until the end, our client-centric processes identify, communicate, track, document and measure our client's expectations.

Our journey of working with communities began in 1915 when George Fenkell, commissioner of public works for the City of Detroit, was faced with designing a solution to combat the staggering numbering of deaths attributed to Typhus and other water-borne diseases. He retained Clarence W. Hubbell to review a survey on the pollution of the Detroit River and provide recommendations. Clarence presented detailed plans for treating the discharge of raw sewage into the Detroit River, but it would take 23-years for the City to enact Clarence's recommendations.

Today, the resulting Detroit Wastewater Treatment Plant, designed and completed by HRC, is recognized as one of Michigan's Top 10 Civil Engineering Outstanding Achievements of the 20<sup>th</sup> century. It is this type of service that paved the way for the firm to emerge as a leader in the design of major infrastructure projects.

At HRC, we consider our clients to be a significant part of our culture. Our relationships with each one are worth more than the services we sell. Everything we build is developed to address their needs. We work alongside clients to co-develop solutions that create trusted interactions, surpassing expectations and achieving *engineering, environment* and *excellence* requirements.

- ≡ **Engineering.** HRC is a full service, multi-disciplined firm. As providers of engineering services to public and private clients, we strived to function as an extension of our client’s engineering department. Our personnel can address specialized projects and participate in general projects that exceeded staffing capabilities. Also, our materials testing laboratory is well equipped to manage typical owner quality assurance testing, which enhances HRC’s ability to coordinate with third-party testing services necessary for design and construction projects.
- ≡ **Environment.** At HRC, we offer a friendly, diverse work environment with opportunities for professional growth and development. Our staff is encouraged to participate in volunteer organizations, making our communities better places to live and work. As an example, HRC employees take a “Walk on the Wild Side” with the Clinton River Watershed Council at the Detroit Zoo every year. HRC employees also participate in a rewarding Tree Planting Event in the City of Detroit and are active in numerous highway clean-up activities. These events and others provide an excellent opportunity to help beautify and give back to the community.
- ≡ **Excellence.** HRC’s innovative design solutions have garnered numerous industry awards throughout our rich history. HRC is proud of its many engineering achievements received from the American Council of Engineering Companies (ACEC), American Society of Civil Engineers (ASCE), American Public Works Association (APWA), and other professional organizations for innovative and cost-effective projects.

We are 260-plus strong: engineers, scientists, architects, surveyors, and technicians, who strive to keep a laser-like focus on our clients' desired outcomes, while preparing superior work products.

The vast majority of HRC's resources are focused on clients and projects, rather than securing the next acquisition. We are hands-on problem solvers. HRC is by design, nimble enough to tackle small quick turn-around assignments, as well as large complex projects.

HRC is a multi-disciplined consulting engineering firm with capabilities in the following areas:

≡ Roads & Bridge Design	≡ Site/Civil Engineering
≡ Surveying	≡ Traffic Engineering
≡ Environmental Engineering	≡ Wetlands/Watershed Management
≡ Landscape Architecture	≡ Structural Engineering
≡ Process Engineering	≡ Instrumentation & Control
≡ GIS	≡ Asset Management
≡ Water Transmission and Treatment	≡ Construction Services/Material Testing
≡ Industrial Facilities Design	≡ Wastewater Treatment Plants
≡ Sanitary Sewer Systems	≡ Combined Sewer Overflow Retention & Treatment
≡ Easement/Right of Way Services	≡ Architectural Services

HRC is proud of the consistent service to our clients, and we look forward to serving your needs for Professional Engineering Services.

## Corporate Officers

HRC's organization is an S-Corporation in the State of Michigan. The firm is licensed to operate and provide services throughout the state of Michigan. There are eight principals of the firm, who are licensed professional engineers in the State of Michigan. Additionally, HRC has 22 associates.

### HRC Officers and Primary Activity

Officers	Title	Primary Activity
Daniel W. Mitchell, PE	President	Civil – Municipal
Nancy M.D. Faught, PE	Executive Vice President	Civil – Municipal/Transportation
Michael C. MacDonald, PE	Vice President/Secretary	Civil – Municipal
Jesse B. VanDeCreek, PE	Vice President	Civil – Municipal
<b>Roland N. Alix, PE</b>	<b>Vice President</b>	<b>Civil – Municipal/Industrial</b>
James F. Burton, PE, CFM, LEED AP	Vice President	Civil – Municipal/Environment
Charles E. Hart, PE	Vice President	Civil – Municipal/Transportation
Todd J. Sneathen, PE	Vice President	Civil – Municipal
Tomas Maxwell, PE	Vice President	Civil – Municipal/Process

## Office Locations

Our headquarters are in Bloomfield Hills, Michigan with seven branch offices located throughout the state. *We will perform work on this project out of the HRC Howell office.*

### Primary Office Locations

- ≡ **Bloomfield Hills**  
555 Hulet Drive  
Bloomfield Hills, Michigan 48302  
Phone: (248) 454-6300  
Fax: (248) 454-6312

### Supporting Office Locations

- ≡ **Delhi Township**  
2101 Aurelius Road, Suite 2  
Holt, MI 48842  
(517) 694-7760
- ≡ **Grand Rapids**  
801 Broadway NW, Suite 215  
Grand Rapids, MI 49504  
(616) 454-4286
- ≡ **Jackson**  
401 S. Mechanic Street, Suite B  
Jackson, MI 49201  
(517) 292-1295
- ≡ **Lansing**  
215 South Washington Square  
Lansing, MI 48933  
(517) 292-1488
- ≡ **Detroit**  
Buhl Building, Suite 1650  
535 Griswold Street  
Detroit, MI 48226  
(313) 965-3330
- ≡ **Howell**  
***105 West Grand River***  
***Howell, MI 48843***  
***(517) 552-9199***
- ≡ **Troy**  
629 E Elmwood  
Troy, MI 48083  
(248) 454-6300

## Reputation for Professional Integrity and Competence

Our philosophy is reinforced through our management group with our employees so that our clients and their respective projects benefit directly on a daily basis. These inherent values have served us well for over 100 years, and we shall continue to do so into our future. We consider our clients to be a part of our culture and they appreciate our values and commitment.

In the over 100 years HRC has been in business and considering the tens of thousands of projects we have worked on, we are not aware of a single legal claim made against our ethics or integrity, nor has HRC ever experienced bad publicity for such behavior. The following is our mission statement and while it may seem clichéd, it identifies who HRC is as a company.



It is the mission of Hubbell, Roth & Clark, Inc. to consistently provide our clients with services that meet or exceed their expectations, at a fee that is reasonable and competitive and that produces a profit sufficient to ensure the stability, development, and growth of our firm.

To accomplish our mission, every employee must continuously strive to uphold these values:

- ≡ To always deal honestly and fairly
- ≡ To consistently improve our methods, techniques, and knowledge to better serve our clients' needs
- ≡ To give our clients full value on every service provided
- ≡ To always handle our clients' requests promptly
- ≡ To accept our clients' complaints with patience, calmly and courteously, and make a full and satisfactory explanation, exercising tact at all times
- ≡ To take a personal interest and initiative in meeting our clients' needs within the realm of our professional activity
- ≡ To guard and protect confidential client information

## Achievements



*The Detroit Free Press* has recognized HRC as a Top Work Place. We are also a **Top 50 Trenchless Technology Design Firm**, and an **ENR Top 500 Design Firm**. Recently, HRC received the honor of being named one of the **Cool Places to Work in Michigan (2022)** by *Crain's Detroit Business* magazine.

We are also proud of our recent funding accomplishment. Requesting financing aid, especially in the beginning, can be overwhelming and time-consuming, with no guarantees of return. HRC has been very successful in helping our clients secure funding for projects via stimulus grants, economic development grants and loans, state revolving funds, and other public and private sources. Our funding specialists have successfully secured over **\$1 billion** to see our clients' project visions become a reality.





## 3. Management and Project Staff

### PROPOSED PROFESSIONAL PERSONNEL

HRC has assembled an experienced team of highly qualified professionals, technicians, and support staff to provide Professional Engineering Services to the City of South Lyon. HRC's policy is to have all projects assigned to a Principal of the firm, which assures that each project will receive individual attention and have the direct interest of the firm. The role of the Principal is to ensure that HRC meets all client expectations through the implementation of HRC's Project Management Approach and Quality Assurance and Quality Control practices.

**HRC's key personnel  
average over 20 years of  
professional experience.**

#### Michael Darga, PE | Project Manager / Associate

Mr. Darga will serve as primary project manager and will act as HRC's main point of contact with the City of South Lyon. He will be responsible for selecting personnel; developing the scope, budget and schedule; managing each work assignment; monitoring work progress; enacting QA/QC practices; addressing issues; coordinating with the City and performing or assisting on various design assignments. Mr. Darga has a bachelor's degree in Civil Engineering from Michigan State University and over 24 years of professional experience. He is currently serving in a similar role with HRC's as-needed engineering contracts with the City of Wixom, City of Howell, City of Brighton, Township of Milford, Handy Township, Township of Highland. **Mr. Darga has proudly represented HRC for all South Lyon projects for over 10 years.**

#### Roland N. Alix, PE | Vice President

Mr. Alix will continue to serve as the Principal in Charge of all City of South Lyon projects. Mr. Alix will be responsible for the overall direction of HRC's team, as well as providing technical expertise and additional leadership to the project manager and supporting staff on large or challenging projects. Should any questions, concerns or comments arise, Mr. Alix will be available to ensure our team addresses those interests expeditiously. Mr. Alix has nearly 20 years of professional experience and currently oversees HRC's industrial facilities group, and architectural and electrical departments. Mr. Alix is also currently the Partner-in-Charge for other general engineering contracts with municipal clients that include the City of Berkley, City of South Lyon, City of Algonac, Handy Township, Highland Township, West Bloomfield Township and Milford Township.

We identified other essential personnel and leaders who will continue to be involved with City projects in HRC’s organizational chart (See Figure 1).

These team members will typically be responsible for managing the day-to-day tasks associated with their areas of expertise. Resumes for key personnel have been included in **Appendix A**. Pending the specific project needs, these individuals, along with HRC other supporting staff members, will be utilized to ensure projects are delivered on time and efficiently to the City of South Lyon.

Figure 1. HRC’s Proposed Organizational Chart



Table 1 demonstrates how our Key Personnel Experience aligns with potential City of South Lyon Projects.

**Table 1. Key Personnel Experience**

HRC Team Members	Federally Funded Projects (MDOT LAP, SRF, DWRF)	Funding Applications/Grants	Detailed Building and Site Plan Reviews	Utility Master Planning	Water System Reliability Studies, AMPs, NRW Evaluations, Meter Studies	SSES, Capacity Analysis, I&I Studies	Hydraulic Modeling and Analysis	Stormwater Management Systems	Combined/Sanitary Systems	Water Supply Systems	Wastewater Treatment Systems	Pump Stations & Lift Stations	Structural Design and Rehabilitation	Pavement Evaluations (PASER Ratings)	Paving/Resurfacing of Roads, Parking Lots, Sidewalks & Safety Paths	Traffic, Mobility, and Pedestrian Safety Studies	Traffic Signal Design & Modernization	Street-Scapes, Plazas and Transportation Facilities	Athletic Facilities and Court Lighting	Municipal Buildings and Structures	Assessment of Wetlands and Ecological Design	Green Infrastructure	Private Developments	Construction Administration	Topographic Survey and Construction Staking	GIS and Asset Management	Easements and Rights of Way
Roland Alix, PE	●	●	●	●	●			●	●	●	●	●		●	●					●		●	●				
Mike Darga, PE	●	●	●	●		●	●	●	●	●	●	●		●	●				●	●		●	●	●			
James Surhigh, PE	●	●	●	●	●	●	●	●	●	●	●	●			●					●		●	●	●			●
Andrew Malczewshi		●	●	●						●				●	●								●	●		●	
Marshall Grazioli, PE	●								●			●		●	●									●		●	
Rich Nacey, PE		●	●									●	●						●	●			●				
Sean Hurley, PE	●	●	●									●	●						●	●			●				
Marv Olane, PE												●							●	●							
Michael Roskelley, PE												●							●	●							
Colleen Hill-Stramsak, PE, PTOE	●	●	●											●	●	●	●						●	●		●	●
Lia Michaels, PE, PTOE	●	●												●	●	●	●						●	●		●	●
James Burton, PE, LEED AP, CFM	●	●	●	●				●	●	●	●	●									●	●	●	●		●	●
Derek Stratelak, LLA, CPWS, CA		●	●																		●	●	●	●		●	●
Aaron Uranga, PE	●	●		●	●	●	●			●	●	●														●	
Noah Bednar, EIT			●	●	●	●	●			●	●	●										●					
Karyn Stickel, PE, CFM	●	●	●	●	●	●	●	●	●	●	●	●										●	●	●		●	
James Miller, GISP	●	●		●				●	●	●	●	●		●		●							●	●		●	●
Robert DeFrain, PE	●								●	●	●	●	●	●	●					●				●		●	
Warren Kelley									●	●	●	●	●	●	●									●			
Steve Jacobi, PS	●								●	●	●	●			●					●			●		●	●	●
Albert Mickalich, PE	●	●	●	●	●			●	●	●	●	●		●	●			●	●	●		●	●	●	●	●	●
Jeffrey Jones, SR/WA	●																		●	●	●			●	●	●	●
Lukas Gallop, EIT			●			●								●	●										●		●
Adrianna Melchior, AIA, LEED AP	●	●	●							●	●	●						●	●	●		●	●	●		●	

HRC is amply equipped and staffed to continue to provide professional engineering services to the City of South Lyon in an efficient and timely basis. Key personnel assigned to future projects have many years of professional experience and have a reputation for ensuring accurate and appropriate attention to our client's goals, and ultimately delivering successful projects.

With HRC's Howell Office's proximity to the City of South Lyon, we will continue to be available for regular meetings and on relatively short notice.

