



TERRA
ENGINEERING LTD.

TRAFFIC IMPROVEMENT STUDIES

Orland Park

RFP #26-043

06.29.26

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TERRA
ENGINEERING LTD.

01

**OPERATING
HISTORY**

COMPANY OVERVIEW

34
YEARS
STRONG

7,000+
MIOVISION
VIDEO COUNTS

735
UNIQUE
TRAFFIC
PROJECTS



 **85**
PROFESSIONAL
LICENSES

 **125+**
PEOPLE WORKING
AS A TEAM

 **6**
DIFFERENT
OFFICES

ABOUT TERRA

TERRA Engineering, Ltd. is a multi-disciplinary professional service firm that utilizes our experience, intellect, passion, and diversity to serve our clients. Since 1992, our portfolio has evolved to include local, national, and global projects ranging in both type and scale. We approach our work from a foundation of comprehensive expertise and resources, allowing our disciplines to collaborate and create intelligently designed, thoughtful, site-specific solutions that skillfully balance aesthetic with function. We are dedicated to making our clients successful and enabling our clients and staff to make innovative and socially responsible decisions that result in a sustainable and effective design.

OUR PEOPLE

TERRA is an Equal Opportunity Employer with a staff of 100 employees of diverse ethnicities and backgrounds, including:

Professional Engineers, Professional Traffic Operations Engineers, Structural Engineers, Professional Land Surveyors, Landscape Architects, GIS Analysts and LEED Accredited Professionals.

PROJECT CONTACT

CHRIS HUTCHINSON

Traffic Practice Lead
225 W. Ohio Street, 4th flr
Chicago, IL 60654
312.467.0123

SERVICE SECTORS

- Transportation Engineering
- Traffic Engineering/Studies
- Structural Engineering
- Bridge Inspections
- Electrical Engineering
- Surveying
- Geographic Information Systems (GIS)
- Site Development
- Landscape Architecture
- Land Use Planning
- Municipal Engineering
- Water Resources
- Construction Engineering

COMPANY MANAGEMENT TEAM



Karen Steingraber
President



Jamil Bou-Saab
Executive Vice President



George Ghareeb
Executive Vice President



George Ryan
Vice President of Construction
Services



Danielle Kowalewski
Vice President of
Process Management



Mike Ring
Vice President of Operations

CERTIFICATIONS

TERRA is certified through more than a dozen agencies, and is a recognized WBE-certified company. Please contact us for more information regarding our various certifications.



Chicago, IL • Bolingbrook, IL • Oak Park, IL • Peoria, IL • Milwaukee, WI • St. Louis, MO

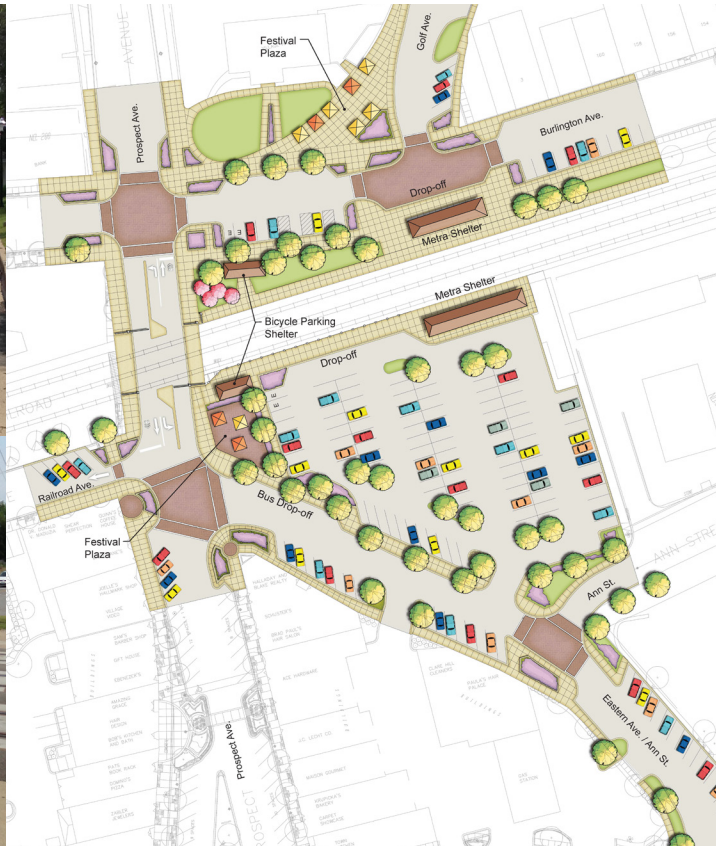




TERRA
ENGINEERING LTD.

02

EXPERIENCE



DOWNTOWN TRAFFIC AND PARKING STUDY

CLARENDON HILLS, IL

TERRA completed a traffic and parking study in downtown Clarendon Hills. Centered around a Metra BNSF commuter rail station serving approximately 800 riders a day (2006 data), downtown Clarendon Hills has only one at-grade railroad crossing to serve the entire community. According to IDOT, approximately 3,250 motorists a day cross the railroad tracks at Prospect Avenue, frequently delayed by the approximately 140 trains a day using the BNSF line.

TERRA performed a traffic study comprised of nine intersection counts using Miovision video collection units (VCUs) to collect vehicular, cyclist, and pedestrian data. TERRA also performed a two-day parking study of 524 parking spaces throughout downtown Clarendon Hills, including business, residential, and commuter parking.

The parking study involved collecting data on 20-minute intervals at every parking space throughout the area recording data on parking restrictions, occupancy, and turnover of each space and parking area. With this data, TERRA performed a full traffic study of the area and recommended improvements to the Prospect Avenue railroad crossing and nearby intersections to improve vehicular flow and enhance pedestrian and cyclist safety. TERRA also recommended changes to the parking areas to make more efficient use of the available spaces to better meet the needs of the Village.

CLIENT

Public Building Commission of Chicago

CONTACT

John Pietrzyk, LEED AP
Public Building Commission of Chicago
50 W. Washington, Room 200
Chicago, IL 60602
312.774.8353

CONSTRUCTION

N/A

DATES

2014 - 2019 (Phase I & II)
2020 - 2024 (Phase III)

SERVICES

Landscape Architecture
Traffic Engineering/Studies
Transportation Engineering





TERRA developed a traffic study for the City of Manchester, Missouri to provide additional analysis for a previously prepared report by the Parkway School District. TERRA's task was to evaluate the traffic in the neighborhood adjacent to an existing middle school and elementary school site along Wren Avenue and to analyze the effect of a proposed early childhood center to be constructed between the existing schools which are located on a dead-end street.

This study collected traffic data over three separate days including two typical days and a day with rain and thunderstorms to see how traffic varied based on weather. Speed data was also collected at several key points in the neighborhood and around the school during these same time frames. Our experts were on site over three days to observe traffic and pedestrian patterns and identify operational challenges. This data was then compiled into a report with recommendations on proposed changes to facilitate bicycle, pedestrian and vehicles around the schools and neighborhood to improve safety.

CLIENT

City of Manchester

CONTACT

Errol Tate
City of Manchester
800 Second Street
Manchester, MO
636.227.1385 x 154
etate@manchestermo.gov

CONSTRUCTION

N/A

DATES

2024

SERVICES

Traffic Engineering /Studies





AREA 6 NEIGHBORHOOD TRAFFIC STUDY

DOWNERS GROVE, IL

TERRA developed a neighborhood traffic study for “Area 6,” located in the northeast portion of the Village, north of Ogden Avenue. Tasks included traffic data collection using Miovision cameras for intersections and at 45 midblock locations using magnetic traffic counters, data summaries, data analysis, field reviews, and the development of a report recommending improvements to promote traffic calming and safety.

Final recommendations were categorized as short-term, mid-term, and long-term, addressing speeding, MUTCD compliance, sidewalk network connectivity, pedestrian awareness, intersection control evaluations, and the potential for a road diet. In addition to the report, TERRA developed a presentation of the material for the neighborhood.

CLIENT

Village of Downers Grove

CONTACT

Will Lorton
Traffic Engineer
Village of Downers Grove
5101 Walnut Avenue
Downers Grove, IL 60515
630.434.6863
wlorton@downers.us

CONSTRUCTION

\$24,000

DATES

2017 - 2018

SERVICES

Traffic Engineering /Studies





EVANSTON TRAFFIC SIGNAL MODERNIZATION

EVANSTON, IL

TERRA provided Traffic Analysis, Traffic Signal Modernization at 3 and ADA curb ramp at 3 intersections as well as updated bike detection facilities at one, integrating a previously completed design by another consultant into the plan set and providing Construction Engineering Services for all 4 intersections.

Upon a site review the team discovered the unique challenge of working around an existing CTA bridge crossing the Northern most intersection requiring special horizontally mounted signal heads and careful considerations for removals off of the existing structure. Additionally, inter-departmental coordination was required at the City, due to Right-of-way ownership questions. A final complication occurred when the geotechnical report came back recommending that custom designed foundations be used for all signal posts due to sandy soil conditions.

TERRA was able to coordinate with a traffic signal manufacturer to confirm horizontally mounted traffic signal heads were feasible using standard mounting hardware, allowing for standard specifications to be used.

At the final request of the City, TERRA provided additional bike detection loops at one intersection due to the high volume of bike traffic through on their way to the lake front.

CLIENT

City of Evanston

CONTACT

Chris S. Sous
City of Evanston
909 Davis Street
Evanston, IL 60201
847.859.7835
csous@cityofevanston.org

CONSTRUCTION

N/A

DATES

2025 - 2026

SERVICES

Traffic Engineering/Studies
Construction Engineering
Transportation Engineering
Surveying





CITY OF MORRIS DOWNTOWN STREETScape

MORRIS, IL

TERRA is providing visioning, design, and engineering for streetscape improvements to Liberty Street from just north of Illinois Avenue to north of the CSX Railroad, a total length of approximately 2,800 linear feet. The project includes a thorough public engagement campaign to understand, identify, and outline the community's vision for the streetscape project. Preliminary and final engineering and landscape architecture will integrate the community's vision into the historic built environment of downtown Morris.

The proposed design elements include new sidewalks, new pavement including resurfacing, new intersection improvements including sidewalk curb ramps and pedestrian push buttons; new street lighting; modifications to existing traffic signal equipment; and new landscape architecture elements such as pavers, landscaping, trees, street furniture, and signage. The project also includes a review and update to the City's lead service replacement program to better assist the City in capturing available grant funding. TERRA is also maintaining a live, detailed construction estimate in bid-year dollars to thoughtfully navigate the visioning and engineering more thoughtfully.

TERRA is contacted through all phases of this project: Visioning, Public Engagement, Preliminary and Final Design, and Construction Management.

