



**Missouri's  
Local  
Program**  
*for community  
development*

## COVER SHEET

(This must accompany your firm's letter of interest and does not count in the page limit)

Firm's Full Legal  
Name:

TERRA Engineering, Ltd.

Firm Contact Name:

M. Christopher Hutchinson, PE, PTOE

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357 Marshall Avenue Suite 6

St. Louis, MO 63119

Work Category:

- Roadway Design
- Trails & Sidewalks
- Construction Inspection
- Traffic Engineering & TEAP
- Structures
- Environmental
- Historic Preservation
- Multimodal Planning / Systems and Facilities Design
- Transportation Planning – **NEW CATEGORY**



### Response to Request for Letter of Interest

TERRA Engineering, Inc. (TERRA), is submitting our Letter of Interest to MoDOT for the Missouri Local Program on-call services for Trails & Sidewalks. The TERRA Team has helped numerous local agencies including counties, cities, and other entities with their trails and sidewalk design needs. TERRA Engineering has completed all of the types of work requested in this category including engineering trail and pedestrian use facilities, environmental clearance, right-of-way, signal and lighting, landscaping and beautification, as well as other work related to trail and sidewalk design. TERRA has an experienced staff and the availability to complete the project on time and on budget and can be available to mobilize quickly to meet each community's needs. It is our goal to provide economical and efficient trail and sidewalk design services that provide a thorough evaluation and design for each of our clients. TERRA has worked on federal-funded projects, including TIGER grant projects and MoDOT LPA projects, and is familiar with the requirements and laws that govern the implementation of these projects.

### General Experience of Firm

TERRA's trails and sidewalks design experience includes working as the prime consultant on numerous trails and/or sidewalks projects throughout the Midwest. TERRA's Team has worked with numerous municipalities throughout the Midwest, on various trail and sidewalk design projects ranging from pedestrian and bicycle facilities to shared-use path connections as well as the creation of a new trail, altogether. These projects require TERRA to assemble a team whose experience matches the specific, tailored needs of each, individual project, which we do so by utilizing members from all of our offices. For every trail and sidewalk design project that we complete, TERRA's Team performs the necessary due diligence to ensure that everything is done to the Client's satisfaction as well as the various procedural requirements set forth by ADA, PROWAG, MoDOT, and/or the various states in which each project is located. Our Team will go out and review the actual project location, after discussing the project details and specifications and wants of the clients. We'll take photos, analyze/measure ADA ramps and curbs, and, when necessary, go out during the elements to see how the street/sewers/trails handle an influx of rain and stormwater. Our Team then sits down to discuss the most cost-efficient and sustainable manner to design or redesign the trail or sidewalk, incorporating public input should a public involvement(s) meeting be necessary. Additionally, with almost every trail or sidewalk project that TERRA takes on, we ensure to incorporate input from our Landscape Architect team to ensure that our final result is not only up to our client's standards but also aesthetically pleasing to the community. TERRA strives to ensure that not only are our designs what the client and community want, but that they meet the standards set forth by MoDOT, ADA, and PROWAG, are as sustainable as possible, and are designed in such a manner so as to prevent the need to revisit these projects for purposes of redesign and/or more-than-normal routine maintenance.

### Past Performance

TERRA understands that the best way for you to evaluate our team and our record of past performance on projects is to contact our references and discuss how they feel about our services. We have provided some examples of TERRA's recent trails and sidewalks design related project experience include the following:

