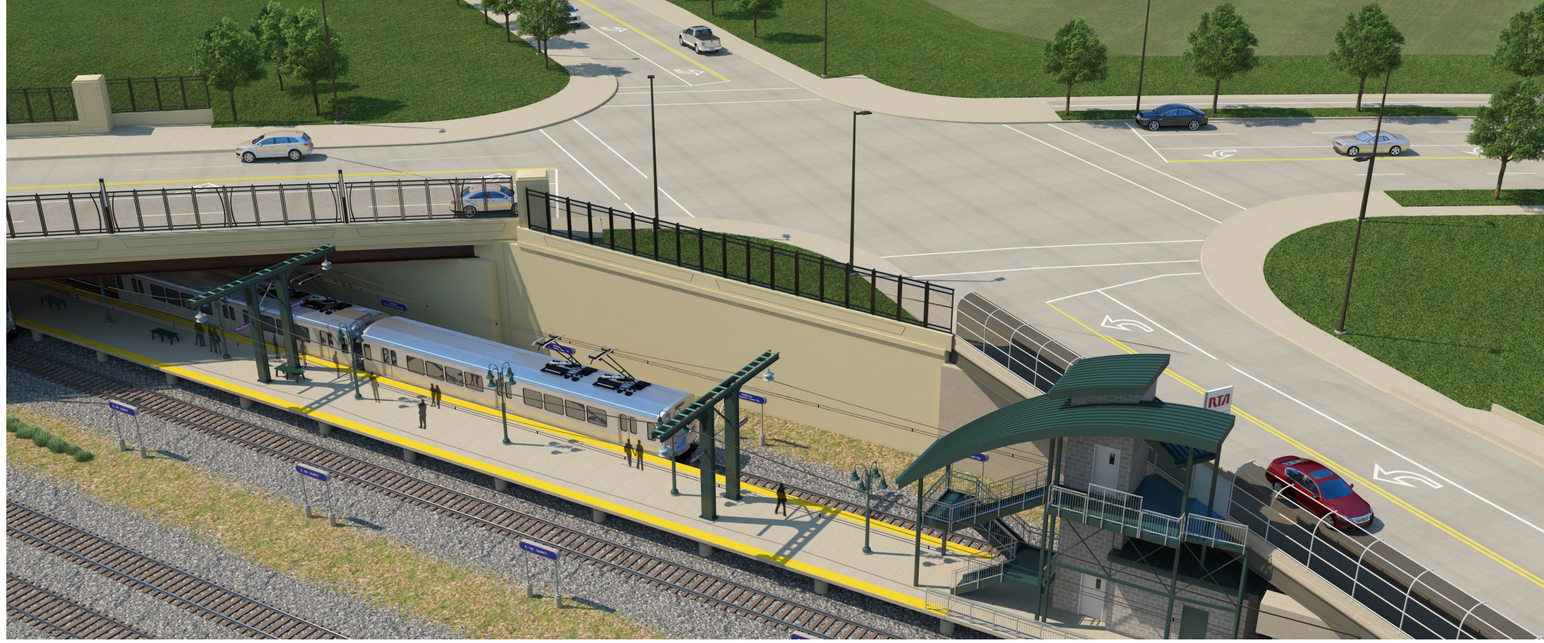


ATTENTION: LETTING MANAGER
PROJECT 3000 (16)
PROJECT: CUY-10-20.98
PID 98695
TECHNICAL PROPOSAL

THE GREAT LAKES CONSTRUCTION CO.
2608 GREAT LAKES WAY
HINCKLEY, OHIO 44233-9590
AN EQUAL OPPORTUNITY EMPLOYER





THE GREAT LAKES CONSTRUCTION CO.

GPD GROUP
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.

CLEVELAND OPPORTUNITY CORRIDOR
OHIO DEPARTMENT OF TRANSPORTATION

TECHNICAL PROPOSAL FOR:

DESIGN-BUILD PROJECT 163000
CUY-10-20.98

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

EXECUTIVE SUMMARY

The Great Lakes Construction Co. (GLC) is excited to present to The Ohio Department of Transportation (ODOT) our Technical and Price Proposal for the Opportunity Corridor – Project 2 (OC2) Section of Opportunity Corridor. This proposal was developed to showcase our Key Personnel and Design-Build Team's (DBT) extensive and unmatched ODOT design-build experience. Our DBT is comprised of GLC as the Lead Design Builder, successfully constructing 13 ODOT design-build projects, 8 of which are located in Northeast Ohio, and Lead Designer Glaus, Pyle, Schomer, Burns & DeHaven, Inc. dba GPD Group (GPD) who has successfully designed over $1B of transportation infrastructure in the last 3 years for local, county and state agencies including ODOT and the Ohio Turnpike and Infrastructure Commission (OTIC).

Four out of the seven Key Personnel on the OC2 Project have recently worked on large Northeast Ohio design-build ODOT projects.

Projects included construction over Greater Cleveland Regional Transit Authority (GCRTA) and Norfolk Southern (NS) tracks and called for significant coordination with local utility companies and agencies, all of which will be required for this project.

DIVERSITY AND INCLUSION

We are committed to meeting all project goals for New, Small, Local and Socially and Economically Disadvantaged Businesses (EDGE) on this project.

Our DBT companies have a long standing history of working in and around the Opportunity Corridor project area bringing us a familiarity with the local business community.

In preparation for this project, our team participated in ODOT's December 7, 2015 Outreach Event and held an independent Outreach Event on December 21, 2015. This event included face to face meetings to discuss project scope packages with potential New, Small, Local and EDGE businesses.

Our pre-bid Outreach efforts have allowed our team to meet all of the New, Small, Local and Socially and Economically Disadvantaged Businesses (EDGE) project goals at bid time.

Our DBT will work with ODOT, the Opportunity Corridor Inclusion & Advisory Committee along with other local project stakeholders of Wards 4, 5, and 6 in the City of Cleveland to advance Diversity and Inclusion with local businesses, workforce and Cleveland youth.

Our unique and aggressive three-pronged approach to successfully accomplish this will be led by our DB Diversity / Outreach Lead Manager Glen Shumate, Contractor Diversity / Outreach Lead Manager Jacqueline Jacob and our Value Added position Workforce Development Consultant June Taylor.

Our approach incorporates best practices from a host of successful experiences and targets three key areas:

- Business Development
- Workforce Development
- Youth Education

With our successful implementation in each of these areas, our team believes ODOT will be able to use our model for future projects throughout Ohio to advance Diversity and Inclusion in the construction industry.

PROJECT MANAGEMENT

The project will be led by DB Project Manager Jason Fischer, PE, who has been dedicated to large ODOT design-build projects over the last several years in Northeast Ohio. Jason's experience on design-build projects will help guide our team throughout the design and construction of the project.

Jason began managing this project with the Statement of Qualifications. He has worked with the designers, estimators and construction team on the design, cost, constructability and schedule for the project.

Jason will author our Project Management Plan (PMP) which will be the guide to successfully execute the project design and construction on schedule and within budget.

DESIGN

The design will be led by DB Design Project Manager Tom Washko, PE. Tom's career has been dedicated to the design, management and construction of award winning transportation infrastructure throughout Ohio. He brings a history of working with GLC on similar design-build projects.

Our DBT has provided improved designs to reduce possible conflicts including:

- Design of a two span structure over the GCRTA and NS railroad tracks to:
  - » reduce possible conflicts associated with a second pier,
  - » reduce schedule and costs to construct the bridge, and
  - » offer unseen cost savings to ODOT for less NS railroad flagging time; and
- Removal of ditches to decrease maintenance and increase commercial space for future development.

CONSTRUCTION

Our construction team will be led by our DB Construction Project Manager Greg Wisniewski. Greg is very familiar with ODOT projects along with working with the GCRTA, NS and the local utilities on the project. Greg has been actively engaged throughout the Request for Proposal phase of the project assisting our design and estimating team with identifying the most efficient way to build this project.

Our DBT has worked to minimize utility and railroad impacts to the project.

GLC's home is Cleveland, and we have the local workforce familiar with ODOT and GCRTA work and equipment available to build this project.

GLC has completed several structures over these same GCRTA and NS tracks and understands the unique requirements of each entity and who to talk to when coordinating construction activities, which will greatly benefit the construction of the project.

Thank you for this opportunity to submit a proposal for this project. We look forward to being a team member with ODOT on another successful design-build project.

Sincerely,

The Great Lakes Construction Co.

George J. Palko, PE
President and CEO

PART A:

PROJECT MANAGEMENT

A. PROJECT MANAGEMENT

A.1 MANAGEMENT APPROACH

DB Project Manager Jason Fischer, PE will be responsible for the project and will have full decision making authority along with communicating with ODOT throughout the duration of the project.

DB Project Manager Jason Fischer, PE started the management of the project from the Statement of Qualifications phase of the project.

Jason will report directly to Al Leonard, PE, Vice President of Project Management. Al will serve as the project executive for The Great Lakes Construction Co. (GLC). It is Al's responsibility to guarantee ODOT, along with all of our project owners, that his team of project managers provides the services needed to satisfy the owners' requirements. District 12, along with other districts throughout Ohio, has worked with our team and is very satisfied with the professionalism and attentiveness that our project managers bring to each of their projects.

Our experience on 13 completed ODOT design-build projects has confirmed that it is essential to have a team approach during the pursuit of a project. This team approach, led by Jason Fischer, included the following ODOT design-build experienced personnel who were intimately involved during the Request for Proposal phase of the project:

Project Executives
George Palko, PE
Al Leonard, PE
James Fox
Mark Grdina

Project Management
Jason Fischer, PE

Design
Tom Washko, PE
Dante Castronova, PE
Davin Ng, PE
Mark Grossman, PE
Dave Neumeyer, PE

Estimating
Steve Layer, PE
Dana Miller, PE
Jeff Jones
Ken Sims

Operations
Greg Wisniewski
Patrick English, EI
Jaqueline Jacob

Specialty Consultants
Glen Shumate
June Taylor
Montrie Rucker Adams
Margaret Hewitt

This collaborative effort will provide ODOT with an exceptional project design along with a local construction team that will deliver a project that exceeds scope requirements.

Our Design-Build Team (DBT) looked at multiple options for major work items along with constructability reviews at bid time which reduced construction cost and project duration as presented on the project preliminary Critical Path Method (CPM) Schedule.

Our DBT is familiar with the scope of design-build projects. Each scope section was thoroughly reviewed to ensure items were not missed during the bid process.

Our DBT is familiar with all governing regulations.

PROJECT MANAGEMENT PLAN
The overall project specific project management approach will begin with the creation and implementation of the Project Management Plan (PMP). The project specific PMP will be used during the design and construction phases of the project.

Our team has used the PMP as a tool on past design-build projects to successfully complete design and construction to reduce owner risks along with keeping the projects on schedule and on budget.

Jason, in conjunction with key project personnel, is responsible for the creation and implementation of the PMP that will:

1. Describe the management organization of the DBT and clearly define the roles and responsibilities of the Key Personnel;
2. Describe the procedures for coordination and providing the consistency and quality of all design and construction work performed for the project;
3. Define key Task Force meetings, including critical agenda items;
4. Define Constructability Reviews;
5. Define Planning Meetings;
6. Describe the methods and procedures for compliance and monitoring including:
   a. Environmental Protection
   b. Documentation of New / Small / Local / EDGE Business Goals
   c. Documentation of Cleveland Residency Workforce
   d. Documentation of On the Job Training (OJT) hours; and
7. Describe Maintenance of Public Facilities to provide the public with safe and effective access while considering noise, dust and debris.

The Implemented PMP will:
- Reduce ODOT risks;
- Improve communication with local utilities, railroads and local stakeholders;
- Successfully deliver the project on schedule within the accepted CPM Schedule;
- Construct a high quality project according to the scope; and
- Provide a complete quality program that uses quality control, quality assurance and document control.

The PMP will be provided within 30 days of project award.

Task Force Meetings
We will utilize Task Force meetings during the design phase, led by the DB Project Manager, Jason Fischer. The efforts of the meetings will provide a benefit for a challenging project such as this one to address the purpose and objectives of the project, the roles and responsibilities of the Task Force members, the list of tasks and who is responsible for them, the schedule and available resources.

We have defined the following Buildable Units (BU):
- Public Utilities
- Maintenance of Traffic (MOT)
- Roadway
- Structure
- Greater Cleveland Regional Transit Authority (GCRTA) Station

Based on the BUs listed above, we plan on utilizing the following Task Forces on this project:

1. Roadway Task Force
2. Structures Task Force
3. GCRTA Station Task Force
4. Diversity & Outreach Task Force

Task Forces will meet weekly and have proven to be very effective on past projects of similar complexity. Task Force meetings will be attended by all DBT Key Personnel.

The intent of each Task Force meeting is to review all components of the contract documents leading up to the actual construction activities while considering:

- Design
- MOT / Public Access
- Constructability
- Safety
- Diversity & Outreach
- Utility Relocation
- 3rd Party Approvals
- Shop Drawing & Material Approvals
- Schedule

Constructability Reviews

In addition to the Task Force meetings, constructability reviews will be held for each BU prior to each design submittal and will be led by the DB Construction Project Manager, Greg Wisniewski. These reviews will ensure construction activities are completed efficiently, on schedule, within budget, safely and with quality.

DBT Planning Meetings

As the project transitions from design to construction, weekly DBT Planning Meetings will begin and will address:

- Diversity & Inclusion
- Safety
- Compliance
- Quality
- Schedule
- Materials
- Subcontractors

The planning meeting agenda will be prepared by Jason Fischer and will include Greg Wisniewski, Bridge and Roadway Construction Leads, Contractor Diversity / Outreach Lead Manager and Utilities / Rail / City Coordinator. The intent of these meetings is to ensure the work is constructed in accordance with the contract, completed on time and on budget. GLC's emphasis on planning and experienced work force will provide a successful project.

All disciplines, aspects and elements of the work will comply with the requirements of the Contract Documents, and all materials incorporated into the work will perform satisfactorily for the purpose intended and conform to the contract requirements.

INTERFACE AMONG THE VARIOUS MAJOR DESIGN / CONSTRUCTION DISCIPLINES AND THE DIVERSITY AND INCLUSION CONSULTANT

Interface between Design, Construction and the Diversity and Inclusion Consultant will be through individual Task Force meetings and DBT Planning meetings.

Diversity, Inclusion and Workforce Development will be a major agenda item at all meetings during the design and construction phases of the project.

DB Diversity / Outreach Lead Manager, Glen Shumate, reports directly to DB Project Manager Jason Fischer, PE. Glen will act independently of the DBT to ensure the project will provide a workforce which is representative of and from the local community.

The DBT began an aggressive approach for Diversity, Inclusion and Workforce Development the day our team was shortlisted for this project.

Our DBT has exclusive team members from New, Small, Local and EDGE businesses on our team.

Diversity, Inclusion and Workforce Development Team

- Glen Shumate – DB Diversity / Outreach Lead Manager
- Jackie Jacob – Contractor Diversity / Outreach Lead Manager
- June Taylor – Workforce Development Consultant
- Steve Layer, PE – DB Coordinator
- Tom Washko, PE – DB Design Project Manager

Glen Shumate will lead Jackie Jacob, Tom Washko and Steve Layer during the design and construction buyout of the project. This will include looking at smaller design and construction scope packages to better align ourselves with the available New, Small, Local and EDGE businesses.

Face to Face meetings were held during the bid phase of the project utilizing smaller scope packages to engage these businesses.

Glen, Jackie and Steve successfully performed this similar role on the second phase of the George V. Voinovich Bridge project in Cleveland last year. All of the project goals were achieved along with extensive documentation. Lessons learned from this project will provide the Opportunity Corridor – Project 2 (OC2) with more success stories.

There will be an agenda item at all project meetings to discuss the progress of Diversity & Inclusion on the project. Glen and Jackie will be present at these meetings.

Our team recognizes that Diversity & Inclusion needs to include an aggressive Workforce Development component for success. Therefore, we added a key member to our team to lead this charge. **June Taylor will lead the Workforce Development Section of our Diversity, Inclusion and Outreach Plan (DIOP).**

DB Construction Project Manager Greg Wisniewski will work with June to address project workforce requirements.

Workforce needs will be identified months in advance so that the local workforce will be properly trained and ready for the start of construction.

The execution of our Workforce Development Section in our DIOP, described in more detail in Appendix 10 of this document, includes:

- Monthly on-site project meetings with our construction team and the local unions; and
- Monthly meet and greets between April and September with the local community to educate them on opportunities in the construction field, not just on this project.

INTERFACE AMONG THE DESIGN, CONSTRUCTION, DIVERSITY AND INCLUSION CONSULTANT AND DEPARTMENT PERSONNEL

Our team has worked with ODOT District 12 and Central Office personnel for many years, and we have always had great communication from the beginning to the end on projects. This project will be no different.

On a more formal basis, our team will interface with ODOT personnel utilizing the following:

- Formal Partnering Session
- Progress Meetings
- Over the Shoulder Reviews
- Project Communication Meetings

Partnering

Partnering is essential for this project. An initial partnering session for all stakeholders and project personnel will be held as soon as reasonably possible as determined by ODOT and the DBT to establish lines of communication and identify goals, obligations and risks. The initial partnering session will also address mitigation and notice, which is critical for any successful project. Additional partnering efforts will be made through quarterly partnering update sessions to maintain open communication.

Progress Meetings

This project will hold monthly progress meeting to further promote open communication, unless the frequency is otherwise determined at the initial partnering session. Key project personnel and all stakeholders will be encouraged to attend. The agenda will be coordinated with the Engineer and will include discussions on the CPM Schedule, submittals, Requests for Information (RFIs), construction progress and upcoming work, utilities, railroads, quality, compliance, public information and partnering at a minimum.

