May 3, 2018

The California State University
Office of the Chancellor
401 Golden Shore, 2nd Floor
Long Beach, California 90802-4210

Attn: Mr. Kevin Laut
Construction Manager

Re: Request for Proposal for Subsurface Utility Mapping Services – Master Enabling Agreement

Dear Mr. Laut,

McCarthy Building Companies, Inc. (McCarthy) is pleased to submit this proposal for Subsurface Utility Mapping Services to the California State University. We understand the importance of this project, and how critical this work will be to each of your campuses. This project will demonstrate a continuing value to the you, improving safety, schedules, budgeting, campus operations, and proactive planning.

For the past seven (7) years our subsurface utility mapping team has been serving higher education clients nationwide. Our self-performing civil construction arm provided the impetus for our mapping group’s origin. We found that existing documentation relevant to subsurface utilities was woefully lacking nationwide, specifically on our projects on urban campuses holding high-risk utility infrastructure. Historically, we found that the most consistent and costly negative impacts to our clients were attributable to unexpected subsurface conflicts that were ultimately avoidable.

In determining our best practices to address this trend, we found that private locating vendors nationwide could not produce deliverables to the standard our project teams required. As a result the Subsurface Utility Mapping branch of McCarthy services was launched. Our team has collaborated since the service’s inception, striving to develop a higher grade of deliverables for our most complicated projects nationwide.

Our team is both excited and encouraged by the level of detail requested in the University’s RFQ & P regarding both the site investigation as well as deliverables. Working within the American Society of Civil Engineers 38-02 Standard has long been the rubric for our mapping service. Requirements such as vault inventories incorporating site photos, borehole reporting, 3D modeling, condition assessments, and discrepancy reporting are already a standard of the service we provide for the most complicated McCarthy projects. Because we hold the risk and responsibility for the subsequent construction project, our mapping team has reached a higher level of quality for the data and deliverables we produce. We view this as a true differentiator that influences our project approach from beginning to end.

Per the review of the proposed project scopes, our team thoroughly understands the University’s desire to improve the knowledge of their existing utilities to an ASCE 38-02 Standard of Care.

All work associated with this proposal will be performed by and/or under the direct supervision of a California Licensed Professional Land Surveyor.

All elements of the Request for Proposal have been read and understood, we agree to enter into a contract if selected, and all information in the proposal is accurate under penalty of perjury.

Thank you for your consideration, we are excited to continue our strong relationship with California State University on this very importance project.

Sincerely,

Ross Malik, Vice President, Operations
McCarthy Building Companies, Inc.
rmalik@mccarthy.com
WHAT’S INSIDE

1. Firm’s Experience on Subsurface Utility Mapping Projects
2. Project Personnel Experience and Qualifications
3. Cost Proposal
4. Quality of Deliverables
5. Conciseness and Quality of Proposals
6. Exceptions/Clarifications

Appendix
The project team and all work will be coordinated out of McCarthy’s Newport Beach office to best serve California State University and to maintain a streamlined communication flow. We will co-locate in the McCarthy office when needed, but all of our team members provide a local presence. Our team will pull subject matter experts from our offices in St. Louis and Phoenix with team members committed to being on site for all necessary meetings and their critical work phases.

California Contractor’s License

Contact Information
McCarthy Building Companies, Inc.
Ross Malik
Vice President, Operations
20401 S.W. Birch Street
Newport Beach, CA 92660
rmalik@mccarthy.com
(949) 851-8383

California Office Locations

Newport Beach
20401 S.W. Birch Street
Newport Beach, CA 92660

San Diego
9275 Sky Park Court,
Suite 200
San Diego, CA 92123

San Jose
2665 N 1st Street, Suite 102
San Jose, CA 95134

San Francisco
1265 Battery Street, 3rd Floor
San Francisco, CA 94111

Sacramento
3721 Douglas Blvd, Suite 180
Roseville, CA 95661

Other Office Locations
Atlanta, GA
Dallas, TX
Denver, CO
Houston, TX
Collinsville, IL
Overland Park, KS
Las Vegas, NV
Albuquerque, NM
Omaha, NE
Phoenix, AZ
St. Louis, MO
Firm’s Experience on Subsurface Utility Mapping Projects
Arizona State University
Tempe, Arizona

The Mirabella Project at ASU consists of a $150 million, 20-story Intergenerational University Based Retirement Center located on the Tempe Campus of Arizona State University. The project includes a 1,500-1,800-car, 5-story garage with 150-200 units built above.