#### Cal-Sag Multi-Use Trail | Cook County, Illinois

The Cal-Sag Trail, located in southern Cook County, is a 26-mile-long bike trail along the Cal-Sag Channel and Little Calumet River. Due to the size and funding for the project, it was split into two segments. The west end of the project begins at Illinois Route 83 near Lemont and continues east to Cicero Avenue in Alsip. Construction of this segment is complete. The east end continues to the Burnham Greenway Trail near the Indiana state line. Construction is underway on several projects within this segment. A total of 12 municipal, park district and forest preserve agencies are participating in the project in addition to the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC). The trail will become a key component of the Grand Illinois Trail by achieving connectivity to the Centennial Trail in Lemont (and the 92-mile DuPage County network) and the Burnham Greenway (and the entire Chicago bike trail network, including the Lakefront Trail) near the Indiana state line. Direct connectivity will also be achieved with the Tinley Creek Trail system, the Palos Forest Preserve Trail system as well as the Major Taylor Trail. The project included preparation of a Planning Report for each of the two segments. The preparation of the report involved the selection of the project corridor, topographic survey of the proposed path, development of horizontal and vertical geometrics, and public involvement. Alternative alignment studies were also performed at several locations to summarize the various opportunities and constraints for the various alignment choices. New prefabricated steel bridge structures will be constructed at several locations across streams. In addition, slopewall modifications will be performed at numerous existing roadway bridge locations to allow the path to be constructed under the roadway adjacent to the channel. Mr. David Landeweer has been involved with the planning and design of the Cal-Sag Trail since its inception. He prepared applications for, and assisted



in the obtaining of, vital federal funds. As a result, IDNR, STP, CMAQ and Enhancement dollars have been obtained to fund the entire project through construction. Since joining TERRA, Mr. Landeweer has continued to assist in the design of the east end. In addition, TERRA was selected to perform construction engineering for several individual projects on the east end.

- **Key Personnel:** *Dave Landeweer, PE, ENV SP | Kristen Fields, PE, SE | Keven Graham, FASLA, PLA, CLARB*
- **Reference:** *Mike Miller, City of Blue Island | 708.396.7143 | Jeannette Huber, Alsip Park District | 708.389.1003 | Dawn Haley, Village of Riverdale | 708.849.1798 | Jerome Jones, Dolton Park District, 708.841.2111*

**2019 ADA Ramps and Sidewalk Replacement Program | University City, Missouri**

TERRA assisted the City of University City with their 2019 ADA Ramp and Sidewalk Replacement Program. TERRA was tasked with evaluating 17 intersections in two (2) City neighborhoods, which had deficient sidewalks and curb ramps. TERRA's Team collected field data at each existing location, which included existing longitudinal and cross slope data, ADA compliant paths, location of adjacent obstructions or utilities, and other data, to better understand the challenges on each corner. TERRA then classified each ramp corner into three (3) different categories:

- Category 1:** Allows for construction using existing design standards without individual details.
- Category 2:** Requires a basic design sketch that modifies a standard design.
- Category 3:** Requires a full, unique design specific to that corner, including a full topographic survey at each location as well as a full design with spot elevations for layout.

TERRA provided full bid documents to the City for this project, which was combined with the City's annual sidewalk replacement program and bid.

- **Key Personnel:** *Chris Hutchinson, PE, PTOE | Jason Heinekamp, PE | Colin Coad, PE, PTOE, VMA*
- **Reference:** *Errol Tate, City of Manchester | 314.505.8571 | etate@manchestermo.gov*

**Qualifications of Personnel**

**Project Manager-Trails | Dave Landeweer, PE, ENV SP** – 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, with extensive experience in multi-use trails and bicycle path design. His experience includes all phases of transportation engineering, including preliminary and conceptual engineering as well as design plan preparation. Mr. Landeweer's experience also includes all aspects of civil engineering such as horizontal and vertical geometry, pavement geometrics, maintenance of traffic, drainage (including detention), pavement design, traffic signal/interconnect design, street lighting design, and landscaping. He has an extensive knowledge of the AASHTO Policy on Geometric Design, the AASHTO Guide for the Development of Bicycle Facilities, and the Manual on Uniform Traffic Control Devices as well as other state and local design manuals. Dave led or played an integral role in the design on various projects, such as the Cal-Sag Multi-Use Trail, the Riverfront Park Master Plan, and the Wood Dale Bike Trail projects.