Over the Shoulder Reviews

Over the shoulder reviews will be held as needed to promote open communication and will be attended by the DB Project Manager, Task Force Leads and project specific ODOT personnel. These review sessions prior to design submittals have been effectively utilized on similar projects to address major design decisions and will be encouraged for this project. These meetings are intended to streamline the design and develop a level of understanding between the DBT, the District Project Manager and other third party reviewers, which will improve project float and mitigate delays.

Project Communication Meetings

Project communication meetings between the ODOT and the DBT will be held weekly and as determined by the Department.

These meetings are further identified in Section 6.1 of the Scope of Services. Additional meetings will also be held, in accordance with our DIOP.

We have included on our team Montrie Rucker Adams, owner of Visibility Marketing, Inc., a local business that specializes in public relations and marketing.

Montrie Rucker Adams will lead our team as our Point of Contact (POC) and will address the requirements of Section 6.1 of the Scope of Services.

Montrie held a similar role during the construction of the Juvenile Justice Center for Cuyahoga County, which is across the railroad track from this project. Her knowledge of the local community will be of great benefit to our team and ODOT.

Our Diversity Inclusion & Outreach Consultant (DIOC) Glen Shumate, Contractor Diversity / Outreach Lead Manager Jackie Jacob, and Workforce Development Consultant June Taylor will work with ODOT to actively manage the submitted and Department-approved project specific DIOP. Glen will coordinate outreach and OJT activities with ODOT's staff, consultants, and the Opportunity Corridor Inclusion & Advisory Committee.

Glen and Jackie have experience working together on Phase 2 of ODOT's George V. Voinovich Bridge project in Cleveland. As such they are very familiar with the stakeholders involved in this project and understand the expectations.

APPROACH TO SUB-CONSULANT / SUB-CONTRACTOR MANAGEMENT

Sub-consultants and sub-contractors will attend the Task Force meetings as required by the DB Project Manager and the DB Design Project Manager. **Sub-contractors will attend Planning meetings as required by the DB Construction Project Manager.**

GPD will assign a GPD task leader to oversee each of the various project design efforts of sub-consultants including New, Small, Local and EDGE business partners. The task leaders will educate, communicate and validate that all sub-consultants are:

- Adhering to design standards;
- Implementing QA/QC procedures; and
- Maintaining design intent.

GPD task leaders will serve as the conduit to the DB Design Manager and DB Lead Structural Engineer. This "one voice" approach has been very successful on similar diverse, multi-disciplined projects for the Ohio Facilities Construction Commission (OFCC), ODOT and the Ohio Turnpike and Infrastructure Commission (OTIC). This structure also supports our goals for mentoring various sub-consultants on ODOT design so that our design partners might achieve prequalification and/or advanced prequalification with ODOT for future opportunities.

All sub-contractors for GLC are required to attend an annual sub-contractor safety orientation to understand the safety expectations of GLC.

Any sub-contractor involved in an activity requiring a Pre-Task meeting would be required to attend to ensure quality and compliance with the contract requirements. All sub-consultant and sub-contractor activities will be clearly identified on the CPM Schedule. As an example, the structural steel erection subcontractor will be a key contributor to the Structure Task Force.

Sub-contractors will also be required to review the GLC site specific safety plan, which is addressed in Part C of this Technical Proposal.

APPROACH TO ENSURING DESIGN AND CONSTRUCTION QUALITY

The DBT is responsible for the professional quality, technical accuracy and adherence to the contract documents. Both construction and design will have their individual processes to monitor quality. It has been our experience that integrating design, construction, ODOT and major stakeholders during the design phase allows for discussions that enhance the quality of the final product. These discussions take place during over the shoulder review meetings. ODOT's comments during these review meetings will provide a higher quality project. Input from other stakeholders can be made easily during the design phase.

Design

Progress and performance measures begin with the establishment of the Quality Management Plan (QMP). GPD will prepare the plan that identifies the QA/QC review team, their areas of focus and schedule of review activity. The QA/QC team will provide quality reviews at all design stages using a successfully proven in-house QA/QC plan. Once approved, a QA/QC report is issued and filed. This system results in minimizing errors and producing efficient, economical and quality projects. Specifically it will:

- Meet ODOT's requirements of quality, schedule and costs;
- Satisfy the purpose and intent of contractually mandated requirements; and
- Establish the design schedule of work based on CPM Schedule and the approved BUs.

QA audits will be conducted at each key design stage and can be more frequently, depending on the complexity of a particular design element. All key design tasks will be led by a GPD professional, even if a sub-consultant will ultimately be assigned the

work. Organizing the design tasks in this manner will reinforce design standards and quality requirements. DB Design Project Manager, Tom Washko, PE, retains the sole responsibility for the compliance of the program and any corrective actions required throughout the project's duration. Tom will have the support of a designated QA/QC and Technical Advisor, Davin Ng, PE, who will review project risk and QA/QC activities with design task leaders and sub-consultants.

Construction

Construction quality begins with the men and women in the field performing the work. GLC has seasoned ODOT experienced foremen and journeymen from the local area that will build this project. Many of these workers have built nearby structures over the same Northern Southern (NS) and GCRTA tracks that are part of this project. This familiarity is crucial for the safety of the traveling public and workers. Our team will monitor the field operations, led by DB Construction Project Manager Greg Wisniewski who is familiar with ODOT, City of Cleveland, NS, Northeast Ohio Regional Sewer District (NEORSD) and District 12 personnel. Greg will have assistance from a team of superintendents and project engineers to monitor the quality of the work daily. It is standard practice at GLC to document project operations daily on progress reports. Greg and GLC have built multiple projects that have QC/QA work items and understand the importance of planning and executing operations to provide a quality work product.

GLC uses quality checkpoints at each major step prior to advancing construction. Foremen have the authority to stop work if there is a quality issue at any quality checkpoint to correct the issue before proceeding.

The approach to achieve high quality construction will include the use of modern equipment and internal quality processes. GPD will design using 3-D modeling that will be integrated directly into the construction phase of the project through the use of GPS machine controls.

A.2 COORDINATION WITH THIRD PARTIES AND STAKEHOLDERS

Communication and coordination will be managed by Patrick English, EI, who will be the Utilities / Rail / City Coordinator on this project. Patrick will report directly to DB Construction Project Manager Greg Wisniewski. Patrick's most recent project was a $45M ODOT design-build project on IR-271 in Summit County. He was responsible for the coordination with NS and all of the utility companies on the project. Patrick also has recent coordination experience with the GCRTA, NS, local utilities, NEORSD, the City of Cleveland Water Department and the City of Cleveland on an ODOT structure project on Madison Avenue in the City of Cleveland.

RAILROADS / GCRTA / UTILITIES

Our DBT has an excellent relationship with NS, GCRTA and their review consultants so that questions and concerns regarding design and working drawings will be addressed efficiently. Durations for submittals and approvals will be clearly identified on the CPM Schedule. Additionally, our DBT is familiar with the impacted utility companies and have effectively coordinated multiple difficult relocations on similar projects. Utility meetings will be scheduled by our utility coordinator and attended by the impacted utility owners, DB Project Manager, DB Construction Project Manager and DB Coordinator. Durations for utility relocations will also be clearly identified in the CPM Schedule. ODOT will be copied on all correspondence between the DBT and all stakeholders.

Our approach to coordination and interfacing with the City of Cleveland, Railroads, Utilities, other Third Parties and Stakeholders begins immediately with the initial partnering session described in Part A.1 by establishing clear lines of communication between the 5 public utility companies, 12 private utility companies, 2 railroads, safety forces, community leaders and project participants. Frequent and timely coordination with all stakeholders during design, material procurement and construction will deliver a successful project. Past experiences tell us that identifying the key contact for third parties can be the biggest challenge. Our DBT has experience with many of these stakeholders from past projects and will use this for a benefit to the project.

Railroad coordination must be and will be a high priority. This effort is necessary to achieve the proper cooperation and coordination required to keep the project on schedule to help mitigate any issues. Our DBT understands this and will provide submittals and requests for track time in a timely manner.

During the design phase, the City of Cleveland, Railroads, Utilities, other Third Parties and Stakeholders will be encouraged to attend the over the shoulder review meetings.

UTILITY COORDINATION MEETINGS

Utilities / Rail / City Coordinator Patrick English is currently serving in the same role on ODOT project 143005, a 2 Step Major Widening Design-Build Project in District 4 with DB Project Manager Jason Fischer in the same roles. Patrick is diligent in scheduling Utility Coordination meetings which bring the DBT, ODOT and all impacted utilities to the table for face-to-face collaboration. These meetings have proven to be effective by utilizing the construction plans in conjunction with colored utility plan and profiles and site visits as required. ODOT Project 143005 included multiple utility relocations in multiple areas of the project and is currently ahead of schedule.

The ongoing work on Opportunity Corridor 1 and the future project Opportunity Corridor 3 will receive full cooperation from our DBT and will be as directed by the Engineer.

GLC is currently working on the adjacent Cleveland Clinic property installing 20,000 LF of underground electrical conduit. The same impacted utility companies will be part of the coordination on this project.

Mitigation and timely notice of any issue is a shared contract and legal requirement. A proactive approach to partner the project will be an essential way to avoid delays and unanticipated impacts.

CITY OF CLEVELAND / THIRD PARTY STAKEHOLDERS

Local Agencies

Communication with the City of Cleveland, the Opportunity Corridor Inclusion & Advisory Committee and other local stakeholders will begin at the project Partnering meeting.

Discussion of the needs of the City of Cleveland and local Third Parties will be an agenda item at all Task Force meetings. This includes involving them into the over the shoulder reviews during the design process. Our team brings a significant history and good working relationship with local agencies including but not limited to the following:

- City of Cleveland
- Divison of Water Pollution Control
- Divison of Water
- NEORSD

Public Relations

Montrie Rucker Adams will guide our team with the communication needs as detailed in Scope of Services Section 6.1, some of which include:

- Public Information Plan (PIP)
- Communication Planning Meetings
- Maintaining Public Database
- Gathering Project Data for ODOT
- Weekly Progress Reports
- Project Event Coordination
  - » Ribbon Cutting Events
  - » Project Tours
  - » Stakeholders Briefings

Our team includes the Value Added Position of Public Relations Consultant Montrie Rucker Adams of Visibility Marketing, Inc.

Montrie recently worked with Cuyahoga County during the construction of the $189M Juvenile Justice Center located next to this project in the Fairfax neighborhood. Montrie's experience with public relations exceeds the requirements detailed in Section 6.1 of the Scope of Services. In addition, Montrie will be mentored by Karen Lenehan who is the Public Relations Consultant on the current Phase 2 George V. Voinovich Bridge project in Cleveland.

A.3 UNKNOWN REGULATED MATERIALS

CONTAMINATED MATERIALS

The risks associated with unknown regulated materials are:

- Personal Health and Safety
- Schedule Impacts

Our experience shows that one of the key strengths of design-build projects is the ability to focus special attention to risk areas earlier which reduces conflict time.

Personal Health and Safety

Regulated materials pose a risk to personal health and safety if encountered unexpectedly and are not handled properly. GLC has over 60 competent and experienced HAZWOPER trained employees who are able to identify, characterize and manage regulated materials. Once regulated materials have been identified, the processes used to handle unknown regulated materials will be the same used to handle known regulated materials. Risk mitigation for handling all regulated materials will be addressed thoroughly in the Spill Prevention Control and Countermeasures (SPCC).

The DBT will prepare and implement a SPCC Plan per the requirements of 40 CFR Part 112 that will provide specific guidance for managing, handling and disposing of regulated materials that may be encountered within the right-of-way, and for protecting the health and safety of all on-site personnel and the general public.

Schedule Impacts

Our DBT has prepared and will implement the SPCC Plan immediately upon contract award. Demolition notification forms will also submitted immediately. These two documents will allow us to begin demolition and subsequent site work prior to any BU submittal generating project float in regulated material removals and allowing time to remove unknown regulated materials if any are encountered. If any unknown regulated materials are discovered through the work, the DBT will notify the department immediately in writing and will follow the SPCC and C&MS 109.05. The DBT will ensure the site is properly contained during construction so that regulated materials do not migrate off-site and that health and safety of all on-site personnel and the general public are protected. These procedures are reviewed by the crew foreman with his/her crew as part of the Pre-Task Analysis (PTA).

With respect to asbestos, GLC strictly adheres to all current NESHAP regulations. A control program has been established and implemented when handling or using asbestos-containing materials. The goal is to prevent the release of airborne asbestos fibers.

In general, the control plan addresses:

- Containment of asbestos operations, controlling the release of asbestos fibers, the engineering controls, work practices, hygiene practices, and facilities necessary to control the exposure of a worker to asbestos.
- Task-specific work instructions that address both the hazards and the necessary controls, providing, using and maintaining appropriate personal protective equipment and clothing.
- Methods and procedures needed to monitor the concentration of airborne asbestos and the exposure of a worker, the methods needed to decontaminate workers clothes, etc., and the removal and clean-up of asbestos waste and related material.

A.4 SUSTAINABILITY

Our team includes Margaret Hewitt, Principal from HMLS Sustainability Solutions (HLMS), a local business, to oversee sustainability efforts on the project. Major sustainability areas include:

- Vision
- Accountability
- Economic Sustainability
- Environmental Sustainability

Margaret is successfully guiding the George V. Voinovich Phase 2 ODOT design-build team in achieving Platinum status in the INVEST FHWA sustainability tool.

Sustainable Design / Green Building Technology will be utilized for the GCRTA Station. The DBT will provide a Sustainability Feasibility and Program Applicability Analysis with the Stage 1 Submission.

Vision

GLC wants to maintain the conditions under which humans and nature can exist in productive harmony. We want to fulfill the social, economic and other environmental requirements of present and future generations. We do not see these goals as mutually exclusive, but instead inextricably linked.

GLC is committed to ensuring the protection of water, materials and resources for the benefit of human health and our environment. We pledge to develop strategies that enable us to move toward sustainability while enhancing the value offered to our customers.

Accountability

DBT employees understand the balance between the three pillars of sustainability: society, economy and environment. When making strategic decisions for a prosperous and environmentally sustainable future, true sustainability must be integrated into all operations of business, from policy and management to operational activities such as purchasing and waste management.

While sustainability must be driven from the top, it is not just the job of a single staff member or department – it involves a commitment from everyone.

Social Sustainability
GLC achieves equity by actively managing the areas of gender, business opportunities and education. Social sustainability focuses on the people and the communities that are stakeholders in each project.

Economic Sustainability
Using local business and local materials not only benefits the environment but also the economy. GLC sources local suppliers and sub-contractors whenever possible. Focusing local saves money by reducing transportation costs and it builds the local economy by adding dollars in the communities surrounding the project. Growing local businesses develops more competition and therefore better pricing for goods and services.

Similar to her role on the George V. Voinovich Phase 2 DB project, Local Business Owner Margaret Hewitt will oversee the sustainable efforts of the OC2 Project.

Environmental Sustainability
GLC recognizes that the design and construction of transportation projects must incorporate diverse concepts as climate change, environmental protection, judicious use of funds, regional air quality improvement, construction quality incentives and recycling promotion. If done effectively, the result should be more sustainable roadways.

Using sustainable approaches in transportation infrastructure helps us continue to enhance quality of life and serve the transportation needs of the present without compromising the ability of future generations to meet their needs.

A.5 OVERALL ORGANIZATIONAL ROLES AND RESPONSIBILITIES OF KEY PERSONNEL FOR PROJECT MANAGEMENT

Please see the following page for our overall organizational chart. The DBT's organization plays an important role in setting the stage for our understanding of the project, developing a communication structure and staff utilization planning.

This organizational chart was designed to:

1. Name the single point of contact between our DBT and ODOT for this project;
2. Identify the Key Personnel who are committed to delivering critical project responsibilities;
3. Showcase senior level and value added support to provide quality assurance and project compliance; and
4. Introduce diverse technical professionals leading core services required by the project.

LEGEND	
	KEY PERSONNEL
	VALUE ADDED POSITION
	SUPPORT STAFF
	D & I BUSINESS PARTNER
	CONSULTANT

OHIO DEPARTMENT OF TRANSPORTATION

DB PROJECT MANAGER
JASON FISCHER, PE
GREAT LAKES

PROJECT EXECUTIVE
AL LEONARD, PE, CPESC
GREAT LAKES

SAFETY DIRECTOR
BILL HOCEVAR, CSP, CIH
GREAT LAKES

DB DIVERSITY / OUTREACH LEAD MANAGER
GLEN SHUMATE
COMMASA

PUBLIC RELATIONS POINT OF CONTACT
MONTRIE RUCKER ADAMS
VISIBILITY MARKETING, INC.

PR MENTOR
KAREN LENEHAN
PUBLIC INFORMATION CONSULTANT

WORKFORCE DEVELOPMENT MANAGER
JUNE TAYLOR
MWV PINNACLE ADVISORY SERVICES

CONTRACTOR DIVERSITY / OUTREACH LEAD MANAGER
JACKIE JACOB
GREAT LAKES

DB DESIGN PROJECT MANAGER
THOMAS WASHKO, PE
GPD

DB COORDINATOR
STEVE LAYER, PE
GREAT LAKES

DB CONSTRUCTION PROJECT MANAGER
GREG WISNIEWSKI
GREAT LAKES

TECHNICAL ADVISOR / QA/QC
DAVIN NG, PE
GPD

DB LEAD STRUCTURAL ENGINEER
DANTE CASTRONOVA, PE
GPD

UTILITIES / RAIL / CITY COORDINATOR
PATRICK ENGLISH, EI
GREAT LAKES

A.6 DB PROJECT MANAGER AND UTILITIES / RAIL / CITY COORDINATOR QUALIFICATIONS



JASON FISCHER, PE
DB PROJECT MANAGER

Role & Responsibility
Jason will be the DB Project Manager and will have full authority to direct the design and construction team during the execution of the project from the design phase to the final acceptance of the project. Jason will have full authority to communicate and negotiate directly with the ODOT team and project stakeholders.