Complementary to the overall depth and experience provided by HRC's key personnel, HRC has a staff of over 260 engineers, designers, surveyors, and other technical support staff. Although we have not provided resumes for all supporting staff members, these employees are a critical resource, which enables HRC to complete quality, timely and cost-efficient projects for the City. We summarized HRC's current staff in Table 2 below.

**Table 2. HRC Personnel by Department**

Department	Number of Employees	Number of Registered Employees (PE, RA, or PS)
<b>Municipal/Civil</b>	<b>65</b>	<b>10</b>
Electrical	4	2
Process	23	12
Architectural	11	2
Structural	9	5
Right of Way/Easement Acquisition	2	1
Environmental Engineering	12	5
Industrial Facilities Design	11	6
<b>Survey</b>	<b>12</b>	<b>3</b>
Construction Monitoring	49	4
Material Testing	12	1
Transportation	8	4
Information Systems/GIS	13	0
Administration	23	0
Asset Management	10	3
<b>TOTAL</b>	<b>264</b>	<b>58</b>





## 4. Previous Experience

### MUNICIPAL EXPERIENCE

For over 105 years, HRC has been providing general consulting engineering services to communities in Southeastern Michigan. Our services include civil engineering, site plan review, wastewater treatment facility, water treatment and supply systems, transportation engineering, electrical engineering, architectural services, municipal utility systems (water main, sanitary sewer and storm sewer systems), stormwater management, surveying services, easement/right of way agreements, construction administration, streetscapes, landscape architecture, downtown development authority beautification, and parks and recreation design.



**THE CITY OF SOUTH LYON PRESENTS  
2022 SUMMER CONCERT SERIES  
McHATTE PARK HISTORIC  
VILLAGE**

June 24	Howlin' Mercy	Heavy Blues
July 8	Nobody's Business	Rockabilly
July 15	One Love Reggae	Reggae
July 22	Fast Eddie	Oldies Rock
July 29	Gemini	Children & Family Entertainment
August 5	Detroit Social Club	Blues & Motown
August 12	Randy Brock Group	Classic Rock
August 19	Judy Banker Band	Classic Country
August 26	TBD	TBD

HRC serves as a consultant to many governmental agencies throughout the State of Michigan. While HRC has designed large and complex public works and industrial projects, the firm's principal interest remains — to provide and offer its engineering services to local municipalities.

HRC provides a wide range of consulting engineering services to our municipal clients. Our services vary, depending on the client's organizational structure and the specific requirements of the community served. As **we have been providing the City of South Lyon for the past 28 years**, HRC will continue to offer full municipal engineering services, from engineering planning and design, through construction engineering for a wide variety of projects. Table 3 is a listing of Michigan municipal clients (sorted by approximate population), which HRC currently provides engineering services.



We have recently worked on or completed. We feel these projects highlight a cross-section of our team's capabilities related to similar scopes of work for projects that may be undertaken by the City of South Lyon.

We have included information for a small number of sample projects in **Appendix B**, which various members of our team

**Table 3. HRC's Municipal Experience**

Community	Approximate Population	Years of Service	Bridge Design & Inspection	Road, Storm Sewer & Culvert Design	Annual Road Program	Wastewater Collection System Design	Wastewater Collection System Rehabilitation	Water Distribution System Design	Water Distribution System Rehabilitation	Topographic & Construction Surveying	Construction Engineering	Observation of Municipal Design Projects	Construction Testing Services	Capital Improvement Planning	Special Studies	DWRF & SRF Projects	Grant / Funding Assistance (i.e. CDBG, TIF-Party, etc.)	Non-Motorized Pathways	Watershed Management	Permitting Activities	Right of Way	Traffic/Transportation Engineering	Asset Management Development and Implementation	Slope Stabilization and Engineering	Water and Sewer System Modeling	Energy/Pump Optimization Studies	Water System Leak Detection Testing	System Troubleshooting Failure Analysis	Public Education/Involvement	Environmental Services	Green Infrastructure
City of Clarkston	900	30	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Village of Grosse Pointe Shores, a MI City	3,000	59	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Village of Lake Orion	3,000	53	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Village of Franklin	3,150	30	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Village of Romeo	3,600	51	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
City of Bloomfield Hills	4,000	53	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
City of Algonac	4,100	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
City of Grosse Pointe	5,400	20	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
City of Petoskey	5,700	14	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
City of Hastings	7,350	10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
City of Grosse Pointe Farms	9,500	53	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
City of Howell	9,500	17	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
City of Marysville	10,000	14	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Village of Beverly Hills	10,500	27	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
City of Muskegon Heights	10,800	11	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Holly Township	11,600	27	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
City of South Lyon	11,800	28	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
City of Ferndale	13,500	20	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
City of Wixom	13,800	23	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Springfield Township	14,700	17	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Hartland Township	15,100	11	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
City of Berkley	15,300	18	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Brandon Township	15,700	30	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Milford Charter Township	16,500	63	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Highland Charter Township	19,200	14	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
City of Birmingham	21,000	25	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Delhi Township	27,000	15	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Independence Township	36,500	36	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bloomfield Township	42,100	62	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
City of East Lansing	48,900	85	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
City of Pontiac	30,000	11	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
West Bloomfield Township	65,800	48	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓</														



## 5. Availability and Assurance of Prompt Service

### PROJECT APPROACH

HRC takes pride in working effectively with city management and endeavors to function as an extension of the City and its public works department for any services that may exceed the workload of municipal staff. HRC's history and experience in municipal engineering, depth and diverse knowledge base, and commitment to excellence set us apart from our competition. HRC's single point of contact and principal involvement provides consistency in day-to-day functions that are essential to effective communication. Additionally, and as will be discussed below, HRC has worked diligently to evolve our approach to municipal services to complement the times by focusing our efforts on completing assignments to the client's expectation, within budget, and on time. The successes HRC has achieved in providing this type of service to over 110 municipalities in Michigan stems from the comprehensive project management approach to projects and clients, which we promote throughout the company.

HRC believes infrastructure is the backbone of the U.S. and individual community's economies, and infrastructure is critical to their prosperity. We understand that communities today face aging infrastructure challenges along with budgetary constraints. Proactive municipalities, such as South Lyon, have developed standards, goals, and objectives to balance the needs of their infrastructure, residents, visitors, and investors with their limited financial resources. **As demonstrated by the recent passage of the South Lyon Road Infrastructure Bond that will bring over \$20 million worth of improvements to the City's roads.**

#### HRC's Project Approach





### 1. Enhance the livability and safety of the community

HRC understands the competition Southeast Michigan communities face to attract new residents, such as young professionals, new families, and the newly retired. The desirability of a city with pedestrian-friendly downtowns, thriving business districts, and easy access to freeways gives the City of South Lyon a leg up on its competition. HRC feels improvements to your infrastructure are an excellent opportunity for the City to increase the quality of life of its residents, while also creating a safer environment. To this end, a small sample of related projects completed by HRC and include:

- ≡ Installation of mid-block pedestrian crossings in the City of Berkley
- ≡ Coolidge Highway Road Diet Study for the City of Berkley
- ≡ Transformation of vehicular travel lanes to bike lanes in Warren and Grand Rapids
- ≡ Various Community Development Block Grant (CDBG) and Americans with Disabilities Act (ADA) intersection improvement projects including within the City of Berkley
- ≡ Pedestrian traffic study for General Motors Facilities
- ≡ Fifteen annual Safety Path Projects in Bloomfield Township
- ≡ Canoe and Kayak Landings and Riverside Park Improvements in Utica



### 2. Minimize the cost and increase the efficiency and effectiveness of City government

HRC is continually on the forefront of emerging technologies, finding ways to maximize our client's dollar for necessary infrastructure improvements. We address this objective by considering lifecycle costs for all our recommended improvements and priding ourselves in the development of contract documents that attempt to minimize project overruns. We have dedicated professionals leading the asset management charge to increase municipal responsibility for maintaining its assets, and in turn, improving the efficiency and effectiveness of city government.

### 3. Retain and attract investment while encouraging redevelopment

Improvements to a community's infrastructure, if completed with quality forethought and planning, significantly increase its desirability to potential residents and commercial/retail investors. Over our long history, we have successfully helped evolving communities complete the planning, design and construction administration of a large variety of infrastructure improvements. The improvements helped to guarantee their water, storm sewer, sanitary sewer, and road networks were sized correctly to provide service to their evolving population. Communities such as South Lyon, Berkley, Birmingham, Beverly Hills, Grosse Pointe Farms, Howell, Wixom, Southfield, and Bloomfield Hills have long relied on HRC to assist with improvements to their infrastructure as their communities evolve and grow.



#### 4. Effectively and professionally communicate internally and externally

HRC is committed to continuing to represent the City with professionalism at all meetings, interactions with the public, contractors and in other regular project communications. HRC understands that with the City being a public agency, communications are always subject to public review and must be kept professional. At HRC, we believe that effective communication can indeed be the difference between a positive project outcome and a public relations nightmare. Being effective communicators often starts with being good listeners and truly understanding both acceptable and unacceptable project outcomes. This trait is precisely why HRC's approach to project management begins with our Client Interview Process, which monitors how well we are meeting the City's expectations. Please refer to HRC's Project Management Approach for more information about how we implement effective communication practices into our business model and culture at HRC. Effective communication also means having the experience to know how and when it is appropriate to send an email or text versus picking up the phone and having a more direct conversation. Most importantly, HRC believes the best way to serve the communities where we live and work is to always be honest and forthcoming with our clients, even if it means having difficult conversations.

#### 5. Maintain relevance of public infrastructure to meet changing public needs

Public infrastructure must remain cost-effective to maintain relevance. Right-sizing utility systems and utilizing rehabilitation techniques instead of replacement efforts can help stretch the City's budget and extend the useful life of its assets. It is also essential to stay updated on emerging technologies but technically proficient in selecting the appropriate improvement for the job. Finally, understanding that quality trumps quantity and that asset management and capital planning provide the flexibility to adapt to the changing public need. HRC's philosophies match these objectives and our strong technical background, asset management perspective, and experience in the emerging infrastructure rehabilitation markets show how we are set up to provide the City with the ability to meet their goals and objectives successfully.

#### 6. Emphasize regionalism and incorporate creativity into the annual strategic planning process

South Lyon, has several Road Commission for Oakland County owned roadways within the City boundary, is a member of the Southeast Michigan Council of Governments and is surrounded by Green Oak Township and Lyon Township, must cooperate with these entities what often have differing agendas. We have found the one thing that always brings these entities together is that they all share the desire to see their member communities and neighbors thrive through innovation. HRC's philosophy that a proper planning process is the first step in developing and maintaining an attractive and efficient infrastructure, which when properly implemented results in a long-term sustainable community that promotes public health, attracts businesses and visitors from all around the region. HRC will continue to assist the City of South with refining the asset management strategy and rehabilitation strategies that align with the City's needs and values to achieve this objective. **HRC is currently in the process of working with the City and RCOC to develop drainage and roadway improvements for Pontiac Trail.**

#### 7. Obtain funding

Funding to merely maintain the community's level of service to its residents is challenging enough. Funding infrastructure projects to improve the level of service, enhance the quality of life, or provide new resources to the community can be even more challenging. HRC believes and has demonstrated, that well-crafted master plans, investment in preparing projects for funding, and potential layering opportunities, will attract funding. We recently exceeded over **\$1 billion** in funding for our clients. This funding has facilitated projects that would not otherwise get completed. Our staff continually monitors funding sources and will continue to assist the City in preparing for future opportunities. **Recently, HRC assisted the City in securing (1) a SEMCOG Mobility Study Grant, (2) a Community Foundation for Southeast Michigan Safety Path Grant and (3) an American Rescue Plan Act Critical Infrastructure Planning grant.**

## PROJECT MANAGEMENT APPROACH

HRC has a well-defined process to control scope, schedule and total project costs. This process, as shown in Figure 2, includes fully understanding the goals and objectives of the project, continually being aware of the items that could affect these goals, fully understanding the client's "must haves," and just as important, the client's "must NOT haves." The foundation of this process is identifying and closely following key issues that affect the project's scope, schedule, and budget.

Figure 2. HRC's Project Management Process



HRC has developed procedures that ensure projects are completed with the highest level of competency while meeting the financial, scheduling, and technical goals. These procedures include:

- ≡ **Client Interview Process (CIP)** identifies, communicates, tracks, documents, and measures our client's expectations; not just technical, but **ALL** expectations.
- ≡ A robust **Project Management Approach** ensures we meet the City's expectations while being able to maintain a business model that retains and rewards the employees of HRC. This process includes:
  - Developing a work plan that clearly defines HRC's staff all aspects of the project, including non-technical items.
  - Requiring communication with the City and the project team that is timely and efficient.
  - Reporting status.
  - Communicating risks.

- Recognizing that while there is typically more than one way to solve a problem, one solution often stands out when measured against the goals of the project.
- Utilizing the vast expertise and experience of HRC personnel to assist and brainstorm on projects or tasks that may require a more in-depth review of an issue.
- Assigning team members that are best suited for the project. This task includes an analysis of disciplines necessary for the project, current obligations, and evaluating, which staff has the tools that best fit the City’s technical, financial, and scheduling goals.

- ≡ **Project Cost Controls** immediately provide information to our client, so they may make informed decisions going forward based on the available budget.
- ≡ **Detailed Project Schedules** includes deliverable dates for reviews by our clients, agencies and other stakeholders.
- ≡ A **Quality Assurance/Quality Control (QA/QC)** process that includes reviews by highly experienced staff members.