The scope of the project a varying standard of care for the 5 acre project ranging from QL-D to QL-A, including a significant project area within public right-of-way. The McCarthy utility mapping team collaborated with University stakeholders, as well as appropriate public entities, in order to effectively map the site. The McCarthy team identified multiple unknowns including a 12” water main and 30” irrigation line traversing the site as well as multiple previously unidentified telecommunications systems within the right-of-way. As a part of this project our team is currently developing a beta implementation of an Augmented Reality visualization of underground infrastructure that can be referenced and utilized on-site to-scale in real time.

The same scope of services was provided for the construction of ASU’s BioDesign C project, a $95 million, 3-acre, 188,000-sf, multi-functional research facility for chemistry, engineering and biological sciences currently under construction. We found multiple utilities that were not on any records provided despite a robust list of existing documentation.

The McCarthy team has also engaged in discussions with ASU Tempe Campus and Polytechnic Campus to develop a comprehensive utility assessment and infrastructure master plan that would encompass more than 1,000 acres in a single geodatabase.
The Washington University Medical Center Campus Renewal, Phase I called for a Master Planning evolution that allowed for the creation of a Subsurface Utility Mapping Atlas for the 250-acre campus. The 5-acre, new construction area of the campus consisted of two, 12-story buildings with multiple below ground parking levels, for a total of 780,000-sf, and a 3,000-space, 3-story parking garage, costing $520 million.

To support the first phase of the Washington University Medical Campus — Campus Renewal Project, which is a fully operational medical school and medical center located in a dense, urban area, the team helped to prioritize $280,000 of subsurface utility mapping (SUM) services to varying standards of care throughout the campus. This includes quality level A in high-risk areas implementing hydro-excavation of utilities as well as CCTV sewer services. We developed deliverables modeled in both 2D and 3D providing improved conflicted detection and QA/QC throughout the prospective design. Early in the project, our SUM service identified an unexpected oxygen line within the critical path of underground construction. This identification allowed for proactive disconnect and re-route of the utility and prevented a potential crisis situation that could literally mean a life or death situation for patients.

After the successful completion of this project, we were retained to complete an additional nine (9) subsurface utility mapping projects. The total price for these projects exceeds $1 million. All projects call for the interpretation of more than 2,000 electric and paper documents and collaboration with all county, city, street and utility companies. All data for the Washington University Medical Campus has been collected with appropriate attribution for implementation into a GIS system. In addition, all surveying services are performed under the direct supervision of a Professional Surveyor or Professional Engineer.
Webster University Master Infrastructure Improvements Plan
St. Louis, Missouri

Webster University wanted to design and install more than 5,000 lineal feet of a new primary power ductbank as part of its Master Infrastructure Improvements Plan. The area is located in the middle of an operating campus, a congested area bordered by old town Webster Groves, residential neighborhoods, and I-64. The project area overlapped with 22,000-square-feet of a future Interdisciplinary Building footprint. Webster’s design and construction team in conjunction with the design team expected multiple existing utilities within the new planned feeder corridors so a conceptual budget for the planned infrastructure was set at $1.5 million during the design development phase.

During this phase, our team walked the site and identified multiple utility conflicts that were not accurately addressed in the project design and could potentially blow the budget or kill the project. In addition, new service had to be installed and activated to each building prior to decommissioning current electrical service, making complete understanding of utilities essential. Our team recommended subsurface utility mapping to Quality Level-B while building the foundation of a GIS database for the University. Field exploration included detailed field investigation, utilization of sewer camera with sonde head, and survey.

Data collection and analysis revealed significant utility conflicts for telecommunications, power, chilled water, and gas. The results of this effort allowed the design team to address constructability of the project and re-arrange the project site layout for the Interdisciplinary Building, which allowed the team to avoid all utility relocates as well as costly efforts such as hand-tunneling. The project incurred no change orders helping the University to stay on budget at $1.1 million and ultimately saved over $400,000 or 27% on a $1.5 million project.