CLIENT

City of Morris

CONTACT

John Pietrzyk, LEED AP
Public Building Commission of
Chicago
50 W. Washington, Room 200
Chicago, IL 60602
312.774.8353

CONSTRUCTION

\$10M

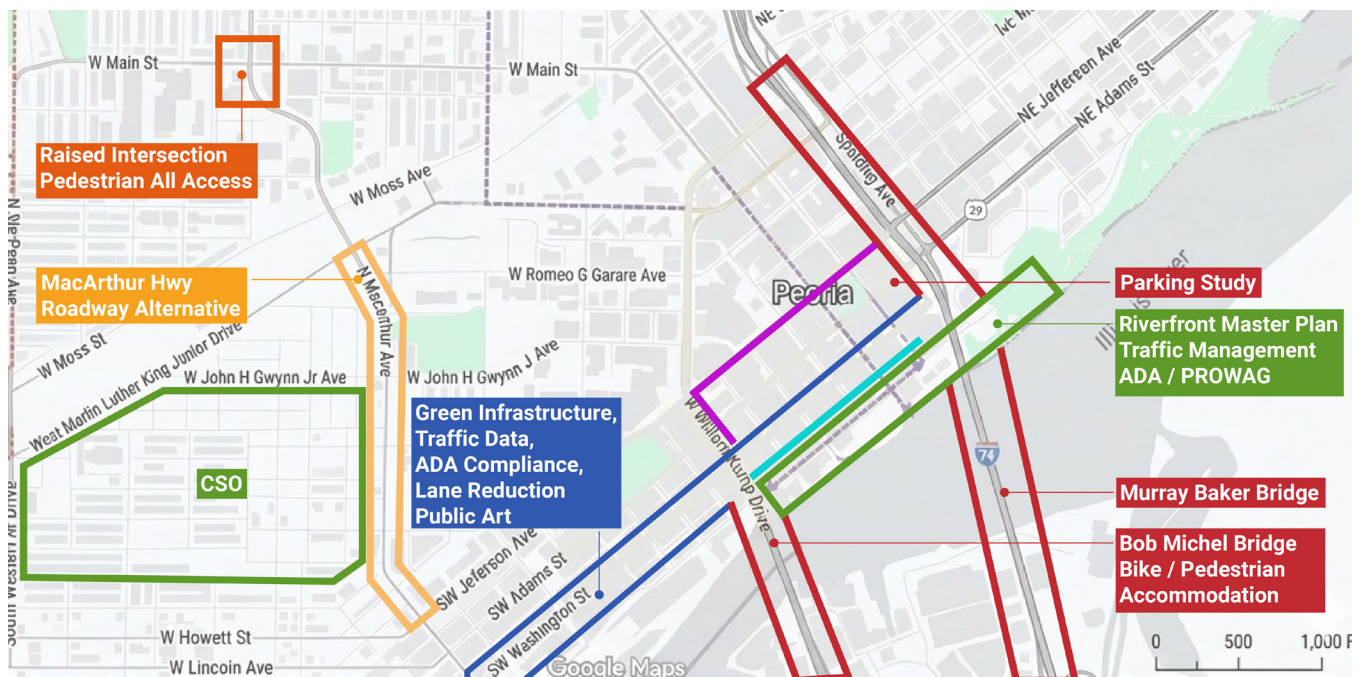
DATES

2026 - 2029

SERVICES

Structural
Landscape Architecture
Electrical
Construction Management
Transportation
Traffic Engineering
GIS





DOWNTOWN PLANNING, TRANSPORTATION ENGINEERING & TRAFFIC MANAGEMENT PEORIA, IL

As part of the River Front Master Plan, TERRA's transportation team delivers data-driven and cost-conscious solutions informed by alternative analysis to optimize mobility, enhance multi-modal safety, and implement sustainable infrastructure.

Key Project Components

1. Comprehensive Parking & Traffic Assessments: To establish a baseline for the Master Plan, TERRA conducted extensive empirical studies within the business district core:
 - Parking Inventory & Occupancy Study: Documented all available parking spaces, mapped the governing regulatory framework, and analyzed spatial and temporal occupancy rates (how much, where, and when spaces are utilized throughout the day).
 - Farmers Market Traffic Assessment: Evaluated operational concerns, logistical needs, and multi-modal conflicts during peak market hours.
 - Advanced Traffic Modeling: Utilized cutting-edge Miovision technology to capture high-definition data, model traffic behavior, and analyze complex intersection dynamics.
2. Complete Streets & Active Transportation: TERRA is transforming Peoria's downtown corridors into accessible spaces for all users by integrating Complete Streets Programming into active street reconstruction projects:
 - Bicycle Infrastructure: Designed and incorporated both shared-use bicycle lanes and separated, protected bicycle lanes to encourage active commuting.
 - Accessibility Compliance: Strict adherence to and implementation of updated PROWAG (Public Rights-of-Way Accessibility Guidelines) and ADA standards to ensure seamless pedestrian mobility.

CLIENT

City of Peoria

CONTACT

City of Peoria
Ross Black, Community Dev.
Director
Community Development
Department
419 Fulton Street, #203
Peoria, IL 61602
309.494.8601
rblack@peoriagov.org

CONSTRUCTION

\$23M

DATES

2013 - 2026

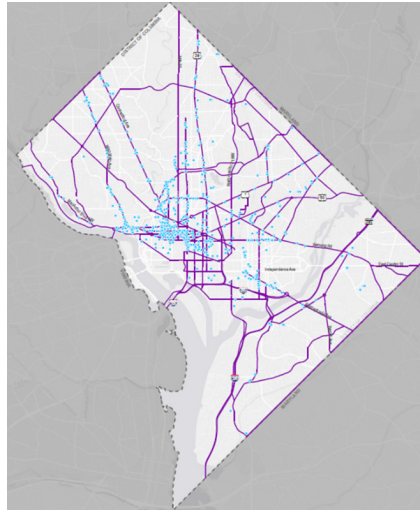
SERVICES

Transportation Engineering
Traffic Modeling
Stormwater Management
Floodplain Management
Landscape Architecture
Site Development
Surveying
Municipal Engineering



COMPREHENSIVE STUDY GUIDES SAFE DESIGN

MULTIMODAL CORRIDOR STUDY & PLAN



Services Provided

- Transportation Planning
- Traffic Modeling
- Traffic Analysis
- Multimodal
- Data Collection
- Pedestrian & Bicycle Planning
- Roadway Design

Client Contact

DDOT Traffic Engineering &
Signals Division
Jason Tao
202-671-1489
jason.tao@dc.gov

NOMA NEIGHBORHOOD ACCESS STUDY AND TRANSPORTATION PLAN

DISTRICT DEPARTMENT OF TRANSPORTATION (DDOT) – WASHINGTON, DC

The NoMa neighborhood is a fast-growing mixed-use high density neighborhood but lacks multimodal infrastructure and is bisected by major arterial roadways and rail lines, creating mobility challenges. Mead & Hunt performed multimodal transportation planning, traffic analysis and modeling to develop a detailed access study and transportation management plan to improve access and safety for all modes. The overall goal was to enhance pedestrian, bicycle, bus, and rail mode shares through improved infrastructure and traffic management strategies.

Mead & Hunt performed multimodal traffic data collection and assessment, focusing on vehicles, buses, pedestrians, and bicyclists. It includes an evaluation of existing traffic circulation, intersection capacity, and level of service calculations. We reviewed roadway safety and crash experiences, identifies pedestrian and bicycle desire lines, and documents current and future Metrorail and Metrobus ridership and access mode shares. Additionally, the Mead & Hunt team developed future traffic forecasts for a planned mixed-use redevelopment, applying travel models to extract travel demand forecasts, and evaluating short and long-term parking needs.

Our team developed conceptual roadway designs and costs, identified of high-quality multimodal infrastructure, and created a 40-intersection Synchro traffic model to document existing and future traffic operations. We prepared graphics and analysis for public outreach to support stakeholder workgroups.

PROVIDING TRAFFIC SAFETY FROM STUDY THROUGH DESIGN

CORRIDOR TRAFFIC STUDY & DESIGN



Services Provided

- Transportation Planning,
- Grant Management,
- Stormwater Management,
- Operational Traffic Studies
- Pedestrian & Bicycle Planning
- Roadway Design

Client Contact

Maryland Transit Administration
Jamie Richardson
410-767-3767
jrichardson@mta.maryland.gov

NORTH AVENUE RISING

MARYLAND TRANSIT ADMINISTRATION – BALTIMORE, MD

When the Maryland Transit Administration secured a \$27 million TIGER grant, it launched a corridor scale engineering effort to reconstruct North Avenue from Hilton Street to Milton Street. Mead & Hunt led the technical delivery of a comprehensive roadway and transit redesign that prioritized system performance, durability, and constructability.

The project introduced dedicated bus lanes supported by transit signal priority and upgraded traffic signals to improve operations and reliability. Engineers integrated corridor wide resurfacing and repaving with curb extensions to strengthen safety and intersection efficiency. New lighting systems and enhanced bus shelters were designed and detailed to meet modern standards for visibility, accessibility, and maintenance.

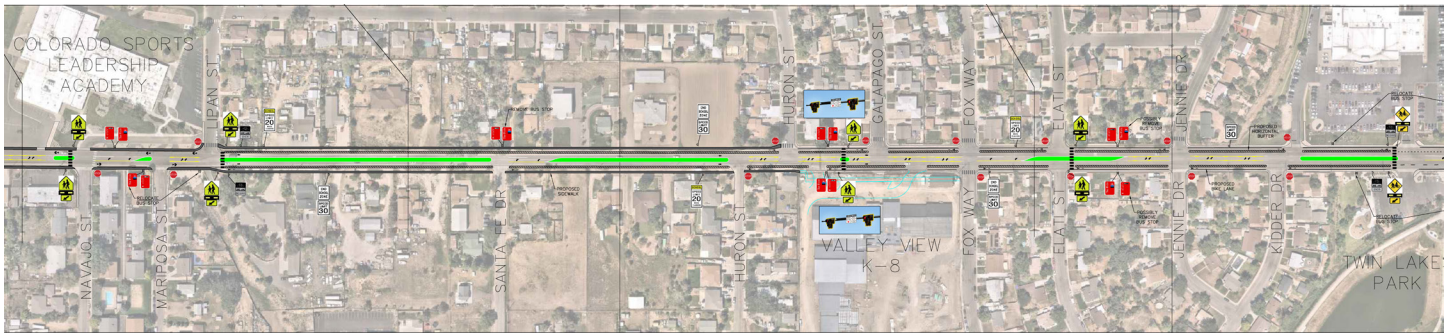
A robust technical program guided decision making. Work included project base mapping, survey and utility investigation, stormwater management design, and development of cost estimates. The team advanced concept development and feasibility and alternatives analysis, supported by traffic, transit, and parking operations studies.

Landscape and urban design elements were coordinated with engineering plans to ensure cohesive implementation. Through stakeholder engagement and preliminary engineering design, the project delivered a technically sound corridor that supports reliable transit and long term infrastructure performance. This approach enhanced constructability and reduced maintenance needs future.



ESTABLISHING A CORRIDOR AS A COMMUNITY GATEWAY

CORRIDOR TRAFFIC STUDY & DESIGN



Services Provided

- Base Mapping
- Traffic Analysis & Forecasts
- Traffic Safety Analysis
- Alternatives Development
- Concept Design
- Cost Estimates
- Stakeholder & Public Outreach

Client Contact

Adams County
Long Nguyen
720-523-6808
lnhnguyen@adcogov.org

70TH AVENUE MULTIMODAL CORRIDOR ENHANCEMENTS AND DESIGN

ADAMS COUNTY – TWIN LAKES, CO

70th Avenue is a gateway corridor to the Twin Lakes neighborhood serving residential neighborhoods, recreational parks, offices, and two public schools. However, the roadway cross-section is inconsistent, varying between two and five lanes, and the corridor lacks sidewalks/bike lanes and provides limited infrastructure at bus stops and mid-block crossings. Mead & Hunt was responsible for performing a comprehensive corridor study and traffic engineering design to address traffic safety, access, and multimodal needs. The study evaluated existing and future land uses; collected traffic volumes; developed future year traffic forecasts; performed traffic capacity analysis and simulations; conducted a field audit/walk; and developed base mapping.

Mead & Hunt worked closely with County, State, and transit stakeholders from DOTs, DPW, and Rec and Parks, as well as local schools to develop alternatives to provide improved multimodal accessibility, traffic safety, upgraded traffic controls, and streetscape design. Multiple alternatives were developed in plan and section view, and assessed for alignment with project goals as well as right-of-way, utility, environmental impacts, sustainability, and cost. Mead & Hunt developed renderings and illustrations of roadway designs and solicited public and stakeholder input both in person and via a virtual public meeting platform.

REFERENCES



City of Peoria

Andrea Klopfeinstein
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City of Peoria
3505 N. Dries Lane
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City of Morris

Stan Knudson
Community Affairs Director
City of Morris
700 N. Division Street
Morris, IL 60450
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City of Manchester

Errol Tate
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City of Manchester
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Manchester, MO
636.227.1385 x 154
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TERRA
ENGINEERING LTD.

03

PROJECT

CHALLENGES

PROJECT UNDERSTANDING

TERRA Engineering understands that the Village of Orland Park is undertaking a comprehensive and forward-looking initiative to improve mobility, safety, and overall transportation system performance through three coordinated studies: (1) Corridor Traffic Study, (2) Traffic Signal Progression and Timing Improvements, and (3) Driveway Consolidation Study. These efforts are intended to produce practical, phased, and implementable solutions that deliver measurable benefits at both the corridor and system-wide levels.

