CTA Request for Proposals (RFP) for the Red Line Extension Mainline Design-Build (RLE-MLDB) Project

Requisition No. C22FT102829986 Due Date: April 15, 2024, 3:30 PM Volume 3 - Technical Submissions

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VOLUME 3 - TECHNICAL SUBMISSIONS

SUBJECT:

Design-Build Services for the Red Line Extension Mainline Design Build (RLE-MLDB) Project Requisition No. C22FT102829986 April 15, 2024

SUBMITTED TO (VIA BONFIRE):

Chicago Transit Authority 567 W. Lake Street Chicago, IL 60661

SUBMITTED BY:

F.H. Paschen, Ragnar Benson, Milhouse, BOWA Joint Venture 5515 N. East River Road Chicago, IL 60656

PROPRIETARY, PRIVILEGED & CONFIDENTIAL INFORMATION

This Proposal includes proprietary, privileged, or confidential information that may not be disclosed outside the CTA and may not be duplicated, used or disclosed in whole or in part for any purpose other than to evaluate this Proposal.

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VOLUME 3 - TECHNICAL SUBMISSIONS

1. Detailed Technical Proposal

- Executive Summary
- Proposal Part 1: Project Management
- · Proposal Part 2: Design
- · Proposal Part 3: Construction
- Proposal Part 4: Team and Personnel Experience
- Proposal Part 5: Community Related Construction Impacts
- · Proposal Part 6: Diversity and Workforce Development

2. Technical Forms

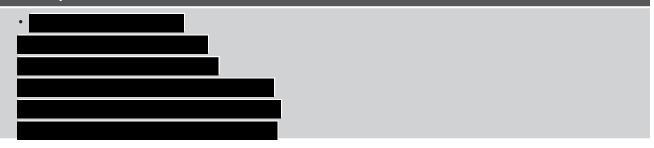
- Form G-1 Guideway Structure Project Element Lists and Milestones (also submitted as Excel file)
- Form G-2 Project Milestones Proposed Milestone Date Form (also submitted as Excel file)

3. Technical Proposal Appendices

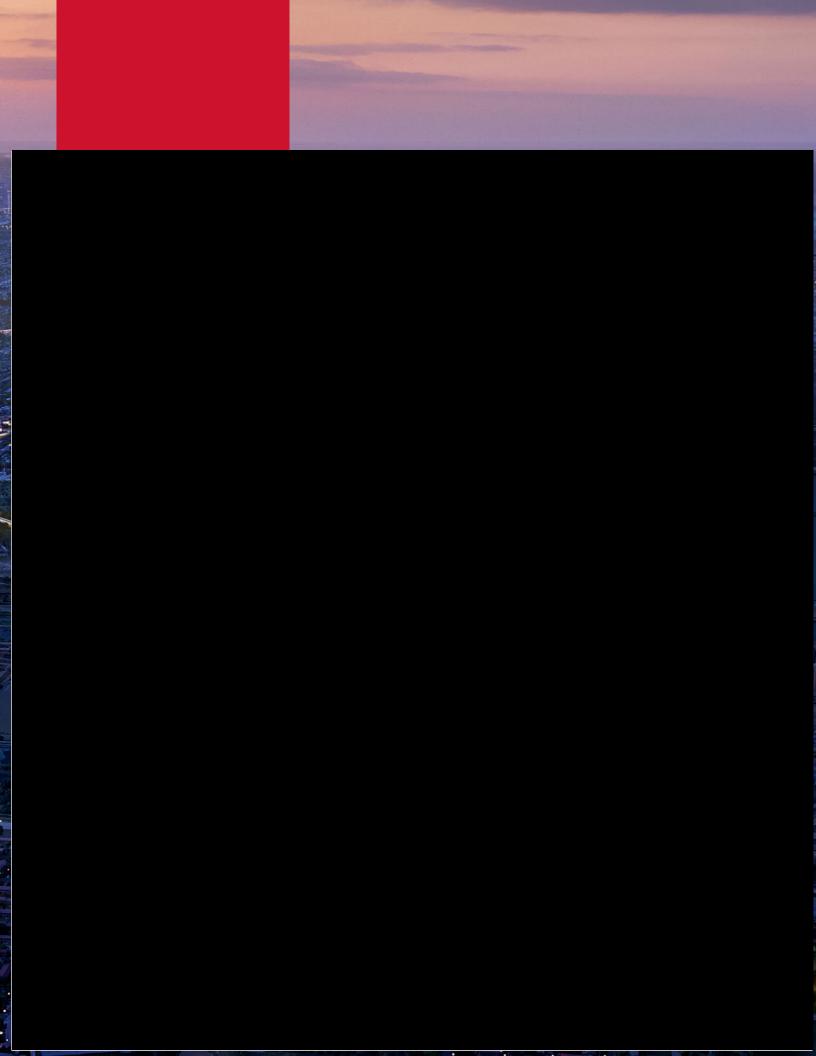
Appendix 3.A - Appendix 3.I are uploaded to Bonfire as a separate zip file.

- Appendix 3.A: Draft Project Management Plan
- Appendix 3.B: Draft Design Management Plan
- · Appendix 3.C: Draft Construction Management Plan
- · Appendix 3.D: Proposal Schedule
- · Appendix 3.E: Organizational Chart and Resumes
- · Appendix 3.F: DBE Outreach Plan
- · Appendix 3.G: Workforce Outreach and Training Plan
- Appendix 3.H: Plan for Utilization of Minority-Owned Deposit Institutions or Community Banks
- · Appendix 3.I: Design Drawings

4. Incorporated ATCs









The Red Line Extension Mainline Design-Build project is not just a construction project. The Red Line Extension is about opportunity and equity. This project has the potential to transform communities by providing the transit connection to downtown that the rest of the City of Chicago has taken for granted for years.

Our team understands that this long overdue investment in the Far South Side cannot be treated like another mega project. It's bigger, not just in size and scope, but in its potential to connect people to jobs and education while bringing transit oriented development to an area that has been overlooked for years. Per CTA's Transit Supportive Development Plan, RLE will provide a 46% increase in newly accessible jobs within a 45 minute commute of the project area. Providing economic opportunity is one major step toward equity, and FHP JV recognizes the enormity of this.

On every project we build, the community is the number one stakeholder, but on RLE our team will **ENGAGE** with the project community for several years on a much higher level than any other project we have completed. We know that on RLE, we must be engaged with the community in order to be successful. We recognize this as a major scope

of this project, and we know that our team cannot do this alone. Community Groups, Assist Agencies, and Workforce Partners (including CTA) will be integral to maximizing the positive impact that RLE will have on the community.



It will be our mission throughout the project to **CONNECT** individuals and firms with meaningful opportunities that build careers and capacity, and ultimately the transit connection that has been missing for so long.

The RLE project will elevate the Far South Side by finally delivering transit equity. While it is being designed and built, it will **ELEVATE** individuals and businesses by building careers and expanding DBE firms' capacity. FHP JV is committed to meeting DBE and Workforce goals,





. Our DBE and Workforce teams will focus on progress, as a whole, by elevating as many firms and individuals as possible.

RLE is such a unique opportunity, and CTA has made it clear from the start that they are not just looking for a Design-Builder, but a Design-Build Partner that inherently understands the project goals to bring transit equity and economic opportunity to the far South Side. FHP JV is that partner.

APPROACH TO INTEGRATING CONTRACT **REQUIREMENTS**

CTA has spent years developing the contract requirements for this project. Our Joint Venture team was strategically formed to meet CTA's requirements and goals for this transformative project. F.H. Paschen, Ragnar Benson, Milhouse, BOWA Joint Venture, in partnership with Jacobs Engineering Group, will integrate the requirements of this Contract by continuing to build the right team for the project, adhering to proven design-build processes that are evaluated and improved as needed, and embedding community engagement, DBE Outreach, and Workforce Development into the design, planning, and construction of the project.