Project Details

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<td>Mr. Craig Miller</td>
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<td>Loretto Hall</td>
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<td>470 East Lockwood Avenue</td>
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<tr>
<td></td>
<td>Webster Groves, MO 63119</td>
</tr>
<tr>
<td></td>
<td>(314) 246-7773</td>
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<tr>
<td></td>
<td><a href="mailto:craigmiller29@webster.edu">craigmiller29@webster.edu</a></td>
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<tr>
<td>Project Architect or GC</td>
<td>Castle Contracting</td>
</tr>
<tr>
<td></td>
<td>Mr. Mike Myers</td>
</tr>
<tr>
<td></td>
<td>345 Marshall Ave</td>
</tr>
<tr>
<td></td>
<td>Webster Groves, MO</td>
</tr>
<tr>
<td></td>
<td>314.421.0042</td>
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<td><a href="mailto:Mike.Myers@digcastle.com">Mike.Myers@digcastle.com</a></td>
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<tr>
<td>Project Manager</td>
<td>Enrico Bertucci</td>
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Project Highlights

- Utility Locating – Wet & Dry Utilities
- Potholing / Visual Verification
- CCTV Pipe Inspection
- Water Jetting
- Surveying
- Higher Education Campus
- Master Plan
- Public Project
The UCSD Voigt Parking Structure is a $32.5 million, Lump Sum, Design-Build project. It provides 847 parking spaces in a site responsive parking structure of four parking levels completely covered with a roof dedicated to planting and public space designed to complete the public realm of this part of the UCSD campus. The project also includes an enhancement to a nearby surface lot providing a more efficient and pedestrian friendly space. Additionally, the parking structure is designed to enhance the user experience and to make parking as pleasant and stress free as possible.

The scope for this project utilized all the ASCE 38-02 standards of care for the 5½-acre site. The biggest area of risk initially on the project was coordinating the structural soil nail design with the existing utilities. There were also a number of utilities that needed to be re-routed within the parking structure footprint. The McCarthy mapping team worked closely with the University and project team to review the existing as-builts and walk through adjacent building to identify all known utilities. During the mapping phase, the most significant discovery was of an abandoned electrical duct back. That duct bank will now be utilized to bring the main power to the project site in lieu of installing a new pathway.

There was a significant amount of potholing/slot trenching complete on the project to confirm utility elevations around the soil nail locations and connection points. All this information was input into the 3D model for the project, which has been a great collaboration tool with the design team, owner, and subcontractors.

The project team also was very interested in Augmented Reality visualization of the underground utilities. This was viewed by the team through a “Hololens”, which is basically looking at the site utilities with x-ray visions in real time. The owner of this project was so impressed with the mapping work we completed for the Parking Structure, we are currently negotiating a new utility scope for future projects on the campus all using services.
The Veolia Energy capital improvement project will add over eleven thousand lineal feet of twenty-four inch diameter buried chilled water supply and return pipeline to Veolia’s existing thirty inch diameter loop. This requires excavating approximately one mile of trench through the streets of Downtown Kansas City passing through the Financial District, Library District and ultimately ending at the new Loews Kansas City Convention Hotel currently being built in the Crossroads District of the city.

The biggest risk to the construction project schedule and budget was determining an efficient, safe, and cost-effective way to navigate through existing subsurface infrastructure despite no sealed design or topographic survey. In addition, one of the major concerns was locating and working around the subsurface fiber and communication corridors that feed the downtown Financial District.

The utility mapping scope for this project utilized Quality Levels D through B through the entire seventy-two hundred lineal of downtown right-of-way. Due to the high level of utility congestion within each major intersection, locating utilities in these areas became the most critical for determining the proposed alignments for each run of pipeline. The contractor used our data gathered from geophysical tools, closed-circuit television, and 360-degree cameras to accurately budget and coordinate utility potholing, ideal crew sizes, and necessary materials. Because of our investigation, the contractor was able to confidently plan ahead while pro-actively and efficiently addressing each utility conflict along the way.