The study corridors—La Grange Road (US 45) from 143rd Street to 167th Street and 159th Street (US 6) from 108th Avenue to 88th Avenue—are vital arterial routes that support regional mobility, local access, and economic activity. TERRA recognizes the importance of balancing mobility and accessibility for all users, coordinating among multiple jurisdictions, and developing recommendations that are not only technically sound but also feasible, fundable, and implementable.

TERRA will deliver all three study components as a unified program. This integrated approach ensures consistency in data collection, analysis methodologies, and stakeholder coordination, while maximizing efficiency and eliminating redundancy. It also ensures that recommendations across the studies complement one another to optimize overall corridor performance.



CORRIDOR TRAFFIC STUDY

TERRA will conduct a comprehensive evaluation of existing and future conditions to identify operational and safety deficiencies and develop targeted improvement strategies that enhance safety, reduce congestion, and support multimodal mobility.

A key challenge associated with this effort is that both La Grange Road and 159th Street are major arterial corridors under multiple jurisdictions, including IDOT and Cook County. These agencies may have differing priorities, requiring careful coordination to advance consensus-driven solutions. In addition, both corridors are largely built out, with constrained right-of-way, numerous driveways, wide intersections, and multiple turn lanes—limiting the feasibility of certain geometric improvements.





TERRA will begin with a robust data collection program that includes turning movement counts, bicycle and pedestrian volumes, and corridor travel time data. Using Miovision video detection technology, TERRA will collect highly accurate multimodal data supported by video records. Particular attention will be given to how traffic flows interact with existing medians, access points, and U-turn movements.

The team will also evaluate queues, delays, and crash history to identify patterns, high-risk locations, and operational breakdown points. Based on these findings, TERRA will identify practical safety and operational improvements that can be implemented within existing corridor constraints.

All data will be incorporated into traffic modeling platforms to establish baseline conditions, calibrated to observed travel times and field conditions. Future scenarios will then be developed to assess projected performance under varying assumptions, including traffic growth, redevelopment, and potential operational or geometric changes.

Improvement alternatives will be evaluated based on effectiveness, feasibility, and cost. TERRA will develop a prioritized list of recommendations with clear advantages and trade-offs for Village review. Following feedback, TERRA will support coordination with partner agencies to advance selected improvements toward implementation.

TRAFFIC SIGNAL PROGRESSION AND TIMING IMPROVEMENTS

TERRA will optimize traffic signal operations across the Village to improve progression, reduce delay, and enhance travel time reliability along key corridors and at isolated intersections.

A primary challenge for this task is coordinating signals owned and operated by multiple agencies, which may use different hardware, software, and communication systems. Additional complexity arises at jurisdictional boundaries, where competing corridor priorities must be balanced. Along heavily developed corridors, it is also critical to balance progression for through traffic with access to adjacent businesses and side streets.

TERRA will evaluate the existing signal system, including current timing plans, coordination groupings, and infrastructure capabilities, to identify opportunities for improved synchronization and system upgrades where needed.



Targeted data collection will include turning movement counts and corridor travel times for key routes. Using Miovision technology, TERRA will obtain representative travel time data across multiple time periods, providing a more comprehensive understanding than traditional floating car studies.

Signal timing plans will be developed and tested using traffic modeling tools, with performance evaluated based on established measures of effectiveness such as delay, stops, travel time, and emissions. Proposed timing strategies will be optimized to balance mobility, accessibility, and multimodal considerations. Following implementation, TERRA will conduct field reviews and validation studies to fine-tune operations and confirm that performance objectives are achieved.



DRIVEWAY CONSOLIDATION STUDY

TERRA will develop an access management strategy focused on reducing conflict points, improving driveway spacing, and enhancing overall corridor safety and operations along the study corridors.

A significant challenge associated with driveway consolidation is stakeholder acceptance. Property owners often rely on direct access to support their businesses and may resist changes that could be perceived as limiting accessibility. In addition, consolidation strategies may require cross-access agreements between adjacent properties, adding coordination complexity.

TERRA will begin by developing a comprehensive inventory of all access points, mapped within a GIS framework and linked to parcel data. This will establish a baseline understanding of existing conditions and constraints. The team will then analyze crash data, operational performance, and access characteristics to identify high-risk locations and opportunities for consolidation or modification. Evaluations will consider factors such as driveway spacing, traffic volumes, proximity to intersections, and long-term redevelopment potential.

TERRA will develop conceptual consolidation strategies, including removal, combination, or reconfiguration of driveways, along with estimated safety and operational benefits. Preliminary recommendations will be coordinated with the Village and partner agencies prior to engaging with property owners and stakeholders.

CONCLUSION

TERRA Engineering's approach integrates technical expertise, practical implementation strategies, and strong interagency coordination to deliver meaningful and lasting transportation improvements. By addressing corridor operations, signal performance, and access management in a unified and comprehensive manner, TERRA will provide the Village of Orland Park with actionable recommendations that enhance safety, improve mobility, and support the community's long-term quality of life.





TERRA
ENGINEERING LTD.

04

QUALIFICATIONS

ORGANIZATIONAL CHART



ORLAND PARK

PRINCIPAL IN CHARGE



EXECUTIVE VICE
PRESIDENT
Jamil Bou Saab

PROJECT MANAGER



TRAFFIC PRACTICE LEAD
M. Chris Hutchinson, PE, PTOE

QA/QC ANCHOR



SENIOR
TRANSPORTATION
PROJECT MANAGER
Dave Landeweer, PE, ESP

CORRIDOR TRAFFIC STUDY



TRANSPORTATION
ENGINEER & PLANNER
Kyle Roberts, PE, PTOE



MULTIMODAL ENGINEER
& PLANNER
Roshan Singh, PE, PTOE



TRAFFIC ENGINEER II
Sanders Ong, EIT

TRAFFIC SIGNAL PROGRESSION & TIMING



SENIOR PROJECT
ENGINEER
Nick Stoffer, PE

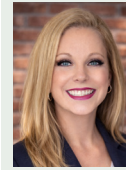


MULTIMODAL ENGINEER
& PLANNER
Joshua Wolfram, PE, PTOE, RSP1



TRAFFIC ENGINEER I
Wendy Bonick, EIT

DRIVEWAY CONSOLIDATION



REGIONAL
TRANSPORTATION
MARKET LEAD
Kelley Davis



SENIOR GIS ANALYST
Paul Churchill



x





CHRIS HUTCHINSON, PE, PTOE

Traffic Practice Lead

Mr. Hutchinson has more than 25 years of experience in providing civil and traffic engineering services for a variety of projects and clients. Chris has certification in the specialized application of traffic operations engineering. As a Traffic Practice Lead he is responsible for managing all traffic projects and personnel at TERRA. His experience includes serving as the traffic engineer on numerous roadway projects and traffic impact studies. He is an expert on data collection processes for temporary traffic counts and long-term count stations. His other design duties have included the traffic modeling and analysis, parking analysis, traffic signal design, signal coordination and timing, geometric design, safety analysis and development of design plans.

EDUCATION

BS, Civil Engineering
Washington University
St. Louis, MO

PROFESSIONAL EXPERIENCE

16 years with TERRA
12 years prior to TERRA

LICENSES | CERTIFICATES

Professional Engineer
062.059625 (IL, 2007)
2003001046 (MO, 2003)
19460 (KS, 2007)
82511 (FL, 2017)
45727-6 (WI, 2017)
11900257 (IN, 2019)
36080 (KY, 2020)

Professional Traffic Operations Engineer
(PTOE), 2005, # 1797

PROFESSIONAL AFFILIATIONS

Engineers Club of St. Louis,
Board of Directors -
2008-10, 2013-15, 2019-21
Institute of Transportation Engineers
Transportation Engineering
Association of Metropolitan
St. Louis

DOWNERS GROVE AREA 6 NEIGHBORHOOD TRAFFIC STUDY

DOWNERS GROVE, IL | *Traffic Engineer*

TERRA developed a neighborhood traffic study for the northeast portion of the Village. Tasks included traffic data collection at 4 intersections and at 45 midblock locations, data summaries, data analysis, field reviews, and the development of a report recommending improvements to promote traffic calming and safety. Final recommendations were categorized as short-term, mid-term, and long-term, addressing speeding, MUTCD compliance, sidewalk network connectivity, pedestrian awareness, intersection control evaluations, and the potential for a road diet. In addition to the report, TERRA developed a presentation of the material for the neighborhood.

CLARENDON HILLS DOWNTOWN TRAFFIC STUDY

CLARENDON HILLS, IL | *Traffic Engineer*

TERRA performed a traffic study comprised of nine intersection counts and a two-day parking study of 524 parking spaces throughout downtown Clarendon Hills, including business, residential, and commuter parking. With this data, Chris recommended improvements to the Prospect Avenue railroad crossing and nearby intersections to improve vehicular flow and enhance pedestrian and cyclist safety. TERRA also recommended changes to the parking areas to make more efficient use of the available spaces to better meet the needs of the Village.

WREN AVENUE TRAFFIC STUDY

MANCHESTER, MO | *Project Manager*

TERRA Engineering was asked by the City of Manchester, Missouri to conduct a traffic evaluation for the existing traffic near Parkway Southwest Middle School and Wren Hollow Elementary School which are both located along Wren Avenue. The street serves both schools but only has one main access road which provides a connection to the west at Sulphur Spring Road and to a lesser extent at Canary Avenue. In addition to evaluating the schools at drop off and pick-up each day, the study also looked at vehicle speeds and parking usage in the adjacent neighborhood. Chris developed a data collection plan for the study and managed the data collection which collected data on two dry days and one rain event. He then evaluated the existing deficiencies in the network and looked for potential solutions to better manage the traffic flow during peak times. Chris then prepared a report detailing the existing conditions and some potential solutions which could be investigated and presented the findings to the City staff and elected officials.

REGAL MILE STUDIOS TRAFFIC AND SURVEY

CHICAGO, IL | *Project Manager*

Mr. Hutchinson conducted a traffic impact study for the design of a state-of-the-art film and television production campus located on Chicago's South Side. TERRA's team collected existing traffic data throughout the neighborhood and created an existing traffic model for the area. TERRA then projected new trips which would be generated by the site and assigned them to the adjacent neighborhood streets to evaluate future traffic. The study also evaluated the parking needs for the site and made recommendations on how to employ multi-modal strategies to reduce dependency on personal vehicles and increase transit and shuttle usage. The study also evaluated the vacation of a portion of Harper Avenue to accommodate the project and conversion of a portion of Dante Avenue from one-way to two-way traffic as part of the site development.





DAVE LANDEWEER, PE, ESP

Senior Transportation Project Manager

Mr. Landeweer is responsible for the preparation of engineering plans and specifications, project reports and other work related to transportation design and site development work. His experience includes all phases of transportation and site engineering, including preliminary and conceptual engineering and phase II plan preparation. His transportation experience includes engineering design for local roads and streets, arterial roadways, and expressways. He also has extensive experience in bicycle path design.

EMERSON STREET TRAFFIC SIGNAL MODERNIZATION

EVANSTON, IL | *Project Manager*

Project Manager for the preparation of Phase II Plans, Specifications and Estimates for the modernization of four traffic signals on Emerson Street for the City of Evanston. The four signals to be modernized are at Dodge Avenue, Maple Avenue, Elgin Road, and the intersection of Elgin Road with Benson Avenue. The modernization will include new ADA ramps, improved pedestrian actuation, vehicle actuation, a signal interconnect, the addition of separate turn lanes with separate signal phases and other improvements associated with the signal improvements. Traffic counts were obtained at all intersections along with the adjacent intersections between Dodge Avenue and Maple Avenue. A traffic analysis was prepared utilizing Synchro to determine the Levels of Service at the intersections and to determine the appropriate phasing and timing of the intersections.