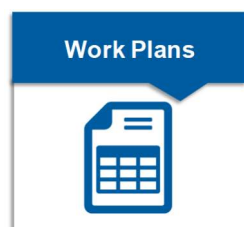
## Client Interview Process

The implementation of HRC’s Client Interview Process (CIP) strengthens our method to project management. Before initiating the work, HRC will conduct a client interview. This process has been demonstrated (and attested by our clients) to be a powerful tool for achieving the full spectrum of the client’s desired outcomes. It starts with a time-efficient, face-to-face meeting before work on the project begins. This meeting is where the client’s desired results (not just technical) will be identified, documented, confirmed by the client, and then communicated to all team members. Henceforth, the desired outcomes will be the roadmap for HRC. At the end of the project, HRC will follow up with the client to measure how well the project (and HRC) met these desired outcomes. Of particular note:

- ≡ HRC’s CIP is the way we identify, document, track, and measure our client’s expectations – not just technical expectations, but all project expectations.
- ≡ Many clients have told us that no other firm has ever solicited this input/feedback from them at the beginning and end of projects.
- ≡ Many clients now ask for the CIP to be deployed on their projects.
- ≡ The CIP is a face-to-face, time-efficient process that yields great benefits.
- ≡ The CIP is typically conducted by a member of HRC’s Board, who do not charge time to the project for this effort.

Since the inception of HRC’s Client Interview Process, the end of project grades have increased from 7.8 to 9.2

## Project Management Approach



Based on a full understanding of the scope, HRC’s project manager will develop an internal work plan to meet these goals and requirements. This plan will include a detailed design schedule indicating deliverable dates for items such as plan review submittals, permit application submittals, and stakeholder meetings. The method also includes details regarding the scope of work, key personnel, budget, and identification of risk-related items that could impact the project. Each work plan is created from scratch for any given individual project, is based on our experience, and is used throughout the project as a roadmap. We use this document throughout the project to ensure that the goals and objectives of the project are being addressed.

Another critical component of any successful venture is maintaining open lines of communication. Communication is a primary focus of HRC's project management, and at a minimum, HRC will communicate with the client's project manager on a regular basis to provide a status update and discuss the near future objectives. HRC is very experienced in all types of communication for many different audiences. HRC will work with the client to develop the plan that best fits the project and the client's goals. HRC is committed to open communication in the many facets of any project in which we will be involved. We will foster this open relationship through the following practices:



- ≡ **Single Point of Contact** — HRC assigns a project manager to handle all the projects that may be undertaken between HRC and the client. We will continue to provide Mr. Mike Darga to perform this duty. He will be responsible for coordinating HRC staff assignments, budget monitoring, appropriate meetings with the client's staff and overall project communications.
- ≡ **Principal Involvement** — HRC's policy is to assign a principal of the firm to every client. This detail guarantees our clients have an individual with interest in the firm who is accountable for their needs. Roland Alix, PE, will be the principal in charge of all projects. His role will not duplicate the project manager's duties but provide assistance and direct access to the management of the firm.
- ≡ **Continuity of Service** — HRC is committed to ensuring continuity in the individuals who will be serving the client. HRC will maintain the management staff proposed herein and we do not change our management staff except with the concurrence of our clients.
- ≡ **Meeting Attendance** — Utilizing HRC's office in Howell, we will continue to be available for regular meetings on relatively short notice.

We identify critical items out of the reams of information included in a project that needs immediate attention or close monitoring because of their potential to affect the client's desired project outcomes. HRC's risk communication process is intended to alert the client to significant risks early on, so decisions are made before performing work, spending money, and any potential consequences occur.



HRC's quality and project management processes are practical, time-efficient and focused on communicating essential information to the right people at the right time.

Our quality management process includes:

- ≡ Independent reviews of work products by experienced professionals
- ≡ Our client-endorsed interview process to identify, communicate and measure project expectations
- ≡ Project work plans to make sure team members understand the essential project requirements
- ≡ Accounts of project standing to ensure the client receives project progress updates, schedule, budget-related issues, and any impediments to progress that might arise so the choices/decisions that affect schedule and budget can be made before the work is done
- ≡ Timely risk communication whenever a decision or event has the potential to transform the desired outcomes for the project



## PROFFESIONAL SERVICES

HRC is unique amongst our competitors in that we can provide engineering services for all municipal related engineering services under one roof. We are essentially providing a one-stop shopping experience for the City of South Lyon. HRC is currently staffed and can assist with all future projects the City wishes to undertake.



SCAN ME



### SPECIALIZED SOLUTIONS

Hubbell, Roth & Clark, Inc. (HRC) utilizes industry-leading approaches, materials and technologies to ensure infrastructures are more resilient. We have had the good fortune of serving Michigan communities for over 100 years on a wide range of projects. This longevity has been accomplished due to the strength of more than 260 engineers, scientists, architects, surveyors, and technicians. Our personnel stay focused on our clients' desired outcomes, addressing project challenges with superior solutions. Our client-centric processes identify, communicate, track, document, and measure our client's expectations from the beginning of the project until the end.

HRC's multi-disciplined approach makes the firm well-suited to provide services for a broad range of infrastructure improvement projects, from the preliminary planning and study phases, to the design and construction administration phases. Our projects range from the design of roads and bridges, to the intricacies of water supply treatment and distribution and the challenge of providing innovative wastewater collection and treatment solutions. HRC has represented over 100 counties, cities, villages, and townships and is currently providing engineering services to over 60 governmental agencies. HRC provides professional services to major industrial firms and site/civil engineering services for development projects.

### EXPERTISE

- Architectural Services
- Site/Civil Engineering
- Environmental Engineering
- Electrical Engineering
- Geographic Information Systems
- Industrial Facilities Design
- MDOT Services
- Right of Way/Easement Acquisition Services
- Road & Bridge Design
- Structural Engineering
- Construction Services/ Material Testing
- Surveying Services
- Traffic Engineering
- Wastewater Collection & Treatment
- Watershed Management
- Water Treatment/Distribution
- Asset Management
- Hydraulic/Hydrological Modeling
- Instrumentation & Control
- CSO Retention & Treatment
- Landscape Architecture
- Sanitary Sewer Systems



## APPENDIX A: RESUMES



### Roland Neree Alix, PE

*Vice President | Partner*

Roland Alix directs and is an integral participant on projects for many of the firm's public and private clients inclusive of industrial and manufacturing. He has extensive experience administering the design and construction of various project types including road and bridge rehabilitations, municipal utility relocation, site development, manufacturing building modifications, shipping/distribution facilities, spill containment, and aboveground and underground storage tanks.

Mr. Alix has participated on and managed a wide array of new facility and renovation projects involving vehicle traffic and flow studies, parking lots, storm, sanitary and process sewer projects, pump stations, waste treatment plants, roof assessments, site security lighting, generators, and HVAC building improvements.

Mr. Alix's professional expertise includes a vast number of past and current general engineering and infrastructure improvement projects for many local municipalities, as well as Oakland County Parks & Recreation, Michigan Department of Technology, Management and Budget (DTMB) and private manufacturing and waste-handling clients.

#### EDUCATION

BS, Civil Engineering  
Michigan Technological University, 2003

#### EXPERIENCE

With HRC since 2005  
19 years of experience

#### PROFESSIONAL REGISTRATION/ CERTIFICATION

Professional Engineer,  
Michigan No. 57100

#### AFFILIATIONS

American Society of Civil Engineers

American Public Works Association  
Member

American Council of Engineering  
Companies — Scholarship  
Committee

## PROFESSIONAL EXPERIENCE

### MUNICIPAL CONSULTING

- Water Treatment Plant & Distribution Improvements, Grant Assistance, Parks and Recreation Upgrades, Road, Water and Sewer Improvement Projects, Preventative Pavement Maintenance Programs, GIS Assistance, Water Reliability Studies – [City of South Lyon](#)
- Road, Water and Sewer Improvement Projects, Traffic Impact Studies, CDBG Sidewalk Improvements, Preventative Pavement Maintenance Programs, SAW Asset Management, GIS Analysis, Combined Sewer Capacity Studies, Parks and Recreation Upgrades, Water Reliability Studies – [City of Berkley](#)
- MS4 Permitting, Municipal Building Assessments and Improvements, Bridge Inspections, SAW Asset Management, MDNR Grant Applications – [City of Linden](#)
- Residential SAD roadway improvements, Water Treatment Plant & Distribution Improvements, Parks and Recreation Upgrades, Water Reliability Studies, Site Plan Reviews – [Hartland Township](#)
- Public Utility Improvements, Sidewalk Extension Projects, Water Reliability Studies – [Highland Township](#)
- Site Plan Reviews, Municipal Building Roof Assessments, Industrial SAD Sanitary Sewer Connections, Pedestrian Facilities, Municipal Parking Lot Improvements, MS4 Permitting – [Milford Township](#)
- Residential SAD roadway improvements, easement/right of way acquisitions, Residential SAD stormwater improvements – [West Bloomfield Township](#)

#### **MUNICIPAL FACILITIES**

- Upgrades to DPW Office – [City of Berkley](#)
- New Police Headquarters Building – [Battle Creek Police Department](#)
- Firing Range Addition – [Novi Police Department](#)

#### **PARKS AND RECREATION**

- Utility Improvements for Groveland Oaks County Campground – [Oakland County Parks & Recreation](#)

#### **INDUSTRIAL FACILITY ENGINEERING**

- Containment Studies & Improvements
- Facility & Utility Improvements
- Rail Transfer Facility Studies, Willow Run Yard
- Industrial Waste Water Treatment Plant Improvements

#### **ROADS/BRIDGES**

- Harvard Road Reconstruction – [City of Berkley](#)
- Main Street Rehabilitation – [Village of Armada](#)
- Coolidge Highway Rehabilitation, 11 Mile Road to 12 Mile Road – [City of Berkley](#)
- Orion Road Bridge Replacement over Paint Creek – [Road Commission for Oakland County](#)
- Ambassador Bridge Gateway Project – [Detroit International Bridge Company](#)
- Ten Mile Road Rehabilitation, Telegraph Road to Evergreen Road – [City of Southfield](#)
- Williams Lake Road Widening – [Road Commission for Oakland County](#)
- Nine Mile Road Widening – [Road Commission for Oakland County](#)

#### **WASTEWATER COLLECTION/TREATMENT**

- Secondary Effluent Pump Replacement – [City of Ann Arbor Wastewater Treatment Plant](#)
- Headworks Improvements – [Cleveland, Ohio Wastewater Treatment Plant](#)

#### **WATER TREATMENT/DISTRIBUTION**

- Ambassador Bridge Gateway Project, Stormwater Pump Station – [Detroit International Bridge Company](#)

#### **TRAFFIC ENGINEERING/INTELLIGENT TRANSPORTATION SYSTEMS**

- Design Build 9 Dynamic Message Signs, Fiber Optic Cable, and Related Infrastructure – [J. Ranck Electric, Inc.](#)
- MDOT North and Superior Region Design Build, Installation of Environmental Sensor Stations and Dynamic Message Signs – [J. Ranck Electric, Inc.](#)



Michael Darga is a highly experienced consulting engineer serving numerous municipal clients throughout his career. As an Associate for HRC, he is responsible for managing staff and projects to ensure client expectations are fully met. In addition, he is the primary contact for many municipal clients and partially oversees the municipality's team. He is a highly qualified designer of municipal utilities. His experience includes site and construction plan reviews and the design and administration of municipal road and public utility projects. Mr. Darga has worked with several clients to evaluate and determine the effectiveness of crack sealing maintenance programs and other corrective action plans, providing pavement longevity and reducing life cycle repair costs. He is also responsible for preparing applications, organizing plans and specifications, and construction administration per the requirements of various funding sources such as American Recovery & Reinvestment Act, Michigan Department of Transportation Local Agency Programs, Drinking Water Revolving Fund, State Revolving Fund, and Community Development Block Grants. Mr. Darga oversees the operations of HRC's Howell office servicing west Oakland and Livingston Counties.

#### EDUCATION

MBA, Management  
Cleary University, 2010

BS, Bio-Systems Engineering  
Michigan State University, 1998

#### EXPERIENCE

With HRC since 1998  
24 years of experience

#### PROFESSIONAL REGISTRATION/ CERTIFICATION

Professional Engineer,  
Michigan No. 51113

#### AFFILIATIONS

American Water Works Association

## PROFESSIONAL EXPERIENCE

### WATER TREATMENT/DISTRIBUTION

- Water System Interconnection – [Highland Township](#)
- Adelaide and North Road Water Main and Road Improvements – [City of Fenton](#)
- Raw Watermain Replacement – [City of Howell](#)
- M-59 Watermain Crossing – [Highland Township](#)
- I-96 Watermain Crossing – [City of Wixom](#)
- Water System Improvements (1998 & 2002) – [City of Wixom](#)
- M-59 Watermain Extension – [Hartland Township](#)
- Water Treatment Plant Improvements – [City of South Lyon](#)
- DWRP Water System Improvements – [City of Howell](#)
- Southeast Milford Water Improvements, Phase 2 – [Milford Township](#)
- DWRP Watermain Improvements – [City of South Lyon](#)
- Southeast Milford Interceptor Sewer (SEMIS) – [Milford Township](#), [City of Wixom](#)
- South Milford Road Sanitary Sewer & Watermain Extension – [Highland Township](#)



- Dorothy Street Sanitary Sewer Relocation – City of South Lyon

#### **MUNICIPAL CONSULTING**

- Multi-Year Infrastructure Improvement Program – City of Howell
- Plan Reviews – Milford Township, City of Linden, City of Wixom, City of South Lyon, Highland Twp, Hartland Township, City of Howell

#### **PARKING, PAVEMENT AND STREET LIGHTING**

- Parking Lots and Roadway Improvements – Highland Township
- Fire Station 1 Paving Improvements – City of Wixom
- Civic Center Parking Lot Improvements – City of Wixom
- Parking Lots 2 & 4 Reconstruction – City of Howell
- DPW Paving Improvements – City of South Lyon

#### **ROADS/BRIDGES**

- Road Maintenance Program – City of Wixom
- Loon Lake Road Paving Improvements – City of Wixom
- Birch Park Paving Improvements – City of Wixom
- West Maple Road Paving Improvements – City of Wixom
- Wixom-Charms Intersection Improvements – City of Wixom
- Potter Road Construction – City of Wixom
- Theodore & VCA Improvements – City of Wixom
- Finn Camp Paving Improvements – City of Wixom
- Highgates Subdivisions Paving Improvements – City of Wixom
- Multi-Year Infrastructure Improvement Program – City of Howell
- Foxpointe Paving SAD – West Bloomfield Township
- Olivia Drive Paving SAD – Milford Township
- Liberty Street Concrete Replacement – City of South Lyon
- Oak Grove Cemetery Roadway Improvements – Milford Township
- LDFA Paving Improvements – City of Wixom
- McPherson Park Drive Rehabilitation – City of Howell

#### **PARKS AND RECREATION**

- Gibson House Improvements – City of Wixom
- Air Line Trail Phase I – Commerce, Walled Lake, and Wixom Trailway Management Council
- Duck Lake Pines Park Safety Path – Highland Township
- Heritage Park Sports Complex – Hartland Township
- Eagles Wooden Park Restroom Facility – City of Linden
- Heritage & Settlers Parks Restroom and Pavilions – Hartland Township
- Potter Road Safety Path – City of Wixom
- West Maple Road Safety Path Improvements – City of Wixom
- Pontiac Trail CDBG Sidewalk Improvements – City of Wixom



Nancy Faught has over 30 years' experience in infrastructure design for public transportation clients. She has dedicated her career to providing clients with hands on leadership and high-quality project outcomes. Her expertise enables her to assess, identify and provide innovative solutions for project challenges and opportunities. She takes pride in her ability to listen to her clients and truly understand the various stakeholder priorities and concerns. She is skilled at engaging directly with stakeholder and decision-maker audiences and can convey complex design details in simplified terms to meet the technical experience of diverse audience members. This ability allows all participants to grasp and understand the available project options and the impacts of the various scenarios. Ms. Faught sees herself and her team as an extension of her client's staff and holds the value of public works and its importance to the health safety and welfare of the public paramount. She is a conscientious steward of taxpayer dollars; effectively seeking to balance needs with limited public budgets and timelines.