Experience
Jason brings extensive design-build project experience to the team and excels in the areas of NS coordination, GCRTA coordination, utility coordination and P6 scheduling. His previous experience with projects similar in nature to this project include the following:

Project Manager, $45M DB ODOT 143005
- IR-271 3rd Lane Widening
- Design-Build Project
- 4 Mainline Structures
- NS Railroad Coordination
- Utility Relocation

Assistant PM, $290M DB ODOT 103000
- CCG1-Cleveland Innerbelt
- Design-Build Project
- District 12 Project
- Structural Steel Erection
- Local Cleveland Vendors
- NS Railroad Coordination
- GCRTA Coordination

Project Engineer, $93M ODOT 080211
- IR-77 3rd Lane Widening
- Multiple Bridge Replacements
- District 12
- Utility Coordination

Project Engineer, $34M ODOT 050316
- IR-271 Bridge Replacement
- Steel Erection

Project Manager, CSX Gateway DB Projects
- Design-Build Projects
- CSX Coordination



PATRICK ENGLISH, EI
UTILITIES / RAIL / CITY COORDINATOR

Role & Responsibility
Patrick will be the DB Utilities / Rail / City Coordinator for this project. Patrick will report directly to DB Construction Project Manager Greg Wisniewski. He will be responsible for all items listed the Scope of Services Sections 1.5 Railroad Coordination and 10.5 Utility Coordination with the assistance of Jason and the entire DBT. Patrick will also be in communication with our POC, Montrie Rucker Adams, updating her with the progress of the project.

Experience
Patrick and Jason worked together on ODOT project 143005 in the same roles. Featured below is some of Patrick's relevant project experience:

Project Engineer, $45M DB ODOT 143005
- IR-271 3rd Lane Widening
- Design-Build Project
- 4 Mainline Structures
- NS Railroad Coordination
- Utility Relocation

Project Engineer, $6M ODOT 120630
- West 65th Street Bridge Replacements
- District 12
- City of Cleveland Coordination
- Cleveland Public Power Coordination
- Cleveland Water Department
- AT&T Coordination
- CEI Coordination
- GCRTA Coordination
- NS Railroad Coordination



STEVE LAYER, PE – VALUE ADDED POSITION
DB COORDINATOR

Role & Responsibility
Steve, a value added Key Personnel, will serve as the DB Coordinator for the OC2 Project. He will report directly to the DB Project Manager and serve as a conduit through which the design team will interact with the construction team. He will monitor the design schedule and timeliness of the constructability reviews.

Steve will work with Glen Shumate and Jackie Jacob during the buyout of the project to help exceed ODOT's New, Small, Local and EDGE project goals.

Experience
Steve has 37 years of construction experience in project management and estimating, serving as Lead Estimator on ODOT design-build projects CCG1 and Columbus Crossroads, and as DB Coordinator on CCG2.

DB Coordinator, $273M DB ODOT 133000
- George V. Voinovich Phase 2 Project
- Design-Build Project
- District 12
- Local Cleveland Vendors
- Project Buyout
- Outreach
- Youth Education
- BU Review
- Constructability Reviews

A.7 SCHEDULE

Per the RFP, this preliminary CPM Schedule has been provided in Appendix 6.

The creation of our detailed preliminary CPM Schedule was the result of a collaborative effort between DB Project Manager Jason Fischer, PE, DB Design Project Manager Tom Washko, PE, DB Coordinator Steve Layer, PE, and DB Construction Project Manager Greg Wisniewski. Our team experience on large design-build projects has shown that the collaborative efforts of the disciplines above are essential in the creation of a preliminary schedule.

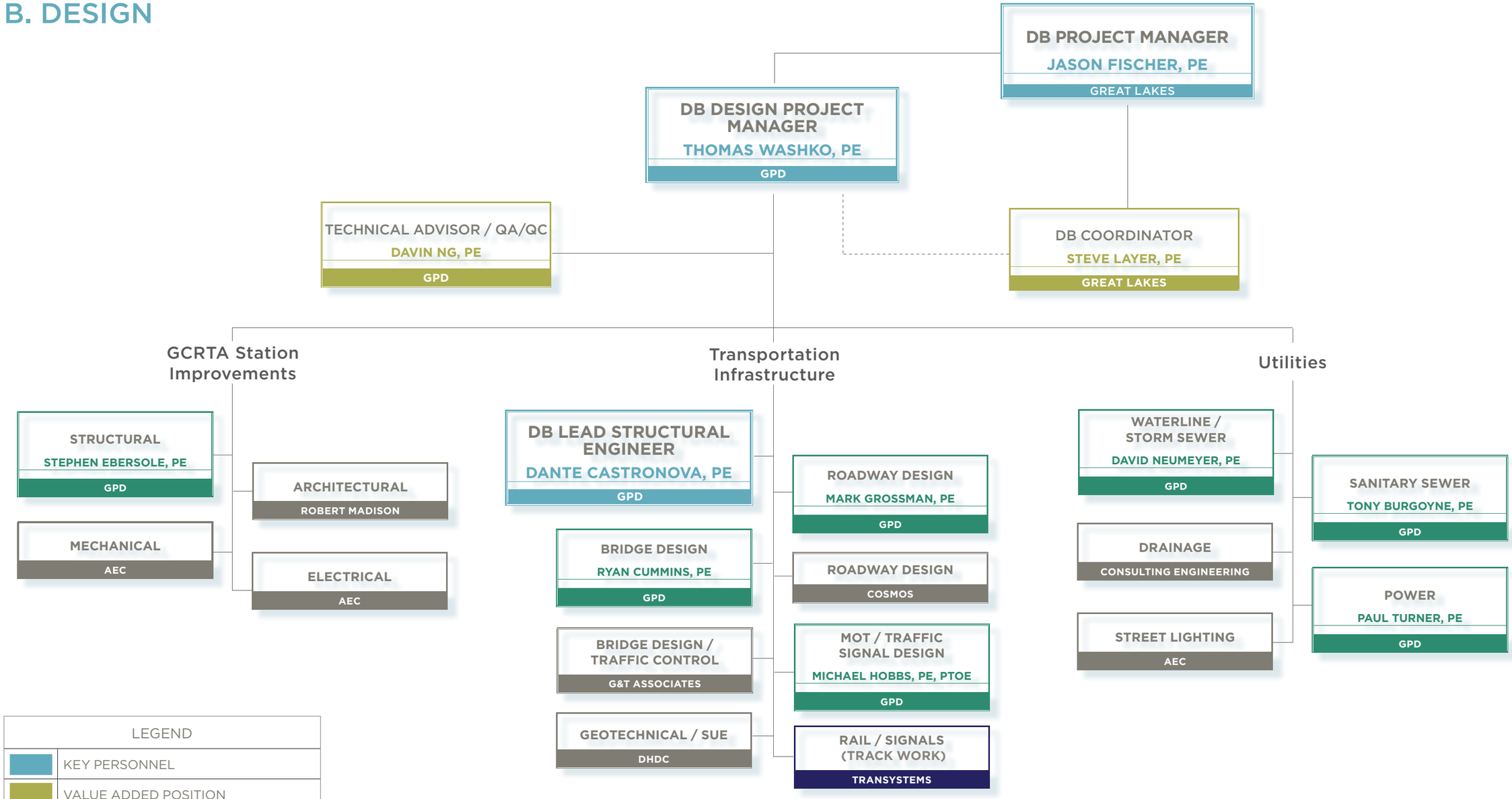
Our overall preliminary CPM Schedule Narrative accompanies the preliminary CPM Schedule in Appendix 6.

The schedule narrative has been prepared using the general guidelines of the Standard Specification for Construction of Roads and Bridges on Federal Highway Projects, Section 155 – SCHEDULES FOR CONSTRUCTION CONTRACTS.

PART B:

DESIGN

B. DESIGN



LEGEND
KEY PERSONNEL
VALUE ADDED POSITION
SUPPORT STAFF
D & I BUSINESS PARTNER
SUBCONSULTANT

SUPPORT SERVICES

ENVIRONMENTAL	LANDSCAPE ARCHITECTURE	GIS
SURVEY	SITE	

B.1 DESIGN ORGANIZATIONAL ROLES AND RESPONSIBILITIES OF DESIGN KEY PERSONNEL

As requested, our design organizational chart has been provided on the previous page. The design team's organization plays an important role in setting the stage for our understanding of the project, developing a communication structure and staff utilization planning.

This organizational chart was designed to:

1. Name the single point of contact between GPD Group (GPD) and Great Lakes Construction Co. (GLC) for this project;
2. Identify key Task Leaders who are committed to delivering critical project responsibilities;
3. Showcase senior level support to provide quality assurance and compliance; and
4. Introduce diverse technical professionals leading core services required by the project.



TOM WASHKO, PE
DB DESIGN PROJECT MANAGER

Role & Responsibility

Tom will serve as the DB Design Project Manager and will lead all design aspects of the new roadway, reconstruction of the E. 105th Street bridge over the Greater Cleveland Regional Transit Authority (GCRTA) and Norfolk Southern (NS) railroad tracks, the new GCRTA rail platform and related GCRTA track work.

Experience

Tom has spent the better part of his 25 year career focused on the design, management and construction of award winning transportation infrastructure improvements throughout the State of Ohio including bridge substructures and superstructures. He is certified as an ODOT Level-2 bridge engineer with additional experience on Level-3 bridge design.

Tom is well versed in design-build project delivery, having participated in over 12 design-build projects in the last 5 years, totaling over $40M in construction. Tom's relevant experience is featured below:

Bridge Engineer, $10.1M DB SUM-77-30.96
- I-77 Mainline Superstructure Replacement / Re-decking
- Design-Build Project with GLC
- Complex Phased Construction
- Steel Design, Analysis and Load Rating

Bridge Engineer, $4.3M CUY-Woodland
- Bridge Replacement / Rehabilitation
- Same Urban Corridor as OC2
- NS Railroad Coordination
- GCRTA Coordination
- Cleveland Water Department Relocations
- Cleveland Public Power Relocations
- Similar Substructure Design / Utility Issues as OC2
- Stakeholder Coordination

Bridge Engineer, $23.2M TRU-80-1.68
- 5-span, Complex Structure
- Curved Alignment
- NS Railroad and Utility Coordination
- Ohio Central Railroad Coordination
- Reinforced Concrete Piers
- Drilled Shaft Foundations

Assistant Bridge Manager, $90M FRA-70-12.68
- 12 Structures, 2 Bridges on Curved Alignment
- 12 Trench Walls along the I-70 Freeway
- NS Railroad and Utility Coordination
- Reinforced Concrete Piers
- Drilled Shaft, Tangent Shaft, Spread Footing and Deep Foundations



DANTE CASTRONOVA, PE
DB LEAD STRUCTURAL ENGINEER

Role & Responsibility

As the DB Lead Structural Engineer, Dante will be responsible for meeting the requirements for all structural design elements on the project.

Experience

Dante is a qualified ODOT Level-2 bridge engineer with additional Level-3 bridge design experience. With more than 18 years of bridge and structure design experience, Dante has held similar positions for 12 transportation projects in District 12 and 6 (Level 3) complex bridge projects throughout the state. In the last 5 years alone, he has participated in 12 design-build bridge projects. Dante's featured experience includes:

Bridge Engineer, $10.1M DB SUM-77-30.96
- I-77 Mainline Superstructure Replacement / Re-decking
- Design-Build Project with GLC
- Complex Phased Construction
- Steel Design, Analysis and Load Rating

Bridge Engineer, $23.2M TRU-80-1.68
- 5-span, Complex Structure
- Curved Alignment
- NS Railroad and Utility Coordination
- Ohio Central Railroad Coordination
- Reinforced Concrete Piers
- Drilled Shaft Foundations

Bridge Engineer, $90M FRA-70-12.68
- 12 Structures, 2 Bridges on Curved Alignment
- 12 Trench Walls along the I-70 Freeway
- NS Railroad and Utility Coordination
- Reinforced Concrete Piers
- Drilled Shaft, Tangent Shaft, Spread Footing and Deep Foundations

In addition to Dante's bridge work, he has led a variety of designs associated with pier, abutments and retaining walls. In fact, Dante led all structural design for the GCRTA track realignment that was required to retire the Northeast Ohio Regional Sewer District (NEORSD) Kingsbury tunnels. This work was performed within close proximity to the Opportunity Corridor Project area (OC2) and included design efforts and stakeholder coordination that will be needed for OC2. The project included a new soldier pile retaining wall with reinforced concrete panel lagging to support new embankment constructed for the purpose of realigning the rail lines as well as coordination with NS and NEORSD.



DAVIN NG, PE – VALUE ADDED POSITION TECHNICAL ADVISOR / QA/QC

Role & Responsibility

Davin will be responsible for supporting all QA/QC requirements, coordinating internal reviews and collaborating with the DB Project Manager and sub-consultants. In this technical advisory role, he will also provide the risk analysis for the design team and support value engineering and constructability review efforts.

Experience

Davin has 27 years of complex bridge design experience and has served as project manager / assistant project manager for 80+ projects ranging from $50k to $200M. He has also led the successful management of 24 design-build projects since 2001. He adds value with his wealth of construction knowledge associated with demolition of bridges and erection of steel / concrete girders. Davin's featured experience includes:

Project Manager, $10.1M DB SUM-77-30.96
- I-77 Mainline Superstructure Replacement / Re-decking
- Design-Build Project with GLC

- Complex Phased Construction
- Steel Design, Analysis and Load Rating

Project Manager, $23.2M TRU-80-1.68
- 5-span, Complex Structure
- Curved Alignment
- NS Railroad and Utility Coordination
- Ohio Central Railroad Coordination
- Reinforced Concrete Piers
- Drilled Shaft Foundations

Bridge Manager, $90M FRA-70-12.68
- 12 Structures, 2 Bridges on Curved Alignment
- 12 Trench Walls along the I-70 Freeway
- NS Railroad and Utility Coordination
- Reinforced Concrete Piers
- Drilled Shaft, Tangent Shaft, Spread Footing and Deep Foundations

Over the past 15 years, GPD's bridge team, under the leadership of Tom Washko, Dante Castronova and Davin Ng, has successfully delivered $70M in ODOT design-build projects.

B.2 DESIGN NARRATIVE

E. 105TH STREET STRUCTURE

Superstructure

GPD's approach to the design of the structure began with analysis of the 2-span superstructure identified in the Scope of Services (SOS) and accompanying Concept Plans (Basic Configuration). Later, a 3-span superstructure option was permitted as part of Addendum #4. The 3-span option was evaluated, but not pursued due to increased possibility of utility conflicts and increased cost and construction time associated with another pier structure.

The superstructure approach focuses on the following areas:
- Structural Analysis
- Structure Depth
- Improved Cross Slope Design
- Maintenance of Railroad Operations

Structural Analysis

Because the span of this bridge is not considerably long and the curvature is not significant, using the 2D-Grid or grillage model for structural analysis is appropriate. The refined superstructure analysis method is being performed using MDX software. The entire structural steel framing plan, including all transverse crossframes, is analyzed as a complete system. This method accounts for curvature of the framing along with the actual skew conditions.

The internal girder stresses, crossframe forces, vertical and out-of-plane girder displacements at the intermediate and final stages are also taken into consideration during our girder design.

Unlike a typical line-girder analysis where superimposed dead loads are assumed to be equally distributed to all girders, the refined analysis distributes dead loads to individual girders based on the actual tributary area. Load sharing and transfer between girders is accounted for within the structural model via the crossframe members and stiffness of the girder system as a whole. Vehicular traffic loads are applied directly to the model and floated within design lanes between curb lines to maximize the load affect. Live load distribution factors typically determined from the AASHTO LRFD Bridge Design Specifications are not used in the refined analysis method for this structure.

Structure Depth

Initial structural analysis of the 2-span structure indicated very large flange sizes would be required over the pier using the girder depth information provided in the Concept Plans. This concept increased project costs and made routing of duct banks through the steel framing difficult causing increased challenges with utility coordination.

GPD's bridge and roadway engineers investigated and made revisions to the Opportunity Corridor Boulevard profile shown in the Conceptual Plans to provide a slightly greater structure depth while maintaining the required vertical clearances to the GCRTA and NS railroad tracks below the bridge. The increased structure depth allows for cost savings due to the economization of the plate girder section along with greater stiffness and effectiveness of the transverse framing members. Transverse framing plays a significant role in the refined analysis of the superstructure with deeper members being more efficient. The crossframes in this horizontally curved structure are heavier than typical crossframes used in conventional straight-girder bridges.

The increased superstructure depth also benefits the project by providing more space for the passage of the Cleveland Public Power (CPP) 6-conduit electrical duct bank through the transverse crossframe members. In addition, the superstructure has been designed to accommodate the 12-conduit Cleveland Electric Illuminating Company (CEI) duct bank. K-frame style crossframe designs are used at the utility bays to accommodate the utility duct banks that would otherwise not pass through an X-style cross frame.