Core Team Members

When planning for RLE, F.H. Paschen looked to trusted partners to develop our core team. The Joint Venture is comprised of F.H. Paschen, S.N. Nielsen & Associates LLC (F.H. Paschen), Ragnar Benson, LLC (Ragnar Benson), Milhouse Engineering and Construction, Inc. (Milhouse), and BOWA Construction (BOWA). Jacobs Engineering Group is Lead Designer. FHP JV's Joint Venture members and Jacobs have a history of recent partnerships that includes CTA's 95th Street Terminal Improvements (F.H. Paschen, Milhouse, Jacobs) and NICTD West Lake Corridor (F.H. Paschen, Ragnar Benson, Jacobs).

Longtime subcontracting partners include Stalworth Underground LLC, (Stalworth) Mass.-Aldridge JV (MAJV), and RailWorks Track Services (RailWorks). Stalworth, Aldridge, and RailWorks all were key subcontractors on 95th Street Terminal and/or NICTD WLC (currently). Not only does this team know how to work together in a design-build capacity, we know how to overcome external challenges, such as railroad coordination, which

FHP JV Key Team Members

TEAM MEMBER

ROLE

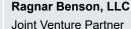
F.H. Paschen

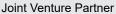


Joint Venture Lead

Local Chicago Contractor/Design-Builder with decades of rail/transit and civil/bridge and construction experience for CTA, CDOT,

IDOT, ISTHA





General Contractor/Design-Builder in Class 1 rail, transit, commuter rail, and environmental/energy sector, best-in-class

earthwork and civil contractor

MILHOUSE

RAGNAR BENSON CONSTRUCTION

Milhouse Eng. and Construction, Inc.

Joint Venture Partner

Local Chicago Construction Management/ Engineering firm with CTA, CDOT, CDWM

and OUC experience



BOWA Construction

Joint Venture Partner Local Chicago Construction Management

firm with significant experience in

transportation sector



CONSTRUCTION

Jacobs Engineering Group, Inc.

Lead Designer - global firm with extensive rail/transit and systems design experience













AltusWorks, Inc.: Providing Lead

Architectural Designer, oversight of station design JLK Architects: Architectural design: 103rd

Street Station and 111th Street Station;

SOM: Architectural design: Michigan Avenue Station and 130th Street Terminal

TranSmart: Civil / utilities design and management, Segment 3 Design

Package Manager

TSSS: Contractor's Safety & Security

Certification





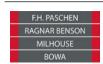


RAILWORKS*

Mass.-Aldridge JV: Systems

Stalworth: Deep foundations

RailWorks: Trackwork

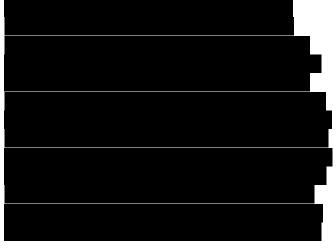




is a risk on the RLE project. Our key subcontractors also have the resources and equipment to meet the demands of RLE.

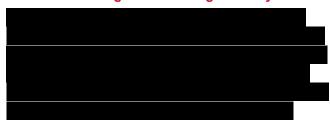
As subconsultants to Jacobs, our team also includes AltusWorks, JLK Architects, SOM, TranSmart, and Transit Safety and Security Solutions. They will be key subconsultants in stations and facility design, civil and utilities design, and Safety and Security Certification.

Project Management Leadership





Processes / Design-Build Management System



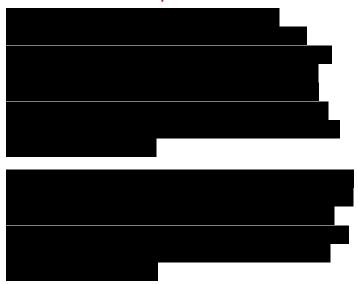


UTILIZING FHP JV'S DESIGN-BUILD EXPERIENCE TO PRODUCE QUALITY WORK

Established Cohesive Team

With the majority of our Key Personnel and management team (both construction and design) transitioning from NICTD WLC to RLE, CTA will be working with an established team that has strong working relationships and processes in place, as well as recent experience on a project with similar scope and third party coordination challenges.

CTA / FHP JV Partnership













FHP JV and our trusted team members are committed to meeting CTA's goals for RLE, and we are confident that we can work with CTA to build this project. We've discussed the challenges that RLE will present, and we've already taken steps with CTA to come up with solutions as a team. Our proposal will demonstrate our commitment to RLE and to CTA's broader goals for this project.





1 PROJECT MANAGEMENT

MANAGEMENT & ORGANIZATION

Overall Management Philosophy

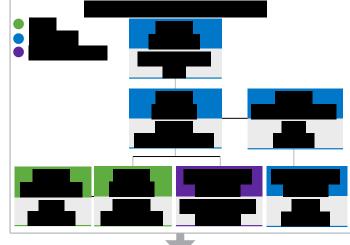
RLE is a transformative and public-facing project in an area that has been underserved for decades, especially in transit options. F.H. Paschen, Ragnar Benson, Milhouse, BOWA JV (FHP JV) understands what it takes to manage large scale design-build projects that are community-sensitive. Our team's overall management philosophy was developed to meet the challenges of a long duration megaproject in an urban area.

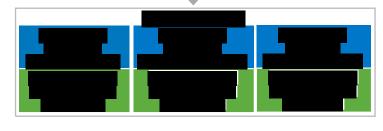
A design-build project has moving parts that must be linked and working together at all times. The ultimate goal of our team's Design-Build Management System (DBMS) is effective integration of design, construction, safety, quality, and overall project administration. It assigns ownership and responsibilities across the project through implementation of DBMS plans. These plans serve as a guide for team members and will be prepared and coordinated to work together. They serve as key management tools in each area of the DBMS. Our experience has proven that utilizing these plans provides the Team with clear procedures and expectations and allows for strong management controls throughout the project. This will include constructive input from CTA through the review process, which will also provide transparency and integration throughout the Project. The following elements (Figure 1-1) drove the development of FHP JV's overall Project Management strategy for designing and constructing the RLE project:

Project Management Plan

Our PMP defines the practices and procedures that will govern day-to-day management and facilitate communication across the entire organization and within specific disciplines and locations. The PMP ensures that the Project will be completed in a manner that is clear and transparent to the FHP JV Team and CTA, and will provide a road map for collaboration and integration throughout the duration of the project. The Draft Project Management Plan is included in Appendix 3.A.

The Project Management Team is responsible for developing, implementing, and updating the PMP throughout the project.

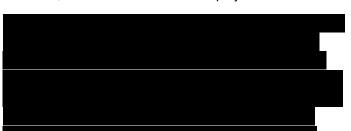








Our proposal pursuit team is made up of discipline-based design and construction experts that will be on the RLE project team, providing continuity from the RFP phase through the design and construction of the project. This team's history of working together, along with their extensive experience on CTA and major infrastructure projects was invaluable as we developed our approach, schedule, and estimate for the RLE project.





RLE will require a large staff, strong leadership, and clear administrative processes throughout the duration of the project. Developing project-specific administrative processes and comprehensive onboarding and ongoing training for all team members is critical. Our design-build team has recently accomplished this on the NICTD West Lake Corridor project.