#### EDUCATION

BS, Civil Engineering  
Michigan State University, 1987

#### EXPERIENCE

With HRC since 1988  
34 years of experience

#### PROFESSIONAL REGISTRATION/ CERTIFICATION

Professional Engineer  
Michigan No. 6201037690

#### AFFILIATIONS

American Society of Civil Engineers  
American Public Works Association  
Transportation Research Board  
Michigan State University – Department of  
Civil & Environmental Engineering  
Professional Advisory Board

## PROFESSIONAL EXPERIENCE

### ROADS/BRIDGES

- Alpine Avenue Resurfacing Project – [City of Grand Rapids](#)
- Wealthy Street Reconstruction – [City of Grand Rapids](#)
- East Main Safety Project – [Road Commission of Kalamazoo County](#)
- Howard Street Mill and Overlay – [City of Kalamazoo](#)
- Almena and KL Realignment – [Road Commission of Kalamazoo County](#)
- Wisner Road Rehabilitation Project – [City of Jackson](#)
- Washington Street & Grand River Intersection Improvement – [City of Lansing](#)
- Tienken Rd Reconstruction and EPE & PE – [Road Commission for Oakland County](#)
- US-24 (Dixie Highway) Rehabilitation – [Michigan Department of Transportation](#)
- Williams Lake Road Rehabilitation, Cooley Lake Rd to Elizabeth Lake Rd – [Road Commission for Oakland County](#)
- Cooley Lake Road Rehabilitation, Williams Lake Rd to Cass Elizabeth Lake Rd – [Road Commission for Oakland County](#)
- Williams Lake Road, M-59 to Gale Rd – [Road Commission for Oakland County](#)
- Sashabaw Road, Maybee to Waldon – [Road Commission for Oakland County](#)

- Rochester Road, Torpey to Barclay – [City of Troy](#)
- Farmington Road Rehabilitation, 13 Mile to 14 Mile – [City of Farmington Hills](#)
- East Michigan Avenue Rehabilitation Construction Oversight and Inspection – [City of Kalamazoo](#)
- Drake Road 3R 13 Mile to 14 Mile – [City of Farmington Hills](#)
- Burdick Street CMAQ and TAP Projects – [City of Kalamazoo](#)
- 2017 Downtown Streets – [City of Jackson](#)
- 2017 Paving Improvement Projects – [City of Howell Department of Public Service](#)
- Union Lake Rd Widening – [Road Commission for Oakland County](#)
- 2003 and 2004 Concrete Road Program – [City of Livonia](#)
- Northline Rd Reconstruction – [Wayne County Airport Authority](#)
- Abbott Road Reconstruction – [City of East Lansing](#)
- Geddes Avenue Improvement Project & Reconstruction Project – [City of Ann Arbor](#)
- D-19 Reconstruction and Roundabout – [City of Howell](#)
- Carpenter Road Reconstruction – [Washtenaw County Road Commission](#)
- Eleven Mile Road Reconstruction – [Cities of Berkley, Oak Park and Huntington Woods](#)
- National Street Extension – [City of Howell](#)

#### **TRAFFIC ENGINEERING/INTELLIGENT TRANSPORTATION SYSTEMS**

- 32<sup>nd</sup>/Shaffer and 52<sup>nd</sup>/Eastern Signal Modernization – [City of Kentwood](#)
- East Michigan Rehabilitation Construction Oversight – [City of Kalamazoo](#)

#### **AIRPORTS AND TRANSPORTATION FACILITIES**

- Forensic and Architectural Services – [Wayne County Airport Authority](#)
- Airport West Service Drive Reconstruction – [Wayne County Airport Authority](#)
- Airport East Service Drive and Runway 22L Service Road Reconstruction – [Wayne County Airport Authority](#)
- Detroit Metropolitan and Willow Run Airports – [Wayne County Airport Authority](#)
- Central Campus Transit Center – [University of Michigan](#)

#### **MUNICIPAL CONSULTING**

- Chesterfield Neighborhood Improvements – [City of East Lansing](#)
- Multi-Year Infrastructure Improvement Program – [City of Howell](#)

#### **PARKING, PAVEMENT AND STREET LIGHTING**

- Parking Lot No. 1 Reconstruction – [City of Howell](#)
- Paving Parking Lots and Parking Ramps – [City of Lansing](#)

#### **WASTEWATER COLLECTION/TREATMENT**

- Sanitary Sewer North Extension Study – [City of Jackson](#)
- Sanitary Sewer Cleaning Video Program – [Independence Township](#)
- Phase 1 WWTP Influent Relief Sewer, Kalamazoo St Interceptor – [City of East Lansing](#)



As head of Hubbell, Roth & Clark's architectural department, Adrianna Melchior conceptualizes, designs and orchestrates functional and aesthetically pleasing architectural solutions for commercial, industrial, municipal and private clients. With a talent for exceeding client expectations, her responsibilities include space planning and design, construction documents, bid management, construction administration, shop drawing review, cost estimating, code compliance reviews, 3D modeling and renderings, material finish selections and coordination and project closeouts. She places a high priority on attention to detail and problem solving on every project. Her work is showcased at HRC corporate headquarters, where she is responsible for the firm's renovation of its Bloomfield Hills office.

#### EDUCATION

BA, Architecture  
University of Detroit Mercy, 2000  
  
MA, Architecture  
University of Detroit Mercy, 2004

#### EXPERIENCE

With HRC since 2012  
19 years of experience

#### PROFESSIONAL REGISTRATION/ CERTIFICATION

Registered Architect  
Michigan No. 51959  
  
US Green Building Council Leadership  
in Energy & Environmental Design  
Accredited Professional  
Building Design and Construction  
(LEED AP BD+C)

#### AFFILIATIONS

American Institute of Architects  
International Code Council

## PROFESSIONAL EXPERIENCE

### PARKS AND RECREATION

- Historic Farm Park Main Barn Re-Roofing and Structural Repairs – [City of Troy](#)
- Park Pavilions and Restroom/Concession Buildings New Construction – [City of Hartland](#)
- Park Comfort Station New Construction – [City of Linden](#)
- ADA Compliant Ramps – [City of Troy Historic Village](#)
- City Park ADA Assessments & Recommendations – [City of Howell](#)
- Designs for ADA Compliant Township Pavilion – [Plymouth Township](#)

### INDUSTRIAL FACILITIES

- Design-Build Ash Handling Building New Construction – [DTE Trenton Channel Power](#)
- Office Renovation – [US Ecology Belleville](#)
- Locker Room Addition/Renovation & Electrical Building New Construction – [US Ecology Romulus](#)
- Parking Canopy Study, Milford Proving Ground Campus – [General Motors Corporation](#)
- Well House 8 Building New Construction, Milford Proving Ground Campus – [General Motors Corporation](#)
- Multiple Renovation Projects in Existing Automobile Manufacturing Facilities – [MAHLE Industries](#)

### MUNICIPAL FACILITIES

- 50<sup>th</sup> District Courthouse Renovations – [City of Pontiac](#)
- Fire Station New Construction Study – [City of Cedar Springs](#)
- Police Headquarters Locker Rooms Renovation – [City of Warren](#)
- City Hall Roofing Replacement – [Milford Township](#)



- DPW Renovation and Addition – [Township of Independence](#)
- Historic Grist Mill Building Assessment and Renovations – [City of Linden](#)
- Salt Storage Dome Building – [City of Southfield](#)
- City Hall Building Renovations – [City of Howell](#)
- City Hall and Fire Station Needs Assessment Study – [Township of Manchester](#)
- City Hall and Public Safety Building Assessments – [City of Marysville](#)
- Livonia Library Roofing Replacement – [City of Livonia](#)
- City Hall Building Renovations – [City of Sylvan Lake](#)
- City Hall ADA Assessments & Recommendations – [City of Beverly Hills](#)

#### **WASTEWATER COLLECTION/TREATMENT**

- WWTP Major Building Renovations and Roof Replacements – [City of Petoskey](#)
- WWTP Building Assessments – [City of Flint](#)
- Major WWTP Pump Station Renovation – [City of South Haven](#)
- WWTP Building Assessments – [South Huron Valley Utility Authority](#)
- POTW Building Assessments & Facility Needs Analysis – [Delhi Township](#)

#### **WATER TREATMENT/DISTRIBUTION**

- Amy Pump Station Renovation – [Bloomfield Township](#)
- Bon Her and Violet Pump Station Renovations – [City of St. Clair Shores](#)
- Booster Pumping Station #2 New Construction – [City of Rochester Hills](#)

#### **MISCELLANEOUS**

- Building Assessments at Multiple Cemetery Facilities – [Archdiocese of Detroit](#)
- Code Compliance Reviews – [Beau's Restaurant](#); [St Regis Church](#); [Willow Run Hangar 2 Reuse](#); [Kirk in the Hills](#); [New Lifetime Fitness Premier Facility](#); [Target Rightsizing Renovation](#); [Multiple Bloomfield Township School Renovations](#); [Senior Living Center](#); [Ellen's Bakery Café](#); [Marian High School](#); [Erhard BMW](#); [At Home Store](#); [Victory Indian Motorcycle Warehouse](#); [Starbucks New Building](#); [New High-End Office Building](#); [Muslim Unity Center Renovations](#); [Shell Gas Station Renovation](#); [Birmingham Country Club Renovation](#); [Costco Fueling Station Expansion](#); [The Butchery Restaurant Renovation](#); [Golling Dealership Addition](#); [Urgent Care Buildout](#); [Sylvan Lake Parking Deck Renovation](#); [Jimmy John's New Building](#); [Oakland Veterinary Addition](#), among others

#### **COMMERCIAL DEVELOPMENT**

- Exterior Façade & Roof Drainage Improvements – [Providence Hospital Pavilion Office Building](#)
- Kmart Façade Renovation – [Sears Holdings Management Corporation](#)



Andy Malczewski is a manager with Hubbell, Roth & Clark, Inc., who manages a professional staff team that provides services to municipal clients. His expertise is transportation; however, he has extensive experience in stormwater, water distribution, and sewage collection design and is a highly skilled project manager. In addition, he has 25 years of engineering experience serving municipalities and is a respected steward of public monies. He also has wide-ranging experience in managing construction projects and can readily solve complex field issues without impacting budgets or schedules. In addition, Mr. Malczewski understands the value of timely but efficient communication that consistently leads to highly satisfied owners when completing projects.