KEY SUPERSTRUCTURE CONSIDERATIONS
- **Increased structure depth provided economization of plate girders**
- **Improved cross slope design simplified steel fabrication**
- **Reduced impacts to railroad operations by location of field splices, use of preassembled crossframe assemblies and stay-in-place deck form system**

Improved Cross Slope Design

In addition to making Opportunity Corridor Boulevard profile adjustments within the bridge limits and adjacent roadway approaches, GPD's engineers also improved the cross slope design across the bridge. The reverse and variable superelevation cross slope proposed in the Conceptual Plans applied to the entire length of the bridge before transitioning back to normal crown off the forward end. This concept proved costly as it would require complex steel fabrication, which often times lead to issues during final erection.

GPD's design improvement allows for a crowned section across a greater length of the bridge with only minimal variation in cross slope at the rear left side. This design modification has the benefit of greatly simplifying the structural steel fabrication process for the transverse crossframe members, thus reducing cost and likelihood of steel misfits during final erection. Reduction of the reverse superelevation length through the curved alignment is also considered an operational / geometric improvement for this segment of Opportunity Corridor Boulevard.

Maintenance of Railroad Operations

GPD's superstructure design carefully considers the importance of maintaining railroad operations during the construction of the project. As such, the design team focused on:
- Location of field splices within the structural steel framing;
- Preassembled crossframe assemblies; and
- Stay-in-place deck form system.

Location of Field Splices

The NS railroad requires that no field splices be made within 15-ft. of the centerline of their track when splices are required within the span. Both of the proposed field splice locations have been moved forward from the typical locations to avoid the associated railroad tracks (see Figure B.1). The splice layout provides various erection options based on erecting from the forward abutment toward the rear

abutment. Field Splice No. 2 could be ground spliced for erection of girder segments 3 and 2 together, followed by segment 1. Or, temporary support structures could be placed in Span 2 for sequential erection of segments 3, 2 and 1 individually.

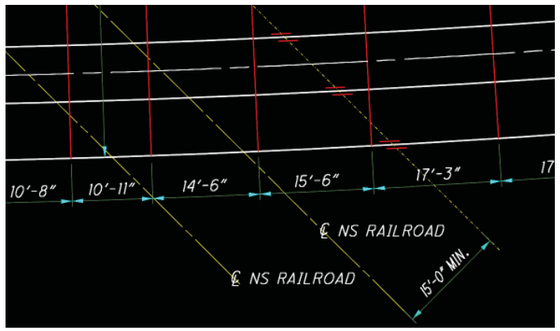


Figure B.1 - Splice Layout

Preassembled Crossframe Assemblies
Preassembled and field-bolted crossframe assemblies allow for faster crossframe installation along with improved stability of the curved girders during erection. This is especially useful when working over active railroads.

GPD brings significant experience in preparing erection plans for straight and curved steel I-girder bridges. Erecting horizontally curved steel bridges can present many challenges, especially due to their inherent lack of stability. Therefore, we always recommend that the erector fully tighten several of the crossframes to the girder during the steel erection to maintain girder alignment and stability at all times.

Stay-in-Place Deck Form System
The permitted use of a stay-in-place deck form system will also be utilized on this structure to eliminate the additional track time that would be needed for subsequent removal of conventional forms. The deck overhangs along the fascia girder would still be formed using conventional overhang brackets.

The superstructure design inherently contains multiple features for mitigation of risk related to maintenance railroad operations. For preliminary superstructure plans, see Appendix 7, sheets 1, 15, 16 and 17 of 17.

Substructure
GPD's approach to the design of the substructure is based on mitigating risks associated with three key elements as described below:
1. The existing set of 3 combined sewers that run beneath the existing E. 105th Street bridge;
2. The existing fiber optic duct bank located east of the combined sewers; and
3. Close proximity to the NS tracks.

At the beginning of the design process, Level A Subsurface Utility Engineering (SUE) will be performed in order to accurately locate the lateral and vertical location of the combined sewers and other active utilities located within the project limit. This will allow for GPD's engineers to verify the designs performed during the Technical Proposal stage of the project.

The substructure design approach focuses on the following key areas:
- Structural Analysis
- Rear Abutment Design
- Pier Design
- Forward Abutment Design
- Maintenance of Railroad Operations

Structural Analysis
GPD recognized that the conflicts associated with the existing utilities and the need to provide a constructible and efficient design free of impacts to these utilities required a higher level of analysis than typical of similar efforts. As such, the team modeled and designed the pier and the breastwall of the forward abutment in the Bentley program STAAD Pro V8i using a finite plate element analysis. Use of this program allowed:
- Accurate modeling and prediction of forces and stresses transfer from the wall to the foundation.
- Adequate analysis for evaluating the placement and sizing of the drilled shafts to avoid negative impacts to the existing utilities during construction.
- Verification that proposed abutment and pier designs did not impose any additional load on the existing sewers.

Structural Analysis Design Criteria
In accordance with prebid questions and answers submitted during the preparation of Technical Proposals, proposed bridge loads may be placed on existing portions of combined sewers to remain which are built integrally with the existing footings at the rear abutment and proposed pier (previous Pier 2) locations. The proposed loads bearing on the existing sewer shall not exceed the dead load plus live load that the sewer is currently experiencing. GPD has evaluated the existing load that these structures are experiencing at the proposed removal limit elevation to develop design criteria. The established criteria would be such that loading from the proposed substructure element does not exceed both the existing maximum pressure and existing total load per foot.

The DBT's geotechnical consultant has also closely evaluated the available subsurface information provided with the SOS to prepare foundation recommendations for design of the proposed substructures founded within the adjacent shale bedrock. With shallow bedrock at the site, foundation recommendations for spread footings bearing at various elevations below the top of rock as well as drilled shafts have been prepared for the proposed design.

Where the STAAD model was used, the walls were modeled as a series of plates, which provided the best design information related to load distribution through the pier wall and into the foundation elements. Wall stresses and moments were determined in each element so that reinforcing could be accurately and efficiently calculated (see Figure B.2 and B.3).

L-Pile was used to perform the lateral design of the drilled shaft. The lateral design parameters used in L-pile were recommended by the DBT's geotechnical consultant based on the geotechnical data provided. L-Pile and spreadsheets with loads and moments from the STAAD analysis were used to determine the adequacy of the rock support and to determine the required reinforcing in the drilled shafts. This design minimizes the need for foundation excavation and minimizes shoring adjacent to the tracks. It also reduces construction time and potential track interference / risk.

Rear Abutment Design
The team recognized that a custom design would be needed at each substructure location to address the varying conditions associated with the existing utilities.

At the existing rear abutment location, the sewer is built integrally with the substructure spread footings. GPD has designed a conventional spread footing foundation which satisfies both the factored resistance available on the existing shale bedrock as well as satisfies the criteria established for loading the portion of the existing sewer to remain. Since the portion of the existing sewer to remain is partially exposed above the ground at the Rear Abutment, the Conceptual Plans show this area to be re-faced with new concrete. This is being done for aesthetic reasons so that the entire exposed face of the new abutment has the appearance of new concrete. All surfaces will be epoxy-urethane sealed to the same final color. A spread footing foundation will also be used for the adjacent retaining wall to be constructed between the new rear abutment and the existing Quincy Avenue bridge abutment. For preliminary Rear Abutment plans, see Appendix 7, sheets 3 thru 6 of 17.

Pier Design
Existing Pier 2 was originally constructed as a large gravity abutment and built integrally with the sewers. However, when additional railroad tracks were added to the north, the existing bridge was lengthened and the original north abutment was modified and converted to function as a pier.

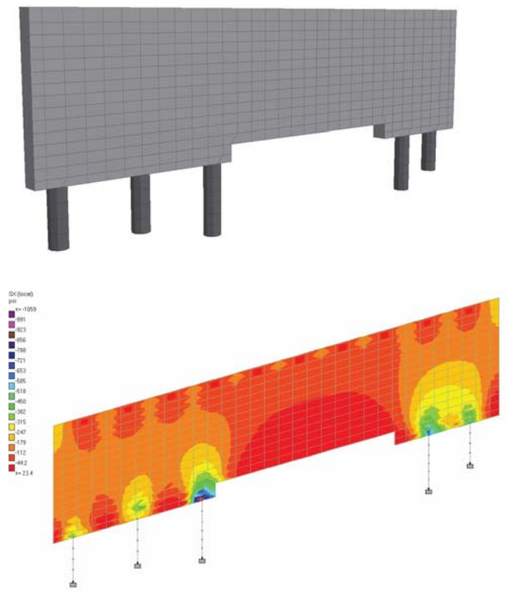


Figure B.2 - STAAD Model used to show improved pier / drilled shaft design to accommodate existing sewers

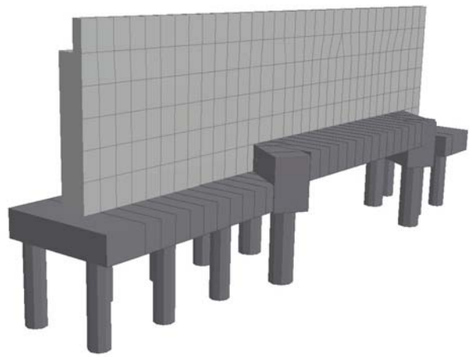
At the proposed pier, a similar analysis of existing load at the removal limit was prepared to establish criteria for design of the proposed pier element that would bear on the sewer. The 3’-6” thick full height solid pier wall was used for both the spread footing and drilled shaft options. Figure B.2 shows a snapshot of the STAAD Pro plate model used for the pier analysis. After performing the spread footing design, it was determined that the exposed portion of the new footing bearing on the remaining sewer and the adjacent new spread footing bearing on the weak shale bedrock would be too large and would not provide adequate horizontal clearance to the nearby NS railroad track

The foundation of the pier design is founded on a single line of 42-in. diameter drilled shafts projecting directly into the stem wall of the pier without a separate footing between the shafts and the stem.

Drilled shaft #4 must be placed at least 8’-3” away from the sewers in order to clear the fiber optic duct bank. For preliminary Pier plans, see Appendix 7, sheet 12 of 17.

The wall for the pier will be constructed in two pours. Once the first pour cures, it will act as a beam spanning over the combined sewers, carrying the wet concrete load from the second pour to the foundation elements without imposing any loads on the sewers.

For preliminary rear abutment and pier plans, see Appendix 7, sheets 12 thru 14 of 17.



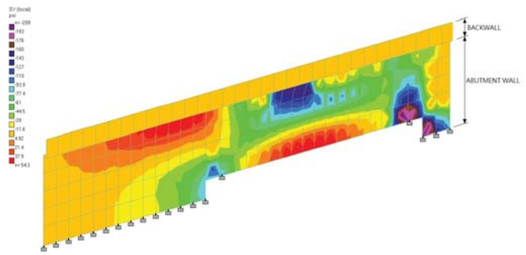


Figure B.3 – Forward Abutment Rear View – Inverted T design transfers load to adjacent drilled shafts mitigating any potential for loading during construction as well as accommodating existing sewers

Forward Abutment Design

The existing forward abutment was designed using pedestal walls placed between the combined sewers such that the sewers and abutment foundation function independently. The existing pedestal walls at the forward abutment cannot be reused or incorporated into the proposed abutment as load carrying elements.

The forward abutment design is configured such that the existing set of three (3) combined sewers is not subjected to loads transferred down by the new substructure. This is accomplished by spanning over the sewers and transferring all the loads to the adjacent drilled shafts in a manner similar to the Pier design discussed previously. This portion of the abutment wall is designed as an inverted T-beam.

Also, similar to the pier design, the wall portion spanning the sewers will be constructed in two phases. The first phase is the “flange” of the inverted T-beam and, once cured, will support the weight of the wet concrete from the abutment wall above it preventing any additional load from being transferred to the sewers. The flange of the T-beam is sized such that it will support some of the vertical soil weight behind the wall. This adds stability to the structure by creating a moment due to the dead weight of the soil which acts to counteract and, therefore, reduce the torsional moments acting on the wall caused by the soil pressure and superstructure loads.

As discussed previously for the pier stem analysis, GPD has utilized a similar STAAD plate analysis for the abutment breastwall to accurately determine the load distribution within this structural element (see Figure B.3). Two rows of drilled shafts were designed to support heavy vertical loads and lateral forces due to soil pressure and the superstructure loads. The wingwalls will be separated from the abutment breastwall and foundation using a 1-in. thick expansion joint filler. Support of the wingwalls with spread footings bearing on the bedrock is sufficient to resist the lateral earth pressure.

KEY SUBSTRUCTURE CONSIDERATIONS

- **Use of the finite plate element analysis method provided a tool for accurate modeling and prediction of forces to produce efficient designs which avoid impacts to existing utilities**
- **Proposed Pier location allows for both increased temporary construction clearance and permanent clearance to NS railroad facilities**
- **Design mitigates any potential loading risks to existing utilities associated with construction, minimizes foundation excavation, avoids shoring near tracks and reduces track interferences**

The existing pedestal walls from the existing abutment will remain in place, but are not considered to take any loads in the design. For preliminary forward abutment plans, see Appendix 7, sheets 6 thru 11 of 17.

Maintenance of Railroad Operations

GPD’s design team acknowledges the vitality that the construction is to be performed with minimal or no interruptions to daily railroad operations. As such, the pier design focused on:

- Location of the Proposed Pier
- Drilled Shafts Foundation

Location of the Proposed Pier

Since placement of the new pier at the current pier location was found to be problematic with respect to the existing NS track, the proposed pier location was adjusted to be centered between the existing GCRTA and NS tracks. This adjustment improves the lateral clearance for NS track from 12’-4” to 17’-8 1/8” and still satisfies the minimum lateral clearance for GCRTA track. **GPD’s previous design of the nearby Woodland Avenue Bridge over the same NS railroad tracks was successfully designed and constructed in this manner.**

Drilled Shaft Foundation
We propose 42” diameter drilled shafts to support the wall pier. Drilled shafts would increase the distance measured from the edge of the footing to the centerline of track to 17’-8 1/8”. This satisfies the NS railroad requirement of 13’-0” and should satisfy the minimum 10’-0” of shoring for the support of the adjacent track, if needed. The existing clearance is less than 10’-0”.

STORMWATER MANAGEMENT

Overall Surface Water Collection System

The project area is broken into five (5) watersheds. Four (4) areas drain to distinct combined sewers beneath E. 93rd Street, Quincy Avenue, Quebec Avenue, and the Doan Valley Interceptor (DVI) beneath E. 105th Street. NEORSD owns and maintains the DVI while the Cleveland Division of Water Pollution Control (WPC) maintains the other three combined sewers. The fifth watershed free drains to the north along the south side of the existing GCRTA railroad. From there, runoff is believed to drain westward to E. 79th Street where it eventually is collected at Kingsbury Run. OC2 will bisect much of the area thereby altering the existing drainage course and downstream connectivity. Areas outside of the proposed right-of-way currently not tributary to specific systems will now be tributary to the OC2 drainage system and therefore must be accounted for. In accordance with the scope, stormwater shall be managed so that there is no net increase in peak flow and volume to any of the combined sewer systems. Instrumental to our design is the management of these five watersheds to minimize detention provisions necessary to each of the receiving combined systems. See Figure B.4 – Existing & Proposed Drainage Area Exhibits.

Extensive analysis has been performed to assess the impact of the drainage areas on the proposed project. Of particular interest is the areas tributary to the E. 93rd Street system. By redistributing similar sized areas once tributary to the E. 93rd Street system to drain north towards the railroad, capacity becomes available to convey newly collected runoff intercepted from the area along the south side of the future roadway with no impact to the railroad. In fact, the drainage area tributary to the railroad in the post-constructed condition will decrease.

Alterations to Drainage

Further altering the drainage course is the razing of existing warehouse structures and rough grading of the terrain to eliminate stockpiles. Physical changes such as these reduce the impermeable land surface characteristics and increase associated concentration times, all of which work in favor of reducing peak flow and volume. Taking advantage of these changes lessens the need for onsite detention, reduces the amount and size of the sewer infrastructure, and minimizes necessary maintenance efforts.

Sewer Design & Inlet Spacing

Coupled with a new 15-in diameter sanitary sewer system, the roadway drainage system includes new storm sewers sized appropriately (minimum of 12-in. diameter) to separate dry weather from wet weather flow along the corridor. The roadway profile is such that the new storm sewer system(s) beneath OC2 will drain in two directions. The majority will collect and convey runoff south to the E. 93rd Street combined sewer while the remainder will drain north to the Quincy combined sewer. Other, localized storm sewer replacement is also necessary along the northern end of E. 105th Street, Quebec Avenue (between E. 103rd Street and E. 105th Street), and the south side of E. 93rd Street where roadway reconstruction is proposed.

Proposed sewers are aligned for easy maintenance access and to reduce potential for utility conflicts within existing roadway and intersection areas. Sewers are sized to convey the 10-year storm event while hydraulically passing the 25-year event. Sewer slopes are such that self-cleaning, full flow velocities of a minimum of 3-ft./s. will be achieved. Tie-in connections are minimized to the least extent possible where necessary at the existing combined sewers.