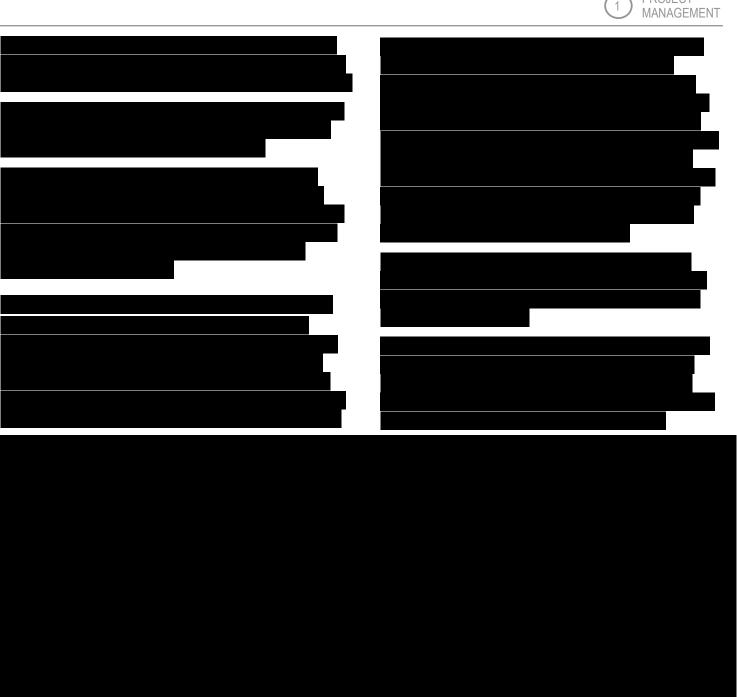
FHP JV / JACOBS TEAM - EXPERIENCE WORKING TOGETHER





Several members of FHP JV and Jacobs have worked on the 95th Street Terminal project and/or NICTD WLC. FHP JV, Ragnar Benson, key subcontractors, and Jacobs will be transitioning to RLE from NICTD WLC, a project with many of the same features and challenges as RLE. This recent, shared experience will be especially valuable with project start-up and the development of the Design-Build Management System (DBMS).



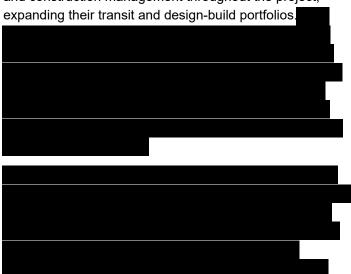




DBE and Workforce Commitment

Our team, led by F.H. Paschen, is committed to meeting DBE and workforce goals on this project. F.H. Paschen has always met CTA's goals and prioritizes this throughout every project. FHP JV held informational outreach events for RLE during the RFQ/RFP phases and attended all CTA outreaches and road shows that pertained to RLE. Upon award, outreach events will be more intentional and tied to the project schedule.

At the joint venture level, our team includes Milhouse Engineering and Construction, Inc. (Milhouse) (MBE) and BOWA Construction (MBE). They will provide engineering and construction management throughout the project, expanding their transit and design-build portfolios.



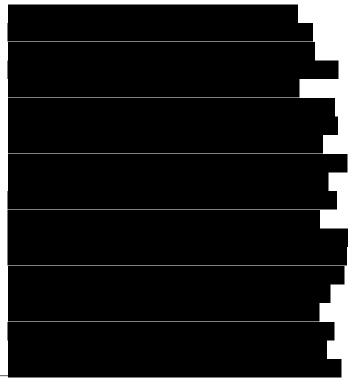


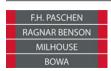
To meet the workforce goals, we will work with several Workforce Partners to connect people with preapprenticeship programs or union apprenticeship programs. We will also identify individuals that are looking to re-enter the workforce but need assistance in doing so. We will hold regular informational workforce outreach events as well as hiring events. Our team will work closely with Chicago Public Schools Chicago Builds Program and Dawson Tech to reach high school and college students that are interested in the trades. All workforce outreach will begin immediately upon award to place as many candidates as possible in pre-apprentice and apprentice programs during the lengthy design phase.

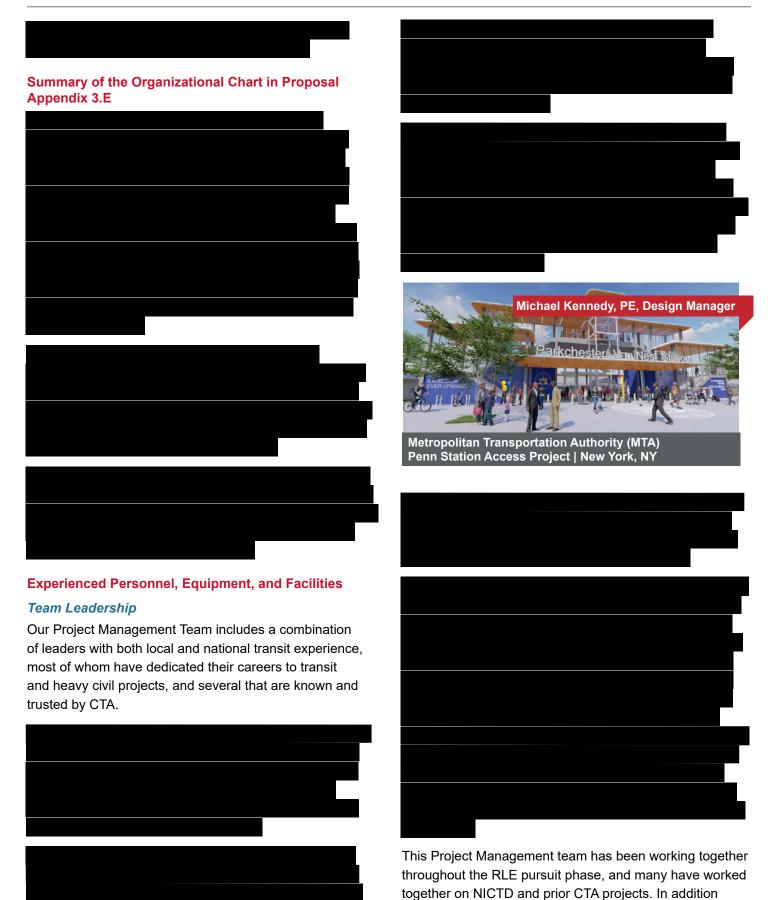
Zann, Inc. | Public Information and Outreach

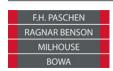
RLE will require a comprehensive public outreach program that is developed by experts. We will engage Zann, Inc. to implement and manage FHP JV's public outreach program to ensure that CTA and the community stakeholders are informed in a consistent and creative way that is transparent, and highlights the benefits of RLE.

Community Relations / Public Communication











to the Project Management team, several experienced managers and superintendents, as well as members of Jacobs design team, will transition from NICTD to RLE, bringing an experienced and established operations team that has worked together for several years. This history and shared experience will benefit the RLE project, especially with project start-up and establishment of processes and procedures, both administrative and work-related. FHP JV brings a strong team at all levels of management.

Key Subcontractors

As part of our team of local subcontractors we have engaged industry leaders in electrical/systems, track, and deep foundations. Mass.-Aldridge, JV (MAJV), Stalworth, and RailWorks have been working throughout the RLE RFP phase to develop the most efficient design and construction plan. They will continue to provide design assistance and constructability reviews throughout the project. Aldridge, Stalworth, and RailWorks are also key subcontractors on the NICTD WLC project.



MAJV is a joint venture comprised of Mass. Electric Construction Co. (MEC) and Aldridge Electric. MEC is a subsidiary of Kiewit Corporation and one of the most experienced systems design-builders in North America. MEC specializes in the design, integration, procurement, manufacture, installation, testing, and commissioning of systems. MEC consistently delivers innovative, safe, reliable, world-class transit systems and has extensive experience addressing the challenges associated with integrating new systems with existing legacy systems. Aldridge Electric (Aldridge), ranked 13th in ENR's national Top Electrical Contractors list, brings transit/rail experience that includes several CTA projects. They have the workforce and equipment resources required to complete and meet the high demand of the RLE Project.

Stalworth Underground (Stalworth), affiliated with F.H. Paschen through common ownership, provides deep foundation and earth retention work in and around Chicago, including on CTA projects. Their industry veterans, cutting-

edge equipment, and advanced geotechnical techniques have made them a trusted subcontractor to F.H. Paschen and many other local general contractors.

RailWorks builds and maintains track across North America. Besides their vast CTA experience, their portfolio includes over \$1 billion in revenue on transit projects, all of which were subject to FTA certification.