**Project Manager-Sidewalks | Chris Hutchinson, PE, PTOE** – Mr. Hutchinson has acquired more than 20 years of experience in providing traffic and transportation engineering services for a variety of projects and clients. Chris has completed numerous projects throughout the Midwest, with a focus on sidewalk design at the replacement and/or new construction level. His experience includes traffic modeling and analysis, traffic signal design, signal optimization, sidewalk design, roadway design, and traffic studies. He has been trained and certified in MoDOT's LPA process and will be responsible for ensuring our team utilizes the LPA process and will manage this process for any On-Call tasks with an LPA. Chris has worked on various sidewalk design projects including the 2019 ADA Ramps and Sidewalks Replacement Program and the Washington Street TIGER II Complete Streets project.

**Project Manager-Sidewalks | Kelley Davis, PE** – Kelley is a Senior Project Manager with more than 26 years of experience in trails and bicycle path, roadway, multi-modal infrastructure and stormwater design. She serves as Project Manager or Roadway Design Lead on high visibility municipal projects, coordinating directly with local agencies and utility providers. Kelley manages federally funded LPA projects from concept through PS&E, including scope and fee development, budget control and coordination of survey, utilities and ROW clearance.

**Project Manager-Landscape Architect | Keven Graham, FASLA, PLA, CLARB** – Mr. Graham has over 25 years of experience in the enhancement of parks and public spaces, including the preparation of final design and construction documents. He is a past president of the Illinois Chapter of the American



Society of Landscape Architects and is actively involved in the creation of environmentally sustainable design solutions for site development. He has worked with all our Project Managers as well as Design Engineers on parks, trails, roadway, and sidewalk projects, ensuring that the final product of each project is not only within budget and sustainable but also aesthetically pleasing. His experience includes the Cal-Sag Multi-Use Trail, the Washington Street TIGER II Complete Streets, and the Riverfront Master Planning projects.

### Additional Personnel

- George Ghareeb, PE | Principal
- Kristen Fields, PE, SE | Structural
- Julie Schmidt, PE | Design
- Jason Heinekamp, PE | Design
- Colin Coad, PE, PTOE, VMA | Design

### Familiarity and Capability

Our design team utilizes GeoPak, AutoCAD, Microstation for creating design models, which can be used for creating and revising trails and sidewalks designs, in real time, based on the Team's site finding as well as the client's input. Our team has helped numerous communities enhance their outdoor recreational facilities with these spaces for walking and bicycling and has utilized our internal expert landscape architecture team to help provide beautiful and sustainable designs. Our team is currently completing a bicycle and sidewalk assessment for the Illinois Tollway to determine locations with deficient sidewalks and trails at roadway crossings of their system and has the knowledge and understanding to help identify best practices to improve the trails and walkways on their system. While TERRA has primarily worked on trails and sidewalks design projects within Illinois, our Team is familiar with the MoDOT standards, and has completed a number of these projects in Missouri, as well and therefore is familiar with the preferred processes and procedures

to keep projects on-time and on-budget. Our ability to quickly mobilize our team and our attention to detail on our design projects have led to us being a provider of choice for trail and roadway projects for multiple clients. We take pride in our quality of work and have created our own QA/QC processes to ensure our work is accurate, before submitting to MoDOT and the local agency.

### Accessibility

TERRA has worked throughout the Midwest on trails and sidewalks projects and will make our team easily accessible to work with any LPA throughout the state. Our trails team is based out of our offices in St. Louis and Chicago with our sidewalks team being based out of our St. Louis and Peoria offices, and can travel, as required, to meet with any agency, as needed. TERRA is proud to submit this LOI and looks forward to partnering with Missouri's Local Program Agency and other agencies throughout the State of Missouri on providing quality and economical trails and sidewalks design engineering services.

### Workforce Diversity

TERRA Engineering is a woman (WBE) owned company which believes in promoting workforce diversity. Our engineering and support staff employs many minorities and women. A diversified staff will be assigned to work on any on-call traffic engineering projects based on the skills and knowledge needed for each task.

TERRA is proud to submit this LOI and looks forward to partnering with local agencies throughout the State of Missouri on providing quality and economical traffic engineering services.