The contractor for this project has been so pleased with our process and deliverables, and has been quoted saying, “they will never begin a construction project without using McCarthy Mapping first.” We continue to work with this team on several prospective projects.
Project Personnel Experience and Qualifications
Provide an organization chart that defines the Project management and staffing plans. The team members within the organization that will be covering each Campus.

**Project Organization**

### Southern California

- **Ross Malik**
  - Project Executive
  - (Southern California)

- **Enrico Bertucci**
  - Project Director
  - (Southern & Northern California)

- **Fermin Glasper**
  - QC Manager

- **Seth Belitsky**
  - Senior Project Manager
  - (Southern California)

- **Lance Curtis**
  - Field Superintendent

- **Matthew Fitzgerald**
  - QC Manager
  - (Support as Necessary for Southern & Northern California)

### Northern California

- **Tim Albiani**
  - Project Executive
  - (Southern California)

- **Enrico Bertucci**
  - Project Director
  - (Southern & Northern California)

- **Fermin Glasper**
  - QC Manager

- **Jared Miller**
  - Project Manager
  - (Northern California)

- **Lance Curtis**
  - Field Superintendent

- **Matthew Fitzgerald**
  - QC Manager
  - (Support as Necessary for Southern & Northern California)

- **Seth Belitsky**
  - Senior Project Manager
  - (Southern California)

- **Jared Miller**
  - Project Manager
  - (Northern California)

- **Lance Curtis**
  - Field Superintendent

- **Matthew Fitzgerald**
  - QC Manager
  - (Support as Necessary for Southern & Northern California)

- **Jared Miller**
  - Project Manager
  - (Northern California)

- **Lance Curtis**
  - Field Superintendent

- **Matthew Fitzgerald**
  - QC Manager
  - (Support as Necessary for Southern & Northern California)

- **Jared Miller**
  - Project Manager
  - (Northern California)

- **Lance Curtis**
  - Field Superintendent

- **Matthew Fitzgerald**
  - QC Manager
  - (Support as Necessary for Southern & Northern California)
Briefly describe the methodology your firm will utilize to staff projects at multiple Campuses, manage the staff, and assure quality service that responds to the disparate needs of each project.

The project team and all work will be coordinated out of McCarthy’s Newport/San Diego and Sacramento offices to best serve California State’s Northern and Southern Campuses. The dividing line will be between San Luis Obispo and Monterey Bay. We will co-locate in the McCarthy office when needed, but all of our team members provide a local presence. Our team will pull management resources when necessary from our main Subsurface Utility Mapping office in St. Louis. The field locate technicians will be shared resources depending on workload between Northern and Southern California with the ability to flex up from both.

Our Quality Assurance Process consistently adheres to the highest standards. Each project is unique and our process is tailored to the needs of each distinctive set of circumstances. Quality Assurance is process driven and follows a stringent ‘checklist’ format, which has been established as part of our Quality Assurance Action Program. This process is managed by the project manager and overseen by the director of quality control. The Collection and interpretation of existing records is the first part of our quality assurance program. This step is performed by our field superintendent and head survey drafter, in conjunction with all the available stakeholders information and available facility management personnel. This information is compiled into one master file that provides contiguous coverage and serves as existing utility base map. The project manager reviews the existing utility base map, collaborates with the field superintendent to determine which geophysical tools will adequately cover the project site, and deploys the locate technicians accordingly. All geophysical tools, terrestrial and geodetic surveying equipment are calibrated and serviced prior to the commencement of any new project. All equipment is continuously monitored and evaluated throughout the duration of the project. If it is determined that any equipment is not performing properly, it is removed from rotation, serviced, and checked prior to being placed back into rotation. Once a predetermined amount of utilities have been physically located in the field, the locate technician teams up with the field surveyor who accurately collects horizontal and vertical information and additional attribute information for each utility. Quality assurance milestone requirements are maintained and reviewed daily in order to track schedules, progress, and hours worked. The project team meets weekly, or as needed, to discuss project needs, site conditions, requirements, and all matters related to the project schedule and deliverables.

Personnel Experience

Each Proposer shall submit resumes demonstrating the following qualifications of the personnel to be used on each Campus or group of campuses. Include those who will be working directly with the University: Principals-in-Charge, Project Managers, Project Engineers, or other staffing.