Key Design Subconsultants

As subconsultants to Jacobs, our team includes local design leaders with CTA experiences that include AltusWorks, SOM, and JLK Architects for station design, TranSmart for civil and utilities design, and TSSS for safety and security certification.

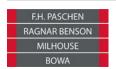


Lead Architectural Designer, Terry Sullivan, AIA, (AltusWorks) will manage and oversee the design of the four RLE stations. **JLK** will lead the design on 103rd and 111th Street Stations, and **SOM** will lead design on Michigan Ave. and 130th Street stations. JLK and SOM recently delivered the 100% contract documents for the CTA State/Lake Station replacement.

TranSmart, a local civil engineering firm that is well-known by CTA, will be providing utilities design managment, commissioning management, as well as the Segment 3 Design Package Manager. **Transit Safety and Security Solutions (TSSS)**, a safety and security certification firm with CTA experience, is providing the Lead Systems Integrator.

Equipment

F.H. Paschen, our JV partners, and key subcontractors own and operate large fleets of equipment for use on the RLE project. F.H. Paschen and Stalworth's heavy equipment fleet mix is maintained in two climate-controlled warehouses in the Chicago area. All equipment is serviced by certified technicians and deployed to jobsites as needed. Our team has the resources to obtain specialty



equipment when necessary to supplement our fleet and project needs, which is also an opportunity for DBE participation. Additionally, MAJV, Stalworth, and RailWorks have the equipment that is required for their scopes of work. If needed, subcontractors will have equipment commitments incorporated into subcontract agreements.

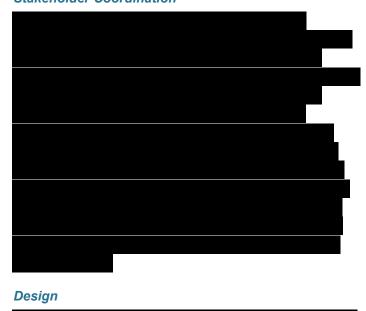
Facilities

FHP JV will add a 20,000 SF trailer complex and parking area on the CTA-provided property for the RLE project staff. We will secure staging areas within the project area and will utilize F.H. Paschen's yard in South Holland as needed.

Approach to partnering with CTA

A project of this size and scope will require strong partnership between our team and CTA. A partnership approach from the start establishes the commitment to a long-term relationship among project participants based on mutual trust and teamwork. We will develop an issue resolution process with CTA so that unresolved issues do not interfere with project goals and objectives. One of the most important "lessons learned" from our extensive design-build rail/transit experience is that unresolved issues are a determent to the team on both sides. Our solution-driven Project Management Team knows how to work with CTA to resolve issues to keep the job moving.

Stakeholder Coordination





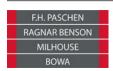
Construction

Our partnership with CTA during construction will be facilitated through co-location, process plans, and regular meetings. A defined issue resolution process will be implemented to ensure that disputes/issues are resolved quickly and do not affect the project schedule.



Community Relations

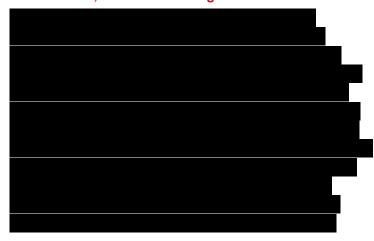






will be benefits such as DBE and workforce opportunities, internships, community hiring, and support of local businesses, and our Community Engagement Team will highlight this as much as possible throughout the project.

Approach to Managing Design, Procurement, **Construction, & Commissioning**



Management Processes and Procedures	
Design	 Procore, e-Builder, Bluebeam procedures
	 Develop internal training program
Procurement	 Procore, prequalification procedures
	 DBE planning worksheets
	 Buy America compliance information packets
Material Procurement	Templates
	 Material commitment dates in subcontract agreements
Construction	Detailed planning during designRefinement procedures
Commissioning	Incorporation of TIC into each phase of design and construction.

phase of design and construction



will ensure that design and construction is integrated throughout the project. He will monitor the comment process to facilitate communication and expedite resolutions that keep design moving forward.

Mitigating and Reconciling Inconsistent Design And **Construction Priorities**



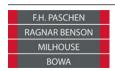
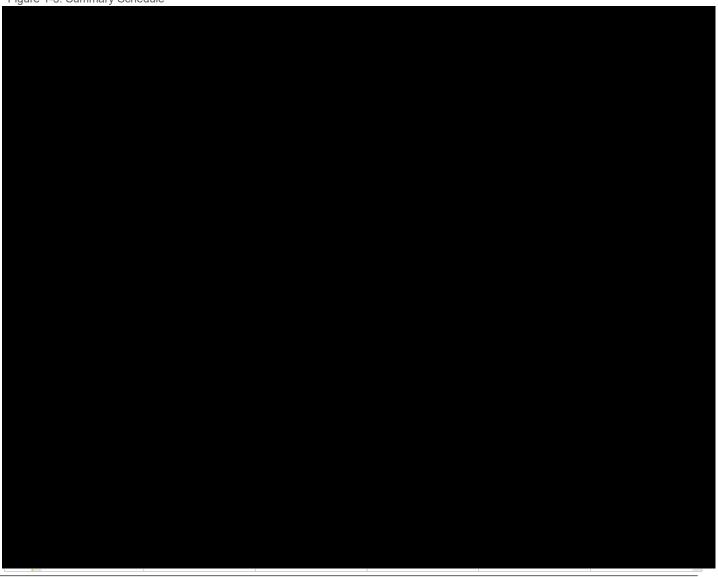




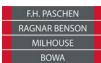




Figure 1-5: Summary Schedule

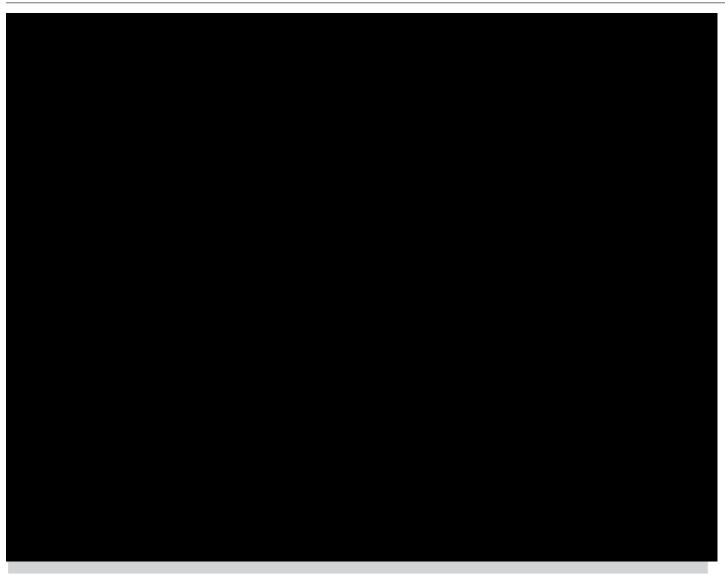




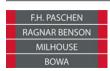




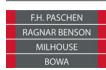








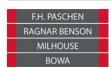












of Construction Quality Control involve proper planning and communication with our safety team, quality team, production team, and subcontractors. Construction planning is important to maintain schedule by determining long and short-term milestone targets. Implementing the Three Phases of CQC involves:

- Understanding the scope of work to be performed.
- Discussing constructability/means and methods of the work.
- Organizing resources and determining the number or resources needed.
- · Understanding potential risk and construction issues.
- Developing a contingency plan.
- Reviewing construction process plans.
- Reviewing schedule for completion of the scope of work
- · Discussing any impacts to the schedule
- · Ensuring quality requirements are understood.
- Ensuring testing requirements are understood.

Another important aspect of our QMS is document control. Controlling documents and red lining documents in real time ensures the correct version of drawings, submittals and RFIs are used in the field. Installation of compliant materials, product and equipment indicated in the contract documents is an important aspect. Our receiving inspection procedures ensure correct material, product and equipment is installed in the work.