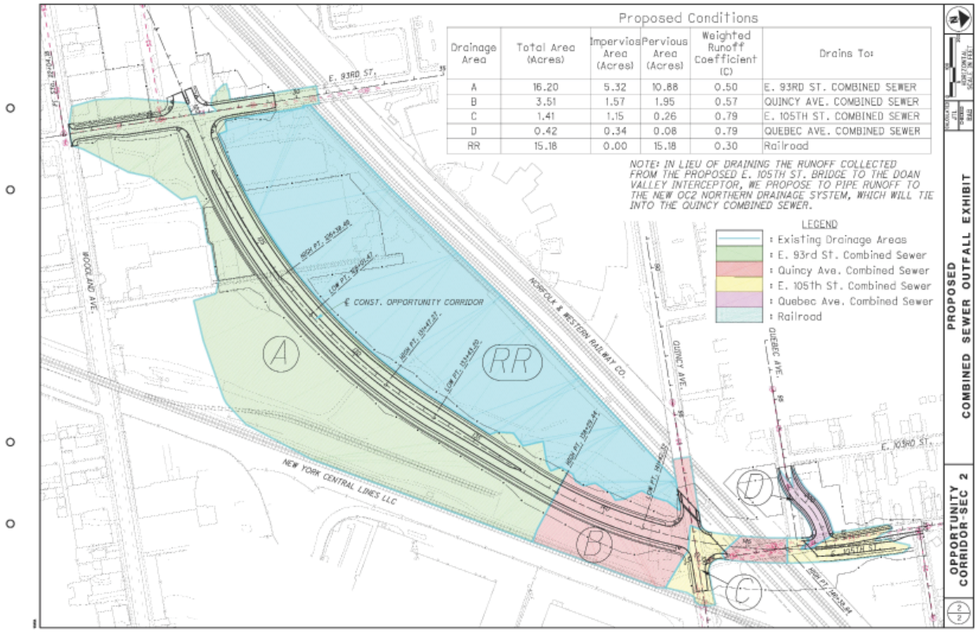


Figure B.4 - Existing & Proposed Drainage Exhibits

Inlets are spaced based on an allowable spread of 10-ft. when estimating runoff during the 5-year storm event. Off-site intercepted tributary areas along the south side of OC2 and beyond the proposed right-of-way are included within our analysis based on elimination of remote drainage ditches proposed outside the right-of-way within the RFP's Conceptual Plans (see the Roadway Section on B-8 for further discussion of drainage ditch elimination). Based on future topography data supplied by ODOT District 12, terrain alterations to eliminate stockpiles will further perpetuate runoff to drain north where it will be intercepted by the proposed roadway. Key in the inlet spacing design is the inclusion of a second sump in the vertical alignment of the proposed roadway. Without it, results indicate that spreads would be in excess of what is allowable.

KEY STORMWATER CONSIDERATIONS

- **Proposed sewers considered ease of future maintenance and impacts to existing utilities**
- **Redirection of new roadway runoff eliminated need for detention and accounted for additional drainage areas tributary to E. 93rd Street combined sewer**

Stormwater Detention Provisions

Extensive analysis has been performed to assess the impact of the drainage areas on the proposed project. Of particular interest is the areas tributary to the E. 93rd Street, E. 105th Street, and Quincy Avenue combined systems. By redirecting similar sized areas once tributary to the E. 93rd Street system to drain north towards the railroad, capacity becomes available within the existing E. 93rd Street combined sewer. This available capacity allows collected runoff, intercepted from the south side of OC2, to drain to the E. 93rd Street combined sewer without increasing flow or volume to the railroad area or E. 93rd Street combined sewer. In fact, the drainage area tributary to the railroad in the post-developed condition will decrease by approximately 12%. This redirection of drainage areas eliminates the need for stormwater detention for the proposed sewer system tributary to the E. 93rd Street combined sewer. It also accounts for off-site drainage areas south of (and now tributary to) OC2.

The new E. 105th Street bridge will be wider than the existing structure and will generate runoff in excess of the current conditions tributary to the DVI. As a result, detention will be required to manage runoff tributary to the E. 105th Street. However, limited area exists to physically construct a detention system in this area when considering the proximity to the existing infrastructure and proposed improvements. Therefore, and in lieu of draining to the DVI, we propose to pipe runoff collected by the roadside inlets in the intersection to the new OC2 northern drainage system. There, underground detention provision can be provided without significant impacts to existing utilities, the NEORSD DVI, or bridge foundations before tying into the Quincy Avenue combined sewer. When comparing the pre- and post-developed conditions, results indicate that the Quincy Avenue system has available capacity which lessens the extent of stormwater detention necessary.

Peak pre- and post-condition scenarios were modeled using the SCS method for a Type 2, 24-hr. storm. Curve numbers, similar to those used in Appendix DR-02 of the RFP, were applied. Concentration times using the TR-55 method were established based on delineated flow paths. Results indicate that peak discharge rates and volumes are either maintained or reduced for all storm events analyzed. Where detention is proposed, the 5-year post-developed storm event is restricted to the 6-month pre-developed peak rates. See Table B.1.

Table B.1 - Model Results

Trib System	Return Event	Pre-Peak Volume (ac-ft)	Post-Peak Volume (ac-ft)	Pre-Peak / Flow (ft^3/s)	Post-Peak / Flow (ft^3/s)
E. 93rd Street					
	6mo.	0.874	0.576	13.65	5.8
	5yr	1.907	1.766	28.99	19.78
Quincy Avenue					
	6mo.	0.160	0.160	1.90	1.05
	5yr	0.474	0.443	5.81	1.90
E. 105th (DVI)					
	6mo.	0.139	0.128	2.20	2.07
	5yr	0.332	0.271	5.15	4.25
Quebec Avenue					
	6mo.	0.040	0.035	0.61	0.57
	5yr	0.080	0.076	1.20	1.20
Railroad					
	6mo.	0.474	0.252	4.86	2.08
	5yr	1.621	1.079	19.79	13.36

OPPORTUNITY CORRIDOR BOULEVARD / QUINCY AVENUE GCRTA STATION TRACK AND CATENARY STRUCTURE DESIGN

Proposed Track Work

The Scope of Work calls for the eastbound track and westbound track to be replaced with new track consisting of 115# rails supported on concrete ties with pandrol fastening system. Approximately 380-ft. of each track will be replaced extending from Sta. 247+00 to Sta. 250+80. New underdrains will be installed to promote track drainage.

Rail Standards in GCRTA's "Station Safety and Security Design Criteria" will be used as design criteria.

Horizontal Alignments

The horizontal alignments will remain substantially unchanged from the existing alignments. The track alignments are tangent and parallel with the station platform located between the tracks.

Vertical Alignments

The vertical alignments will remain substantially unchanged from the existing vertical alignments. The tracks are within a vertical tangent through the majority of the project area with a slight 100 ft. sag vertical curve with the PVI located at Sta. 250+71. This vertical curve will be shifted to the east so that the full length of the platform will be located within a vertical tangent to ensure that level boarding is provided for the full platform length.

Catenary System Changes
The Red Line uses an overhead compound catenary system to supply traction power. Catenary structure E. 249 will need to be replaced due to its location under the proposed bridge. The proposed catenary structure type and location will be evaluated based on the available clearance under the proposed bridge.

This existing structure also supports communications cables running parallel to the tracks. A communications line comes up the south leg of the pole from underground and is mounted over the westbound track and proceeds adjacent to the eastbound catenary. SUE performed during the field investigation phase will locate the existing underground duct bank. It is anticipated that this existing communications line will need to be mounted on the proposed catenary structure and may require relocation pending the final type of structure.

Signal System Changes
The existing audio frequency bonds located approximately 40-ft. beyond the existing platform will be relocated to the east at a location approximately 40-ft. beyond the proposed platform.

Communications
The proposed station security, public address and communications systems will be connected to the existing 12 fiber aerial single mode fiber optic cable connection to the GCRTA operations control center.

ROADWAY
Vertical Alignments
The vertical alignment provided in the conceptual plans for Quincy Avenue has grade breaks that exceed normal design criteria for 35 mph along with a note that states that grade breaks are designed for 25 mph. Section 13.5 of the scope states that design exceptions are not required. The design speeds listed in Appendix LD-02 Roadway Design Criteria do not agree with the SOS Table 1.1. The Conceptual Plans use grade breaks that conform in most cases to the speeds listed in Table 1.1. We have revised the design profile for Quincy Avenue so that it meets criteria for 35 mph and allows for a normal cross slope along Opportunity Corridor Boulevard.

Drainage Ditches
The conceptual plans show new remote ditches being constructed outside of the existing and proposed right-of-way along both sides of Opportunity Corridor Boulevard from 135+50 to 136+50. Since this is outside of the right-of-way, a drainage easement will be required for maintenance. To avoid the additional easement along with the required maintenance of remote open ditches, this surface water will be collected in the curb inlets. This same proposed design could be applied throughout the entire project. A new design profile was created for Opportunity Corridor Boulevard to eliminate the remote ditches and provide more balance to the earthwork for the entire project.

KEY ROADWAY CONSIDERATIONS

- **Corrected reversed cross slopes from the conceptual plans at the north side of the project to address drainage**
- **Lowered profile on the south side to eliminate remote ditches and maintenance concerns**

Cross Slopes
The conceptual plans show cross slopes for Opportunity Corridor Boulevard at the Quincy Avenue intersection that are reversed at a rate of 0.0288 to meet the design profile for Quincy Avenue. This would be observed by the driver as sloping towards the outside of a curve rather than the inside. We redesigned the Quincy Avenue profile along with improvements to the Opportunity Corridor Boulevard profile design. The redesign will allow normal cross slopes for Opportunity Corridor Boulevard for all but the extreme rear left corner of the bridge.

LIGHTING / CLEVELAND PUBLIC POWER
Lighting
AEC designed the lighting for CUY-10-20.98 with a focus on illumination and efficiency. All new LED lighting will be installed on fiberglass poles to provide full coverage of all roadways in the project area.

The preliminary layout from the RFP materials was modified to reduce the number of light poles along OC2. A detailed photometric analysis was performed to provide a design that satisfies the required illumination levels of 1.4fc minimum. See Figure B.5.

The design provides full coverage of project intersections and all project roadways. Two power service locations were chosen for balanced loading of lighting circuits so that the voltage drop was below ODOT requirements for all lighting circuits. The location of the power services also positions them for potential future lighting additions from the same controller. Lighting will be maintained during construction.

Decorative lighting will be installed along the new bridge over the railroad, including light bars along the bridge railings, LED uplights to illuminate the four corner bridge pylons and recessed LED lighting to illuminate the pylon recess that will display public art. The decorative lighting is incorporated into the power circuitry for the roadway lighting.

Cleveland Public Power
The CPP portion of the project consists of the removal and relocation of CPP underground and overhead facilities to allow for the new Opportunity Corridor Boulevard. The underground demolition consists of removal of existing manholes and ductbanks on E. 105th Street between Norman Avenue and Quebec Avenue. One existing manhole on E. 93rd Street will require minor modification to allow for modified street elevation. Existing CPP primary overhead facilities will be removed along the west side of the E.105th Street bridge and over Quincy Avenue. Additionally, a portion of the primary overhead facilities east of E. 93rd Street, extending north from Woodland Avenue, will be demolished.

The CPP work associated with the Opportunity Corridor Boulevard shall also include providing new underground distribution consisting of manholes, ductbanks and 15 kV cabling. The new underground ductbank / manhole system shall be provided from E. 93rd Street along the new Opportunity Corridor Boulevard and up to Norman Avenue. The new ductbank system shall be able to serve CPP

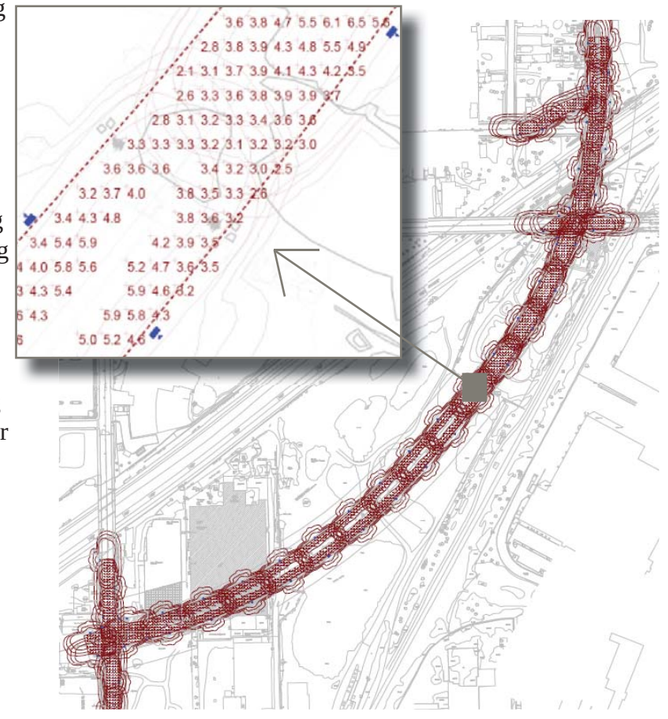


Figure B.5 – OC2 Photometric Analysis

distribution on both sides of Opportunity Corridor Boulevard. There will be a tie from the new ductbank system into the existing ductbank system on Quincy Avenue.

Additional overhead work being provided will consist of a new riser pole, guying (for both new and existing CPP poles) and primary terminations to connect to existing CPP overhead facilities.

The underground and overhead work will be provided to maintain and extend the CPP primary distribution system along Opportunity Corridor Boulevard.

MAINTENANCE OF TRAFFIC

The DBT will approach the construction of Opportunity Corridor Boulevard and all associated roadway, bridge, structural, utility and aesthetic improvements in a sequence designed to promote the maintenance of vehicular and pedestrian traffic.

Successful and safe completion of OC2 will be accomplished using a sensible combination of phased construction, vehicular detours, pedestrian detours and site management. Construction, material delivery and contractor access is intended to minimally impact existing traffic while maximizing the contractor's ability to complete site improvements in a timely and efficient manner.

For construction sequencing and discussion, OC2 has been summarized as being comprised of three regions. These regions are defined as:

- **North Region:** Quincy Avenue improvements including the Opportunity Corridor Boulevard intersection; construction of the bridge over NS / GCRTA; Quebec Avenue realignment; and all improvements on E. 105th Street through the northern limits of the project.
- **Center Region:** Opportunity Corridor Boulevard between E. 93rd Street and Quincy Avenue.
- **South Region:** E. 93rd Street improvements including the Opportunity Corridor Boulevard and Woodland Avenue intersections.

The Center Region will be constructed off-line without impacting local traffic. Construction of the Center Region may be performed concurrently with all phases of construction. The connections of Opportunity Corridor Boulevard to existing roadways (South Region and North Region) will be achieved through the use of phased construction, limited duration lane restrictions and detours. The sequence of construction described below defines the phasing required to maintain vehicular and pedestrian access during construction activities.

Sequence of Construction for Roadway Connections to Opportunity Corridor Boulevard

Phase 1: Phase 1 includes the North Region improvements to the south side of Quincy Avenue and the south side of the Opportunity Corridor Boulevard / Quincy Avenue intersection. One lane of westbound Quincy Avenue traffic shall be maintained on the north side of Quincy Avenue. Eastbound Quincy Avenue shall be closed and detoured. Construction activities shall not exceed 60 calendar days.

Opportunity Corridor Boulevard at the Quincy Avenue intersection will be closed to all vehicular and pedestrian traffic throughout the duration of the project.

Phase 2: Phase 2 completes the North Region improvements, including construction of the north side of Quincy Avenue, construction of the north side of the Opportunity Corridor Boulevard / Quincy Avenue intersection, and the demolition of the existing bridge and construction of the proposed bridge over NS / GCRTA. Phase 2 also includes the realignment of Quebec Avenue and the improvements to E. 105th Street.

One lane of traffic in each direction shall be maintained on Quincy Avenue. E. 105th Street and Quebec Avenue shall be closed to all traffic and detoured at this time. The closure and detour of E. 105th Street and Quebec Avenue will begin the permitted closure duration that shall not exceed 400 calendar days.

Opportunity Corridor Boulevard at the Quincy Avenue intersection will remain closed to all vehicular and pedestrian traffic.

Phase 3: Phase 3 includes the improvements of the Center and South Regions. Improvements within these regions will be performed concurrently with Phase 2 improvements.

Although the Center Region improvements encompass the majority of Phase 3 construction activities, improvements to the South Region will be performed as a subphase within the duration of Phase 3.

As a subphase of Phase 3, E. 93rd Street between Woodland Avenue and Quincy Avenue shall be closed to thru traffic and detoured. Westbound Woodland Avenue traffic will be reduced from two lanes to one lane due to the closure of the north curb lane at the E. 93rd Street intersection. Construction activities of the E. 93rd Street and Woodland Avenue improvements shall not exceed 120 calendar days.

Completion of all Phase 2 and Phase 3 improvements will conclude the permitted 400 calendar day closure of E. 105th Street.

Phase 4: Phase 4 includes the placement of the final surface course and proposed pavement markings and signing throughout the entire project limits. Upon completion of all improvements, Opportunity Corridor Boulevard shall be opened to vehicular and pedestrian traffic.

Local Road Impacts: Due to the nature of construction activities and limited available roadway width to maintain traffic during construction, lane restrictions and detours are required for both efficient construction and the safety of the traveling public. Local road impacts are summarized in Table B.2 on the following page.

During the implementation of and at the conclusion of each detour route, the contractor will maintain existing pavement markings along the required detour route. If detour route striping visibility is considerably reduced, the contractor will restripe in accordance the contract documents.

Pedestrian Access During Construction: Throughout the duration of the project, pedestrian access compliant with the Americans with Disabilities Act (ADA) will be maintained through the use of pedestrian detours following existing and temporary sidewalk where required. Pedestrian Access to the Quincy Avenue / E. 105th Street GCRTA Rapid Transit Station shall be maintained at all times. Pedestrian detour routes will be signed in accordance with ODOT Standard Drawing MT-110.10 "Pedestrian Detour Methods".

Temporary or permanent lighting will be provided and maintained along the required pedestrian detour. In addition, temporary fencing will be provided to separate pedestrian traffic from construction areas.