#### EDUCATION

BS, Engineering Arts  
Michigan State University, 1996

#### EXPERIENCE

With HRC since 1997  
25 years of experience

#### PROFESSIONAL REGISTRATION/ CERTIFICATION

EIT, Michigan

## PROFESSIONAL EXPERIENCE

### ROADS/BRIDGES

- M-59 East Water Main Extension – [Hartland Township](#)
- Clinton Street Reconstruction – [City of Howell](#)
- Thirteen Mile Road Reconstruction – [City of Southfield/Village of Beverly Hills](#)
- Beste Street Reconstruction and Water Main Replacement – [City of St. Clair Shores](#)
- Hughes Street Reconstruction – [City of St. Clair Shores](#)
- Grand River Water Main Replacement – [City of Howell](#)
- 2020 Major Road Improvements – [City of Wixom](#)
- 2019 Major Road Improvements – [City of Wixom](#)
- State Street Renovation – [City of Howell](#)
- Industrial Road Maintenance Program – [City of Wixom](#)
- Sashabaw Road: Bowpointe Drive to Sheffler Drive – [Road Commission for Oakland County](#)
- Sashabaw Road: I-75 to Clarkston Road – [Road Commission for Oakland County](#)
- 2018 Safety Path Program – [City of Wixom](#)
- 2018 Road Maintenance Program – [City of Wixom](#)
- West Road Reconstruction – [City of Wixom](#)
- Millpointe Paving SAD – [Hartland Township](#)
- 2017 Paving Improvement Program – [City of Howell](#)
- Wealthy Street Reconstruction – [City of Grand Rapids](#)
- Eddington Boulevard Realignment – [City of Rochester Hills](#)
- 2017 Local Road Rehabilitation Program – [City of Farmington Hills](#)
- Eleven Mile Road Rehabilitation – [City of Farmington Hills](#)
- Livernois Road and South Boulevard Intersection Improvements – [Road Commission for Oakland County](#)

- Independence Commons Subdivision Reconstruction and Road Rehabilitation – [City of Farmington Hills](#)
- Milford Road Reconstruction – [Road Commission for Oakland County](#)
- Gill Road and Colfax Street Rehabilitation – [City of Farmington Hills](#)
- Cedar Island Road Culvert Replacement – [Road Commission for Oakland County](#)
- Woodbrook Subdivision Road Rehabilitation – [City of Farmington Hills](#)
- Haggerty Road Rehabilitation, Oakley Park to Richardson – [Road Commission for Oakland County](#)
- Tienken Road Rehabilitation and Reconstruction – [Road Commission for Oakland County](#)
- Northline Road Reconstruction – [Wayne County Airport Authority](#)
- Lake Street Rehabilitation – [City of South Lyon](#)
- Haggerty Road Widening, 9 Mile to 10 Mile Road – [Road Commission for Oakland County](#)
- Rochester Road Reconstruction, Torpey to Barclay – [City of Troy](#)
- 2011 Street Improvement Program – [City of Howell](#)
- Michigan Avenue and Walnut Street Rehabilitation – [City of Howell](#)
- Holmes Road, Phase 3 (Spencer Lane to US-12) – [Washtenaw County Road Commission](#)
- West Sibley Reconstruction – [City of Howell](#)
- East Sibley Reconstruction – [City of Howell](#)
- Five Mile and Newburgh Rehabilitation – [City of Livonia](#)
- M-37 and Lake Eastbrook Intersection – [Michigan Department of Transportation](#)

#### **PARKS AND RECREATION**

- Safe Routes to School – [Highland Township](#)
- Ram Trail Along Holt Road – [Delhi Charter Township](#)
- Bloomer Park Improvements – [West Bloomfield Township](#)

#### **PARKING, PAVEMENT AND STREET LIGHTING**

- 2019 Parking Lot Program: Gibson House and Fire Station – [City of Wixom](#)
- 2018 Parking Lot Program: Civic Center Parking Lot – [City of Wixom](#)
- Parking Lot #4 Reconstruction – [City of Howell](#)
- 2017 Paving Improvements – [City of Howell](#)
- Parking Lot #2 Reconstruction – [City of Howell](#)
- Costick Activity Center Parking Lot Reconstruction – [City of Farmington Hills](#)
- Parking Lot No. 1 Reconstruction – [City of Howell](#)

#### **MUNICIPAL CONSULTING**

- Multi-Year Infrastructure Improvement Program – [City of Howell](#)

#### **MUNICIPAL FACILITIES**

- Warren Civic Center – [City of Warren](#)

#### **WATER TREATMENT/DISTRIBUTION**

- 1999 & 2000 Water System Improvements – [City of Wixom](#)



Noah Bednar, has been working with HRC for the last four years as a graduate engineer in our Process group. He has experience in a variety of process and environmental fields, including stormwater management, wastewater treatment plant design, potable water treatment plant design, and CSO design work. Specifically, Noah's clients include the City of South Lyon, Great Lakes Water Authority, the Detroit Water and Sewerage Department, the Livingston County Drain Commissioner's Office, the Downriver Utility Wastewater Authority (DUWA), the South Huron Valley Utility Authority, and the Southgate-Wyandotte Relief Drain Drainage District (SWRDDD). Relevant project work experience includes overseeing closeout and warranty maintenance at the DUWA plant and updating the SWRDDD model to evaluate potential construction projects impact on CSOs at Pump Station 5 and Pine Street. In addition, Noah has a strong understanding of what the new Wayne County Standards are for connections to County Drains as he was a part of the group updating the regional stormwater standards with Livingston County, Wayne County, Macomb County, and Oakland County. Mr. Bednar has a bachelor's degree in Environmental Engineering from Michigan Technological University.

#### EDUCATION

Bachelor's of Environmental Engineering  
Michigan Technological University, 2018

#### EXPERIENCE

With HRC since 2018  
4 years of experience

### PROFESSIONAL EXPERIENCE

#### WASTEWATER COLLECTION/TREATMENT

- South Huron Valley Utility Authority Capital Improvement Project, Phase 1 and 2 Improvements – [South Huron Valley Utility Authority](#)
- Pine Street Pump Station Hydraulic Modeling – [Southgate-Wyandotte Relief Drain Drainage District](#)
- Control Measures A and B As Needed Work – [Downriver Utility Wastewater Authority](#)

#### WATER TREATMENT/DISTRIBUTION

- Capital Improvement Plan and Improvements Project – [City of South Lyon](#)
- Detroit Waterworks Park System Upgrades and Stormwater Testing – [Great Lakes Water Authority](#)
- Service Line Inventory - [City of St. Claire Shores](#)

#### WATER RESOURCES/WATERSHED MANAGEMENT

- 2020/2021 Stormwater Standards Updates – [Livingston County Drain Commissioner's Office](#)

#### MUNICIPAL CONSULTING

- Detroit Stormwater Management Group Support – [Detroit Water and Sewerage Department](#)

#### ASSET MANAGEMENT

- City Wide Smoke Testing – [Village of Grosse Pointe Shores](#)





Lukas Gallup is experienced with design and administration of municipal road and public utility projects. He is proficient in setting up horizontal and vertical alignments, creating utility networks, and establishing proper site drainage.

Mr. Gallup is also responsible for preparing applications, organizing plans and specifications, and construction administration. He is also experienced in data collection, construction observation, and estimating costs on a variety of projects.

#### EDUCATION

BS, Civil Engineering  
 Michigan State University, 2018

#### EXPERIENCE

With HRC since 2018  
 4 years of experience

### PROFESSIONAL EXPERIENCE

#### DESIGN ENGINEERING

- Michigan Air Line Trail, Phase 2 – [City of Wixom/Milford Township](#)
- State Street Utility Improvements – [City of Howell](#)
- Grand River Water Main Improvements – [City of Howell](#)
- Safety Path Program – [City of Wixom](#)
- Michigan and College CMAQ Project – [City of Grand Rapids](#)
- Madison and Alger Redesign – [City of Grand Rapids](#)
- W Avenue Reconstruction – [Road Commission of Kalamazoo County](#)
- Howard Street Pedestrian Improvements – [City of Kalamazoo](#)
- Dhu Varren Sidewalk Construction – [City of Ann Arbor](#)
- Fuller Sidewalk Construction – [City of Ann Arbor](#)
- Sashabaw Widening 175 to DTE – [Independence Township](#)

#### CONSTRUCTION ENGINEERING/FIELD WORK

- 2018 Parking Lot Program – [City of Wixom](#)
- Road Maintenance Program Highgates – [City of Wixom](#)
- 2018 Industrial Roads Program – [City of Wixom](#)
- Safe Route to Schools – [Highland Township](#)
- Mill Pointe Paving SAD – [Hartland Township](#)
- Sanitary Sewer Metering SAW Grant – [City of Howell](#)
- Knolls of South Lyon Rezoning R2 to R3 Observation – [City of South Lyon](#)

## APPENDIX B: PROJECT EXPERIENCE

### Municipal Consulting Services

#### **Cities and Townships**

Bloomfield Township  
Brandon Township  
City of Algonac  
City of Berkley  
City of Birmingham  
City of Bloomfield Hills  
City of Clarkston  
City of Farmington Hills  
City of Ferndale  
City of Grosse Pointe Farms  
City of Howell  
City of Livonia  
City of Marysville  
City of Petoskey  
City of Rochester  
City of Rochester Hills  
City of South Lyon  
City of Southfield  
City of Sterling Heights  
City of Troy  
City of Warren  
City of Wixom  
Royal Oak Township  
Highland Charter Township  
Independence Township  
The Village of Beverly Hills  
The Village of Franklin  
The Village of Grosse Pointe Shores  
The Village of Lake Orion  
Village of Romeo  
Waterford Township  
West Bloomfield Township

#### **County Agencies**

Genesee County Drain Commission  
Macomb County  
Oakland County Water Resources  
Commissioner  
Road Commission for Oakland County  
Wayne County Department of Public  
Services



#### **PROJECT DESCRIPTION**

HRC provides municipal consulting services to government agencies throughout southeastern Michigan including cities, townships, villages, counties, and county drain commissioners. Professional engineering services are provided for general engineering, plan reviews, MS4 Regulatory Compliance and enforcement, planning and development, design and construction engineering. HRC has strong communication and project management policies in place to ensure project cost control and adherence to project schedules.

With offices located in Bloomfield Hills, Detroit, Howell, Grand Rapids, Delhi and Lansing, Michigan, HRC can provide prompt response to meeting our clients' daily engineering needs in addition to providing representation at public meetings. As well, our professionally staffed offices ensure HRC's ability to respond promptly in the event of unanticipated infrastructure needs.

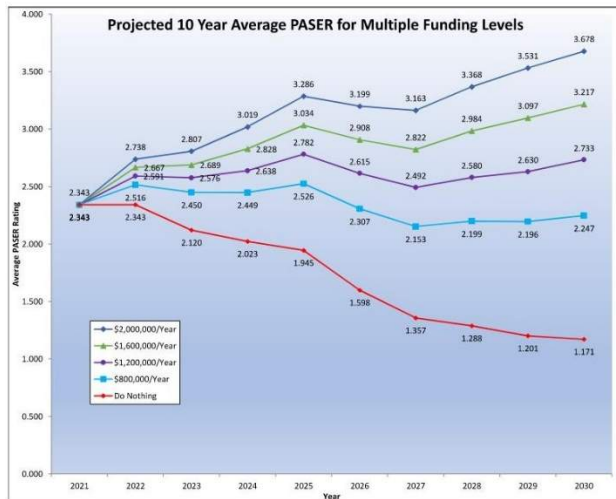
HRC's typical municipal consulting services have included:

- |                            |                           |
|----------------------------|---------------------------|
| ≡ Site Plan Reviews        | ≡ MS4 Compliance          |
| ≡ Grants                   | ≡ GIS/Mapping             |
| ≡ Special Studies/Reports  | ≡ Master Plans            |
| ≡ Meeting Attendance       | ≡ SESC Compliance         |
| ≡ Civil/Municipal Design   | ≡ Contract Administration |
| ≡ Construction Engineering | ≡ Construction Inspection |
| ≡ Material/Lab Testing     | ≡ Survey Services         |
| ≡ Asset Management         | ≡ Architecture            |

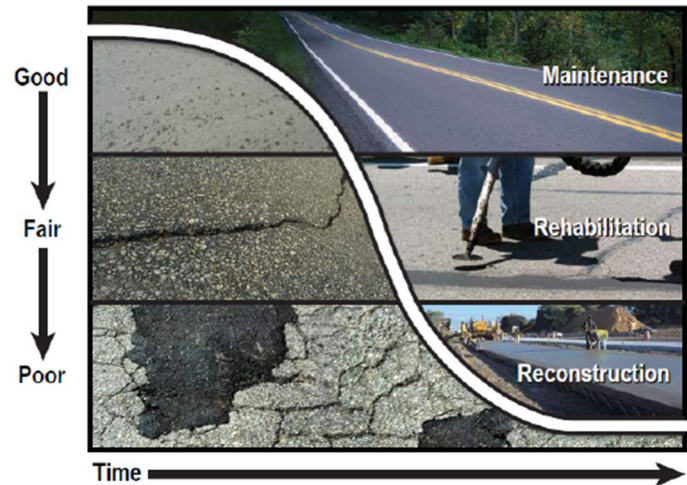
# City of South Lyon

## Road Asset Management Plan / Street Improvement Bond Assistance

City of South Lyon  
Average PASER Rating by Funding Amount  
2021 - 2030



### ROAD DETERIORATION



#### Owner

City of South Lyon  
335 S Warren Street  
South Lyon, MI 48178  
Mr. Paul Zelenak  
City Manager  
Phone: (248) 561-0402

**HRC Project Number**  
20200586

**Start Date**  
Summer 2020

**Completion Date**  
Fall 2022

#### PROJECT DESCRIPTION

Throughout 2020, 2021 and 2022 Hubbell, Roth & Clark, Inc. (HRC) assisted the City of South Lyon with preparing Road Asset Management Plans to meet the requirements of the Public Act 199, and successfully assisted with Public Outreach which lead to the Passing of the 2022 Street Improvement Bond. Our services included the following tasks:

- ≡ Assess current pavement conditions using PASER system
- ≡ Input the PASER ratings into *Roadsoft*, a GIS-based program and its companion, Laptop Data Collector (LDC)
- ≡ Obtain pavement cores throughout the City to assist with preliminary cost estimation calculations
- ≡ Create a mix of fixes which encompass preventative maintenance, rehabilitation, and reconstruction
- ≡ Estimate cost of a fix by road material and future funding levels
- ≡ Predict future condition and develop performance measures and targets using *Roadsoft*
- ≡ Conduct tradeoff analysis and identify candidate projects based on funding levels
- ≡ Set priorities and develop a multi-year capital improvement plan based on budgeting and construction logic
- ≡ Report results to SEMCOG: Roadway mileage and condition; projects completed in the past fiscal year





## City of South Lyon DWRF Water Main Improvements



### **Owner**

City of South Lyon  
335 South Warren  
South Lyon, MI 48178  
Department of Public  
Works  
248-437-4006

**HRC Project Number**  
20090414

**Start Date**  
July 2009

**Completion Date**  
June 2014

**Project Budget**  
Design: \$535,300  
Construction: \$715,800

**Construction Cost**  
\$3,850,000

**Contractor**  
Bricco Excavating, LLC

### **Notable Features**

- ≡ 27,000 LF of water main constructed through densely populated urban areas with, directional drilling
- ≡ New 1.7 MGD Low Service Pump added at existing WTF
- ≡ ARRA Stimulus and Green Project Reserve saved over \$2,890,000 in project cost to the City

### **PROJECT DESCRIPTION**

As consulting engineers to the City of South Lyon, Hubbell, Roth & Clark, Inc. (HRC) has provided planning, design, bid phase, construction administration and observation services for extensive water system improvements under the City's ongoing Drinking Water Revolving Fund (DWRF) program.