In order for the Trustees to evaluate the Service Provider’s performance capability, please provide the following:

**Service Provider’s total annual revenue in 2017:**
$3,574,674,000

**Total number of full and part-time employees:**
Salaried Employees: 1,963
Union Employees: 1,151

**Total number of full and part-time consultants and their roles:**
None
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<tr>
<th>Name</th>
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<th>Licenses, Certificates &amp; Registrations</th>
<th>References</th>
<th>Project Experience</th>
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</table>
| ENRICO BERTUCCI    | Project Director | 10 years experience | Bachelor of Science, Civil Engineering University of Notre Dame          | Registered Professional Engineer – MO                 | Darrin Blaisdell  
Arizona State University  
(480) 727-1086  
darrin.blaisdell@asu.edu  
Dana Jensen, MEP Manager  
WUMC Campus Renewal Project  
(314) 286-0789  
dxj3988@bjc.org                                                                 | McCarthy Building Companies, Inc.  
Arizona State University  
Washington University School of Medicine Campus Renewal  
Webster University Electrical Feeder  
Loma Linda University Medical Center |
| FERMIN GLASPER     | QC Manager       | 20 years experience | Bachelor of Science, Management and Business Administration National Louis University (Europe) | Professional Surveyor – IL, MO | Angelo Arzano  
HOK  
(314) 754-4068  
angelo.arzano@hok.com  
Craig Miller  
Webster University  
(314) 246-7773  
craigmiller29@webster.edu                                                                 | Washington University Medical Center / Barnes-Jewish Hospital Infrastructure Master Plan  
Webster University Comprehensive Infrastructure Master Plan, Webster Groves  
Saint Louis Zoo GIS Program  
Arizona State University, Tempe |
| JARED MILLER       | Project Manager  | 11 years experience | Bachelor of Science, Civil Engineering Southern Illinois University Carbondale | Professional Surveyor – IL | Cary Cantwell, Program Manager  
WUMC Campus Renewal Project  
Program Management Office  
(314) 713-7687  
cary.cantwell@bjc.org  
Glen Donjon, Facility Manager  
St. Louis Zoo  
(314) 646-4818  
donjon@stlzoo.org                                                                 | Walnut Creek BART Station  
Kaiser Dublin Hospital  
Veolia Energy Kansas City  
Washington University Medical Center / Barnes-Jewish Hospital Infrastructure Master Plan  
Webster University Comprehensive Infrastructure Master Plan, Webster Groves  
Saint Louis Zoo GIS Program |
| ANDREW KARSTEN     | QA Manager       | 17 years experience | OSHA 30 Confined Space Entry                                                |                                                         |                                                                                                         | Washington University School of Medicine Campus Renewal  
Webster University Electrical Feeder  
Water’s Edge 3 Parking Structure and Office Building  
Veolia Energy Kansas City  
St. Louis Community College at Forest Park Allied Health Building |
McCarthy Building Companies, Inc.
CSU Subsurface Utility Mapping Master Enabling Agreement

SETH BELITSKY
Senior Project Manager

Career Summary
11 years experience

Education
Bachelor of Science, Construction Management
Michigan State University

References
Eric Brown, Director of Corporate Construction
Scripps Health
(858) 678-7030
Brown.Eric@scrippshealth.org

Elizabeth Barrie, Principal
The Barrie Company
(619) 838-1064
elizabeth@thebarriecompany.com

Project Experience
• Kaiser Woodland Hills Medical Center
• Ridgecrest Memorial Hospital
• UCSD Voigt Parking Structure
• Water’s Edge 3 Parking Structure and Office Building
• Malibu Middle High School

MATTHEW FITZGERALD
Project Manager

Career Summary
6 years experience

Education
Bachelor of Science, Civil Engineering
University of Missouri

References
John O’Brien
SSM Health
(314) 768-8949
john.obrien@ssmhealth.com

Ryan Fordyce
Foley Company
(816) 448-5980
ryanf@foleycompany.com

Project Experience
• Veolia Energy Kansas City
• Saint Louis Zoo GIS Program
• Walnut Creek BART Station
• Omaha VA Medical Center
• SSM Health St, Mary’s ED Expansion