MAIN STREET IMPROVEMENTS (MAPLE TO HINMAN)

EVANSTON, IL | *Project Manager*

Mr. Landeweer led Terra's work for the Phase I and II transportation engineering and surveying services for the rehabilitation and reconstruction of Main Street from Maple to Hinman Avenues. The project included roadway, water main replacement, sidewalk, streetscape, pedestrian crossings, streetlight improvements and traffic signal modernization. The City of Evanston received ITEP funding to implement this project. Much of this work was inspired by a strong collaboration with an advisory committee comprised of local merchants, businesses and not-for-profit organizations to enhance the visitor's experience to this thriving and creative business district with a distinct small-town personality. The committee challenged the team to incorporate opportunities for event space and implement innovative technologies for dealing with stormwater runoff, while maintaining full compliance with citywide streetscape standards.

PROSPECT AVENUE IMPROVEMENT

CLARENDON HILLS, IL | *Project Manager*

Project Manager for the preparation of a Phase I Project Development Report for the improvement of Prospect Avenue in downtown Clarendon Hills for the Village of Clarendon Hills. The study also included Burlington, Golf, Railroad, and Eastern avenues within the immediate vicinity of Prospect Avenue as well. Prospect Avenue is immediately adjacent to the Metra train station and crosses the Burlington Northern/Santa Fe Railroad between Burlington and Railroad avenues. Coordination for the improvement with the Railroad and the Illinois Commerce Commission was part of the project. The project also included performing a traffic and parking study within the project limits. Intersection counts were performed at nine intersections and all of the on-street and off-street parking within the area. As a result of the traffic and parking analysis, changes to the street layout and parking facilities were recommended and incorporated into the Project Development Report. One of the changes recommended was the realignment of the Golf Road at its intersection with Burlington Avenue. Phase I Design Approval for the project was received from IDOT. Mr. Landeweer also led the Phase II PS&E which was split into two projects based on funding availability.

WASHINGTON & WISCONSIN SIGNAL INSTALLATION

OAK PARK, IL | *Project Manager*

Project Manager for the preparation of Phase II Plans, Specifications, and Estimates for the installation of a new traffic signal at the intersection of Washington Boulevard and Wisconsin Avenue for the Village of Oak Park. The existing intersection consisted of a two-way stop-controlled intersection on Wisconsin Avenue. Signal warrants were prepared that showed a traffic signal was warranted at this location. In addition, a crash history was prepared that showed a higher than anticipated number of crashes at the intersection. The work included preparation of the signal plan, cable plan, design of ADA ramps, signing and pavement markings. With Washington Boulevard being an IDOT route, the project was permitted through the IDOT Bureau of Programming.

EDUCATION

BS, Civil Engineering
Valparaiso University
Valparaiso, IN (1980)

PROFESSIONAL EXPERIENCE

10 years with TERRA
36 years prior to TERRA

LICENSES | CERTIFICATES

Professional Engineer
062.042363 (IL, 1985)

Envision™ Sustainability Professional

PROFESSIONAL AFFILIATIONS

Member, Board of Local Improvements,
Village of Arlington Heights
Board Member, Trails for Illinois





NICK STOFFER, PE

Senior Project Engineer

A 1992 graduate from Iowa State University with a BS in Civil Engineering, Mr. Stoffer retired from the City of Peoria's Public Works Department after nearly 27 years of municipal service, including 9 years as the City's Traffic Engineer. He has worked on many municipal projects including roadway design, parking lot layout, Bicycle Master Plan, and a citywide LED streetlight replacement project as well as managing the Traffic Section of the Public Works Department, which included the traffic signal electrical, sign shop, pavement marking and parking enforcement staff, as well as providing the inspection of local bridge structures.

EDUCATION

BS, Civil Engineering
Iowa State University
Ames, IA (1992)

PROFESSIONAL EXPERIENCE

4 years with TERRA
28 years prior to TERRA

LICENSES | CERTIFICATES

Professional Engineer
062.053367 (IL, 1999)

PROFESSIONAL AFFILIATIONS

Former Member and Past Chairman of the local MPO (PPUATS) Technical Committee
Former Alternate Member of the local MPO (PPUATS) Policy Committee
Illinois Public Service Institute 2009 – 2011 (2011 Graduate)
Illinois Chapter APWA Public Works Engineer of the Year 2009
National Incident Management Training 2012
City Sponsored Supervisor Training 2005 and 2006
Northwestern Traffic Institute Traffic Engineering Seminar – 2004
Northwestern Traffic Institute Traffic Signal Workshop – 2007
National Emergency Training Center - Coordinated Complex Attack Training 2017
Safety Inspection of In-Service Bridge training January 1999
Bridge Inspection Calibration Class, March 2011, May 2015, 2021
Presented at Illinois Chapter APWA Conference May 2012

ACTING CITY ENGINEER

PEORIA, IL | *City Engineer*

Duties in addition to those of the Traffic Design Engineer, below, included providing management and direction for the overall operation of the Engineering Division of Public Works Department, which consisted of the Design, Construction, Traffic Engineering, and Permits Sections; giving technical support and assistance to city government and represent the City to outside agencies, organizations, and the general public; producing an annual work program; assisting in developing 2009 Operating Budget for Engineering Division. Assisted in developing a five-year Community Investment Plan for the City of Peoria; and member of the Board of Local Improvements, which oversees public improvements within the Special Assessment Program.

ASSISTANT PUBLIC WORKS DIRECTOR

PEORIA, IL | *Traffic Engineer*

Duties included supervising Traffic Division of Public Works Department; managing traffic signal maintenance, sign shop, traffic painting and traffic study operations; managing traffic signal and traffic painting maintenance agreements between the City of Peoria and agencies including IDOT and Peoria County; investigating and resolving traffic-related complaints and concerns; approving installation of traffic control devices; recommending modifications or adoption of traffic related ordinances and policies; assisting with development of City's Community Improvement Program; reviewing development of site plans for City Code compliance; serving as Secretary of the Peoria Transportation Commission; member of both Policy and Technical Committee of the local MPO, Peoria Pekin Urbanized Area Transportation Study; past Chairman of the Technical Committee; City of Peoria Bridge Program Manager, which entails inspecting all bridges under City of Peoria jurisdiction and maintaining official bridge records; City representative for ornamental lighting project on IDOT owned Murray Baker Bridge; and Project Engineer for Municipal projects, including Citywide LED streetlight upgrade.

EVANSTON TRAFFIC SIGNAL IMPROVEMENTS

EVANSTON, IL | *Engineer*

The City of Evanston hired TERRA to provide Phase II engineering services to design the replacement of three traffic signals in their city. Nick assisted in the design of the traffic signal systems and provide review for the plans and specifications of the project.

ORANGE PRAIRIE TRAFFIC ANALYSIS AND SIGNAL MODIFICATION

PEORIA, IL | *Engineer*

The City of Peoria hired TERRA to provide analysis then engineering services for the improvement of the War Memorial Drive (US 150) and Orange Prairie Drive intersection. First TERRA was asked to analysis the intersection and see if one of the 2 southbound through lanes could be converted to a left turn lane, to provide better service to a major traffic movement at the intersection. Once the analysis showed that the proposed modification was feasible, TERRA was asked to provide a design of the modifications and a proposed signal timing. TERRA worked with City staff to design the improvements and is working to achieve IDOT approval so that the project can be bid and constructed in 2026.





SANDERS ONG, EIT

Traffic Engineer II

Mr. Ong is a motivated Engineer-In-Training. Sanders consistently performs traffic data collection for multiple traffic networks all over the Midwest using video data collection units. He also performs accuracy checks of data including for TERRA's Illinois Department of Transportation's (IDOT) Statewide Traffic Counts. In addition to his field work, Sanders has experience analyzing traffic networks using Synchro and HCS Software. Mr. Ong has also evaluated traffic impacts of developments and authored traffic impacts studies throughout the Midwest.

BRITISH PETROLEUM TRAFFIC IMPACT STUDY

CHICAGO, IL | *Design Engineer*

TERRA provided traffic engineering services for the expansion of a BP gas station on the corner of 31st Street and Michigan Avenue, which included additional restaurants, a coffee shop, and a car wash tunnel. Sanders collected traffic data around the site and prepared a traffic impact report calculating trip generation, trip circulation, and analyzed traffic models to evaluate the impact of the development.

MIDWEST PETROLEUM TRAFFIC IMPACT STUDY

MANCHESTER, MO | *Project Engineer*

Mr. Ong performed the field data collection for a traffic impact study for a gas station proposing to add more fuel pumps and a categorically larger convenience store. Sanders created traffic models and calculated assignments of new trips throughout the traffic network. Sanders assisted in the preparation of the traffic impact study which was submitted to the City the Missouri Department of Transportation (MODOT) for review.

WREN AVENUE TRAFFIC STUDY

MANCHESTER, MO | *Project Engineer*

Residents in Manchester, MO were concerned about the traffic impact of erecting an early childcare center on a 1,700-foot stretch of road that already contains an elementary school and a middle school. Sanders set up new Miovision cameras with high quality video to observe vehicle circulation during the arrival and departure periods of the schools, as well as measuring vehicle speeds in the nearby neighborhoods that concerned residents. Sanders also peer-reviewed the traffic study for the early childcare center and made recommendations to improve traffic operations on Wren Avenue.

WU'S HOUSE PARKING STUDY

CHICAGO, IL | *Project Engineer*

Wu's House restaurant in Palos Park, Illinois has had an issue with parking capacity since its debut. Sanders deployed video data collection units at the driveways and around the parking lot to collect data and video footage. In addition, Mr. Ong tracked license plates in the field while the restaurant was in operation to build a histogram of the duration vehicles were parked. From the analysis, it is estimated the 94 additional spaces Wu's house planned to add would be adequate.

MODOT SIGNAL OPTIMIZATION

ST. LOUIS & JEFFERSON COUNTIES, MO | *Project Engineer*

Mr. Ong provided traffic data collection services at 49 locations throughout St. Louis and Jefferson counties as part of a larger signal timing project to be completed on several different MoDOT routes. Sanders collected weekday and weekend traffic data at the intersections many which required multiple cameras. Project locations along MO Route 30, MO Route A and Interstate 270 included numerous standard intersections and unique layouts including a Diverging Diamond Interchange (DDI) and a Continuous Flow Intersection (CFI). The project included approximately 650 hours of video recording.

EDUCATION

BS, Civil Engineering
University of Missouri & Washington
University Joint Engineering Program
St. Louis, MO

PROFESSIONAL EXPERIENCE

8 years with TERRA
1 years prior to TERRA

LICENSES | CERTIFICATES

Engineer Intern /
Engineer In Training
EI-2015039641 (MO, 2015)

PROFESSIONAL AFFILIATIONS

Engineers Club of St. Louis, Member





WENDY BONICK, EIT

Traffic Engineer I

Versatile Civil Environmental Engineer with expertise in design, project management, and sustainability. Proficient in MicroStation CAD, WaterGEMS, HEC-RAS and Geostudio, with a strong track record recording environmental assessments and site planning. Certified EIT and TESOL/TEFL professional with multilingual skills (English, Mandarin) and international teaching experience. Adept at simplifying complex concepts, fostering collaboration, and delivering innovative, sustainable solutions. She is an aspiring water resource engineer.

EVANSTON SIGNAL OPTIMIZATION

CHICAGO, IL | *Traffic Technician*

Wendy assisted in the modernization of signal timing along a collector road in the City of Evanston. She collected high-resolution traffic data at several signalized intersections and was instrumental in setting up the Synchro models used to analyze existing traffic conditions. Her work supported the development of optimized timing plans to reduce idling and improve corridor throughput.

ANTIOCH EARLY LEARNING CENTER TRAFFIC IMPACT STUDY

ST. LOUIS, MO | *Traffic Engineer*

Wendy performed a comparative Traffic Impact Study for two potential development sites for a new early learning center. She led the data collection process and analyzed the trip generation characteristics for the facility. Her analysis provided the client with a technical basis for selecting the site that offered the safest and most efficient traffic circulation for students, parents and staff. Later, Wendy drafted a follow-up traffic study using site design for one of the two sites discussed.

SIUC MASTER PLAN

CARBONDALE, IL | *Traffic Technician*

As part of the Southern Illinois University Carbondale Master Plan, Wendy conducted the parking analysis. She collected extensive parking lot occupancy data and conducted both quantitative and qualitative evaluations of the university's decal system. Her findings were integrated into the final master plan study to help the university optimize its existing parking assets and improve campus-wide navigation.