Under the DWRF Water Main Improvements Segment 1 project, HRC and the City of South Lyon identified aging and undersized infrastructure components in older portions of the City, including 9,000 feet of 4-inch and 18,000 feet of 6-inch cast iron water mains dating to the 1930s. HRC then provided full design and construction services for the replacement of the cast iron main with 27,000 feet of new 8-inch HDPE water main. HRC services included topographic survey, detailed water main improvement plans and specifications, construction project bidding, construction staking, construction observation, materials testing and construction administration.

As part of the water main replacement, the project also included replacement of 81 fire hydrants, installation of over 70 system isolation gate valves, and revisions to approximately 500 water service lead connections. HRC utilized various trenchless construction technologies in the design of the water main and service connection improvements to minimize disruption to existing roads, sidewalks and other utilities during construction of the improvements. These technologies included pipe bursting, horizontal directional drilling and boring.

Construction of the water main improvements that were spread over a large area of the City required detailed construction sequencing and coordination of construction activities to minimize disruptions to both water service and road access for the residents and businesses of the City.

As an additional project component, HRC designed improvements at the City's Water Treatment Facility (WTF). The WTF was previously upgraded under a past DWRF program improvement but required the addition of a fifth low service vertical turbine pump to match the expanding production capacity of influent flow to the WTF and optimize WTF operation.

The design and construction of the project was funded in part with American Recover and Reinvestment Act of 2009 (ARRA) stimulus funds. HRC prepared the business case to successfully qualify the City for Green Project Reserve fund and realize \$2,890,000 in DWRF loan principal forgiveness.





## City of South Lyon Water Treatment Plant Capital Improvements Project



### **Client**

City of South Lyon  
Water Treatment Plant  
300 Dorothy Street  
South Lyon, MI 48178

*Mr. Douglas Varney*  
Supervisor  
Water/Wastewater/DPW  
Director  
(248) 437-4006

### **Project Cost**

\$3,700,000

### **Notable Features**

- ≡ Constructed a new 600,000 Gallon Water Storage Tank
- ≡ Repaired the existing 1,000,000 Gallon Water Storage Tank
- ≡ Installed a new pipe reinforcing the connections between the wells in the park and the plant headworks.
- ≡ Replaced filter media in the horizontal pressure filters.

### **PROJECT DESCRIPTION**

Hubbell, Roth & Clark, Inc. (HRC) was authorized by the City of South Lyon to provide professional design and construction engineering services for improvements and upgrades to the 3.5 MGD Water Treatment Plant (WTP) based on a Capital Improvements Plan completed by HRC.

The existing water plant's source is an unconfined leaky aquifer underneath the city and surrounding communities. The City pumps water out of the aquifer from 5 wells located near the plant. The plant was originally constructed in 1965 and has been added to several times with the last major improvements having been completed in 2001. Due to the expansion of the City over the last decade HRC and the City determined that additional storage would be beneficial in case of a large-scale fire in the area, which led to this project to construct an additional ground storage tank. Additionally, this new tank allowed for the existing tank to be taken offline to retro fit it with a structural liner to stop the tank from leaking.

The design consisted of the retrofit and rehabilitation of the water storage tank with a structural liner, the design of the new tank and a valve vault to control which tank is being filled and emptied at any given time.

After these changes were completed, modifications were made to the plant SCADA system to allow for control of the new valves.

Additional design components included laying out the pipework to allow for a new pump the City installed to be connected to plant headworks. This included directional drilling of the new pipe underneath the Lee Drain, a watercourse adjacent to the plant.

Finally, the pressure filters that the plant uses to remove iron from the groundwater they treat had media that was nearing the end of its useful life. This filter media was replaced with HRC working closely with the filter manufacturers.





## City of South Lyon Wastewater Treatment Plant



### **Owner**

City of South Lyon  
335 South Warren  
South Lyon, Michigan 48178

### **HRC Project No.**

20010214

### **Project Schedule**

**Study Completed:** 2000

**SRF Project Plan Completed:**  
2001

**Design Completed:** 2002

**Construction Started:** 2003

**Construction Completion:**  
2005

### **Estimated Project Cost**

**Const Bid:** \$13,698,000

**Const Final:** \$13,995,838

**Estimate:** \$13,500,000 to  
\$14,000,000

### **Awards**

2006 Honorable Conceptor  
ACEC Michigan

2006 Project of the Year –  
Environment, \$10 Million to  
\$100 Million  
APWA Michigan

2006 Outstanding Civil  
Engineering Project of the Year  
Award  
ASCE/Michigan

### **PROJECT DESCRIPTION**

Hubbell, Roth & Clark, Inc. (HRC) recently completed an upgrade and expansion of the City of South Lyon wastewater treatment plant from a capacity of 1.5 MGD to 2.5 MGD. This WWTP discharges to the environmentally sensitive Huron River Watershed which has some of the most stringent discharge limitations in the United States. The new limitations will reduce the phosphorus discharge loading from the current 0.3 mg/l at 1.5 MGD to 0.11 mg/l at 2.5 MGD.

HRC's design uses an Enhanced High Rate Clarifier tertiary system to aid in phosphorus removal and total suspended solids reduction in which ferric chloride, polymer, and micros are added to coagulate the phosphorus and settle the floc using much smaller clarifiers. This unique system is the first application for this technology in Michigan. The system is installed in an existing filter building thus saving the capital cost that would have been required for a new building.

The existing fixed film biological system (RBCs) was replaced with a new innovative activated sludge system which will be much easier to maintain and control. A unique design feature allows the aeration basins to double as flow equalization facilities. The existing RBC building was renovated for use as a storage and vehicle maintenance facility. Other major plant modifications included the addition of a fine screenings system, new solids dewatering, aerobic digestion, solids storage, post aeration and ultraviolet disinfection. Existing buildings and tankage were refitted for reuse in new functions, thereby providing considerable savings in construction costs.

The new UV disinfection system replaced the sodium hypochlorite chlorination and sodium bisulfite de-chlorination systems previously employed by the City. The new UV system was designed to reduce long term operating costs, eliminate hazardous chlorine gas and byproducts (THMs and HAA5), and actuate more effective virus destruction. The new UV system design consists of a low pressure/high intensity UV technology in an open-channel configuration with automated lamp cleaning and dose control systems.

### **Notable Features**

- ≡ New UV disinfection system
- ≡ Stringent phosphorus limitations of 0.1 mg/l or less
- ≡ Unique planning and design to incorporate staged construction to reduce initial capital cost and keep pace with rapid development in the City
- ≡ Innovative tertiary phosphorus removal system-ballasted flocculation.



## City of South Lyon Water Reliability Study



### **Owner**

City of South Lyon  
335 South Warren  
South Lyon, Michigan 48178

### **HRC Project Number**

20141495

### **Completion Date**

June 2017

### **Project Budget**

\$29,139

### **Final Project Cost**

\$23,312

### **PROJECT DESCRIPTION**

The purpose of this study was to satisfy the requirements of the Michigan Department of Environmental Quality's (MDEQ's) Michigan Safe Drinking Water Act which indicates that Type 1 water suppliers are required to conduct a reliability study every five (5) years to determine the adequacy of the system to meet the water demands at a certain given pressure. Accordingly, a hydraulic model of the City's water distribution system was updated to evaluate the City's existing and future water demand needs. The model was created using Bentley's WaterGEMS. The existing conditions model was updated. The future conditions model was created by utilizing the existing conditions model and adding future growth. The existing and future conditions models were analyzed under typical demand conditions and under fire flow demand conditions.

At the time the Water Reliability Study was completed, the City of South Lyon's water supply system was made up of five operational production ground water wells, a water treatment plant, high and low service pumps, ground and elevated storage reservoirs and over 52 miles of 4-inch to 16-inch ductile iron, cast iron and high density polyethylene (HDPE) water main. The Water Treatment Plant was brought on-line in 1965 with upgrades and expansions occurring in 1970, 1980, 1996 and 2000. The City's water system currently serves residential, commercial, industrial and educational facilities. The water distribution and supply systems are independently owned and operated by the City of South Lyon. Updates to larger sized (8" to 12") ductile iron mains have occurred periodically over the years and the City continues to replace and upgrade the older mains on an on-going basis. The water system is supplied by five (5) well pumps that pump water to the aeration/detention tank, where it is then pumped through the iron filters by the low service pumps then to the ground storage tank. Four (4) high service pumps then pump the water from the tank to the distribution system and elevated storage tank.

This report concluded that City of South Lyon meet the minimum requirements to provide potable drinking water in a safe, efficient and reliable manner. There are a few system improvements (water main replacement/extensions) that when made, will further enhance the systems reliability, performance and capacity. The report also concluded that the City should continue the water main replacement program that the City already has instituted, which replaces aging and/or reduced sized water mains with a larger size.





## City of South Lyon Water System Improvement Program

### **Owner**

City of South Lyon  
335 South Warren  
South Lyon, Michigan 48178  
*Department of Public  
Works*  
248-437-4006

### **HRC Project Number**

20020579, 20070548,  
20140495

### **PROJECT DESCRIPTION(S)**

#### **Wellhead Delineation**

Reviewed existing subsurface data in order to develop an understanding of hydrogeology of South Lyon area. Utilized existing pumping data to project hydraulic impact on local aquifer. Simulation of pumping was used to develop a 10-year travel time boundary which was used to create the delineation area.

#### **Water Filtration Master Plan**

During peak water demand season in the summer of 1999, the City of South Lyon observed unacceptable levels of iron in the finished, filtered water. In August 1999, the City of South Lyon commissioned Hubbell, Roth & Clark, Inc. (HRC) to assist the City with an Iron Removal Study at the City's Water Treatment Plant (WTP).

#### **GIS Water System Mapping**

HRC is currently mapping the City water system in a GIS format to meet the needs of both the Water Modeling and Vulnerability Assessment Study. The source materials being utilized on this project are the aerial photography, parcels, and street names from the Oakland County GIS Utility, as well as the hardcopy 100-scale water plans, site plans and the electronic drawings maintained in CAD. Tasks will include database design, mapping and tagging of pipes, structures and connections of the existing water system and training and project management for the use of GIS software for City staff.

#### **Water System Hydraulic Model**

HRC is currently creating a hydraulic model of the City's water supply system using KYPIPE2000. This program allows input of pipes, wells and storage facilities to simulate the pressures and flow in the water distribution system. The detailed information on pipe lengths, sizes and residential users can be imported from a GIS database to reduce the work involved in creating the water distribution model. KYPIPE2000 is also equipped with GIS integration capabilities to export and import ArcView shape files.

This hydraulic model may be utilized for the City's vulnerability assessment; counterflushing program; system improvement evaluation; to identify key improvements for a fire insurance rating; to show the impact of future development; and to meet potential MDEQ requirements.

#### **Counterflushing Program**

HRC is providing engineering services for a Counterflushing Program to clean the water mains and remove built up deposits, which will be based on the development of a hydraulic computer model.

#### **Vulnerability Assessment**

HRC prepared a Vulnerability Assessment (VA) to comply with the Bioterrorism Preparedness Act and new EPA regulations. The VA was submitted as a final report on behalf of the City to the EPA which included the technical basis for development of the City's Emergency Operations Plan.





## City of South Lyon DDA Streetscape Program

### **Client**

City of South Lyon  
335 South Warren  
South Lyon, Michigan

### **HRC Project Number**

20020667

### **Commencement**

August 2003

### **Completion Date**

December 2003

### **Project Budget**

\$800,000

### **Notable Features**

New Concrete Curb & Gutter

New Concrete Sidewalks

New Tree Frames and Grates  
for New Sidewalk/Street Trees

New Concrete Paver  
Crosswalks and Sidewalk  
Accents

New Bituminous Roadway  
and Pavement Striping

Removal of DTE Street  
Lighting and Addition of  
Decorative Street Lighting

Acquisition of 33 Easements  
from 26 Different Property  
Owners

### **Project Description**

As Consulting Engineers for the City of South Lyon, Hubbell Roth & Clark, Inc. (HRC) provided preliminary engineering; assisted with Transportation Enhancement Activity (TEA) grant writing and project budgeting assistance; designed construction plans and specifications; procured regulatory permits and project approvals; acquired easements; administered the bidding and award; provided construction engineering; and furnished construction observation and materials testing services for the City of South Lyon DDA Streetscape Program - Phase I.

The downtown area did not historically have a curb and gutter, and had not had the benefit of any significant flatwork improvements for a period that exceeded twenty-years. Consequently, roadway storm drainage had undermined much of the existing sidewalk along the streets and settlement and cracking of the sidewalk had occurred. A primary directive from the client was to design the new roadway and sidewalk section such that a new concrete curb and gutter could be installed. This was accomplished by re-profiling the existing roadway, and re-constructing the existing sidewalks from the back of the new curb to the faces of the existing buildings.



Concrete pavers, and new black iron tree grates were designed and constructed along the back of curb to compliment decorative light posts. Decorative concrete paver cross-walks were also designed and constructed within the main intersection to satisfy a traffic calming requirements of the TEA grant.

### **Construction Engineering and Testing**

Construction included 4 stages allowing work in an intersection quadrant at a time to limit access restrictions to adjacent businesses.