LANCE CURTIS
Field Superintendent

Career Summary
18 years experience

Licenses, Certificates & Registrations
OSHA 10 Certified
Confined Space Entry Certified

Project Experience
• Washington University School of Medicine Campus Renewal, St. Louis, MO
• Webster University Electrical Feeder, St. Louis, MO
• Malibu Middle High School
• Ridgecrest Memorial Hospital
• UCSD Voigt Parking Structure
• Veolia Energy Kansas City
• Arizona State University Mirabella
## FEE SCHEDULE

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Miscellaneous Material and/or Equipment required will be invoiced at the Cost Plus 20% OH&P. Any additional subcontractor services will be invoiced at a Cost Plus 10% OH&P. Hydro-Excavation Crew, Camera Crew, and Locate Technician have a 4-hour minimum charge. Any per diem required will be in accordance with GSA standard rates. Rates will increase by 3% per year starting 7/1/2019 and each subsequent year(s).
Quality of Deliverables
Quality of Deliverables

Provide Deliverable examples for 2D and 3D utility mapping exhibits for each quality level with short narratives as desired. Additional samples, large format documents, and any additional exhibits may be included in the Appendix as desired.

Please Click HERE for Examples of 2D and 3D Utility Mapping

**QL-D Stakeholder Interview & Collection of Historical Narrative**

As our field work for Phase I Utility Designating begins, the project team led by the Project Manager and the Field Superintendent will conduct field walks and interviews with all available Campus and District personnel with historical knowledge of the site. The focus of these site walks and interviews being the collection and addition to the Utility Atlas of any historical narrative regarding utility installations that have not yet been catalogued through our Quality Level–D record research. In addition to the collection of historical narratives early in Phase I our team will complete a review of any paper documentation stored on-site within Campus plan rooms to ensure that no Quality Level–D information has been overlooked. These work tasks have the additional benefit of introducing our team’s key field personnel to appropriate Campus and University employees in a collaborative manner, creating the foundation for a meaningful partnership that is critical to the success of the project.

**QL-B&C Utility Investigation/Survey Utility Mapping**

As the Quality Level–D research components draw to a close, our field utility designating team will transition to a detailed Quality Level – B field investigation leveraging appropriate geophysical utility prospecting techniques, a menu of subsurface utility locating technologies, and greater than 50 years of combined subsurface utility designating experience. The Quality Level–B work scope is the most robust and challenging aspect of the project as a whole and will be executed by Senior Utility Locate Technicians in conjunction with Utility Locate Technicians working under the full-time direction of the Field Superintendent and in tandem with Field Data Acquisition Team.

The field team will begin the Quality Level–B Investigation implementing Electromagnetic (EM) utility locating equipment through direct connection, indirect induction, and passive sweeps as the initial utility prospecting techniques utilized for the project. At this stage of the project it is our standard practice to inventory maintenance holes, hand holes, pull-boxes, vaults, and junction boxes for use in subsequent survey and drafting components of the project. As a result all appropriate data requested for the Maintenance Hole Investigation Report will be collected as a part of our standard practice. Throughout this entire process, field data will be collected on an iterative basis, especially in areas where chalk based paint is in jeopardy from irrigation systems or the rare weather anomaly.

**Additional Investigation Concurrent with Special Services**

As EM prospecting methods are exhausted within each sector of the campus, the field designating teams will transition utility prospecting techniques to those capable of identifying non-metallic infrastructure. In this stage of the utility investigation, ground penetrating radar (GPR) will be the initial utility locating technology implemented. Because a number of site specific factors such as surrounding interference generating artifacts, conductive soils such as clays, or in-situ moisture contents can have a negative impact on the reliability of GPR data, the field utility designating team will appropriately utilize additional supplementary technologies such as ram rods, push cameras, sonic technologies, and infrared energy pattern analysis in order to exhaust appropriate geophysical prospecting techniques capable of identifying subsurface infrastructure. Only subsurface utilities detectable through the utility prospecting techniques implemented will be shown on the final deliverables with a Standard of Care of Quality Level – B. Again, throughout this stage of the project field data will be collected on an iterative basis in conjunction with the utility designating field investigation.