Business Access During Construction: Vehicular access to affected businesses on Woodland Road will be maintained during the westbound curb lane closure period. Temporary "Business Open" signs will be installed where appropriate.

Lay-Down and Staging Locations: Throughout the project duration, numerous lay-down and staging areas will be required throughout the project limits. Sites within the project right-of-way as well as private property either adjacent to or in close proximity will be utilized to store construction equipment and materials. Lay-down and staging locations have not been fully identified with the preparation of this proposal, however these areas will be secured during the early phases of construction.

Table B.2 – Local Road Impacts					
Street	**Impact**	**Phase**	**Permitted**	**Reason**	**Additional Requirements**
Quincy Avenue	Eastbound Traffic Detoured	1	60 days	Construction	Quincy Avenue EB detour shall not be concurrent with any closure on E. 105th Street or E. 93rd Street. Access to the GCRTA Rapid Transit Station shall be maintained at all times.
Quebec Avenue	Closure & Detour	2	400 days	Construction	Quebec Avenue closure shall be concurrent with E. 105th Street closure.
E. 105th Street	Closure & Detour	2	400 days	Construction	E. 105th Street shall not be closed concurrently with any Quincy Avenue closure.
E. 93rd Street	Closure & Detour	3	120 days	Construction	E. 93rd Street shall not be closed concurrently with any closure on Quincy Avenue.
Woodland Avenue	Westbound Curb Lane Closure	3	120 days	E. 93rd Intersection Construction	Woodland Avenue WB curb lane closure shall be concurrent with E. 93rd Street closure.

B.3 CONCEPTUAL PLANS

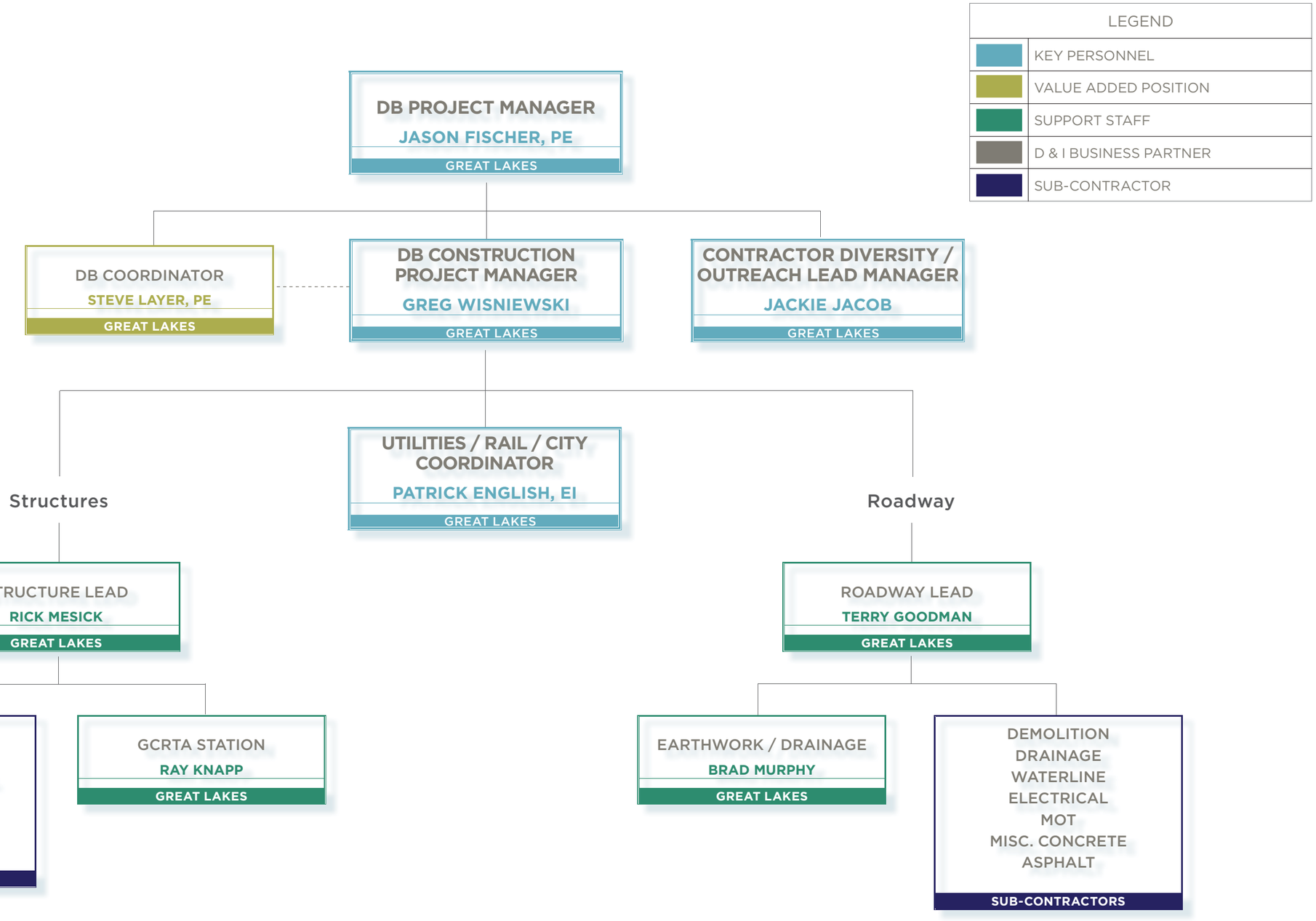
As requested in the RFP, our DBT's Conceptual Plans have been provided in Appendix 7.

In addition to our Conceptual Plans, our DBT has provided color renderings showcasing a few different perspective views of the OC2 Project area in Appendix 7.

PART C:

CONSTRUCTION

C. CONSTRUCTION

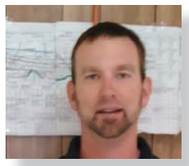


C.1 CONSTRUCTION ORGANIZATIONAL ROLES AND RESPONSIBILITIES OF CONSTRUCTION KEY PERSONNEL

As requested, our construction organizational chart has been provided on the previous page. The construction team's organization plays an important role in setting the stage for our understanding of the project, developing a communication structure and staff utilization planning.

This organizational chart was designed to:

1. Name the single point of contact from Great Lakes Construction Co. (GLC) for this project;
2. Identify the Key Personnel for Construction who are committed to delivering critical project responsibilities;
3. Showcase the bridge and roadway construction leads; and
4. Introduce diverse technical professionals and sub-contractors who will be responsible for the various areas of construction required by the project.



GREG GREG WISNIEWSKI
DB CONSTRUCTION PROJECT MANAGER

Role & Responsibility

Greg will serve as DB Construction Project Manager and report to DB Project Manager Jason Fischer, PE. Project engineers and foremen will report directly to Greg. He will have full authority for all field operations which will include: project safety, managing labor and equipment resources, material procurement and project schedule.

Greg will be an integral member of all Task Forces and Planning Meetings. He will also be responsible for the Constructability Reviews mentioned in Part A.

Experience

Greg worked with ODOT, City of Cleveland, City of Cleveland Water Department, Northeast Ohio Regional Sewer District (NEORSD), Cleveland Public Power (CPP), the Cleveland Electric Illuminating Company (CEI) and Norfolk Southern (NS) on multiple projects that are listed below.

Greg's organizational skills and planning helped keep these highly visible and challenging District 12 ODOT projects on schedule.

General Superintendent, $23M ODOT 130314
- West 73rd Street NS Bridge
- West 73rd Street Concrete Pavement
- District 12
- NS Railroad Coordination
- City of Cleveland Coordination
- CPP Coordination
- Cleveland Water Department
- AT&T Coordination
- CEI Coordination
- NEORSD Coordination

Superintendent, $6M ODOT 127002
- West Shoreway Retaining Walls
- District 12
- City of Cleveland Coordination
- CPP Coordination

Superintendent, $3M ODOT 110344
- IR-71 Noisewalls Project
- District 12
- City of Cleveland Coordination

Project Engineer, $8M Olmsted Falls
- Grade Separation Project
- CSX Railroad Coordination
- Concrete Paving
- Utility Coordination

Lead Project Engineer, $80M ODOT 060002
- IR-80 Major Widening Project
- District 4
- Tracking Project Quantities
- Project Production Planning
- Schedule updates

C.2 CONSTRUCTION NARRATIVE

GLC's overall approach to construct this project will be aggressive. **This project can be completed three (3) months early and substantially complete nine (9) months early as shown on the preliminary CPM Schedule.** We intend to:
- Aggressively and diligently manage utility relocations.
- Expedite Buildable Units (BUs) in the North Region to begin demolition of structure CUY-E. 105 in the winter of 2016/2017.
- Begin building demolition and remediation of known regulated soil materials early to identify unknown regulated materials early and reduce schedule risks.
- Plan railroad activities well in advance and provide early notice for impacts.

We understand the requirements of PN 131 – EARLY COMPLETION SCHEDULES and offer project float to mitigate any issue whether caused by the Department, Contractor, third party, or an intervening event.

CONSTRUCTION PHASE CONCEPTS

The construction sequencing summarized in Section B.2 defines 3 areas of the project (see also Figure C.1):
- **North Region:** Quincy Avenue improvements including the Opportunity Corridor Boulevard intersection; construction of the bridge over NS / GCRTA; Quebec Avenue realignment; and all improvements on E. 105th Street through the northern limits of the project.
- **Center Region:** Opportunity Corridor Boulevard between E. 93rd Street and Quincy Avenue.
- **South Region:** E. 93rd Street improvements including the Opportunity Corridor Boulevard and Woodland Avenue intersections and Section 3 demolition.

North Region

The critical path will run through this region, and we anticipate substantial completion of the Northern Region prior to the winter of 2017/2018.

Quincy Avenue will be our early focus. Our plan is to expedite BUs for Public Utilities and Roadway items here and immediately begin utility coordination to remove / relocate the overhead CPP and AT&T lines adjacent to structure CUY-E 105 and the intersection of Quincy Avenue and E. 105th Street. Doing so will allow the work on the south side of Quincy Avenue to begin in the fall of 2016. This Phase 1 Quincy Avenue work will complete in 60 days and allow for the demolition of structure CUY-E 105 to begin in the winter of 2016/2017. Additional utility relocations and tie-ins along the north side of Quincy Avenue will proceed with the closure of E. 105th Street through the 2017 construction season.

Quebec Avenue fills will be complete prior to the closure of E. 105th Street so that water, gas and electric utility relocations can begin immediately with the closure. The remaining roadway items of work on Quebec Avenue and E. 105th Street will proceed through the 2017 construction season.

GCRTA Station design, construction plans and schedule will be coordinated with the GCRTA. Weekend shutdowns will be required for drilled shaft foundations, erection of structural steel, stairs, precast platform panels and track work.

Lessons learned by GLC from multiple GCRTA projects is that having weekend outages planned well in advance with an hourly schedule will ensure enough resources are available to complete the maximum amount of work in the time allowed.

During design we will explore the option of combining these weekend shutdowns into one longer shutdown as has been done on other GCRTA Station projects.

Work will begin with foundations upon the completion of the demolition of the rear abutment and existing pier 1 of structure CUY-E 105 in the early spring of 2017. Access will be made available from the rear abutment of structure CUY-E 105. Station completion is expected prior to the winter of 2017/2018.

Center Region

Work in the Center Region will begin in summer of 2016 and will be constructed off line without impacting traffic and may be performed concurrently with work in any region.

The Center Region will not be on the longest path providing project float which will mitigate risks associated with unknown regulated materials.

Section 2 abatement / demolition and remediation of known regulated soil materials will begin shortly after notice of possession in the summer of 2016. Required stormwater pollution prevention plan (SWPPP) plans, Demolition Notifications and Spill Prevention Control and Countermeasures (SPCC) will be in place. We are anticipating utilizing parcel 2400 for our construction staging as it is adjacent to the work area.

Parcel 3006 work will start with the notice of possession. The majority of the excavation volume and remediation of known regulated soil materials for the project is on this parcel. Beginning work here early will allow us to generate fill material for the relocated Quebec Avenue so that utility relocation can begin prior to the work on Quebec Avenue. Also, if unknown regulated materials are encountered during the excavation it will allow us to mitigate schedule impacts.

Parcel 3002 is also a high priority due to the volume of demolition materials and the remediation of known regulated materials. An early start here will also open work areas on the new Opportunity Corridor Boulevard. Building demolition is expected to complete prior to the winter of 2016/2017.

Opportunity Corridor Boulevard new construction will begin upon completion of the demolition and remediation in the Center Region in the fall of 2016. Underground storm, sanitary and waterline work will proceed through the winter followed by new utility infrastructure. The remaining roadway items of work will be substantially complete prior to the winter of 2017/2018.

South Region

Section 3 abatement / demolition will begin immediately upon notice of possession. Required SWPPP plans, Demolition Notifications and SPCC will be in place. Asbestos abatement will begin followed by demolition. Our approach will be to start at E. 55th Street and proceed in a logical manner to the east.

The E. 93rd Street improvements will be coordinated with the Center Region after the utilities have been removed / relocated. This work will be done in 2017. Work in this region is not expected to be on the longest path, allowing project float for utility relocation.

E. 105TH STREET BRIDGE CONSTRUCTION PROCESS

Demolition will begin in the winter of 2016/2017 after the Phase 1 Quincy Avenue work and railroad approvals for demolition procedures and track protection. A weekend shutdown will be required for the erection of a temporary canopy under the bridge to protect the GCRTA catenary and tracks. After the deck and structural steel has been removed a weekend shutdown will be required to remove the canopy and demo the existing pier 1 between the GCRTA tracks. Catenary relocation will be done during these shutdowns. A temporary track crossing will be obtained from NS which will be required for access to demo the existing pier 2 and construct the new pier 1. Prior to designing the substructure we will investigate the location of the AT&T duct bank and NEORSD culverts. Considerations will be taken to protect these utilities during demolition and new construction.

Foundations and substructure have been designed to minimize shoring which will reduce railroad impacts.

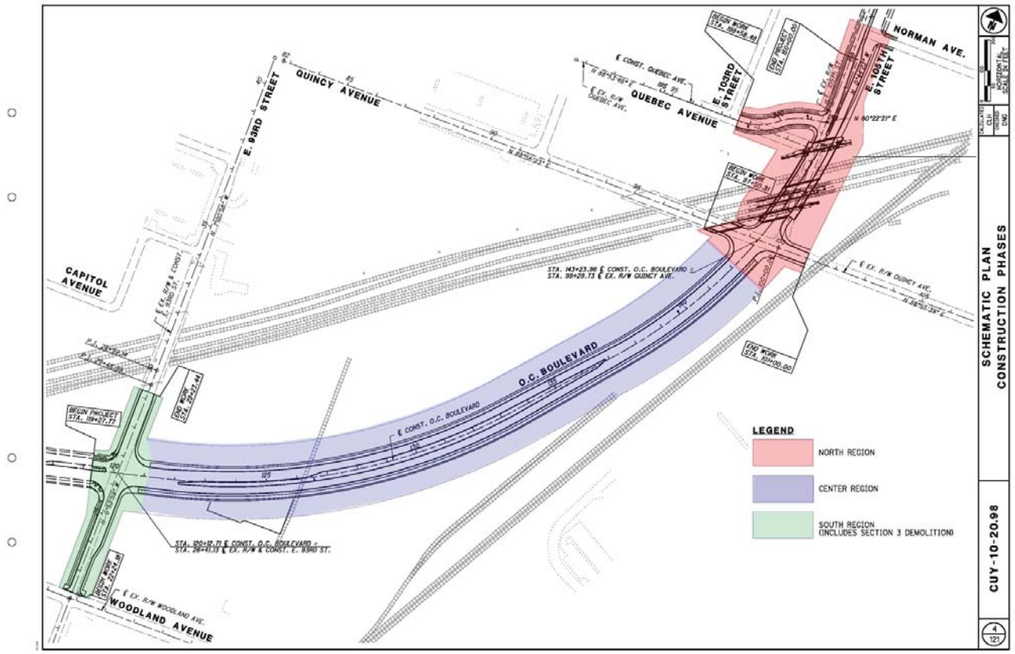


Figure C.1 - OC2 Key Regions / Project Areas

The new superstructure construction will begin in the summer of 2017. Structural steel erection will start in span 2 over the NS tracks first. Cranes will be positioned from the access road near the forward abutment and will require a flagger. Steel in span 1 over GCRTA tracks will be set with cranes positioned on the rear abutment and will require a weekend shutdown. False decking will be used to protect the tracks for the remaining superstructure items of work. This work is expected to complete prior to the winter of 2017/2018.

APPROACH FOR DEMOLITION AND HANDLING OF HAZARDOUS MATERIALS, ESPECIALLY ASBESTOS

Asbestos Containing Materials (ACM)

GLC is a certified and licensed asbestos contractor for the Ohio Environmental Protection Agency (OEPA). We employ a certified and licensed inspector, supervisors, and workers, as well as a Certified Industrial Hygienist (CIH).

ODOT will provide asbestos surveys for all building removals. The DBT will identify all asbestos-containing materials for the existing structure CUY-E 105. All asbestos abatement work will be in accordance with OEPA, Ohio Department of Health (ODH), Federal, State, and local laws.

GLC strictly adheres to all current NESHAP regulations. A control program has been established and implemented when handling or using asbestos-containing materials. The goal is to prevent the release of airborne asbestos fibers.