## Road Commission for Oakland County

### Dixboro Road Paving



#### **Owner**

Road Commission for  
Oakland County  
31001 Lahser Road  
Beverly Hills, Michigan 48025  
*Mr. Thomas Blust, PE*  
*Director of Engineering*  
(248) 645-2000  
*Mr. Jeff O'Brien, PE*  
*Design Manager*  
(248) 645-2000

**HRC Project Number**  
20180542

**MDOT Project Number**  
203559

**Design Start Date**  
June 2018

**Design Completion Date**  
June 2019

**Design Cost**  
\$132,820

**Construction Completion  
Date**  
July 2020

**Estimated Construction  
Cost**  
\$3,475,000

**Contractor**  
Dan's Excavating, Inc.

#### **PROJECT DESCRIPTION**

The paving of the existing gravel Dixboro Road from Eight Mile to Nine Mile included HMA paving, aggregate base installation, concrete curb and gutter, storm sewer, peat excavation, replacement of wetland equalization culverts, and replacement of twin 36-inch CMP culverts with a single 58 inches by 91 inches RCP elliptical culvert. Extensive analysis of the existing drainage along the corridor was necessary to design the proposed drainage system, which consisted of a combination of open channel flow and enclosed storm sewer system.

The project required coordination and permitting with the Michigan Department of Environment, Great Lakes & Energy (EGLE), including both an EGLE/USACE Joint Permit Application for the following areas: Part 31 – Floodplain, Part 301 – Inland Lakes and Streams, and Part 303 – Wetlands; as well as EGLE permit for the relocation of 205-feet of HDPE water main in conflict with the proposed culvert work.

The project required permitting with two neighboring counties for detour signing and coordination with the three local communities whose boundaries fall along the project length. Coordination was also necessary with the South Lyon Parks and Recreation Commission to address access to the park with the only entrance located within the project limits

Several of the design constraints and requirements were as follows:

- ≡ Limit right of way (ROW) needs and grading impacts to adjacent parcels.
- ≡ Limit impacts to wetlands, including Conservation Easement adjacent to culvert replacement
- ≡ Coordination with various utilities for relocations, including DTE, AT&T, Consumers Energy, and Charter Communications

HRC's responsibilities included:

- ≡ ROW/Easement Documents
- ≡ Preliminary Engineering (Plans, Specifications and Engineer's Estimate for MDOT LAP bid)
- ≡ Hydraulic Analysis for Culvert Replacement
- ≡ MDEQ Permitting (both JPA and WM)
- ≡ Utility Coordination and Relocation Design
- ≡ Construction Detour Plan



## Road Commission for Oakland County

### Martindale Road, Ten Mile Road to Eleven Mile Road

#### **Client**

Road Commission for  
Oakland County  
31001 Lahser  
Beverly Hills, Michigan 48025  
Mr. William Conklin  
Design Engineer  
(248) 645-2000

#### **HRC Project Number**

19990535

#### **Commencement**

1999

#### **Completion Date**

2001

#### **Estimated Construction**

##### **Cost**

\$944,060



#### **PROJECT DESCRIPTION**

This project consisted of .8 miles of paving an existing gravel road into a 2-lane road with curb and gutter and enclosed drainage. Special design attention for the preservation of many large diameter trees. Included coordinating the relocation of utilities owned by Consumers Energy, Ameritech, or Detroit Edison.

#### HRC Responsibilities:

- ≡ Topographic Survey
- ≡ ROW/Easements Documents and Procurement
- ≡ Construction Plans and Specifications
- ≡ Cost Estimate
- ≡ Utility Coordination
- ≡ Construction Staging and Traffic Control
- ≡ Permit Acquisitions



# City of South Lyon

## Dorothy Street Sanitary Sewer Relocation

### Owner

City of South Lyon  
335 S. Warren St.  
South Lyon, Michigan 48178  
Lynne Ladner  
City Manager  
(248) 437-1735

### HRC Project Number

20150876

### Start Date

December 2015

### Completion Date

Summer 2017

### Engineering Budget

\$65,000

### Construction Cost

\$260,000

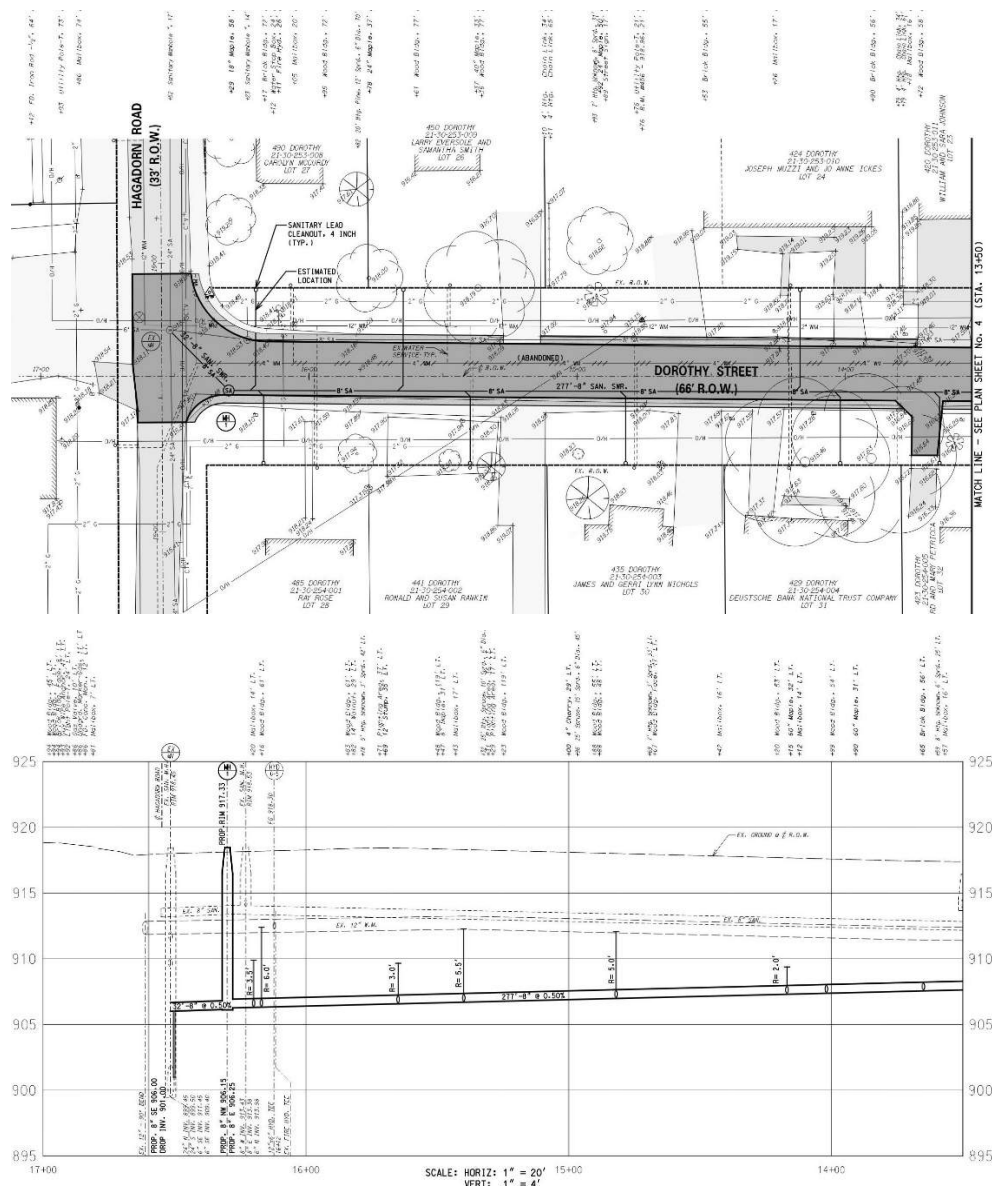
### Contractor

CI Contracting, Inc.

### PROJECT DESCRIPTION

The City of South Lyon was receiving calls from residents along Dorothy Street with complaints of sanitary sewer backups and slow draining plumbing. The cause was a sanitary sewer that was relatively shallow, with a substandard slope. This issue caused the city to perform costly repeated maintenance of the line.

Six hundred feet of new sanitary sewer was installed at a greater depth and slope to correct the problem. New sanitary leads with cleanouts and a new roadway were also installed. HRC was responsible for all design and construction engineering for the project including collecting topographic information, design, permitting, bidding, construction administration, observation, layout and testing.







## City of South Lyon Rail to Trail Southwest Connector



### **Owner**

City of South Lyon  
335 S. Warren Street  
South Lyon, Michigan 48178

### **HRC Project Number**

20060139

### **MDOT Project Number**

JN 89099A

### **Start Date**

August 2011

### **Actual Completion Date**

July 2012

### **Original Project Budget**

\$462,480

### **Final Project Budget**

\$462,480

### **Contractor**

Fonson, Inc.

### **PROJECT DESCRIPTION**

This project included construction of 1.40 miles of HMA bicycle path construction including 288 feet long, pile-supported timber boardwalk, ADA compliant concrete sidewalk ramps, commercial concrete drive approaches, undercutting, pavement markings, permanent signing, and pedestrian signals from Volunteer Park southerly to Eight Mile Road, easterly along Eight Mile Road to Pontiac Trail, and southerly along Pontiac Trail to the library entrance in the City of South Lyon

HRC provided topographic survey, project design, construction staking, materials testing, construction inspection, and contract administration under an Engineering Services contract with the City of South Lyon.

HRC's responsibilities included:

- ≡ Topographic survey
- ≡ Project design
- ≡ Wetlands permitting
- ≡ Soil erosion and sedimentation control permitting
- ≡ Construction survey layout
- ≡ Materials testing
- ≡ Inspection of clearing
- ≡ Inspection of path grading and undercutting with Geogrid
- ≡ Inspection of aggregate base
- ≡ Inspection of structural pile supports
- ≡ Inspection of elevated timber boardwalk
- ≡ Inspection of HMA bicycle path
- ≡ Inspection of concrete drive approaches
- ≡ Inspection of ADA compliant concrete sidewalk ramps
- ≡ Inspection of pedestrian traffic signal pushbutton upgrades
- ≡ Inspection of turf restoration
- ≡ Daily maintenance of traffic inspections



## City of South Lyon Police Department Needs Analysis

### **Owner**

City of South Lyon  
335 South Warren  
South Lyon, Michigan 48178

### **HRC Project Number**

20020046

### **Commencement Date**

January 2004

### **Completion Date**

June 2004



### **PROJECT DESCRIPTION**

Hubbell Roth & Clark, Inc. (HRC) and its police architect specialist, Redstone Architects, Inc. (RA), were engaged by the City of South Lyon to determine the needs of the South Lyon Police Department. Representatives of HRC and RA met with Police Department representatives and the City Manager to discuss departmental operations, as well as to identify current and future operations. The Needs Assessment indicated that there was a need for a minimum building footprint of between 6,500 and 7,500 SF along with 13,000 SF of parking.

A detailed summary report of the functional and spatial requirements for the department and required amount of area in net (usable) and gross square feet, for planned and future spaces was provided. The report also provided descriptions of furniture requirements and important spatial adjacencies to be maintained for within the facility.

HRC also provided services to analyze two site locations for the new facility based on the results of the Needs Assessment. Special attention was paid to site access, secured parking, the ability to maneuver large vehicles on the site, general site circulation and utility location.

The final report included projected costs of for the new facility, including building and site construction, professional fees, and furniture, fixtures and equipment ("FF & E").

With the Needs Analysis complete, the project was put on-hold awaiting City Council action.



## City of South Lyon McHattie Park Comfort Station

**Owner**

City of South Lyon  
335 South Warren  
South Lyon, Michigan 48178

**HRC Project Number**

20030457

**Commencement Date**

May 2005

**Completion Date**

August 2005

**Construction Cost**

\$120,000

**Contractor**

KEO & Associates

**Notable Features**

Two restrooms with electric locks and storage/utility room.

**PROJECT DESCRIPTION**

The project consisted of the complete construction of a comfort station (restroom facility) at South Lyon's McHattie Park located at McHattie Street and Washington Street. The comfort station is considered a summer use building only with no heating and the design included minimal electrical, lighting and ventilation requirements per the City building code.

HRC provided complete design engineering services including architectural and site civil. Construction engineering services included construction staking for the extension of utilities and building construction. Further, HRC assisted City staff with construction administration regarding request for information handling, change orders and contract change modifications.



## City of South Lyon Maintenance Garage Conversion

### *Client*

City of South Lyon  
335 South Warren  
South Lyon, Michigan  
48178

### *HRC Project Number*

20010214

### *Commencement*

2001

### *Completion Date*

2003

### *Construction Cost*

\$250,000



### **PROJECT DESCRIPTION**

The challenge on this project was to take a building approximately 75' x 114' that housed 12 rotating biological discs in three major concrete basins and turn it into a Maintenance Garage to adequately service all public works, fire, police and water/wastewater vehicles.

The existing garage quarters were cramped and outdated for the volume of repair work the City Personnel were performing. With a change in the wastewater treatment process at the site to meet new State Standards, the existing Biological Disc Building became available. HRC worked with the WWTP personnel to develop a plan to meet their needs. HRC interviewed the key personnel and provided concept sketches of several alternatives. Through refinement of these initial concepts the final plan was developed and constructed.

As part of the final plan preparation, detailed site investigations of the building's existing condition and a detailed structural analysis, with the proposed building changes, were performed. Results concluded that the interior column capacities and the integrity of the wall and roof framing system had to be structurally enhanced.

The new facility houses four service bays with one equipped as a wash bay. There are lifting facilities to accommodate engine repair, salt spreader repair and snow plow repair. Also included are two offices, a records/conference room, men's and women's toilet/locker rooms, a secured general storage area and an oil storage area.