Roles & Responsibilities of Key Personnel & Staff

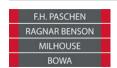




Quality and safety will always be prioritized over production. All members of the Quality Management Team have the responsibility and authority to stop work for nonconformance. We empower all workers with the authority to stop work if there are unsafe conditions or circumstances.

Interface with CTA

Each work day, our team issues Daily Work Notifications (DWN), both internally and externally to communicate the planned work for the following day in a more detailed format than the Look Ahead Schedule. DWNs include the work activity and the planned quality inspections or Independent Testing Agency testing associated with the work. If questions arise from CTA related to the distributed





DWN or the Quality content of the DWN, discussions about specific activities are initiated so the appropriate CTA review of work can occur. These conversations occur daily and are part of the normal routine.

Nearly every meeting will cover topics relative to safety and quality. If Quality issues or concerns expand beyond what occurs in daily discussions, these issues will be elevated to management level including key staff. Addressing Quality issues or concerns promptly allows the project to proceed and not be delayed or continue with a recurring issue.

More formal Quality related discussions occurs in the regularly scheduled Quality Meeting, but the FHP JV or CTA team should not wait for this meeting to bring up Quality issues that could be addressed via daily discussions or correspondence. Other formal meetings include Pre-Fabrication Meetings, Pre-Activity Meetings, and Mock-Up reviews where there will be significant discussion on Quality with key staff members present. As the work progresses, FHP JV will interface with CTA through Safety and Security Certification to update the testing and inspection plan.

Communication Plan

FHP JV's use of an integrated cloud-based system (Procore) for hosting our Project files is essential to the design, procurement, construction, and close out phases. Our processes and procedures ensure that notifications are distributed to all parties from first tier to lower tiers. Types of notifications include:

- Notifications based on updates to "bidding" documents for packages in procurement
- Notifications when new redline drawings are issued based on responses to RFI's.
- Notifications when Design Changes (official stamped) updates to drawings are issued by the Designer.

These notifications are also issued in multiple forms:

- Addendum correspondence for users during the bidding process.
- Normal correspondence issuances
- Procore "Push Notifications" via mobile devices and email.

Quality Staffing Levels



Approach to Quality Assurance

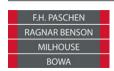
Quality Assurance is the verification that quality control is functioning as required. Regular internal and external audits of the Quality Management System and subcontractors will be scheduled and conducted to ensure that the elements of the CQMS are functioning as intended. The Quality Management Team will use the guidelines in ISO 19011 to develop the schedule for auditing activities. Audit results are documented in an Audit Report. The audit reports will indicate findings, observations, improvements, and recommendations for the auditee to respond to. Internal audits will be presented to the Project Management leadership team for discussion at monthly management meetings. External audits will be presented to the auditee outside of the JV organization.

Quality Assurance Inspectors perform quality assurance in the field through surveillance, monitoring, and auditing by use of the subcontractor audit review form, the specifications, and the drawings. This verifies how the subcontractors are implementing quality control requirements and following the CQMS. The Quality Assurance Inspector will interface with the CQM and subcontractors to provide results and feedback and recommend improvements if any are required.

Approach to Quality Control

The approach to quality control is to develop control mechanisms to prevent non-conformances. Our Three Phases of Construction Quality Control ensures proper planning, understanding of scope, dedicated resources, establishment of milestones and understanding of quality requirements. Our three phases of Construction Quality Control consists of identifying and conducting a Preparatory Meeting, an Initial Meeting, and multiple Follow-ups to all identified Definable Features of Work (DFOW).

The Preparatory Meeting occurs shortly after the award of each subcontract agreement. The Preparatory Phase meeting is for all parties to understand each phase of the "Three Phases of Construction Quality Control",



safety requirements (fall protection, crane lifts, roofing, OSHA, etc.), quality requirements (testing, inspection, workmanship, tolerances, etc.), scope of work, potential man power, schedule, subcontract agreement, submittal requirements, mock up requirements, insurance requirements, warranty requirements, and the desired results of the final work. This control mechanism will catch any misunderstanding with safety requirements, quality requirements, submittal requirements, site logistics, delivery requirements, and any other documentation and administrative requirements.

The purpose of the Initial Phase Meeting is for all direct field personnel, such as Subcontractor Foreman, FHP JV Superintendent, Quality Management Team and ITA, safety team and other personnel to understand the safety, quality and production requirements as well as understanding the means and methods of the Definable Feature of Work (DFOW) that may affect this activity. This control mechanism invokes thought and detailed discussions of safety and quality requirements and will catch any misunderstanding of the quality requirements, such as testing, hold points and acceptance criteria. This meeting will manifest, any issues with means and methods of the construction, and can be corrected at this time of the meeting. Submittal comments and RFI's are discussed to ensure clear understanding of what is required. This meeting occurs 5 days prior to the start of the work. This time frame provides additional time to work out concerns or issues that were discovered in the meeting and potentially start the work as scheduled.

Construction Process Plans are another control mechanism that provides the step-by-step means and methods of how the construction is to progress. The CPP is reviewed in the pre-activity meeting with CTA to understand and agree on the prosecution of the work. The work must follow and conform to the CCP. This ensures the work is progressing to achieve compliance with the contract requirements.

The follow up phase is an in-process inspection performed by the Superintendent to verify the subcontractor is performing the work in compliance. The Quality Control Inspectors will perform in-process inspections and verify the work is compliant with the specifications and drawings and ensure hold points are adhered to. Receiving Inspection of materials, product and equipment is performed to verify the delivery is compliant prior to permanent installation.

Any domestic requirements are also verified during the receiving inspection. Quality Control Testing is performed in accordance with contract requirements to ensure materials are compliant before use. The in-process inspection control mechanism will catch potential non-conformances, ensure proper material is installed, and current drawings and specifications are being used.

Monitoring/Improving the Quality Program

The Quality Manager is responsible for the overall quality program for the Project. The QM will perform internal audits on the quality team and production team to verify implementation. Through results of the audits and discussions with executive management, revisions may be necessary to improve the execution of the CQMS. The QM will monitor and measure quality activities and determine if there is a need for improvement through review of quality documentation, submittal process, and the overall document control process. The QM will interface with the CQM and Production Team leaders and provide any feedback for improvements in implementation of the CQMS.

QA/QC Measures for Construction of Aerial Structures







Receiving inspections are performed on delivered materials and product specific to the aerial structures to ensure compliance prior to installation.

Quality Assurance measures are implemented through audits and surveillance of fabricators and field subcontractors. Aerial staff members perform review audits with field subcontractors to verify they are following the FHP JV quality program. The ASSM reports audit results to the Quality Manager, who reviews and meets with the quality team for any improvements that need to be made.

SAFETY & SECURITY

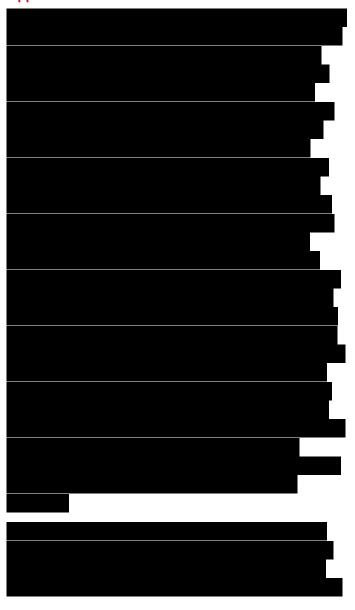
Approach to Safety

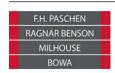
FHP JV knows that the key element of a successful rail transit system is safety – not just safety during design and construction, but also safety for its customers and members of the community. We will coordinate the design, construction, and testing phases of this project through the safety and security certification process. Safety and security certification is the process of verifying that a predetermined list of safety/security critical systems and subsystems,

procedures, and training programs comply with a formal list of requirements at all key stages of the project from design through construction/installation, testing, and system activation. We will work with CTA to implement this process in accordance with existing practices and standards established by the FTA and CTA in the same manner as we have worked with agency staff on other projects, such as the 95th Street Terminal Improvements project.