LOYOLA MASTER PLAN

CHICAGO, IL | *Traffic Engineer*

Wendy set up and recorded parking occupancy of lots and parking deck across campus to collect volume vs. time data on each of the parking lots. After analyzing the data, Wendy drafted the parking study highlighting the change of occupancy in each lot with respect to time and made recommendations about parking diversion during construction in the parking study.

BP GAS STATION @ 31ST ST & MICHIGAN AVE TRAFFIC STUDY

CHICAGO, IL | *Traffic Technician*

Wendy assisted in the technical data collection and modeling efforts for a proposed site expansion involving the addition of a carwash and restaurant. She collected field data at multiple signalized intersections to establish a baseline for existing traffic conditions. Using Synchro, Wendy assisted in building a traffic model to analyze potential increases in delay in the 31st Street and Michigan Avenue corridors. She authored the final Traffic Impact Study (TIS), which evaluated the site's capacity to handle new trip generation without compromising intersection levels of service.

EDUCATION

BS, Civil Environmental Engineering
University of Alberta-Edmonton, AB

PROFESSIONAL EXPERIENCE

1 year with TERRA

LICENSES | CERTIFICATES

Engineer in Training (2024)





Kyle Roberts, PE, PTOE

TRANSPORTATION ENGINEER & PLANNER

Areas of Expertise

- Transportation planning
- Traffic design and analysis
- Signal timing
- Traffic safety studies
- Traffic data collection
- Synchro, SimTraffic, HCS, SIDRA, VISSIM, VISTRO, TransModeler, MicroStation, ArcGIS, JAMAR

Education

- BS, Civil Engineering

Registration/Certification

- Licensed Professional Engineer – Maryland #46847
- Professional Traffic Operations Engineer #4000

Memberships

- Institute of Transportation Engineers (ITE)

Kyle has 15 years of experience in Traffic Impact Analysis (TIS), multimodal traffic operations analysis, transportation planning, signal timing, traffic control studies, bicycle and pedestrian facility planning, design and analysis, traffic safety studies, traffic modeling and simulation, and traffic data collection. Data collection includes travel time, origin-destination studies, speed, gap, queues, and stopped delay. Kyle is versed in Synchro, SimTraffic, Highway Capacity Software, SIDRA, VISSIM, VISTRO, TransModeler, MicroStation, ArcGIS, and JAMAR and knowledgeable in the Manual on Uniform Traffic Control Devices (MUTCD), Federal Highway Administration (FHWA), Maryland Department of Transportation State Highway Administration (MDOT SHA), Institute of Transportation Engineers (ITE), NACTO, and AASHTO standards.

PROJECT EXPERIENCE

St. Paul and Calvert Two-Way Conversion Feasibility Study, Baltimore City Department of Transportation (BCDOT), Baltimore, MD

Traffic Engineer. Kyle was responsible for a comprehensive study of the impacts of converting street patterns for over 40 blocks from the Inner Harbor to Johns Hopkins. He was responsible for multimodal traffic, parking and origin-destination data collection, public opinion survey, crash data review, traffic operations analysis and modeling, transit operations analysis, stakeholder and public engagement, and development of design concepts for two-way flow including parking, traffic control and lane use changes, and cost estimates.

Downtown Annapolis Duke of Gloucester/ Main Street Two-Way Traffic Study, Annapolis, MD

Traffic Engineer. Kyle was responsible for multimodal traffic data collection, analysis of street pattern changes, parking inventory and utilization analysis, transit operations analysis, traffic safety analysis, travel forecasts, public outreach, stakeholder coordination, and development of recommendations to enhance safety and mobility in this historic waterfront neighborhood.

Downtown and Beachfront Street Pattern Study, City of Clearwater, FL

Lead Traffic Engineer. Kyle was responsible for traffic data collection, traffic modeling and simulation, traffic safety analysis, development of concept plans and typical sections, bicycle, pedestrian and transit impacts, traffic control changes, curbside management impacts, and stakeholder and public outreach for street pattern changes along Myrtle Avenue, Prospect Avenue, Gulfview Blvd, and Coronado Drive to address strategic city multimodal mobility goals.

Traffic Studies, MD 198 Corridor Study, Maryland Department of Transportation State Highway Administration (MDOT SHA), Anne Arundel County, MD

Project Engineer. Kyle performed operational analysis for the MD 198 (Laurel Fort Meade Road) corridor between Russett Green East and MD 295 (Baltimore Washington Parkway). Project work included extensive field review, peak-hour field observations, and compilation of baseline roadway, traffic, and signal operations data. He analyzed crash data and developed and calibrated existing conditions Synchro traffic models. Kyle also developed background traffic volumes, travel forecasts for years 2025 and 2040, and analysis of future build and no-build scenarios.

Kyle Roberts, PE, PTOE

TRANSPORTATION ENGINEER & PLANNER

Continued

Safety Study, Audible Visual Pedestrian Warning System Effectiveness, MDOT MTA, Baltimore, MD

Senior Project Manager. Kyle was responsible for evaluation of the effectiveness of implementing audio-visual pedestrian warning signs at the Pratt Street Station along the Central Light Rail Line. The project included a Before and After study of risky behavior data collection, analysis, assessment, and executive briefing to MDOT MTA.

Belair Road/Gay Street Corridor Bus Priority Engineering, MDOT MTA, Baltimore, MD

Project Manager. Kyle is the project manager responsible for performing transportation planning and preliminary engineering design along the MDOT MTA designated Belair Road/Gay Street bus priority route between Preston Street and Moravia Road. The study incorporates dedicated bus lanes, bus stop enhancements, curb extensions, transit signal priority, pedestrian hybrid beacons/ HAWKS /RRFBs, median refuges, and other bus priority design elements. Kyle evaluated the removal of the reversible lane segment on Gay Street and a queue jump at the Belair Road at North Avenue intersection.

Traffic Study, MD 108 Clarksville Pike Corridor Study and Preliminary Engineering Howard County, MD

Project Engineer. Kyle was responsible for a corridor study to identify improvements that support planned growth while continuing to serve the region as a commuter route. Project work included traffic data collection, development and calibration of a Synchro traffic model, review of land use forecasts and historical crash data, documentation of existing pedestrian and bicycle infrastructure, and traffic operations analysis. The study concluded with the development of alternative improvements to provide continuous pedestrian and bicycle infrastructure and improve traffic operations.

Traffic Study, MD 27 Corridor Study, Town of Mount Airy, MD

Traffic Engineer. Kyle was responsible for performing a corridor study to identify improvements that support planned growth while continuing to serve the region as a commuter route. Work included traffic data collection for vehicles, bikes, and pedestrians, collection and analysis of travel time data, and development and calibration of a Synchro traffic model. The corridor study documented existing pedestrian and bicycle infrastructure, identified gaps and barriers, and analyzed traffic operations.



Roshan Singh, PE, PTOE

MULTIMODAL ENGINEER & PLANNER

Areas of Expertise

- Traffic engineering
- Transportation planning
- Traffic safety and crash analysis
- Traffic operations analysis
- Traffic impact studies
- Traffic noise modeling
- Signal warrant studies
- Synchro, SimTraffic, Vissim, Vistro, TransModeler, HCS, SIDRA, CLV, IHSDM, ISATe

Education

- BS, Civil Engineering

Registration/Certification

- Licensed Professional Engineer – Maryland #46097
- Professional Traffic Operations Engineer #5120

Memberships

- Institute of Transportation Engineers (ITE)

Roshan has 10 years of experience in traffic engineering working with the Maryland Department of Transportation State Highway Administration (MDOT SHA), Virginia Department of Transportation (VDOT), Maryland Transit Administration (MTA), North Dakota Department of Transportation (NDDOT), North Carolina Department of Transportation (NCDOT), and various county and municipal agencies throughout the Mid-Atlantic. Roshan's area of expertise includes traffic engineering, transportation planning, traffic modeling and simulation, traffic safety studies, traffic impact studies, traffic signal warrants, travel demand forecasting, and transit signalization. He is experienced with Vissim, Synchro/SimTraffic, TransModeler, Vistro, SIDRA, HCS, ISATe, IHSDM, and Cube.

PROJECT EXPERIENCE

Feasibility Study, Polk Street and Burnt Hickory Road Roundabout City of Marietta, GA

Traffic Engineer. Roshan led the traffic, safety, and benefit/cost (B/C) analyses to assess the feasibility of converting the signalized Polk St and Burnt Hickory Rd intersection to a roundabout. The traffic analysis was performed using Synchro and Sidra. The safety analysis was conducted through a review of historical data and Crash Modification Factors (CMF). The B/C analysis was conducted using the NCHRP 220 methodology.

Transit Planning and Design, City and County of Denver, CO

Mead & Hunt was contracted to perform transportation planning and engineering design to explore the feasibility of bus priority configurations and bicycle infrastructure in Downtown Denver, CO.

Interchange Study, I-94 Sunset Drive, North Dakota Department of Transportation (NDDOT), Mandan, ND

Traffic Engineer. Roshan supported the traffic analysis and led the safety analysis for proposed improvements to the I-94/Sunset Drive interchange. The traffic analysis was conducted using Vissim and Synchro under existing and future analyses. The predictive safety analysis was performed using the Interactive Highway Safety Design Model (IHSDM) published by the Federal Highway Administration (FHWA).

Traffic Study, I-70, and Meadow Road Interchange Study, Frederick County, MD

Traffic Engineer. Roshan was responsible for the travel forecast and operation analysis of the I-70 corridor around the I-70/Meadow Road Interchange in Frederick County in support of the design effort to convert it from a half interchange to a full interchange. His responsibilities included: coding a calibrated VISSIM model of the corridor to simulate and analyze existing, No-Build, and Build conditions; and developing Synchro models of the study area for Level-of-Service (LOS) analysis and preliminary signal timing development.

Roshan Singh, PE, PTOE

MULTIMODAL ENGINEER & PLANNER

Continued

SMART SCALE Support, Virginia Department of Transportation (VDOT), Statewide, VA

Traffic Engineer. Roshan was responsible for providing on-site support for two rounds of VDOT's SMART SCALE process. The purpose of SMART SCALE is to prioritize transportation project funding through a process that evaluates each project's merits using key factors, including improvements to safety, congestion reduction, accessibility, land use, economic development, and the environment. His responsibilities included: reviewing projects submitted by Virginia's Metropolitan Planning Organizations (MPO) to ensure they met the SMART SCALE requirements; and analyzing the submitted projects using a common methodology, based on the Highway Capacity Manual (HCM), to ensure they would be fairly ranked against one another.

Traffic Impact Study, University of Maryland, Prince George's County, MD

Traffic Engineer. Roshan was responsible for the Synchro analysis, trip generation, and build condition volume development for the Traffic Impact Study (TIS) of the University of Maryland Innovation District development.

Planning Study, Tuckerman Lane Facility Planning Study, Montgomery County Department of Transportation (MCDOT), Montgomery County, MD

Traffic Engineer. Roshan was responsible for the traffic operations and safety impacts analysis of proposed alternatives along Tuckerman Lane, in Montgomery County. The proposed improvements included multiple left-turn treatments including left-turn lanes, two-way center left turn lanes, and signalization. The traffic analysis was performed using Synchro and the Highway Capacity Software (HCS). The safety analysis was performed using Crash Modification Factors (CMF) and the Highway Safety Manual (HSM) methodology.

Traffic Analysis, NCDOT Express Design Traffic Evaluation (EDTE), North Carolina Department of Transportation (NCDOT), Statewide, NC

Traffic Engineer. Roshan supported Phase 2 and Phase 3A Express Design Traffic Evaluations (EDTE) and was responsible for the Express Design Traffic Analysis (EDTA) for several Level 2 projects. The analyses were conducted using TransModeler and included Base Year No-Build, Future Year No-Build, and Future Year Build conditions as well as the evaluation of intersection MOEs such as level of service, 95th percentile and maximum queues and freeway MOEs including freeway level of service and heat maps. As part of the most recent phase of assignments (Phase 3A), Strategic Transportation Prioritization (SPOT) Travel Time Savings were also evaluated as part of this process for SPOT P7 Carryover projects.