**Client**

City of South Lyon  
335 South Warren  
South Lyon, Michigan 48178

**Commencement Date**

Storm – January 2003  
Water – August 2003  
Sanitary – November 2005

**Estimated Completion Date**

Storm – May 2003  
Water – November 2003  
Sanitary – April 2006

**Actual Completion Date**

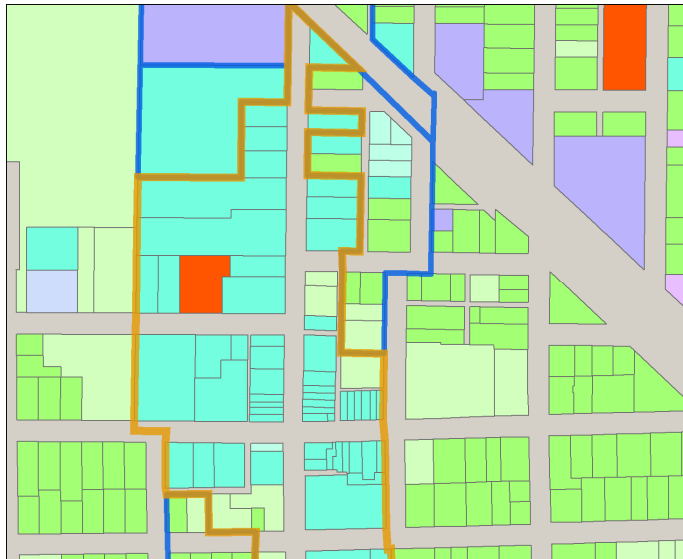
Storm – May 2003  
Water – November 2003  
Sanitary – May 2006

**Original Project Budget**

Storm – \$79,600  
Water – \$29,000  
Sanitary – \$36,000

**Final Project Budget**

Storm – \$75,000  
Water – \$28,000  
Sanitary – \$34,000



**Project Description**

Hubbell, Roth & Clark, Inc. (HRC) has done a wide variety of GIS related projects for the City of South Lyon. Beginning in 2003, HRC was awarded a series of contract with the City to develop the storm sewer, water and sanitary sewer networks in a GIS format. HRC converted the existing paper and electronic files for the three utilities into a GeoDatabase Utility Model, following standards developed by ESRI.

In 2008-09, HRC was contracted to collect the storm sewer invert and rim elevations with a total station data collector, as part of the City's master storm water plan. The storm sewer Geodatabase also includes the location of the pipes, manholes, catch basins, outfalls, detention basins, wetlands and connections into the open drains in the City, along with several of the characteristics of these features. The City uses the mapping and data analysis capabilities of the GIS to meet the requirements of the Michigan DEQ's Phase II Storm Water Permit.

The water system was completed from a combination of as-built plans and historic maps. This includes the location of valves, hydrants, well fields, raw water connections, details of the treatment plant and other information related to the City's Vulnerability Assessment Study. HRC also included the name, physical location and a scanned image of the plans used to create the digital GIS version.

The sanitary sewer system includes details of the recently expanded WWTP, along with the basic attributes of the sewer system such as size, rim and invert elevations. HRC has scanned all the utility plans, spatially referenced them to the GIS using a hyper-link, which allows City staff to view their historic engineering plans, the plan profiles, field notes, and contractors that worked on the project, from the convenience of their desktop computers.

HRC also supports the Building Department with tracking building permits and allowing them to calculate notifications by using a 300' buffer. HRC has assisted the Clerks Office for the City's Mid-Decade Census by mapping the block groups and data collection areas. HRC has also mapped the DDA boundary and land use for the City as shown in the graphic above.



## Various Clients Water Quality Monitoring



**Owner**  
Varies

**Start Date**  
Ongoing

**Original Project Budget**  
Varies

**Services Provided**  
Background data collection, sampling rule interpretation, training, site selection, data input, procurement of testing services, sample collection and coordination, result review and tabulation

### PROJECT DESCRIPTION

Hubbell, Roth & Clark, Inc. (HRC) provides our clients with water quality monitoring services to assist them in complying with state and federal drinking water quality rules and regulations.

- HRC helped our municipal water system supervisors, foremen, and staff with:
- ≡ Understanding and interpreting new and complicated water system rules and sampling requirements.
  - ≡ Developing standard monitoring plans.
  - ≡ Conducting distribution system evaluations to justify appropriate locations for sample collection.
  - ≡ Collecting water samples.
  - ≡ Packaging and transporting water samples to certified laboratories.
  - ≡ Reviewing and analyzing the test data.
  - ≡ Organizing the resultant data for submission to the regulatory authority.

HRC provided services for our clients during Stages 1 and 2 of Disinfectants Byproducts Rule (DBPR) and through to the current compliance monitoring. We also worked with our clients through the EPA's CDX website to comply with the Unregulated Contaminant Monitoring Rule (UCMR) 3 and 4.

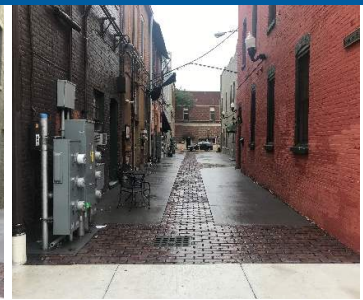
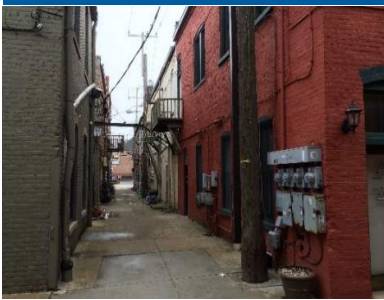
Among the municipalities in which HRC has provided these services are:

City of Ferndale  
City of Sterling Heights  
City of Utica  
City of Troy  
City of Warren

**City of South Lyon**  
SOCWA  
Village of Romeo  
Independence Township



## City of Howell State Street and Alleys Improvement



### Owner

City of Howell  
611 E. Grand River  
Howell, MI 48843  
Mr. Ervin Suida  
DPS Director  
(517) 546-3502

### HRC Project Number

20161073

### Design Start & Completion Dates

January 2017 to March 2019

### Completion Date

October 2019

### Design Cost

\$70,010

### Construction Admin. Cost

\$234,200

### Contractor

TLS Construction

### Construction Cost

\$2,184,000



### Awards

2020 Michigan Concrete  
Association, Parking Lots  
Category

### PROJECT DESCRIPTION

Hubbell, Roth & Clark, Inc. (HRC) prepared plans and specifications and provided construction administration services for this infrastructure, road and alley project for the City of Howell. This project received a Community Development Block Grant (CDGB) from the State of Michigan.

This project consisted of taking an existing “tired” area and updating it to fit the vibrant downtown scene. Two alleys were renovated by replacing the sanitary and storm systems, placing overhead utilities underground, minimizing utility facilities hanging off the walls, and providing a permeable center brick area. State Street was reconstructed to a “festival,” which provides a place where the City can eliminate cars and provides a walkable area for events like their weekly Farmers Market and annual Melon Festival. HRC designed a zero clearance from the street to the walk while also providing positive drainage. Also, electrical services were provided throughout the corridor for vendor needs as well as new street lights and two electric vehicle charging stations. State Street also included many landscape features, such as new trees, annual and perennial plantings, trash receptacles, benches, and bicycle racks.

There were many challenges that needed to be overcome, and they included; construction of deep sewers within a 9-foot alley; construction adjacent to buildings that are over 100-years old; maintaining access to the residents and businesses, to the alleys; communication during construction when situations on-site demanded changes that affected living and working conditions; coordination with DTE, Comcast and AT&T® to relocate their facilities; and meeting the administration requirements of the CDBG Grant.

HRC responsibilities included:

- ≡ Topographic survey
- ≡ Preparation of construction plans, specifications, and estimates
- ≡ Utility coordination
- ≡ Maintaining access and traffic plan
- ≡ Permitting for sanitary and water systems
- ≡ Power and lighting and specifications
- ≡ Construction administration, construction observation, and material testing







## City of Howell Parking Lot Number 1 Reconstruction



### **Owner**

City of Howell  
611 E. Grand River Ave.  
Howell, MI 48843  
Mr. Shea Charles  
City Manager  
(517) 546-3502

### **Engineer's Estimate of Construction**

\$1,400,000

### **Estimated Construction Engineering Cost**

\$207,800

### **Notable Features**

- ≡ HRC worked alongside the City's landscape architect throughout the design process.

### **PROJECT DESCRIPTION**

This locally funded project involved preliminary engineering and construction engineering for the reconstruction of an existing parking lot in Downtown Howell. The design included a new pavement section, new storm drainage, sidewalks, brick pavers, stamped/colored concrete, utility relocation, construction staging, permitting, pavement markings, and soil erosion control. Also included was a new water main and sanitary sewer for the businesses located adjacent to the parking lot. The existing parking lot layout and entrance locations were evaluated and reconfigured to provide additional spaces and better access. The new configuration contained 140 spaces when completed.

### **Construction Engineering**

HRC provided full construction services on this project during the 2010 construction season. These services included staffing the project for construction inspection and material testing, providing construction layout and managing the contract paperwork in accordance with MDOT standards using *FieldManager* and *Fieldbook*. Access to construction traffic, businesses, and residents had to be coordinated. The on-site staff interfaced with City residents and businesses to keep all informed and access maintained as necessary.

### **Survey Services**

Survey responsibilities included the establishment of network control, the property corner location control, the design and topographic survey for the project, and construction layout of the final design. The design/topographic survey was performed by data collecting all topographic features within the influence area by "Total Station" data collection. All points were numerically noted and coded for their respective feature quality. Code attributes were also supplied to further enhance the informational value of the located feature. All utility structures were located, and measurements were performed to obtain such information as the size of the pipe, the direction of piping, depth, and condition of the structure. All data was downloaded, post-processed, and quality assured for use in the design mapping. The topographic design survey was used for the preparation of base plans. Upon completion of the design plans and utilizing HRC resident software, coordinate design data was readily available to be loaded to our data collection device and employed in the radial stakeout of the desired design features for construction.





## City of Berkeley Coolidge Highway Traffic Study – 11 Mile Road to 12 Mile Road

### 4. ROAD-DIET – ALTERNATIVE A



Concept Courtesy of LSL Planning

#### Owner

City of Berkeley  
3338 Coolidge Highway  
Berkeley, Michigan 48072  
(248) 546-2410

#### HRC Project Number

20120453

#### Start Date

September 2012

#### Completion Date

April 2013

#### Project Cost

\$8,250

#### PROJECT DESCRIPTION

The City of Berkeley selected the team of Hubbell, Roth & Clark, Inc. and LSL Planning, Inc. to conduct a traffic study on Coolidge Highway between 11 Mile and 12 Mile Roads in Berkeley's business district. This one-mile segment of Coolidge is currently four lanes with parking, and five lanes at the signalized intersections and the library.

The project involved traffic engineering analysis, consideration of pedestrians and bicyclists, transit users, knowledge of parking, and an understanding of the transportation role Coolidge Highway plays in the area. The study involved reviewing existing data and conditions (Synchro model provided by the Road Commission of Oakland County), projecting future traffic volumes, conducting a capacity analysis of the alternatives, developing a preferred alternative concept and attending meetings to present the findings and preferred alternative concept.

Other modes of transportation in the study area were reviewed to determine if opportunities for linkages and multimodal travel are available. The regional transit authority, SMART, operates Route 740 on an hourly headway in both directions on Coolidge Highway between 11 and 12 Mile Roads with other stops in Berkeley. The City of Berkeley's bicycle pathway system crosses Coolidge Highway in three places. The Coolidge Road corridor is being evaluated for bus rapid transit as a part of the Woodward Avenue transit alternatives analysis.

This traffic impact study analyzes the existing and future traffic needs to determine if the preferred alternative is feasible and beneficial.

HRC responsibilities included:

- ≡ Analysis of non-motorized network and plans
- ≡ Analysis of public transit service and amenities
- ≡ Future traffic growth forecasts
- ≡ Capacity analysis using the criteria outlined in the Highway Capacity Manual 2000 and Synchro 7 for the morning and evening peak hours
- ≡ Capacity analysis of existing configuration and three-lane alternative using current and future traffic volumes for the AM and PM peak hours
- ≡ Analysis of the 50<sup>th</sup> and 95<sup>th</sup> percentile queue lengths reported in Synchro during the PM peak hour at the 11 Mile and 12 Mile road intersections
- ≡ Presentations to the planning commission and city council
- ≡ Development of preferred hybrid alternative
- ≡ Preparation of final report and presentations



## City of Berkley Harvard Road Reconstruction Project



### **Owner**

City of Berkley  
3238 Bacon Avenue  
Berkley, MI 48072  
Phone: (248) 546-2430

*Mr. Derrick Schueller – DPW  
Director*

### **HRC Project Number**

20150863

### **Start Date**

April 2017

### **Estimated Substantial Completion Date**

November 2017

### **Actual Substantial Completion Date**

November 2017

### **Original Construction Estimate**

\$1,560,000

### **Final Construction Cost**

\$1,465,000

### **Contractor**

F.D.M. Contracting

### **PROJECT DESCRIPTION**

The Harvard Road Water Main and Pavement Replacement project included the complete removal and replacement of existing pavement, curbs, driveway approaches, sidewalks, and trees in the greenbelt. Improvements also included new concrete curbs, HMA pavement, storm drainage cover adjustments, concrete driveway approaches, concrete sidewalks, ADA ramp, and new landscaping. The existing 6-inch water main was abandoned in place and new 8-inch water main was installed along with new public water services and stop boxes. Existing water services and hydrants were connected to the new 8-inch water main. The approximate length of the project was 2,500 feet.

HRC was involved in all phases of this project originally starting from performing the preliminary scoping, preparation of initial and final construction cost estimates, preparation of preliminary and final design documents and contract administration, construction engineering, and construction observation.

HRC's responsibilities included:

- ≡ Topographic survey
- ≡ Road design
- ≡ Utility design
- ≡ Utility coordination
- ≡ Contract administration
- ≡ Construction engineering
- ≡ Construction observation
- ≡ Material testing
- ≡ Maintaining traffic plans
- ≡ Permitting
- ≡ Finalization of all documentation
- ≡ As-built documents
- ≡ Acceptance by the City





## Office Locations

### ≡ Bloomfield Hills

555 Hulet Drive  
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### ≡ Delhi Township

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(517) 694-7760

### ≡ Detroit

Buhl Building, Suite 1650  
535 Griswold Street | Detroit, MI 48226  
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### ≡ Grand Rapids

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(616) 454-4286

### ≡ Howell

105 West Grand River  
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### ≡ Jackson

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### ≡ Troy

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### ≡ Lansing

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