The Safety and Security Certification Plan will provide CTA with the assurance that FHP JV has designed RLE with the safety/security-related and industry standard requirements to ensure safe and reliable service.

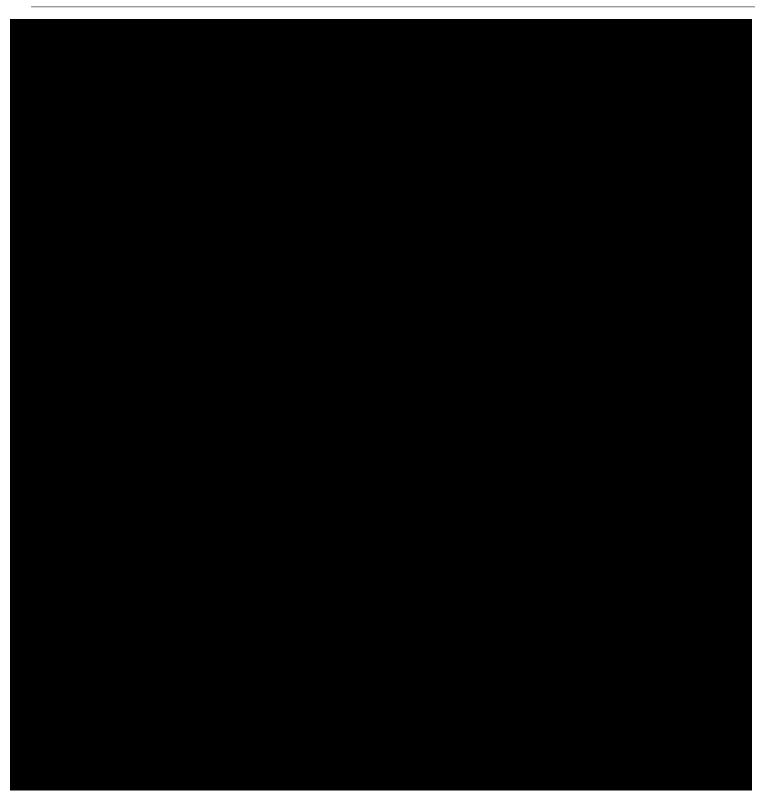
System Safety & Security Plan & Certification Approach



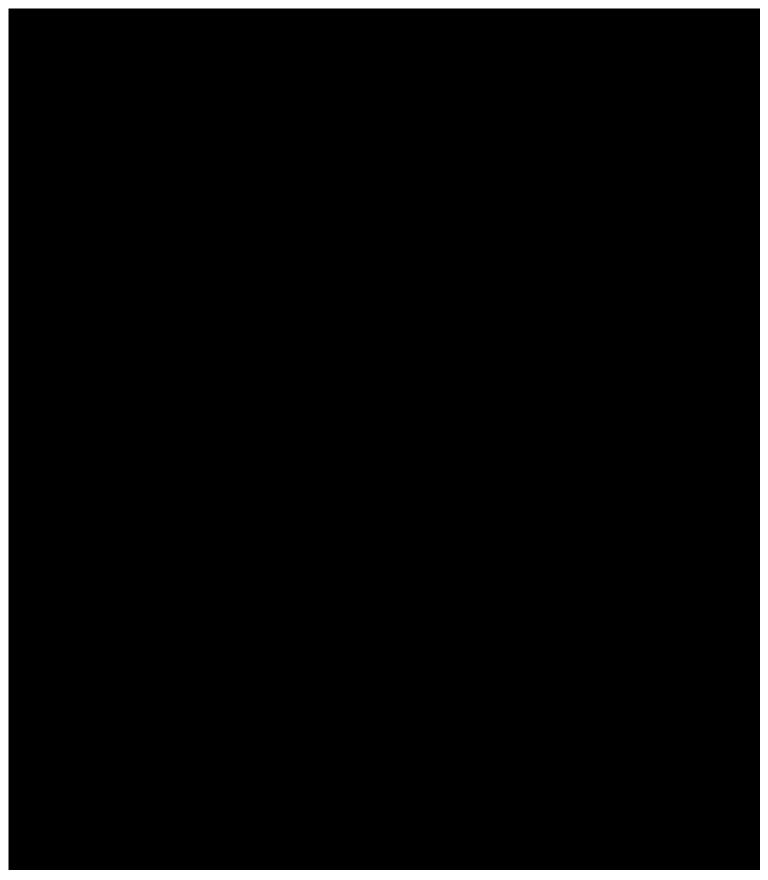








SSC Certification Process



DESIGN





TEAM & PERSONNEL EXPERIENCE



(4) TEAM & PERSONNEL EXPERIENCE

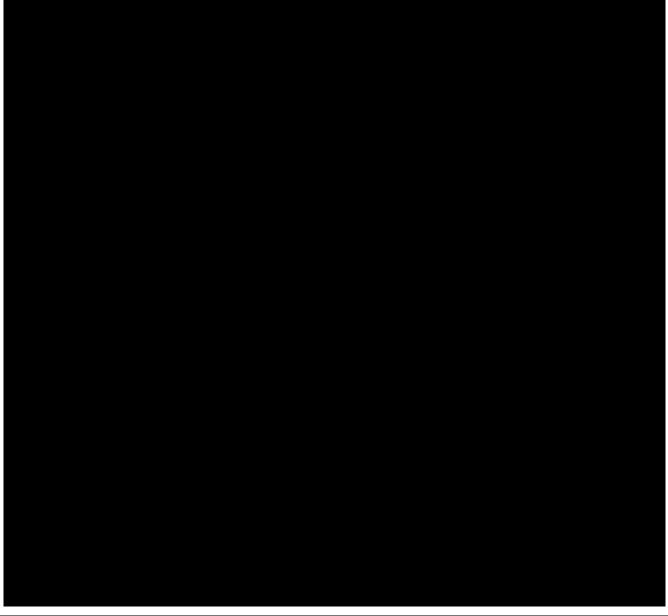
TEAM AND PERSONNEL EXPERIENCE

FHP JV, in partnership with Jacobs (Designer), brings together firms that have established working relationships and proven design-build processes. We've supplemented our team with three trusted, local subcontractors that have mega project,

We are committed to building on our current team with intention, providing opportunities, guidance, and training to DBE and smaller firms that are new to transit work. As always, every firm on our team will be expected to demonstrate the highest commitment to safety and quality.

Figure 4-1 Overall Corporate Organizational Chart







COMMUNITY IMPACTS

5 COMMUNITY IMPACTS



The CET Team will develop a process to prepare upcoming work plans and anticipated impacts, social media content, monthly newsletter content, and project progress photos for regular submittal to CTA Public Outreach. Storyboards and animations of the approved Concept Design will be provided by Jacobs. Anthony will also work with Zann to develop additional content for distribution that highlights the positive benefits of the RLE project.

FHP JV will attend community meetings to listen to project area residents' views and ideas for the design of certain project elements. The views of the community that are acceptable to CTA will be reviewed and incorporated if there is no impact on cost or time, or CTA can direct a change to implement the community views.

The CET Team will be proactive in informing the community and businesses of upcoming construction impacts. Our website will include a calendar of construction schedule impacts coordinated with community events, and it will also be distributed to the community.

Additionally, our Community Engagement Team will develop a process to survey the area residents throughout the project to assess the effectiveness of our Public Outreach Support Plan and revise it as needed.





Access Plans will be developed for properties that could be affected by construction due to limited access or closures of streets, alleys, and sidewalks. All affected areas will include clear signage. Pedestrian areas will include signage and, if necessary, barriers to provide separation from work zones. If needed, we can work with businesses to customize signage to provide more detail than "Open for Business." As much as possible, access for patrons, deliveries, and loading zones will be maintained for business continuity.