Sincerely,  
TERRA Engineering, Ltd

M. Chris Hutchinson, PE, PTOE, Project Manager



TERRA's Trails & Sidewalks design experience includes working as the prime consultant on numerous trails and/or sidewalks projects throughout the Midwest. TERRA's Team has worked with numerous municipalities throughout the Midwest, on various trail and sidewalk design projects ranging from pedestrian and bicycle facilities to shared-use path connections as well as the creation of a new trail, altogether. These projects require TERRA to assemble a team whose experience matches the specific, tailored needs of each, individual project, which we do so by utilizing members from all three (3) of our offices – St. Louis, Peoria, and Chicago.

For every trail and sidewalk design project that we complete, Team TERRA performs the necessary due diligence to ensure that everything is done to the Client's satisfaction as well as the various procedural requirements set forth by ADA, PROWAG, MoDOT, and/or the various states in which each project is located. Our team will go out and review the actual project location, after sitting down and discussing the project details and specifications and wants of the clients.



Point of Contact

**Chris Hutchinson, PE, PTOE**  
chutchinson@terraengineering.com  
O: 314.499.0123 | M: 314.614.2410

### Experience

- Centennial Trail
- Cal-Sag Multi-Use Trail
- Burnham Greenway Trail
- North Branch Bike Trail
- Stony Creek Bike Trail
- Whistler Woods Trail Study
- Southwest Suburban Bike Plan
- Illinois Prairie Path
- Greene Valley Bike Path
- Salt Creek Greenway Trail
- Wood Dale Bike Trail
- Prospect Heights Bike Path
- Thorn Creek Bike Trail
- Mallard Lake Bike Trail
- DuPage River Trail
- Rolling Meadows Bike Path
- Glen Ellyn Road Trail
- Sullivan Woods Bike Trail
- Meadows Park Bike Trail
- Poplar Creek Trail
- West Branch Trail
- Springbrook Prairie Trails
- Bike Trail Bridge Over IL 59
- US 20 Bike Trail
- Three Rivers Bike Trail
- Woodridge Bike Trail Connections
- Heritage Bikeway
- Messenger Woods Bike Trail

### Services

- Trail/Path Design
- Trail/Path Extensions
- GIS/Database Inventory Services
- Drainage/Stormwater Facilities Design
- Access/Crossing Upgrades Design
- Site Development
- Landscape Architecture
- Land Use Planning
- Surveying
- Structural Engineering
- Construction Inspection/ Administration/Owner's Rep

## Meet Your Key Team



Dave Landeweer, PE, ENV SP  
Project Manager

**Dave Landeweer, PE, ENV SP** – Dave is responsible for the preparation of engineering plans and specifications, project reports, and other work related to transportation design and site development work, with extensive experience in multi-use trails and bicycle path design. His experience includes all phases of transportation engineering, including preliminary and conceptual engineering as well as design plan preparation. Mr. Landeweer's experience also includes all aspects of civil engineering such as horizontal and vertical geometry, pavement geometrics, maintenance of traffic, drainage (including detention), pavement design, traffic signal/interconnect design, street lighting design, and landscaping.



Chris Hutchinson, PE, PTOE  
Project Manager

**M. Chris Hutchinson, PE, PTOE** – Chris has acquired more than 25 years of experience in providing civil and traffic engineering services for a variety of projects and clients. Chris has completed numerous projects throughout the Midwest, with a focus on sidewalk design at the replacement and/or new construction level. His experience includes traffic modeling and analysis, traffic signal design, signal optimization, sidewalk design, roadway design, and traffic studies. He has been trained and certified in MoDOT's LPA process and will be responsible for ensuring our team utilizes the LPA process and will manage this process for any On-Call tasks with an LPA. Chris has worked on various sidewalk design projects including the 2019 ADA Ramps and Sidewalks Replacement Program and the Washington Street.