In general, the control plan addresses:

- Containment of asbestos operations
- Controlling the release of asbestos fibers
- Engineering controls
- Work practices
- Hygiene practices
- Facilities necessary to control the exposure of a worker to asbestos
- Providing workers with task-specific work instructions that address both the hazards and the necessary controls
- Providing, using and maintaining appropriate personal protective equipment and clothing
- Methods and procedures needed to monitor the concentration of airborne asbestos and the exposure of a worker
- Methods needed to decontaminate workers clothes
- Removal and clean-up of asbestos waste and related material

Hazardous Soil Materials

All procedures for handling and disposing of contaminated soil will be communicated with ODOT or their Designated Representative. At a minimum, handling and disposal methods shall comply with the requirements of the Contract Documents and all applicable federal, state and local laws, rules, regulations and ordinances.

GLC will not remove from the point of generation, transport, treat, store, or discharge any contaminated material without prior approval from ODOT or their Designated Representative.

All soil characterizations will be performed by a qualified representative of GLC or their designated representative.

GLC shall excavate soil material to the depths and/or elevations indicated on the plans. It is known from the Environmental Site Assessments (ESAs) that there are areas of contaminated hazardous lead soils and PCB soils, as well as non-hazardous contaminated lead, PCS, PAH and PCB soils. GLC expects that contaminated soil in the pre-determined work areas identified in the ESAs will require testing, handling and disposal. Groundwater in these areas will require testing, handling and pre-treatment or disposals as groundwater that has been affected by contaminants. Contaminated material will be excavated and within a reasonable amount of time be transported under the direction and responsibility of GLC for disposal at a licensed and approved landfill for either hazardous or non-hazardous material. Disposal acceptance documents will be provided to ODOT by GLC prior to the start of work. Transportation trucks will be directly loaded with excavated soils from the site and then directed to the appropriate disposal landfill. Trucks will be provided a controlled point of access to the site. Waste transport manifests will be completed by third party transporter and provided to the owner.

An exclusion zone, demarcated by barrier, shall be established around the area in which excavation of contaminated material is performed.

All equipment and vehicles that come in contact with contaminated material shall undergo a dry decontamination prior to leaving the exclusion zone, with the exception that the vehicles or containers which are used to transport the excavated spoils do not have to be decontaminated, provided that no part of the exterior vehicle has come in contact with excavated spoils. All excavated contaminated material shall be transported in covered, leak-proof containers. Stormwater will be diverted via drainage ditch or earthen berm to prevent leachate into the exposed excavated area. Excavations will be backfilled as soon as practical. In the event excavations cannot be backfilled, we will cover with reinforced polyurethane membrane.

Employees working in the vicinity of an excavation will be advised to remain alert for evidence of hazardous waste removed from or encountered within the excavation. Such evidence includes chemical odor, discolored soil or groundwater, or containers suspect of containing or having contained industrial product or waste. If physical evidence indicates that hazardous waste is present within, or has been removed from, an excavation, the senior employee on site will remove employees from the immediate vicinity of the suspect hazard and immediately implement the GLC Contingency Plan via “Hazardous Waste / Crisis Management Response Checklist” as well as notify ODOT or their Designated Representative. Bill Hocevar, GLC’s Corporate Safety Director, will cooperate with all agencies for coordination and response appropriate to the site conditions.

GLC has experience and proficiency in the following areas:

- Site Control;
- Solid and liquid sampling protocols and analytical testing;
- Regulated materials excavation, handling, staging, storage, transportation, and disposal
- Regulated liquids handling, storage, transportation, and disposal; and
- Identification, staging, sampling, analysis, containment, transportation, and disposal of regulated and potentially hazardous substances.

C.3 MANAGEMENT OF CONSTRUCTION SCHEDULE

TIMELY DELIVERY OF MATERIALS TO AVOID DELAYS

Managing the construction schedule begins with our experienced team of estimators led by DB Coordinator Steve Layer, PE to identify key materials with long lead times such as structural steel, GCRTA elevator, etc. Durations will be vetted in scope reviews with potential vendors in the procurement phase and will be clearly identified in the purchase agreements.

The CPM Schedule will include activities for working drawings, shop drawings and fabrication for these key materials. Key vendors will contribute to the monthly schedule updates.

The preliminary CPM Schedule indicates adequate time for the delivery of key materials. The key to avoiding delays will be effective Utility Coordination. Our DBT has the experience and capabilities to effectively manage this task.

IDENTIFYING / AVOIDING POTENTIAL DELAYS OR SCHEDULE IMPACTS
Design and construction will be on one integrated schedule. Jason Fischer, PE will develop the CPM Schedule with design input from Tom Washko, PE and construction input from Greg Wisniewski. Design will be broken down into BUs to allow construction to begin as soon as possible.

The Construction activities will be linked to the release for construction date of the BUs.

The CPM Schedule will be the tool used to analyze time impacts. Each monthly update will be done by the DB Project Manager and reviewed by key personnel to monitor critical activities. This will provide timely notification and allow for proper mitigation efforts by all parties regardless of the circumstances impacting the schedule.

C.4 SAFETY

GLC intends to utilize many of the successful processes that have been recognized through the many statewide and national safety awards achieved in the past five years such as:

- The Ohio Contractors Association Keller Safety Award
- Associated General Contractors of America Annual Safety Award
- Americas Safest Place



Project specific safety considerations include but are not limited to:

- Aerial Lifts
- Concrete & Masonry
- Confined Space Entry
- Crane & Rigging Safety
- Electrical Installations
- Falls
- Hand & Power Tools
- Industrial Hygiene
- Motor Vehicles / Earth Moving Equipment
- Railroad Safety
- Trenching & Excavation
- Work Zone Safety

These project specific safety considerations will be monitored through the weekly site safety audit discussed in the next section.

GOALS AND OVERALL APPROACH TO SAFETY
Safety takes the highest priority at GLC and, as a result, we take a proactive approach to providing a safe work environment.

The goals for this specific project will be a zero lost workday rate with a total recordable incident rate at least 50 percent below the national average for heavy civil construction work.

GLC is committed to providing a jobsite that is free of all recognizable hazards. Safety and health issues will be addressed on site by continuous evaluation of contractor / subcontractor work methods, equipment and work areas.

We will establish a Site Specific Health and Safety Plan (SSHASP) that constitutes written policies and descriptions explaining systematic methods / procedures and assigning responsibilities for reducing the risk of personal injury, death or property damage.

While GLC cannot anticipate every jobsite hazard, our SSHASP is expected to guide the conduct of all employees in order to promote uninterrupted production and employment, and to protect life, health and property.

The provisions of the SSHASP are well within requirements set forth by local, state and federal regulations, as well as standard industrial practices. The elements of the program are intended to increase the level of employees' awareness concerning potential workplace hazards and encourage safe work practices. These elements will be implemented uniformly and no safety violations will be tolerated. The SSHASP will be updated periodically to ensure compliance with all applicable regulations and continuous protection of all personnel on site.

Employees are encouraged to freely discuss their safety concerns with their immediate supervisors or GLC's Safety Department. Our management will take prompt consistent action when responding to safety and health issues. They will demonstrate our management commitment to addressing safety and health concerns and encourage employee participation. Management will respond to employees' reports of hazards or potential hazards as well as documented near hits.

Immediate supervisors will review, investigate, and take any necessary and appropriate action on all employee reports of hazards or potential hazards. The employee reporting the hazard or potential hazard will be notified of the outcome. Reporting of hazards or potential hazards will be without fear of reprimand.

Safety training is an integral part of this SSHASP. GLC will educate their employees on the basic elements of this SSHASP as well as other applicable regulatory requirements. GLC employees and all sub-contractors shall ensure that their employees receive safety orientation prior to starting work on this project.

Weekly safety talks will be performed to educate employees on site about specific safety hazards or preventative topics which cover a variety of material.

During the project, all employees will be required to participate in daily Pre Task Analysis (PTAs) to discuss hazards and ways to remove the hazard prior to beginning work and when changing tasks. The PTAs will be collected and analyzed for trends.

GLC employees will receive the required railroad flagging training, roadway worker training and background checks. GLC employs authorized roadway worker trainers as well as workers already approved to work near the railroad.

METHOD FOR MEASURING SAFETY
Supervisors and foremen are required to perform a comprehensive site safety audit once a week. During the audit, safety and compliance will be evaluated and documented. Timelines for corrective actions will be discussed at the conclusion and follow-ups will be performed by site supervisors or a member of the Safety Department.

GLC's Safety and Health Management System has been developed to provide a systematic approach to safety and health in order to have an incident free culture of safety.

GLC utilizes several metrics to assure a comprehensive, effective safety management system. Metrics include, but are not limited to, safety goals, and Key Performance Indicators (KPI) including leading and lagging indicators.

KPIs are used to determine what changes need to be made, to review individual project management success towards compliance and to track progress towards published goals and objectives. KPI results are supplied to GLC management on a monthly basis. Safety and health KPIs are tracked for each project manager's responsible area and include:

- Injuries
- Days Away From Work Cases
- Restricted Work Cases
- Total Recordable Injuries
- Total Recordable Incident Rate
- First Aid Cases
- Hours Worked
- Vehicle Incidents and Property Damage or Loss
- Reportable Spills
- Workers Compensation Data
- Near Misses
- Stop Work Actions

Information from health and safety performance measurement will be given to the people in the organization who have particular responsibilities within the health and safety management system. These will include:

- President: George Palko, PE
- VP of Operations: Jim Fox
- VP of Project Management: Al Leonard, PE
- Safety Director: Bill Hocevar, CSP

PART D:

COMMUNITY INVOLVEMENT AND DIVERSITY & INCLUSION

D. COMMUNITY INVOLVEMENT AND DIVERSITY AND INCLUSION

D.1 DRAFT DIOP AND ORGANIZATIONAL ROLES AND RESPONSIBILITIES OF KEY PERSONNEL

The Diversity, Inclusion and Outreach on this project must be successful for the local community. Our unique team approach on this project will be managed by our Diversity, Inclusion and Outreach Consultant (DIOC) Glen Shumate of COMMASA. Our team will use a three-pronged approach for Diversity, Inclusion and Outreach success (see Figure D.1). Each section will be led by the individuals listed in this section. Our successful implementation in each of these sections will ensure ODOT and the local stakeholders a successful Diversity, Inclusion and Outreach program on this project and give ODOT the template for future projects.



Figure D.1 - DIOP
Three-Pronged Approach

We have included a value added consulting position of a Workforce Development Consultant, June Taylor, whose more specific duties will be further discussed in this section and in our Diversity, Inclusion and Outreach Plan (DIOP).



GLEN SHUMATE
DB DIVERSITY / OUTREACH LEAD MANAGER

Role & Responsibility

Glen will be the DB Diversity / Outreach Lead Manager. Glen, who is the owner of COMMASA, will report directly to DB Project Manager Jason Fischer.

Glen's experience in Cleveland and his understanding of the area's need for diversity and inclusion along with his recent experience with ODOT on the George V. Voinovich / Innerbelt Bridge design-build project make him an excellent team member for this project.

Glen will lead our DBT to ensure that community involvement, diversity and inclusion with new, small, local and socially and economically disadvantaged businesses is at the forefront of all Task Force meetings during the design, buyout and construction of the project. Glen will work with our team to make sure all of the OC2 Project expectations are exceeded. Glen will execute our DIOP.

Glen will also lead the charge in our Business Development section of our DIOP. This section is more fully described in our DIOP in Appendix 10.

Glen will manage our entire DIOP which includes sections for:

- Business Development – Glen Shumate
- Workforce Development – June Taylor
- Youth Education – Jackie Jacob

Qualifications

COMMASA, Owner: As owner of COMMASA, Glen's experience includes work with national and regional projects in the Ohio Urban markets and neighborhoods working with Associations, Businesses, Civic and Community organizations on economic, community and business development, a list of these are below. These experiences and excellent relationships will greatly benefit and add value in developing a successful DIOP.

Construction Employers Association (CEA), VP of Education and Public Affairs: As a part time employee of the CEA, Glen is extensively involved with the local Cleveland construction industry and local Cleveland small business and minority community leading efforts aimed at furthering the advancement of diversity and inclusion as well as development of business partnerships, workforce development and youth programs as further detailed below.

Experience

D & I Consultant, $273M DB ODOT 133000

- George V. Voinovich Phase 2 Project
- Design-Build Project
- District 12
- Local Cleveland Vendors
- Project Buyout
- Outreach
- Youth Education

All of ODOT's proposal requirements for outreach and achieving the DBE goal were reached on the project.

Glen led the project team beyond the project scope requirements and the documentation of the Outreach efforts enabled ODOT to answer concerns from local individuals and companies that the project team was executing what was written in the project technical proposal.

In addition to leading the successful Outreach efforts on this project, Glen orchestrated a very successful youth educational effort throughout the Cleveland schools. This youth education continues today and will be advanced further on the OC2 Project.

Local Community: The list below is evidence that Glen has been actively involved with the Cleveland minority community for many years and more specifically to the Wards that surround the Opportunity Corridor projects. Glen's is excited to use this project as a springboard to advance his work of outreach, workforce development and youth education to his local Cleveland community. Glen will lead our team to exceed ODOT's goals on this project with the intent to work with ODOT to help mold a successful plan for the next phase(s) on Opportunity Corridor. Our DIOP will be the tool used to achieve these goals.

Wards 4, 5, and 6

- Supporter and active role with the Leadership Program and the City Mission in the Central Neighborhood.
- Active Involvement
  - » Central Neighborhood of Promise
  - » Elementary Schools: Mound, George Washington and Marion Sterling
  - » STEM Expo/Career Fair at Arbor Park (Central Neighborhood)

- Boys and Girls Clubs after school program (Broadway/E. 55th Street neighborhood)
- Construction Career Programs at PNC Fairfax Connection (Fairfax)
- Member of Lane Metropolitan CME Church (E. 46th/Cedar, Central neighborhood)

Outreach

- Cleveland Clinic Foundation, Kent State University, Cleveland State University and Case Western Reserve University – Supplier Diversity & Inclusion Advisory Boards
- City of Cleveland – Fannie Lewis Resident Employment Board member
- City of Cleveland – Community Benefit Agreement/Construction Diversity & Inclusion, Executive Committee and Co-Chair, Data & Reporting Committee
- BuildOhio.org (construction career program) Founding member and Director
- Greater Cleveland Quality Construction Program – Diversity Committee - Co chair
- Travel Professionals of Color- National Board member/Treasurer
- Society for Marketing Professional Services – member/presenter
- Ohio Lobbying Association – member

Education

- Ohio Department of Education, Ohio Construction Advisory Council - Career Technical Advisory Panel
- Northeast Ohio Union Construction Industry Program – Apprenticeship Committee
- ACE Mentoring Cleveland - Board of Directors
- Cuyahoga Community College – Construction Engineering Technology Advisory Council
- Cleveland Metropolitan School District, Max Hayes High School – Construction Advisory Board



JACQUELINE (JACKIE) JACOB
CONTRACTOR DIVERSITY / OUTREACH LEAD MANAGER

Role & Responsibility

Jackie will work with Glen during the buyout of the project to ensure all project goals are attained. She will also keep track monthly of all project goals, including the Wards 4, 5 and 6 On the Job Training and the project specific Fannie Lewis Law workforce hours. Jackie is a full time employee at The Great Lakes Construction Co. and therefore will report directly to Jason Fischer.

Jackie will also lead the charge in reaching out and working with the local programs established for youth education as further detailed in our DIOP.

Experience

Project Engineer, $273M DB ODOT 133000

- George V. Voinovich Phase 2 Project
- Design-Build Project
- District 12
- Local Cleveland Vendors
- Project Buyout
- Outreach Documentation
- Youth Education

Jackie Jacob worked with both Glen Shumate and Steve Layer during the successful buyout of the George V. Voinovich Phase 2 project.

This team will remain together on this project. Another responsibility that she embraced was working with the local youth educational projects throughout the Cleveland community. Jackie will continue this youth education on this project.

Local Community: Jackie worked with Glen Shumate and Steve Layer during the outreach meetings on the second bridge of the George V. Voinovich Bridges and is very familiar with the small, local and minority businesses in the Cleveland area. Communication and trust are lessons learned from this project and her experience with the local community will help greatly in the success on this project.

As evidenced from the list below, Jackie is actively involved with many youth mentoring program in Cleveland. She will continue this on this project as the lead to our youth education section of our DIOP.

- ACE Mentoring (2014 and 2015): Helping students in the Max Hayes program with a project on an ACE topic throughout the fall & winter. Prepared a presentation to give in a competition with other schools where they can win scholarships.
- Presentations/Afterschool Activities at Marion Sterling and George Washington Grades 6-8 (2014): Gave presentations on TGR, careers in construction and also participated in a hands on activity.
- CMSD STEM Engagement Pilot Program with Orchard and Urban Community Schools: 2015 (Min. of 6 sessions of 1.5 hour at each school with 6-8 grade students providing Construction Engagement, Informative hands-on challenges and activities, tour and presentations with competitions)
- Numerous School Tours (2014 and 2015)
- CMSD STEM Fair Showcase (2014): Helped CMSD Schools present and judge for their bridge building competition.
- St. Martin De Porres High School Work-Study Program (2015): A St. Martin student works for TGR one day a week and in turn, TGR pays for their tuition and they gain knowledge of our industry.
- Max Hayes Shadowing Experiences on Project (2014 and 2015): Twice a year 5-10 students shadow different employees and receive a tour and presentation on the project.
- Max Hayes Presentations (2014 and 2015): Gave presentations on careers in construction and safety at the school.
- PBS Idea Stream Broadcast programs (2014 and 2015): Employees participate in a program where the team talks about their jobs and the host asks questions on careers and on the project. This program has a live high school audience and is also broadcast to other schools. Schools ask the team questions at the end of the program.
- Tri-C Pre Apprentice Presentations and Tours (2014 and 2015): Tri-C Students receive tours on the project and get a chance to see and meet TGR employees and ask questions on their jobs and opportunities. TGR also has been to Tri-C to give a presentation there.
- Streetlaw Career Conference with Shaw High School (2015): Students went around to different career groups who introduced themselves and their careers and got a chance to ask in depth questions on their chosen careers, their career path and what it takes to get there.
- El Barrio – Centers for family and children (2015): Gave presentations on careers in construction
- Hard Hatted Women (2015): Presenter on Career Pathways at the Community Services Office.