Maintenance of Traffic (MOT) Plans will be developed to demonstrate how we will maintain City services and emergency access, and will include the routing of construction traffic away from schools, parks, and other areas where children congregate. A calendar of construction impacts coordinated with community events will be developed and shared with CTA for distribution to residents. Opportunities for alternate parking and/or storage when properties are impacted will be identified. The plan will include methods to accommodate deliveries and services during construction disruption. This information will be included in the Public Way Impact Mitigation Plan.

MITIGATING IMPACTS ON THE COMMUNITY THAT PREVENT ACCESS TO PARKING



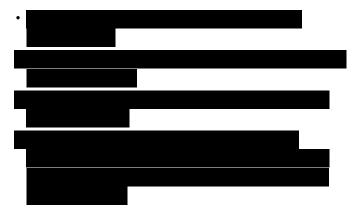
MITIGATION OF NOISE, VIBRATION, AIR QUALITY INCLUDING DUST, AND LIGHT POLLUTION

Noise: FHP JV intends to minimize noise throughout the Project Area by working typical industry work hours and limiting night shift work whenever possible. Our team will use properly sized equipment to reduce overutilization, which increases noise levels when operated at maximum capacity. Frequent maintenance will be performed to ensure proper function, including exhaust systems that can increase noise levels when not functioning properly. Where practical, we will erect temporary noise barriers or enclosures. We will monitor dBA levels during construction activities and make adjustments when necessary, and if possible.

Vibration: FHP JV will identify strategies to minimize construction-related vibration impacts, including the use of less vibration-intensive equipment and techniques. We will use vibratory equipment that is designed to only operate at maximum eccentric moment and amplitude during use and not during startup or shutdown.

In accordance with FTA guidelines, we will submit a Vibration Management Plan for ground-borne vibration. This will include monitoring and real-time notification when a set threshold is exceeded, at which time our means and methods for this location will be reviewed. We will coordinate the necessary public outreach and notifications with CTA.

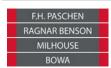
Erosion & Sediment Control: FHP JV will install and maintain all erosion control measures necessary to prevent erosion and runoff from the site. We will submit Erosion and Sediment Control Plans that will address soil erosion and displacement of soil via stormwater runoff in land development areas. Erosion / sediment control measures include:



Air Quality: During construction activities the Design-Build team will take the following measures to reduce project-related dust:

- Water trucks onsite along the corridor to control the dust onsite
- Controlled and maintained construction entrances
- · Maintained construction haul routes
- · Wheel washes when necessary
- Sweepers to control dust on roadways

Light: When we are required to work at night, we will use portable light plants, including fixed lighting throughout the corridor, and carefully plan the placement of lights to



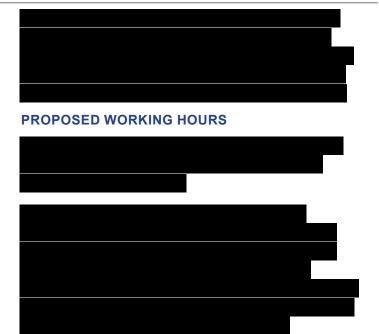
face away from homes and businesses. Light fixtures will be shielded to avoid emitting light upward and use "warm white" to minimize bule emission.

MITGATION OF VISUAL IMPACTS



MITIGATING IMPACTS TO CTA OPERATIONS





When areas of work require us to work at night we will utilize portable light plants including fixed lighting throughout the corridor, and carefully plan the placement of lights to face away from homes and businesses. Light fixtures will be shielded to avoid emitting light upward, and will use "warm-white" to minimize blue emission.

Noise is also a consideration for nighttime work. Noise control measures include locations of mobile and stationary equipment away from sensitive receptors. Noise suppression devices also may be utilized.





DIVERSITY & WORKFORCE



F.H. PASCHEN RAGNAR BENSON MILHOUSE BOWA

ENGAGE | CONNECT | ELEVATE

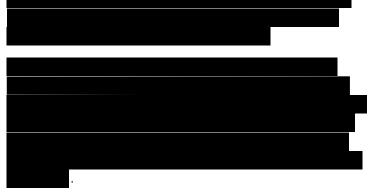
OVERALL APPROACH TO DIVERSITY AND WORKFORCE DEVELOPMENT

F.H. Paschen, Ragnar Benson, Milhouse, BOWA JV (FHP JV) recognizes the magnitude of the Red Line Extension project. It's a project that will impact the entire City of Chicago, but especially the South Side, which has been historically underserved in transit options. Connecting residents to downtown and the rest of the city provides opportunities by eliminating the barrier of transportation. To us, opportunity is the theme of this project. FHP JV is





We know that the DBE and workforce outreach required for this project will be on a larger scale than any project that we have worked on.



FHP JV is committed to meeting and exceeding CTA's DBE and Workforce goals for the RLE project.

ENGAGE | CONNECT | ELEVATE

- > FHP JV's DBE Management, Workforce Management, and Public Outreach and **Engagement Teams will be interconnected** throughout the Red Line Extension project.
- > Organized and consistent collaboration with Assist Agencies, Workforce Partners, and Community Groups is essential to meet and exceed the project goals.
- > FHP JV is committed to meeting CTA's DBE and Workforce Goals.



DBE and Workforce Outreach Team Structure

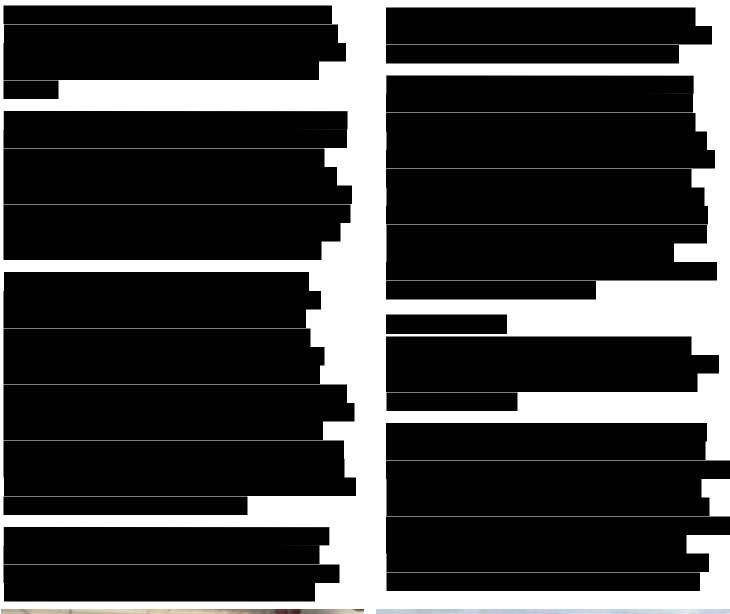
As stated, we know that to be successful at engaging the community and meeting the DBE and workforce goals on a project of this scale, we need a robust team that will require internal managers as well as additional team members and expertise. As we planned for the RLE project, we committed to full-time internal management roles for DBE Outreach and Workforce Outreach that will be filled upon award of the RLE project. We will add additional support staff for each as needed throughout the project. Upon award, as part of our overall DBE and Workforce Outreach plans for RLE, we will also engage two firms that will be key partners.













The RLE team held a Workforce Information event at Dawson Tech attended by over 40 students, union representatives and preapprenticeship programs.



Paschen Scholars go on several project visits per year. During their 2023 summer internship at F.H. Paschen, they learned about building on an active airfield at O'Hare Airport.







DBE OUTREACH PLAN



Focused Team

FHP JV is committed to dedicating resources to ensure that our team is on track throughout the RLE project to meet the DBE goal. FHP JV's DBE Manager will work with Zann, Inc. and Llano & Associates to engage, assess, and connect DBE firms to RLE opportunities. RLE DBEs will have been assessed for potential areas that need training or support in areas such as LCP Tracker, Procore, pay application, or BIM requirements.

Intentional Outreach

Our Team is committed to meeting the DBE goal, which amounts to millions of dollars in subcontracting opportunities for DBE firms. Our DBE Outreach and Training Plan will focus on identifying, engaging, and tracking DBE firms to connect them with project opportunities while also providing bi-monthly training sessions that will be held in the project area.