For all prospecting techniques implemented on-site, the field utility designating teams will identify approximate utility elevations (as measured through the geophysical prospecting technique utilized), if measurable, at horizontal and vertical bends and said depths will be painted on site for data collection. Elevations gathered through surface utility prospecting techniques without confirmation through Quality Level – A exposure should be considered approximate and are subject to the broad range of inaccuracies inherent in the spectrum of available surface utility locating technologies.

**QL-A Test Boreholes (Backfill & Inspection)**

As the Quality Level–B utility designating and investigation comes to a close, the Subsurface Utility Mapping team will furnish a recommended Test Hole plan to identify specific utilities (identified through record research, historical narrative, or surface identification of structures) that have not been located through any surface geophysical method. All non-destructive exposure of existing subsurface infrastructure will be surveyed for the exact location (vertical and horizontal) and document the type, size, depth, and other significant characteristics of the exposed subsurface utility on the final mapping deliverables. After field data has been collected backfilling and site restoration will be completed.
Conciseness and Quality of Proposal
Exceptions/Clarifications

Qualifications

Rider A – Agreement General Provision Modifications:

The following sections are clarifications, modifications and additions to the Agreement as requested by McCarthy:

1. In line item 8. Indemnification – We request after the 4th line “...but not limited to, attorneys’ fees and costs” to add “but only to the extent”.

2. In line item 9. Insurance policies except for Workers Compensation and Professional Liability a. – We request to strike “representatives” and “agents” as these parties are undefined when entering into this agreement.

3. In line item 18. Audit – We request to add at the end “The composition of any agreed-upon billing rates or agreed-upon lump sum amounts are not subject to audit.” This is due to the proposed fees are unit rates or lump sums which will be agreed upon in the specific agreements.

4. We would also like to include:

   ➢ Indemnification from the owner for claims arising due to the presence of any hazardous materials onsite as that is out of our control.

   ➢ A right of Service Provider to terminate the agreement for cause.

   ➢ Agreement to mediate any disputes arising out of the agreement.
Additional Information

Mapping Deliverables

Our team has provided the following excerpts of our Subsurface Utility Mapping Deliverables as well as the below link to live electronic documents for the District’s review. When compared to our competitors we have found that our deep level of investigation sets us apart based on the amount of data that is communicable in our deliverables. Please take note that our standard process yields:

- True horizontal dimensioning for subsurface ductbanks
- True dimensioning of subsurface vaults or structures
- Geographically linked field notes including site investigation photos, vault inventories, and CCTV video
- Red Flag Report accounting for specific discrepancies our team finds when compared to existing record data
- Index of all QL-D data utilized for the project

Experience with 3D Modeling

Our team is well versed with comprehensive knowledge and background of modeling in Autodesk’s AutoCAD Civil 3D and Revit. We provide civil engineering services and high-definition surveying, in conjunction with our utility mapping, and all design deliverables are produced in 3D.

Three dimensional subsurface utility models are the culmination of extensive efforts of subsurface utility mapping exploration, and is most accurately depicted when reflective of Quality Level-A service as defined by the American Society of Civil Engineers, ASCE 38-02 standards. However, it is also possible to produce a 3D model based on utility depth information provided when using various geophysical tools.

This information is usually collected and shown when Quality Level-B is achieved. It is our standard practice to update models created based on Quality Level-B information when Quality Level-A service is provided. We will provide the same service and process for your project and feel it is the most responsible way to proceed when producing quality deliverables that can be utilized by both Design and Construction teams.

McCarthy’s Utility Mapping, team produced a 3D subsurface utility map for the Washington University Medical Center Phase 1, $520 million project that was utilized for coordination and Building Information Modeling (BIM) meetings on a weekly basis. This model was updated and shared throughout the design process and was turned over to the construction management team to utilize for the duration of construction. The team received high praise from the MEP manager for the project, Dana Jensen.
McCarthy Utility Mapping is exceptionally customer focused and responds to customer needs as they arise. Their deliverables integrate seamlessly to ASU’s geodatabase. The quality of their deliverables a differentiator in our experience. We find them to be knowledgeable, responsive and easy to work with. Based on their high standard of care and attention to detail we have requested their utility mapping service on multiple projects over the past 24 months. I am wholly pleased with their ability and performance, and welcome the opportunity to work with them in the future.