Corridor Study, MD 187 Road Diet, MDOT SHA, Montgomery County, MD

Traffic Engineer. Roshan was responsible for the feasibility analysis of a road diet along three sections of MD 187 in Montgomery County. The purpose of proposed road diet was to improve pedestrian and bike safety along the corridor in response to recent fatal accidents. The analysis was conducted using Synchro, SimTraffic, and bicycle Level of Traffic Stress (LTS). The proposed road diet was implemented along two of the three sections of MD 187: Cedar Lane to Ryland Drive, and Ryland Drive to Tilden Lane. Before/After studies were conducted along these two sections to document and monitor the impacts of the road diets. The Before/After studies considered free flow speeds, travel times, vehicle throughput, intersection, and arterial Level of Service (LOS), possible diversions using local neighborhood roads, and daily cyclists using the new bike lanes.



Joshua Wolfgram, PE, PTOE, RSP1

MULTIMODAL ENGINEER & PLANNER

Areas of Expertise

- Traffic signal timing
- Multimodal design
- Traffic analysis
- Vision Zero Implementation
- Synchro, SimTraffic, MicroStation, and AutoCAD

Education

- MS, Civil Engineering
- BS, Civil Engineering

Registration/Certification

- Licensed Professional Engineer – Illinois #062.076282
- Professional Traffic Operations Engineer #5225
- Road Safety Professional Level 1 Certification #694

Memberships

- Institute of Transportation Engineers (ITE) - Traffic Engineering Council (TENC) Signal Design and Operations Subcommittee Co-Chair
- National Committee on Uniform Traffic Control Devices (NCUTCD) – Bicycle Technical Committee Member

Joshua has eight years of progressive, hands-on experience in traffic engineering including traffic signal timing optimization, traffic operations and safety analysis, multimodal design, and Vision Zero implementation. He is well-versed with MUTCD, FHWA, NACTO, and ITE standards and guidelines, and is experienced with Synchro, SimTraffic, MicroStation, and AutoCAD. Joshua has significant multimodal experience including development of Leading Pedestrian Interval (LPI) implementation policies; implementation of Vision Zero quick-build infrastructure (including Dual Turn Conflict Mitigation, No Turn on Red and Left Turn Traffic Calming); and retiming of bicycle signals for optimal progression and evaluation of pedestrian and bicycle clearances. Joshua has spearheaded bus and bicycle facility corridor design projects, including signing/pavement marking design, traffic signal design, Maintenance of Traffic (MOT) design, and coordinated with roadway design engineers for civil and drainage design. Joshua has also managed standalone traffic signal design projects and Vision Zero quick-build designs.

PROJECT EXPERIENCE

City-Wide Traffic Signal Optimization Services, District Department of Transportation (DDOT), Washington, DC

Traffic Engineer. Joshua is responsible for optimizing coordinated signal timings in multiple networks and the Central Business District (CBD) in Washington, DC, including 1,600+ signals to date. The optimization strategy is to balance queue management and congestion mitigation with multimodal timing and Vision Zero initiatives, including network-wide implementation of Leading Pedestrian Intervals (LPI), pretiming and Age-Friendly timings. Joshua has also developed and tested complex signal phasing treatments to protect bicyclists from turning movements and implemented progression enhancements to provide bicycle “green waves.” In addition to signal timing work, he coordinated and developed designs for Vision Zero quick-build projects and reviewed Highway Safety Improvement Program (HSIP) study recommendations and design drawings for DDOT. Joshua has also responded to and developed solutions for 300+ citizen timing and safety requests.

City-Wide Traffic Engineering Design, DDOT, Washington, DC

Traffic Engineer. Joshua was responsible for performing traffic alternatives analysis, reviewing signing/marking plans and coordinated signal timing for the 1-mile-long Irving Street Cycle Track Project, as well as preparing signing/marking plans and signal operational modifications for the 1.4-mile-long Minnesota Avenue Multimodal Project. For the M Street SE Bus and Bicycle Priority Project, MLK Jr. Avenue SE Bus Priority Project Phase 2, and Grant Circle Safety Improvement Project, Joshua served as deputy project manager and provided quality control for the signing and marking plans. Joshua has also served as deputy project manager for the Highway Safety Improvement Program (HSIP) design task through this contract, including overseeing development of signal and signing/marking plans. Joshua also provided signal timing review and design support for the Park Place PBL project, 7th Street NW Busway project, 16th Street NW Bus Lanes project, 9th Street NW Cycle Track Project, and Virginia Avenue NW Cycle Track project (including development of complex bicycle signal phasing for the latter two projects). Joshua has coordinated and prepared work orders in response to Traffic Safety Investigation requests from residents. In addition to review and design support, Joshua has also prepared conceptual drawings for Brookland livability improvements and Park Place NW PBL cross-sections, and analysis of the Black Lives Matter Plaza 16th Street redesign.

Joshua Wolfgram, PE, PTOE, RSP1

MULTIMODAL ENGINEER & PLANNER

Continued

Downtown Bus Priority Project, Denver Department of Transportation and Infrastructure, Denver, CO

Traffic Engineer. Joshua was responsible for providing design review for the Blake Street protected bike lanes (PBL) project and conducting traffic alternatives analysis for bus priority enhancements at critical intersections along the corridor. He reviewed bike corridors for traffic signal enhancements to improve bike safety at locations with high turning volumes, including exclusive bicycle phases, protected turning phases, and flashing yellow arrow protected-permissive operations. Joshua assisted with the preparation of signal timing plan markups to implement phasing and operational changes related to transit priority.

Traffic & Transportation Engineering On-Call, Howard County, MD

Traffic Engineer. Joshua coordinated development of Howard County's Leading Pedestrian Interval (LPI) framework and implementation policy including literature review, site review and testing of proposed guidelines. Joshua prepared the summary memo and guideline recommendations, as well as evaluated pilot test locations for the implementation of LPIs.

White House Complex Traffic Signal Preemption Control, DDOT, Washington, DC

Traffic Engineer. Joshua was responsible for preparing signal design modification plans for implementation of traffic signal preemption to enhance law enforcement safety at five locations surrounding the White House Complex. He developed the custom electrical design and logic programming for a preemption control box, a paired wireless contact closure and antenna, and associated wiring and traffic signal cabinet hardware. Joshua also participated in the field investigation, coordination with US Secret Service and White House Complex staff, and development and approval of appropriate traffic signal controller feedback loops for wireless preemption confirmation.

Safe Routes to School Planning, DDOT, Washington, DC

Traffic Engineer. Joshua served as Lead Engineer and as a designer for the Safe Routes to School Planning project, which developed Action Plans for 25 schools per year in Washington, DC. Joshua supported the development of safety and operational recommendations for school zones and performed quality assurance/quality control (QA/QC) of engineering design plans, including signing, pavement markings, and civil elements (e.g., Americans with Disabilities Act [ADA] ramps, refuge islands, curb extensions). He led traffic studies evaluating circulation and control changes, such as all-way stops and one-way conversions, and developed signal timing recommendations to enhance school crossing safety.

On-Call Traffic Engineering Support, Virginia Department of Transportation (VDOT), Statewide, VA

Traffic Engineer. Joshua performed a literature review of existing Leading Pedestrian Interval policies and prepared a draft Leading Pedestrian Intervals (LPI) implementation framework for VDOT. Joshua also oversaw the data analysis and testing of the framework for 20 pilot locations. Joshua also served as a consultant representative within VDOT's SFOE Pedestrian Subcommittee, advising on pedestrian-related signal operations topics and providing external agency perspectives.

North Avenue Rising TIGER Bus Lane Planning and Design, Baltimore, MD

Traffic Engineer. Joshua was responsible for providing technical assistance and serving as a resource for design for a 5-mile road diet with dedicated bus lanes. He primarily served as a technical expert regarding the design and operation of bicycle signals.



TERRA
ENGINEERING LTD.

05

PROPOSED

FEES

SIGNAL TIMING AND PROGRESSION

Role	Hours	Rate	Cost
Traffic Practice Lead	160	\$228	\$36,480
Senior Engineer	200	\$179	\$35,800
Mid-Level Engineer	250	\$156	\$39,000
Traffic Engineer II	350	\$120	\$42,000
Traffic Engineer I	200	\$95	\$19,000
Direct Costs			\$40,000
TOTAL	1,160		\$212,280

CORRIDOR TRAFFIC STUDY

Role	Hours	Rate	Cost
Traffic Practice Lead	120	\$228	\$27,360
Senior Engineer	100	\$179	\$17,900
Mid-Level Engineer	120	\$156	\$18,720
Traffic Engineer II	200	\$120	\$24,000
Traffic Engineer I	200	\$95	\$19,000
Direct Costs			\$5,000
TOTAL	740		\$111,980

DRIVEWAY CONSOLIDATION

Role	Hours	Rate	Cost
Traffic Practice Lead	100	\$228	\$22,800
Senior Engineer	200	\$179	\$35,800
Mid-Level Engineer	120	\$156	\$18,720
Traffic Engineer II	120	\$120	\$14,400
Traffic Engineer I	120	\$95	\$11,400
Direct Costs			\$5,000
TOTAL	660		\$108,120

Traffic Engineering - Traffic Study

Signal Timing & Progression:	\$212,280
Corridor Traffic Study:	\$111,980
Driveway Consolidation:	\$108,120
TOTAL:	\$432,380





TERRA
ENGINEERING LTD.

06

REQUIRED

FORMS

PROPOSER SUMMARY SHEET

RFP #26-043

Traffic Improvement Studies

Business Name: TERRA Engineering, Ltd.

Street Address: 225 W. Ohio Street 4th Floor

City, State, Zip: Chicago, IL, 60654

Contact Name: Karen Steingraber

Title: President

Phone: 312.467.0123 Fax: 312.467.0220

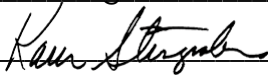
E-Mail address: ksteingraber@terraengineering.com

Price Proposal

PROPOSAL TOTAL \$ 432,380

AUTHORIZATION & SIGNATURE

Name of Authorized Signee: Karen Steingraber

Signature of Authorized Signee: 

Title: President Date: 6/29/26

 ORLAND PARK
CERTIFICATE OF COMPLIANCE

The undersigned Karen Steingraber, as President
(Enter Name of Person Making Certification) (Enter Title of Person Making Certification)

and on behalf of TERRA Engineering, Ltd., certifies that:
(Enter Name of Business Organization)

1) BUSINESS ORGANIZATION:

The Proposer is authorized to do business in Illinois: Yes ☒ No ☐

Federal Employer I.D.#: 36-3853964
(or Social Security # if a sole proprietor or individual)

The form of business organization of the Proposer is (check one):

☐ Sole Proprietor
☐ Independent Contractor (Individual)
☐ Partnership
☐ LLC
☒ Corporation Illinois 10/14/1992
(State of Incorporation) (Date of Incorporation)

2) STATUS OF OWNERSHIP

Illinois Public Act 102-0265, approved August 2021, requires the Village of Orland Park to collect "Status of Ownership" information. This information is collected for reporting purposes only. Please check the following that applies to the ownership of your business and include any certifications for the categories checked with the proposal. Business ownership categories are as defined in the Business Enterprise for Minorities, Women, and Persons with Disabilities Act, 30 ILCS 575/0.01 et seq.

Minority-Owned ☐ Small Business ☐ ([SBA standards](#))
Women-Owned ☒ Prefer not to disclose ☐
Veteran-Owned ☐ Not Applicable ☐
Disabled-Owned ☐

How are you certifying? Certificates Attached ☒ Self-Certifying ☐

STATUS OF OWNERSHIP FOR SUBCONTRACTORS

This information is collected for reporting purposes only. Please check the following that applies to the ownership of subcontractors.

Minority-Owned ☐ Small Business ☐ ([SBA standards](#))
Women-Owned ☐ Prefer not to disclose ☐
Veteran-Owned ☐ Not Applicable ☐
Disabled-Owned ☐

3) **ELIGIBILITY TO ENTER INTO PUBLIC CONTRACTS:** Yes ☒ No ☐

The Proposer is eligible to enter into public contracts, and is not barred from contracting with any unit of state or local government as a result of a violation of either Section 33E-3, or 33E-4 of the Illinois Criminal Code, or of any similar offense of "Bid-rigging" or "Bid-rotating" of any state or of the United States.