Kelley Davis, PE  
Project Manager

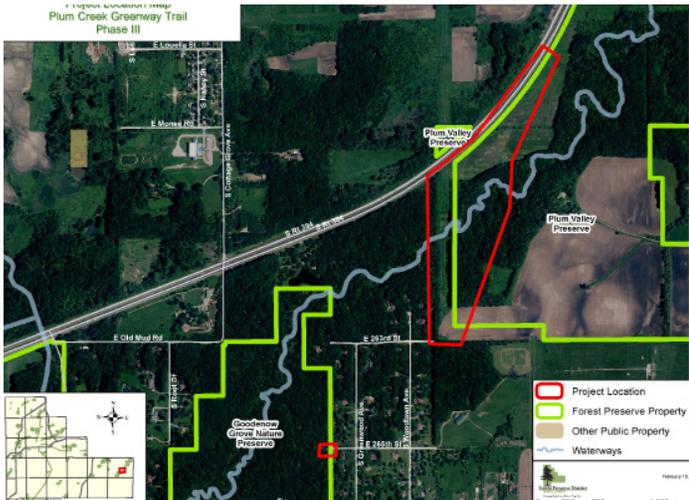
**Kelley Davis, PE** – Kelley is a Senior Project Manager with more than 26 years of experience in roadway, multi-modal infrastructure and stormwater design. She serves as Project Manager or Roadway Design Lead on high visibility municipal projects, coordinating directly with local agencies and utility providers. Kelley manages federally funded LPA projects from concept through PS&E, including scope and fee development, budget control and coordination of survey, utilities and ROW clearance.



Keven Graham, FASLA,  
PLA, CLARB  
Project Manager

**Keven Graham, FASLA, PLA, CLARB** – Keven has more than 30 years of experience in the enhancement of parks and public spaces, including the preparation of final design and construction documents. He is a past president of the Illinois Chapter of the American Society of Landscape Architects and is actively involved in the creation of environmentally sustainable design solutions for site development. He has worked with all our Project Managers as well as Design Engineers on parks, trails, roadway, and sidewalk projects, ensuring that the final product of each project is not only within budget and sustainable but also aesthetically pleasing. His experience includes the Cal-Sag Multi-Use Trail, the Washington Street TIGER II Complete Streets, and the Riverfront Master Planning projects.

## Relevant Projects



### Plum Creek Greenway Trail

Forest Preserve District of Will County | Will County IL

Plum Creek Trail, located in eastern Will County, is a proposed 1.5-mile-long bicycle trail within Plum Valley Preserve. In addition to the proposed trail, the project includes evaluating flooding and drainage issues on the existing trail a short distance north of the proposed trail. Both ends of the proposed trail connect to existing segments of the Plum Valley Trail. The south end is at 265th Street and the north end connects to the existing trail south of Burville Road.

TERRA's staff will prepare a Phase I Project Development Report being processed through the Illinois Department of Transportation. Report preparation involves the selection of the project corridor, topographic survey of the proposed path, development of horizontal and vertical geometrics, and public involvement. The corridor was set during a field meeting with representatives from TERRA, the Forest Preserve District of Will County, and an environmental subconsultant identified the preferred corridor based on minimizing wetland impacts and tree removal, existing topography, and constructability.

- **Key Personnel:** Dave Landeweer, PE, ENV SP
- **Reference:** Matt Novander, Forest Preserve District of Will County, 815.722.8700, mnovander@fpdwc.or



### Wauponsee Glacial Trail Bridge

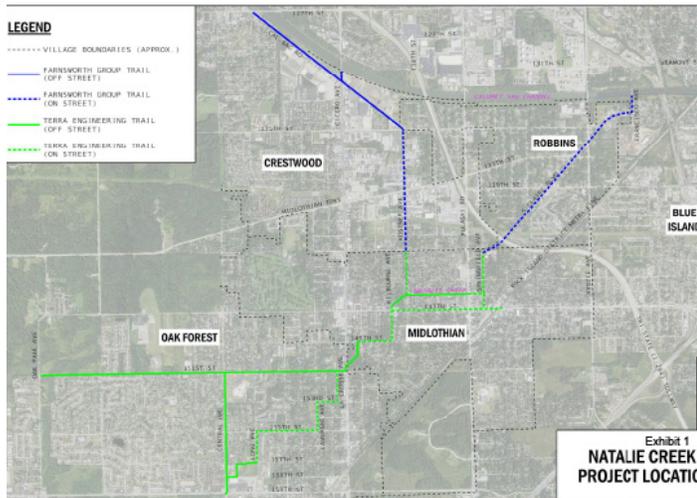
Forest Preserve District of Will County | Will County IL

TERRA designed a new pedestrian bridge on the Wauponsee Glacial Trail over Jackson Creek. The existing structure, Bridge #5, was replaced due to age and extensive use. Our staff reviewed the bridge concept plans and inspected the site. TERRA prepared construction plans and specifications for the replacement and assisted with geotechnical exploration and bidding assistance.