FHP JV commits to quarterly outreach events from project award through Q4 2028. The quarterly events will follow a format that includes a networking period and a training/informational element. The outreach events will be intentional, with a clear list of scopes/trade packages in the procurement stage. Llano and Associates has a comprehensive knowledge of the local subcontractor marketplace and will evaluate the current project needs to advertise each event accordingly. RLE scope-specific opportunities that are tied to the project schedule will also be advertised on our project website as well as through traditional advertising.

A preliminary RLE DBE outreach schedule is included as Figure 6-2 at the end of this section and in Appendix 3.F DBE Outreach Plan.

Procurement Connection

As always, bid packages will be structured to maximize DBE participation, and we will work with our larger subcontractors to ensure that they also provide 2nd tier opportunities to DBE firms. While DBE outreach events will be an important part of our engagement strategy, we acknowledge that they may not always result in firms working on the RLE project. We realize that even with support, RLE may not be the best fit for some firms and we may encourage engagement on smaller projects as an introduction to working with public agencies and/or working







MENTOR PROTEGE AGREEMENTS



Upon award, FHP JV will initiate Mentor Protege Agreements with Acclaim Collier Engineering and Pac Leaders.

new firm formed in 2022, to assign management, project controls and coordination professionals to the FHP JV team where they will be mentored in construction management, while gaining valuable experience on this unique designbuild project with CTA.



Mentor Protege Agreements

If awarded the Red Line Extension project, FHP JV will initiate two Mentor Protege agreements.

Pac Leaders (DBE/MBE/HUD/CHA Section 3 Certified)

is a local Chicago-based carpentry contractor that will not only perform stations work on the contract, but will join us in our workforce outreach efforts. Pac Leaders is passionate about providing opportunities in Black and Brown communities and developing trades careers for craftsmen and women.

Acclaim Collier Engineering (DBE), is the first Veteran, Black, Woman-Owned project management/engineering firm certified in Illinois. This opportunity will allow ACE, a





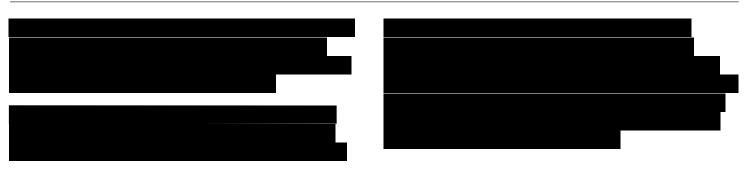


Figure 6-2 FHP JV Preliminary DBE Outreach Schedule



WORKFORCE OUTREACH & DEVELOPMENT PLAN



Collaboration with Workforce Partners

Anthony Beckham will lead this effort in partnership with our internal Workforce Outreach & Coordination Manager and local workforce partners. They will collaborate to manage the RLE project workforce opportunities and needs. The Workforce Outreach and Coordination Manager will maintain communication with project management, local union officials, and subcontractors on the project to gauge current and future workforce needs and regularly meet with our workforce partners to identify potential candidates.

Anticipate and Plan for Workforce Needs



Hiring Events: FHP JV will hold quarterly hiring events during construction in the project area that will include our subcontractors, workforce partners, union representatives, job readiness groups, and pre-apprenticeship programs. These events will be advertised on our FHP JV website as well as in newspapers and on social media.

Apprentices: The Workforce Outreach and Coordination Manager will work with our workforce partners to identify eligible candidates. Lists of eligible pre-screened

candidates will be distributed to the project team, including subcontractors. All subcontractors will be expected to meet workforce goals. Between FHP JV and RLE subcontractors, we commit to sponsoring six (6) new apprentices per year during construction.

WIOA/Section 3: WIOA / Section 3 Workers: FHP JV will engage Chicago Cook Workforce Partnership (The Partnership) to identify eligible candidates. FHP JV's Workforce Outreach and Coordination Manager will facilitate the interview process. We will also identify administrative, non-trade opportunities for potential WIOA and Section 3 applicants. WIOA and Section 3 will be tracked and analyzed weekly throughout the project.

Disadvantaged Service Area Zip Codes: LCP Tracker reports will be analyzed weekly to ensure that we are on track to achieve the 35% goal. We will engage The Partnership to identify potential candidates. We will also identify potential administrative, non-trade opportunities for these applicants.

Returning Citizens: FHP JV is open to hiring returning citizens to include those with criminal backgrounds, domestic violence survivors, or the unhoused. We will do this in partnership with organizations that specialize in vetting and providing workplace readiness training to the candidates. The safety of all RLE staff will always come first. We have worked with Cred in the past and will work with Cred and similar organizations that provide FHP JV with candidates for consideration. FHP JV does not have a policy against hiring returning citizens. F.H. Paschen performs background checks, but does not discriminate. FHP JV will follow F.H. Paschen's hiring processes.

Education and Training

One of the goals of our proposed Workforce Outreach & Engagement plan is to inform and educate as many people as possible about the opportunities that are available in the trades and in the AEC industry. As stated earlier, we will engage several local workforce partners and workforce centers throughout the City of Chicago.

Informational Events: FHP JV will hold two informational events per year in the project area that will include our subcontractors, workforce partners, union representatives, job readiness groups, and pre-apprenticeship programs.



These events will be advertised on our FHP JV website as well as in newspapers and on social media.

Student Outreach: Our team has an established relationship with Dawson Tech/Kennedy King College and the CPS Chicago Builds program. Starting at project award, we will hold regular informational events similar to the two that we held during the RFP Phase. We hosted CPS high school students from the Chicago Builds program and students from Dawson Tech's Intro to Trades and Construction Management program to hear from Hire360, Revolution Workshop, Chicago Women in Trades, and local union officials. We plan to continue this format for current high school and college students throughout the RLE project, starting at project award to encourage students to consider the trades or other AEC careers. We will also use Revolution Workshop's new training facility at 120 East 111th Street as one of the locations for workforce informational / hiring events and/ or training sessions. We commit to hosting one workforce information event per academic semester, specifically for high school and college students. During construction, we will also host RLE field trips for students to provide a first-hand look at the RLE project. Project field trips offer students the opportunity to see the management side in the office and the on-site field construction, and how they work together to build the job.

Student Internships/Scholarship Fund: The RLE Scholarship Fund is not only for students attending four-year colleges. It will also apply to students who plan to

attend pre-apprenticeship programs or other construction training. Recipients of the scholarship will be encouraged to apply for internships on the RLE project

Tracking and Assessment

We know the importance of building a workforce that is representative of the project area, and we are committed to doing so. We will provide monthly reports to CTA that track our progress. Our team is dedicated to delivering a project that opens the door to construction careers and contributes to building the workforce of the future.





The striking green pedestrian bridge sections for the new CTA Green Line Damen and Lake Station (painted by a minority subcontractor) were transported via barge and trucked to the site. It will be erected over CTA track structure during a 50 hour weekend shutdown. The Damen and Lake project workforce is 57% minority, and F.H. Paschen's self-perform workforce on the project is 76% minority.



PLAN FOR UTILIZATION OF MINORITY-OWNED DEPOSIT INSTITUTIONS

Plan for MDIs



- Pacific Global Bank | 2323 S. Wentworth Ave
- International Bank of Chicago | 5069 N. Broadway

Innovative Partnering

Our approach to partnering with Pacific Global Bank and International Bank of Chicago will include the following:

- We will identify each MDI on the Project Website and include links to each bank
- We will invite each MDI to attend any FHP JV community or outreach event. This offers them the opportunity to advertise the services that they offer to DBEs, small businesses, and community members.
 If the MDI(s) cannot attend, FHP JV can provide a space for promotional or informational materials from each MDI

Location of MDIs

Pacific Global Bank is located in the Chinatown neighborhood on the South Side of Chicago.





Technical Proposal Appendices have been uploaded to Bonfire as a separate zip file.