Darin Blaisdell
Director of Asset Management, ASU Project

...Subsurface mapping team consistently exceeded Webster University’s expectations. As a result of their performance as noted above we have procured (subsurface mapping) services on many high profile projects over the past several years.”

-Craig A. Miller, Senior Director, Webster University

McCarthy Utility Mapping is exceptionally customer focused and responds to customer needs as they arise. Their deliverables integrate seamlessly to ASU’s geodatabase. The quality of their deliverables a differentiator in our experience. We find them to be knowledgeable, responsive and easy to work with. Based on their high standard of care and attention to detail we have requested their utility mapping service on multiple projects over the past 24 months. I am wholly pleased with their ability and performance, and welcome the opportunity to work with them in the future.

Ken Martin
Director of Utilities and Engineering

Testimonials
# Certificate of Liability Insurance

**Certificate Number:** 52658006  
**Revision Number:**

## Coverages

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## Exclusions and Conditions

- **General Aggregate Limit:** $2,000,000
- **Property Damage:** $2,000,000
- **Product/Completed Operations:** $2,000,000
- **Personal and Advertising Injury:** $2,000,000
- **Medical Expenses:** $10,000

## Certification

**Certificate Holder:** The California State University  
**Address:** 401 Golden Shore, 2nd Floor, Long Beach, CA 90802-6210

**Authorized Representative:** Catherine L. Heinzer

**Date:** 04/24/2018

**Expiration Date:** 04/24/2019

**Endorsements:**

- **Workers' Compensation and Employers' Liability:** 54WCI8934914 (CA, MO, TX)  
  04/01/18 - 04/01/19

**Written Representation:**

The State of California, the Trustees of the California State University, the University, their officers, employees, representatives, volunteers, and agents are included as additional insured as respects the General Liability and Auto Liability policies on a primary and non-contributory basis when required by written contract. Waiver of subrogation is included when required by written contract and where permissible by law.

**Cancelling Agent:** McCarthy Building Companies, Inc. / Div 710  
**Address:** 8182 Maryland Ave, Suite 1500, Arch Ins Co, St Louis, MO 63105

**Contact:** Susan Schwartz  
**Phone:** 314-719-5161  
**Fax:** 314-719-5161

**Insured:** McCarthy Building Companies, Inc. / Div 710  
**Address:** 20401 S.W. Birch Street, Suite 300, Newport Beach, CA 92660

**Producer:** Aon Risk Services Central, Inc.  
**Address:** 52658006

**Certification:** This certificate is issued as a matter of information only and confers no rights upon the certificate holder. The certificate holder is not an insured under the policies listed above. The certificate holder is not intended to be, and is not, a third-party beneficiary of the policies described in this certificate.

**Subrogation:** 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).

**Additional Insured:** If additional insured is required, the policy must have additional insured provisions or be endorsed.

**Waiver of Subrogation:** 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).

**Notice of Cancellation:** Notice will be delivered in accordance with the policy provisions.

**ACORD 25 (2016/03)**  
**ACORD Name and Logo:** © 1988-2015 ACORD Corporation. All rights reserved.
## Certificate of Liability Insurance

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).

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<tr>
<th>PRODUCER</th>
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<td>Arthur J. Gallagher Risk Management Services, Inc.</td>
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<td>443-798-7499</td>
<td>443-798-7290</td>
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<tr>
<td>Suite 300</td>
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### Coverages

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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.

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**General Aggregate Limit Applies Per:**

- Policy
- Occurrence
- Local

**Automobile Liability**

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**Umbrella Liability**

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**Workers Compensation and Employer's Liability**

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**Professional Liability**

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</table>

**Description of Operations / Locations / Vehicles (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)**

California State Master Enabling Agreement

**Certificate Holder**

The California State University
401 Golden Shore, 2nd Floor
Long Beach CA 90802-4210

**Cancellation**

30 days/10 days for non-payment

**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**

[Signature]

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