Will County's 22.42-mile Wauponsee Glacial Trail extends south from Joliet through Manhattan, Symerton and Florence and Wesley townships to Custer Park. This trail makes connections with the I&M Canal Trail, I&M Canal State Trail, Midewin National Tallgrass Prairie Trails and Old Plank Road Trail.

- **Key Personnel:** Dave Landeweer, PE, ENV SP
- **Reference:** Matt Novander, Forest Preserve District of Will County, 815.722.8700, mnovander@fpdwc.org

## Relevant Projects



### Natalie Creek Multi-Use Trail Village of Midlothian | Midlothian IL

Natalie Creek Trail is a proposed 13-mile-long bicycle trail located in southern Cook County. The project consists of three legs of a proposed multi-use path with the intersection of Natalie Creek and Kostner Avenue being the hub. The northwest leg will proceed to the intersection of Cal-Sag Road and 127th Street. The northeast leg will proceed to the intersection of 143rd Street and Old Western Avenue. The southwest leg will proceed to Cicero Avenue and 151st Street where it will split into two additional legs; one continuing to the intersection of 159th Street and Central Avenue and the other continuing west to the intersection of 151st Street and Oak Park Avenue with a third leg along Central Avenue between 151st Street and 159th Avenue. Five different municipal agencies are involved: Village of Midlothian (lead agency), Village of Robbins, City of Blue Island, Village of Crestwood and City of Oak Forest. The trail will become a key regional trail connecting the Cal-Sag Trail on the north with the Tinley Creek Trail system on the south.

The project includes the preparation of a Phase I Project Development Report and will be processed through IDOT with the anticipation that federal funds will be utilized for the project. The preparation of the report will involve the selection of the project corridor, topographic survey of the proposed path, development of horizontal and vertical geometrics, and public involvement. Alternative alignment studies will also be performed at several locations to summarize the various opportunities and constraints for the various alignment choices. New prefabricated steel bridge structures will be constructed at several locations across streams.

- **Key Personnel:** Dave Landeweer, PE, ENV SP
- **Reference:** Karen Kreis, Village of Midlothian  
708.389.0200, kkreis@villageofmidlothian.org.



### Cal-Sag Multi-Use Trail City of Blue Island | Blue Island IL

The Cal-Sag Trail, located in southern Cook County, is a marathon length trail connecting across Chicago Southland from Indiana and the Chicago Lakefront to Lemont, Illinois and the I&M Canal Trail. TERRA's Senior Project Manager, David Landeweer, has provided transportation and construction engineering for several phases throughout the project. TERRA was selected to perform Phase III engineering for several projects on the trails east end.

The trail is a key component of the Grand Illinois Trail by achieving connectivity to the Centennial Trail in Lemont (including the 92-mile DuPage County network) and the Burnham Greenway (including the entire Chicago bike trail network and Lakefront Trail) near the Indiana state line. Direct connectivity has also been achieved with the Tinley Creek Trail system, the Palos Forest Preserve Trail system as well as the Major Taylor Trail, completing more than 5 miles of trail connectivity.

Prefabricated steel bridge structures were constructed at several locations across streams. In addition, slope wall modifications were performed at numerous existing roadway bridge locations to allow the path to be constructed under the roadway adjacent to the channel.

- **Key Personnel:** Dave Landeweer, PE, ENV SP, Keven Graham, FASLA, PLA, CLARB
- **Reference:** Mark Miller, City of Blue Island, 708.396.7143