4) **SEXUAL HARASSMENT POLICY:** Yes ☒ No ☐

Please be advised that Public Act 87-1257, effective July 1, 1993, 775 ILCS 5/2-105 (A) has been amended to provide that every party to a public contract must have a written sexual harassment policy in place in full compliance with 775 ILCS 5/2-105 (A) (4) and includes, at a minimum, the following information: (I) the illegality of sexual harassment; (II) the definition of sexual harassment under State law; (III) a description of sexual harassment, utilizing examples; (IV) the vendor's internal complaint process including penalties; (V) the legal recourse, investigative and complaint process available through the Department of Human Rights (the "Department") and the Human Rights Commission (the "Commission"); (VI) directions on how to contact the Department and Commission; and (VII) protection against retaliation as provided by Section 6-101 of the Act. (Illinois Human Rights Act). (emphasis added). Pursuant to 775 ILCS 5/1-103 (M) (2002), a "public contract" includes "...every contract to which the State, any of its political subdivisions or any municipal corporation is a party."

5) **EQUAL EMPLOYMENT OPPORTUNITY COMPLIANCE:** Yes ☒ No ☐

During the performance of this Project, Proposer agrees to comply with the "Illinois Human Rights Act", 775 ILCS Title 5 and the Rules and Regulations of the Illinois Department of Human Rights published at 44 Illinois Administrative Code Section 750, et seq.

The Proposer shall: (I) not discriminate against any employee or applicant for employment because of race, color, religion, sex, marital status, national origin or ancestry, age, or physical or mental handicap unrelated to ability, or an unfavorable discharge from military service; (II) examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization; (III) ensure all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, marital status, national origin or ancestry, age, or physical or mental handicap unrelated to ability, or an unfavorable discharge from military service; (IV) send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the Vendor's obligations under the Illinois Human Rights Act and Department's Rules and Regulations for Public Contract; (V) submit reports as required by the Department's Rules and Regulations for Public Contracts, furnish all relevant information as may from time to time be requested by the Department or the contracting agency, and in all respects comply with the Illinois Human Rights Act and Department's Rules and Regulations for Public Contracts; (VI) permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency and Department for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and Department's Rules and Regulations for Public Contracts; and (VII) include verbatim or by reference the provisions of this Equal Employment Opportunity Clause in every subcontract it awards under which any portion of this Agreement obligations are undertaken or assumed, so that such provisions will be binding upon such subcontractor. In the same manner as the other provisions of this Agreement, the Proposer will be liable for compliance with applicable provisions of this clause by such subcontractors; and further it will promptly notify the contracting agency and the Department in the event any subcontractor fails or refuses to comply therewith. In addition,

the Proposer will not utilize any subcontractor declared by the Illinois Human Rights Department to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations. Subcontract" means any agreement, arrangement or understanding, written or otherwise, between the Proposer and any person under which any portion of the Proposer's obligations under one or more public contracts is performed, undertaken or assumed; the term "subcontract", however, shall not include any agreement, arrangement or understanding in which the parties stand in the relationship of an employer and an employee, or between a Proposer or other organization and its customers. In the event of the Proposer's noncompliance with any provision of this Equal Employment Opportunity Clause, the Illinois Human Right Act, or the Rules and Regulations for Public Contracts of the Department of Human Rights the Proposer may be declared non-responsible and therefore ineligible for future contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and this agreement may be canceled or avoided in whole or in part, and such other sanctions or penalties may be imposed or remedies involved as provided by statute or regulation.

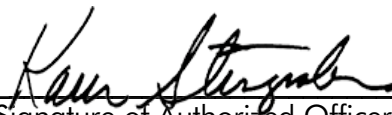
6) **TAX CERTIFICATION:** Yes ☒ No ☐

Contractor is current in the payment of any tax administered by the Illinois Department of Revenue, or if it is: (a) it is contesting its liability for the tax or the amount of tax in accordance with procedures established by the appropriate Revenue Act; or (b) it has entered into an agreement with the Department of Revenue for payment of all taxes due and is currently in compliance with that agreement.

7) **AUTHORIZATION & SIGNATURE:**

I certify that I am authorized to execute this Certificate of Compliance on behalf of the Contractor set forth on the Proposal, that I have personal knowledge of all the information set forth herein and that all statements, representations, that the Proposal is genuine and not collusive, and information provided in or with this Certificate are true and accurate. The undersigned, having become familiar with the Project specified, proposes to provide and furnish all of the labor, materials, necessary tools, expendable equipment and all utility and transportation services necessary to perform and complete in a workmanlike manner all of the work required for the Project.

ACKNOWLEDGED AND AGREED TO:



Signature of Authorized Officer

Karen Steingraber

Name of Authorized Officer

President

Title

6/29/26

Date

Certification: View[Certification List](#)[Submit Change Request](#)[View Letters & Certificates](#)[Add Date Alert](#)**Vendor Information**

BUSINESS NAME	Terra Engineering, Ltd.
SYSTEM VENDOR NUMBER	20061427
PRIMARY OWNER'S NAME	Ms. Karen Steingraber
ETHNIC GROUP	Caucasian
GENDER	Female

Certification Information

CERTIFYING AGENCY	City of Chicago
CERTIFICATION TYPE	WBE - Women Business Enterprise
EFFECTIVE DATE	5/5/2026
RENEWAL DATE	6/15/2027

Contact Information

MAIN COMPANY EMAIL	elim@terraengineering.com
MAIN PHONE	312-467-0123
MAIN FAX	312-467-0220
MAIN COMPANY WEBSITE	http://www.terraengineering.com

Addresses

PHYSICAL ADDRESS	225 W. Ohio St., 4th Floor Chicago, IL 60654 [map]
MAILING ADDRESS	225 W. Ohio St., 4th Floor Chicago, IL 60654 [map]

Business Capabilities

BUSINESS CERTIFIED FOR	NAICS 541320 Landscape architectural services NAICS 541330 Engineering services NAICS 541370 Surveying and mapping services (except geophysical)
------------------------	---

FULL DESCRIPTION OF
CAPABILITIES/PRODUCTS

NAICS 541320 Landscape architectural services
NAICS 541330 Engineering services
NAICS 541370 Surveying and mapping services (except geophysical)

COMMODITY CODES

NAICS 541320 **Landscape architectural services** ([More](#))
NAICS 541330 **Engineering services** ([More](#))
NAICS 541370 **Surveying and mapping services (except geophysical)** ([More](#))

Owner Ethnicity and Gender

ETHNIC GROUP **Caucasian**
 GENDER **Female**
 DBE ETHNIC GROUP **Caucasian**

Location

COUNTY **Cook (IL)**

Additional Information

WARD **42**
 COMMUNITY AREA **8 Near North Side**
 QUALIFIED INVESTMENT AREA **N/A**

Letters & Certificates

View	Letter Type	Format	Date Sent	Viewed In System By Vendor
View	Approval Letter	Email	5/5/2026	-

Certification List

This profile was generated on 5/7/2026



CITY OF CHICAGO

DEPARTMENT OF PROCUREMENT SERVICES

JUN 3 0 2023

Karen Steingraber
Terra Engineering, Ltd.
225 W. Ohio St., 4th Fl.
Chicago, IL 60654

RE: CONTINUATION OF CERTIFICATION

Dear Ms. Steingraber:

We are pleased to inform you that **Terra Engineering, Ltd.** continues to be certified as a **Women-Owned Business Enterprise ("WBE")** by the City of Chicago ("City"). This recertification is a continuation of your previous certification which expired **April 1, 2020** and will remain effective for as long as your firm continues to meet all certification eligibility requirements and is contingent upon the firm affirming its eligibility by filing an **annual No-Change Affidavit** each year. In the past, the City has provided you with an annual letter confirming your certification; such letters will no longer be issued. Therefore, we require you to be even more diligent in filing your **annual No-Change Affidavit 60 calendar days before your annual anniversary date of June 15th.**

It is now your responsibility to check the City's certification directory and verify your certification status. As a condition of continued certification, you must **file an annual No-Change Affidavit 60 calendar days before your anniversary date of June 15th.** Please remember, you have an affirmative duty to file your No-Change Affidavit 60 days prior to the anniversary date for timely processing. Failure to file your annual No-Change Affidavit may result in the suspension or rescission of your certification.

It is important to note that you also have an ongoing affirmative duty to notify the City of any changes in ownership or control of your firm, or any other fact affecting your firm's eligibility for certification **within 10 days** of such change. These changes may include but are not limited to a change of address, change of business structure, change in ownership or ownership structure, change of business operations, gross receipts and or personal net worth that exceed the program threshold. Failure to provide the City with timely notice of such changes may result in the suspension or rescission of your certification. In addition, you may be liable for civil penalties under Chapter 1-22, "False Claims", of the Municipal Code of Chicago.

You shall be deemed to have had your certification lapse and will be ineligible to participate as an **WBE** if you fail to:

- File your annual No-Change Affidavit within the required time period;
- Provide financial or other records requested pursuant to an audit within the required time period;

- Notify the City of any changes affecting your firm's certification **within 10 days** of such change; or
- File your recertification within the required time period.

You have an obligation to cooperate with the City with any reviews, audits or investigation of its contracts and affirmative action programs. We strongly encourage you to assist us in maintaining the integrity of our programs by reporting instances or suspicions of fraud or abuse to the **City's Inspector General at chicagoinspectorgeneral.org, or 866-IG-TIPLINE (866-448-4754).**

If you or your firm is found to be involved in certification, bidding and/or contractual fraud or abuse, the City will pursue decertification and debarment. In addition to any other penalty imposed by law, any person who knowingly obtains, or knowingly assists another in obtaining a contract with the City by falsely representing the individual or entity, or the individual or entity assisted is guilty of a misdemeanor, punishable by incarceration in the county jail for a period not to exceed six months, or a fine of not less than \$5,000 and not more than \$10,000 or both.

Your firm's name will be listed in the City's Directory of Minority and Women-Owned Business Enterprises in the specialty area(s) of:

NAICS Code(s):

541320 – Landscape Architectural Services

541330 – Engineering Services

541370 – Surveying and Mapping Services (Except Geophysical)

Your firm's participation on City contracts will be credited only toward **WBE** goals in your area(s) specialty. While your participation on City contracts is not limited to your area of specialty, credit toward goals will be given only for work that is self-performed and providing a commercially useful function that is done in the approved specialty category.

Thank you for your interest in the City's Minority, Women-Owned Business Enterprise, Veteran-Owned Business Enterprise and Business Enterprise Owned or Operated by People with Disabilities (MBE/WBE/VBE/BEPD) Program.

Sincerely,



Tammi Morgan
Contracting Equity Officer

TM/fn 



REFERENCES

Provide three (3) references for which your organization has performed similar work.

Proposer's Name: TERRA Engineering, Ltd.
(Enter Name of Business Organization)

- | | |
|-----------------|---|
| 1. ORGANIZATION | <u>City of Peoria</u> |
| ADDRESS | <u>3505 N. Dries Lane, Peoria, IL 61604</u> |
| PHONE NUMBER | <u>309-494-8816</u> |
| CONTACT PERSON | <u>Andrea Klopfeinstein</u> |
| YEAR OF PROJECT | <u>2026</u> |
| | |
| 2. ORGANIZATION | <u>City of Morris</u> |
| ADDRESS | <u>700 N. Division Street, Morris, IL 60450</u> |
| PHONE NUMBER | <u>815 - 585 - 7441</u> |
| CONTACT PERSON | <u>Stan Knudson</u> |
| YEAR OF PROJECT | <u>2026</u> |
| | |
| 3. ORGANIZATION | <u>City of Manchester</u> |
| ADDRESS | <u>800 Second Street, Manchester, MO 63011</u> |
| PHONE NUMBER | <u>636 - 227 - 1385 x 154</u> |
| CONTACT PERSON | <u>Errol Tate</u> |
| YEAR OF PROJECT | <u>2024</u> |



ORLAND PARK

INSURANCE REQUIREMENTS

Please sign and provide a policy Specimen Certificate of Insurance showing current coverages.

If awarded the contract, all Required Policy Endorsements noted in the left column in **red bold** type **MUST** be provided.

Standard Insurance Requirements	Please provide the following coverage if box is checked.
WORKERS' COMPENSATION & EMPLOYER LIABILITY Full Statutory Limits - Employers Liability \$500,000 – Each Accident \$500,000 – Each Employee \$500,000 – Policy Limit Waiver of Subrogation in favor of the Village of Orland Park AUTOMOBILE LIABILITY (ISO Form CA 0001) \$1,000,000 – Combined Single Limit Per Occurrence Bodily Injury & Property Damage. Applicable for All Company Vehicles. GENERAL LIABILITY (Occurrence basis) (ISO Form CG 0001) \$1,000,000 – Combined Single Limit Per Occurrence Bodily Injury & Property Damage \$2,000,000 – General Aggregate Limit \$1,000,000 – Personal & Advertising Injury \$2,000,000 – Products/Completed Operations Aggregate ADDITIONAL INSURED ENDORSEMENTS: <i>(Not applicable for Goods Only Purchases)</i> ISO CG 20 10 or CG 20 26 (or Equivalent) Commercial General Liability Coverage CG 20 01 Primary & Non-Contributory (or Equivalent) The Village must be named as the Primary Non-Contributory which makes the Village a priority and collects off the policy prior to any other claimants. Blanket General Liability Waiver of Subrogation - Village of Orland Park A provision that prohibits an insurer from pursuing a third party to recover damages for covered losses.	LIABILITY UMBRELLA (Follow Form Policy) ☒ \$1,000,000 – Each Occurrence \$1,000,000 – Aggregate ☐ \$2,000,000 – Each Occurrence \$2,000,000 – Aggregate ☐ Other: _____ EXCESS MUST COVER: General Liability, Automobile Liability, Employers' Liability PROFESSIONAL LIABILITY ☒ \$1,000,000 Limit – Claims Made Form, Indicate Retroactive Date ☐ \$2,000,000 Limit – Claims Made Form, Indicate Retroactive Date ☐ Other: _____ Deductible not-to-exceed \$50,000 without prior written approval ☐ BUILDERS RISK Completed Property Full Replacement Cost Limits – Structures under construction ☐ ENVIRONMENTAL IMPAIRMENT/POLLUTION LIABILITY \$1,000,000 Limit for bodily injury, property damage and remediation costs resulting from a pollution incident at, on or mitigating beyond the job site ☐ CYBER LIABILITY \$1,000,000 Limit per Data Breach for liability, notification, response, credit monitoring service costs, and software/property damage ☐ CG 20 37 ADDITIONAL INSURED – Completed Operations (Provide only if box is checked)

Any insurance policies providing the coverages required of the Consultant, excluding Professional Liability, shall be specifically endorsed to identify "The Village of Orland Park, and their respective officers, trustees, directors, officials, employees, volunteers and agents as Additional Insureds on a primary/non-contributory basis with respect to all claims arising out of operations by or on behalf of the named insured." The required additional Insured coverage shall be provided on the Insurance Service Office (ISO) CG 20 10 or CG 20 26 endorsements or an endorsement at least as broad as the above noted endorsements as determined by the Village of Orland Park. Any Village of Orland Park insurance coverage shall be deemed to be on an excess or contingent basis as confirmed by the required (ISO) CG 20 01 Additional Insured Primary & Non- Contributory Endorsement. The policies shall also contain a Waiver of Subrogation in favor of the Additional Insureds in regard to General Liability and Workers' Compensation coverage. The certificate of insurance shall also state this information on its face. Any insurance company providing coverage must hold an A-, VII rating according to Best's Key Rating Guide. Each insurance policy required shall have the Village of Orland Park expressly endorsed onto the policy as a Cancellation Notice Recipient. Should any of the policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions. Permitting the contractor, or any subcontractor, to proceed with any work prior to our receipt of the foregoing certificate and endorsements shall not be a waiver of the contractor's obligation to provide all the above insurance.

Consultant agrees that prior to any commencement of work to furnish evidence of Insurance coverage providing for at minimum the coverages, endorsements and limits described above directly to the Village of Orland Park, 14700 S. Ravinia Avenue, Orland Park, IL 60462. Failure to provide this evidence in the time frame specified and prior to beginning of work may result in the termination of the Village's relationship with the contractor.

ACCEPTED & AGREED THIS 29th DAY OF June, 2026



Signature

Karen Steingraber, President

Printed Name & Title

Authorized to execute agreements for:

TERRA Engineering, Ltd.

Name of Company



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

6/26/2026

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must have **ADDITIONAL INSURED** provisions or be endorsed. If **SUBROGATION IS WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Edgewood Partners Ins Center 3780 Mansell Rd. Suite 370 Alpharetta GA 30022	CONTACT NAME: ACEC Certificates PHONE (A/C, No, Ext): 770-552-4225 E-MAIL ADDRESS: ACECcertificates@greyling.com FAX (A/C, No):
INSURED Terra Engineering Ltd. 225 West Ohio Street 4th Floor Chicago IL 60654	INSURER(S) AFFORDING COVERAGE INSURER A: Sentinel Insurance Company, Ltd. INSURER B: Hartford Fire Insurance Co and its CA INSURER C: INSURER D: INSURER E: INSURER F:

COVERAGES

CERTIFICATE NUMBER: 63648474

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☒ PRO-JECT ☐ LOC OTHER:	Y	Y	20SBWUH2827	5/27/2026	5/27/2027	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
A	☒ AUTOMOBILE LIABILITY ☒ ANY AUTO ☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS ☒ HIRED AUTOS ONLY ☒ NON-OWNED AUTOS ONLY	Y	Y	20UEGPY4367	5/27/2026	5/27/2027	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	☒ UMBRELLA LIAB ☒ OCCUR ☐ EXCESS LIAB ☐ CLAIMS-MADE DED ☒ RETENTION \$ 10,000	Y	Y	20SBWUH2827	5/27/2026	5/27/2027	EACH OCCURRENCE \$ 10,000,000 AGGREGATE \$ 10,000,000 \$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	Y	20WBGAA7649	5/27/2026	5/27/2027	☒ PER STATUTE ☐ OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Project Reference: Traffic Improvement Studies

The Village of Orland Park, and their respective officers, trustees directors, officials, employees, volunteers, and agents are named as Additional Insureds on the above referenced liability policies with the exception of workers compensation where required by written contract. The above referenced liability policies with the exception of workers compensation are primary & non-contributory where required by written contract. Waiver of Subrogation in favor of Additional Insured(s) where required by written contract & allowed by law. Should any of the above described policies be cancelled by the issuing insurer before the expiration date thereof, 30 days' written notice (except 10 days for nonpayment of premium) will be provided to the Certificate Holder.

CERTIFICATE HOLDER**CANCELLATION**

Village of Orland Park
14700 S. Ravinia Ave.
Orland Park, IL 60462

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

06/25/2026

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Willis Towers Watson Midwest, Inc. c/o 26 Century Blvd P.O. Box 305191 Nashville, TN 372305191 USA	CONTACT NAME: WTW Certificate Center PHONE (A/C, No, Ext): 1-877-945-7378 E-MAIL ADDRESS: certificates@wtwco.com FAX (A/C, No): 1-888-467-2378														
INSURED Terra Engineering, Limited 225 W. Ohio Street, 4th Floor Chicago, IL 60654	<table><tr><th>INSURER(S) AFFORDING COVERAGE</th><th>NAIC #</th></tr><tr><td>INSURER A: Arch Insurance Company</td><td>11150</td></tr><tr><td>INSURER B:</td><td></td></tr><tr><td>INSURER C:</td><td></td></tr><tr><td>INSURER D:</td><td></td></tr><tr><td>INSURER E:</td><td></td></tr><tr><td>INSURER F:</td><td></td></tr></table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: Arch Insurance Company	11150	INSURER B:		INSURER C:		INSURER D:		INSURER E:		INSURER F:	
INSURER(S) AFFORDING COVERAGE	NAIC #														
INSURER A: Arch Insurance Company	11150														
INSURER B:															
INSURER C:															
INSURER D:															
INSURER E:															
INSURER F:															

COVERAGES

CERTIFICATE NUMBER: W46854804

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. *LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS. LIMITS SHOWN ARE INCLUSIVE OF AMOUNTS REQUESTED BY THE CERTIFICATE HOLDER AND MAY NOT REFLECT POLICY LIMIT AMOUNTS IN EXCESS OF THOSE REQUESTED. *Not Applicable in WY

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☐ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☐ PRO-JECT ☐ LOC ☐ OTHER:						EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
	AUTOMOBILE LIABILITY ☐ ANY AUTO ☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS ☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY						COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	UMBRELLA LIAB ☐ OCCUR EXCESS LIAB ☐ CLAIMS-MADE ☐ DED ☐ RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	☐ Y ☐ N	N/A				☐ PER STATUTE ☐ OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
A	Professional Liability			PAAEP0155103	03/01/2026	03/01/2027	Per Claim \$5,000,000 Aggregate \$5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Project: Traffic Improvement Studies

CERTIFICATE HOLDER

CANCELLATION

Village of Orland Park 14700 S. Ravinia Ave. Orland Park, IL 60462	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE 
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BUSINESS RELATIONSHIP DISCLOSURE FORM

Business Relationships. Pursuant to Village Code, all business relationships between vendors and Officials must be disclosed. Vendors and Officials shall complete this Business Relationship Disclosure Form when applicable. Failure to comply shall be considered a violation of the ordinance and can result in penalties.

For Vendors. Any vendor (Person or Entity) who has had any business relationship within the preceding ten years or reasonably expects such a relationship in the following twelve months with a current official or a past official during the preceding 10 years, where such relationship resulted in or is expected to result in financial benefit, shall disclose the following if the relationship entitled the current or past official to compensation, economic opportunity, or payment in excess of \$7,500 annually. A business relationship does not include a political contribution, otherwise duly reported as required by law.

For Officials. Any official who has had any business relationship within the preceding ten years or reasonably expects such a relationship in the following twelve months with a vendor, where such relationship has resulted in or is expected to result in financial benefit, shall disclose the following if the relationship entitled the official to compensation, economic opportunity, or payment in excess of \$7,500 annually. A business relationship does not include a political contribution, otherwise duly reported as required by law.

Submission of a disclosure does not disqualify a Vendor from consideration for a contract, grant, concession, land sale, lease or any other matters subject to the Village approval.

(1) Check applicable box ☒ Vendor (Person or Entity) ☒ Official

(2) For Vendor (Person or Entity)

☒ Vendor does not have a business relationship with any current Village of Orland Park Official or reasonably expect such a relationship in the following twelve months that entitled the Official to compensation, economic opportunity, or payment in excess of \$7,500 annually. See Appendix A for a listing of current Officials. (Please check the box if applicable and complete Certification section only.)

☒ Vendor did not have a business relationship with any past Village of Orland Park Official in the preceding ten (10) years that entitled the past Official to compensation, economic opportunity, or payment in excess of \$7,500 annually. See Appendix B for a listing of past Officials is included with this disclosure form. (Please check the box if applicable and complete Certification section only.)

(3) Please provide the name(s) of the Vendor(s) or Official(s) or related party.

N/A

(4) What is the nature of the business relationship with the Vendor(s) or Official(s) or related party?

N/A

(5) Provide the date(s)[month/year] of engagement or expected engagement:

(6) If the Vendor has been acquired or purchased within the preceding five (5) years:

- a. The date(s) of acquisition of the Vendor: N/A
- b. The name(s) of the preceding Vendor, if changed: _____
- _____

Certification

The undersigned Karen Steingraber, as President, and on
(Print Name of Person Making Disclosure) (Print Title of Person Making Certification)
behalf of TERRA Engineering, Ltd., certifies the information supplied is true and accurate.
(Print Name of Vendor / Official)

Signature: _____



Date: _____

6/29/26

See Appendix A for the List of Current Officials

See Appendix B for the List of Officials for the Past Ten (10) Years