JUNE TAYLOR – VALUE ADDED POSITION WORKFORCE DEVELOPMENT

Role & Responsibility

June will lead the efforts under Glen's supervision in local Workforce Development. This is a critical component for the success of ODOT's Diversity, Outreach and Inclusion goals on this project. The intent of this component is to make sure the proper focus and attention is made in the area of workforce development in Wards 4, 5 and 6. Under June's guidance, the successful workforce development in these Wards will not only benefit this project and the

local community, but will help establish a workforce base for future Opportunity Corridor and other local construction projects.

Experience

ODOT: Since 2012, June Taylor has served as a Strategic Advisor to ODOT as it relates to community and economic development strategies for Northeast Ohio. June will not be under contract with ODOT during the duration of this phase of Opportunity Corridor.

As a non-paid community liaison to ODOT, June's role was to define community challenges as well as help ODOT District 12 better understand the east side neighborhoods affected by Opportunity Corridor. Working alongside Director Jerry Wray; Chief of Staff Greg Murphy; Chief Engineer Jim Barna, PE; Deputy Director Brad Jones; District 12 Deputy Director Myron Pakush; and Outreach Coordinator Deborah Green, June introduced the ODOT team to key community leaders including: Mr. Norman Edwards, President, Black Contractor's Union, Mr. Andrew Jackson, President, Elson's International; and Mr. Bernie Moreno, President, The Bernie Moreno Companies.

Through conversations with these key stakeholders, ODOT began to understand the challenges and the plight of residents within the Opportunity Corridor neighborhoods (Buckeye, Central, Fairfax, Kinsman, Slavic Village and University Circle) comprised of Wards 4, 5, 6, 9 and 12.

- Chair, State of Ohio Minority Business Council
- Founder, Opportunity Corridor Inclusion Advisory Committee
- Founding Member, Opportunity Corridor, On-the Job-Task Force Committee
- Member, Disparity Study Steering Committee
- Member, Disparity Study Committee Planning Committee
- Familiar with Leadership for Opportunity Corridor Neighborhood Development:
  - » Ken Johnson – Ward 4
  - » Phyllis Cleveland – Ward 5
  - » Mamie Mitchell – Ward 6
  - » Buckeye Shaker Development Corp.
  - » Burton Bell Carr Development Corp.
  - » Fairfax Renaissance Development Corp.
  - » Slavic Village Development Corp.
  - » Kinsman Neighborhood
  - » Central Neighborhood
- Jobs & Training – Interface with Ohio Means Jobs
  - » Jobs
  - » Pre-employment training
  - » Neighborhood Revitalization

Local Community:

<u>MWV Pinnacle Advisory Services, Cleveland, OH | President (2007-2015)</u>

- Provide strategic due diligence to research industry sectors and entrepreneurs for one of the country's only private equity funds ($30M) based in Ohio and focused on minority entrepreneurs, diverse management teams and economic development. This process requires thought leadership and analysis to support the Fund's goals, guidelines and investment return parameters. MWV created one of the largest minority capitalists and is considered one of the most creative workforce solution oriented engines in the US. Investors are drawn from Ohio's corporations in diversified manufacturing, financial services, foundations and the public sector.
- Develop workforce and education support for urban and rural talent currently deemed "unemployable". Placed talent into workforce in portfolio companies in Canton, Akron, Dayton and Cleveland. Also Florence, SC, Wheeling and Huntington, WV, Show Low, AZ, Detroit, MI, and Chicago, IL.
- Provide advice and counsel on partnerships, alliances and the challenges of minority business development, including workforce, behavior and education training solutions.
- Collaborate with State of Ohio, county, municipal workforce, education and economic development agencies to secure loans, grants and tax credits for the Fund's portfolio companies.

<u>The Redmond Group, Cleveland, OH | President (1997-2003)</u>

- Created this consulting firm to provide the following: executive search, staffing design, executive coaching, organizational development and training. Clients included Eaton Corporation, General Motors, ING Financial Services, The Northcoast Fund, Charles Schwab, Sara Lee Corporation, Shorebank Cleveland Corporation and Cuyahoga Community College.
- Served as Cleveland-based resource to assist Shorebank Chicago developed the non-profit/ profit divisions of Shorebank Enterprise Group (SEG) staffing needs for Cleveland's entry into Ohio. The company's goals included reducing African-American male and neighborhood unemployment. Lowered recidivism, launched a small business incubator.
- Provided job training for over 3,000 residents in the Glenville, Fairfax, Mt. Pleasant and Union-Miles neighborhoods of Cleveland.
- Served as the lead consultant in the establishment of Cuyahoga Community College's Workforce Development Division, which now serves as a resource for 26,000 neighborhood citizens (including over 2,300 formerly incarcerated individuals) needing education and job training assistance. Secured grants totaling over $6,000,000 to establish training for participants needing GED, CDL preparation and job retraining.
- Connected over 2,800 residents from Glenville, St. Clair/Superior, and Union-Miles neighborhoods to training and educational opportunities in specialized manufacturing, entry-level administrative and service positions in Northeast Ohio.
- Secured an additional $5,000,000 grant from KeyBank for the opening of Cuyahoga Community College's Career Place. The career center, based at Tri-C's Metro campus, continues to serve as a job placement center for students and other community members.

DRAFT DIVERSITY, INCLUSION AND OUTREACH PLAN (DIOP)

Our draft DIOP shall be found in Appendix 10 of this document.

Local Team Approach

The DBT began developing its approach to delivering a local project team a year ago when two firms representing a combined 120 year history of constructing and designing local transportation infrastructure came together for the pursuit of OC2. GLC and lead designer GPD have offices in the local Cleveland area. GLC has been a local Cleveland Union contractor for over 68 years. Throughout these years GLC has utilized the local Union workforce in the construction of roadways, bridges, water and wastewater treatment plants, shopping malls, industrial facilities throughout Cleveland. During these years many apprentices and small businesses have grown alongside us. GLC has been actively involved on projects in the Opportunity Corridor area constructing bridges for ODOT over the Norfolk Southern and the Greater Cleveland Transit Authority tracks and working with the Cleveland Clinic on various projects. During the construction of these projects, both local companies and workforce personnel have participated in the construction of these projects. This familiarity with the local vendors and workforce will continue on this project.

GPD has a local office on Transportation Boulevard where the majority of the design will take place. GPD began teaming with local sub-consultants to support the team with meeting diversity and inclusion goals from the design side of the effort prior to the OC2 Phase 1 qualification submittal He will have zero concurrent projects and will be 100% dedicated to the OC2 Project. Their local office will serve as a sub-consultants mentoring center for this project.

The DBT then committed the following local Diversity and Inclusion leadership with the most relevant and recent similar experience to support the DBT in meeting local workforce goals.
Local dedicated team members include:

- Glen Shumate of COMMASA
- June Taylor of MWV Pinnacle Advisory Services
- Montrie Rucker Adams of Visibility Marketing
- Margaret Hewitt of HMLS Sustainability Solutions
- Richard Stewart with Digizoom

Stakeholder Communication

Our team has recently participated in the monthly Opportunity Corridor Inclusion & Advisory Committee monthly public meetings.

Our team will host a Community Involvement, Diversity, Inclusion and Outreach partnering meeting with the Opportunity Corridor Inclusion & Advisory Committee within 60 days of the award of the project at a local project meeting site.

Glen Shumate will lead the event along with participation of our entire project management team. Community goals and concerns will be discussed along with updating our Diversity, Inclusion and Outreach Plan (DIOP) to achieve these goals. Our team will update these goals monthly and modify goal execution in our DIOP to achieve the desired results. Monthly progress meetings, per the project scope requirements, will be held with the committee to discuss the progress of the goals at a location convenient for all stakeholders.

Informing the Public

The continued status of the project will be priority of our project Point of Contact, Montrie Rucker Adams.

Montrie Rucker Adams brings extensive public information experience to our team through her recent work with Cuyahoga County on the $189 Million Juvenile Justice Center Project.

The Juvenile Justice Center Project is located a block away from the OC2 Project, and Montrie is very familiar with the local stakeholders on this project. She produced a monthly newsletter called Tower of Change which included project information on the construction progress, a highlighted section on minority and female construction companies working on the project and a section dedicated to the workforce diversity on the project. Montrie will assist ODOT's team to keep the local community and stakeholders updated on the progress of this project using public meetings and monthly newsletters as primary ways to communicate project information.

Mentoring

A more detailed plan on our how we will execute our mentoring plan is explained in detail in our Business Development Section of our DIOP. Our design and construction team have experience with ODOT's current mentoring program and we will execute our plan in our DIOP that will provide our Small, New, Local and EDGE firms with information and tools to pursue future ODOT work.

GPD has committed a 31.31% design participation goal which will be met in part by using firms who are currently engaged in GPD's Incubator Program.

GPD will mentor new MBE firm Cosmos Technologies on roadway design. Cosmos joined GPD's Minority Business Incubator in the spring of 2015. Headquartered in Pittsburgh, PA, Cosmos Technologies is a civil engineering, construction management and inspection, environmental, energy management and surveying company. The firm came to Northeast Ohio in 2013 with the hopes of expanding its footprint in a variety of public works and water infrastructure projects.

GPD will work with the Cosmos to obtain some level of ODOT pre-qualification as a result of their anticipated design efforts on the project.

GPD will mentor G&T Associates on design tasks associated with the bridge structure to help them recapture their Level 2 bridge design pre-qualification. G&T Associates is a local MBE / EDGE registered firm that has been providing services to ODOT for the past 30 years. They are a progressive civil / structural engineering and surveying firm that has provided planning, design, surveying and construction phase services to the public and private sector since 1984.

GLC will mentor a sub-contractor and GPD will mentor a consultant as part of ODOT's Mentor Protégé Program.

On the Job Training (OJT)

A detailed plan for our success on exceeding the project goal of 10,000 OJT hours from Wards 4, 5 and 6 can be found in our DIOP. Our team has included the value added position of Workforce Development Consultant June Taylor, whose primary role will be to execute our Workforce Development Section of our DIOP. **A key component of our Workforce Development Section will be our on-site monthly project Union signup meetings.** Union representatives and our team members will assist the local residents with understanding what it takes to join the Union workforce. Our Workforce Development Plan will enable workers to participate not only on this project but future ODOT and other local construction projects.

Our team will exceed ODOT's OJT project goal on this project.

City of Cleveland Residents

GLC is very familiar with the City of Cleveland Fannie Lewis Law and understands that the requirements have been modified to require 20% of the workforce hours specifically on this project. Execution of the Workforce Development Section in the DIOP will assist our team with achieving the residency requirement on the project.

As a local contractor we already employ many workers from the local Unions that are City of Cleveland residents and are familiar with ODOT roadway and structure projects.

These individuals will help build this project. We will request from our major sub-contractors that they too contribute to these hours. GLC has been actively working on City of Cleveland project since the Fannie Lewis Law has been in effect and has achieved the required goal as evident in Table D.1 on the next page. Our team will comply with and exceed the ODOT requirement for 20% of the workforce to be City of Cleveland residents.

D.2 DIVERSITY, INCLUSION, & OUTREACH COMMITMENTS

Commitment letters for our New, Small, Local and EDGE businesses can be found in Appendix 9 of this document.

Table D.1 – City of Cleveland Residency Work Force (Fannie Lewis Law) Hours Worked							
Project Name	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**TOTAL**
Fairmont Water Treatment Plant	9,162						9,162
Land Bank 92	628						628
Riversedge Parking Lot		2,463					2,463
1st Interstate- Railroad	660	216					876
Crown Water Treatment Plant		10,579	3,512	194			14,285
CLE Runway Improvement Project		20,591	1,964				22,555
Cle Deicing Project			879	1,142	276		2,297
1st Interstate- Steelyard Commons				2,635	3,061		5,696
Cleveland Clinic Electrical Bus Improvement Project						15,345	15,345
	10,450	**33,849**	**6,355**	**3,971**	**3,337**	**15,345**	**73,307**
20% Goal	2,090	6,770	1,271	794	667	3,069	14,661
Actual City of Cleveland Residence Hours *	10,966	13,519	11,394	14,001	11,922	7,318	69,120
Hour Over Required	8,876	6,749	10,123	13,207	11,255	4,249	54,459
*Hours include all GLC City of Cleveland employee hours, not just on these projects.							

PART E:

PREQUALIFICATION

E. PREQUALIFICATION

Work Type Code	Work Type Description	Contractor/Subcontractor(s) to Perform the Work
1	Clearing & Grubbing	The Great Lakes Construction Co.
2	Building Removal	The Great Lakes Construction Co.
3	Gas, Oil, Water Well Abandonments	The Great Lakes Construction Co.
4	Roadway Excavation & Embankment Construction	The Great Lakes Construction Co.
5	Major Roadway Excavations	The Great Lakes Construction Co.
6	Incidental Grading	The Great Lakes Construction Co.
7	Soil Stabilization	The Great Lakes Construction Co.
8	Temporary Soil Erosion & Sediment Control	The Great Lakes Construction Co.
9	Aggregate Bases	The Great Lakes Construction Co.
10	Flexible Paving	The Great Lakes Construction Co.
11	Apply Bituminous Treatments	Cook Paving and Construction Co.
12	Rigid Paving	The Great Lakes Construction Co.
13	Pavement Planning, Milling, Scarification	The Great Lakes Construction Co.
14	Concrete Texturing	DOT Diamond Core Drilling
15	Sawing	The Great Lakes Construction Co.
16	Flexible Replacement	The Great Lakes Construction Co.
17	Rigid Pavement Replacement	The Great Lakes Construction Co.
18	Pavement Rubblizing, Breaking, Pulverizing	The Great Lakes Construction Co.
19	Structure Removal	The Great Lakes Construction Co.
20	Level 1 Bridge	The Great Lakes Construction Co.
21	Level 2 Bridge	The Great Lakes Construction Co.
22	Level 3 Bridge	The Great Lakes Construction Co.
23	Reinforcing Steel	The Great Lakes Construction Co.
24	Structural Steel Erection	The Great Lakes Construction Co.
25	Stud Welding	On-Site Stud Welding
26	Structural Steel Painting	Pyramid
27	Expansion & Contraction Joints, Joint Sealers, Bearing Devices	The Great Lakes Construction Co.
28	Caissons / Drilled Shafts	The Great Lakes Construction Co.
29	Structure Repairs	The Great Lakes Construction Co.
30	Hydrodemolition	The Great Lakes Construction Co.
31	Structural Steel Repairs	The Great Lakes Construction Co.
32	Heat Straightening	N/A
33	Tieback Installation	The Great Lakes Construction Co.
34	Earth Retaining Structures	The Great Lakes Construction Co.
35	Drainage (Culverts, Misc.)	The Great Lakes Construction Co.
36	Guardrail / Attenuators	N/A
37	Fence	Cuyahoga Fence LLC
38	Misc. Concrete	The Great Lakes Construction Co.
39	Maintenance of Traffic	The Great Lakes Construction Co.
40	Waterproofing	The Great Lakes Construction Co.
41	Raised Pavement Markers	N/A
42	Signing	The Great Lakes Construction Co.
43	Highway Lighting	US Utility Contractor
44	Traffic Signals - Standard	US Utility Contractor
45	Pavement Markings	A+A Safety
46	Landscaping	The Great Lakes Construction Co.
47	Mowing	Lake Erie Construction Co.
48	Trucking	The Great Lakes Construction Co.
49	Herbicidal Spraying	Lake Erie Construction Co.
50	Railroad Track Construction	The Great Lakes Construction Co.
51	Micro Tunneling	N/A
52	Tunneling	N/A
53	Piling	The Great Lakes Construction Co.
54	Post-Tensioning Bridge Members	N/A
55	Fiber Optic Cable Installation, Splicing, Termination and Testing – Traffic Signal System	N/A
56	Fiber Optic Cable Installation, Splicing, Termination and Testing – Intelligent Transportation System	N/A
57	Sealing of Concrete Surfaces with Epoxy or Non-Epoxy Sealers	The Great Lakes Construction Co.

Prequalification Category	Contractor/Subcontractor(s) to Perform the Design Work
Roadway: Bicycle Facilities and Enhancement Design	Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
Roadway: Complex Roadway Design	Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
Subsurface Utility Engineering	DHDC Engineering Consulting Services, Inc.
Bridge Design: Level 2 Bridge Design	Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
Bridge Design: Level 3 Bridge Design	Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
Bridge Design Sub-Factors: Complex Geometry	Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
Soils / Geotechnical Services: Geotechnical Engineering Services	DHDC Engineering Consulting Services, Inc.
Soils / Geotechnical Services: Geotechnical Testing Laboratory	DHDC Engineering Consulting Services, Inc.
Soils / Geotechnical Services: Geotechnical Field Exploration Services	DHDC Engineering Consulting Services, Inc.
Soils / Geotechnical Services: Geotechnical Drilling Inspection Services	DHDC Engineering Consulting Services, Inc.
Traffic Signal Design: Traffic Signal System Design	Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
Highway Lighting Design: Complex Lighting Design	Glaus, Pyle, Schomer, Burns & DeHaven, Inc.; Advanced Engineering Consultants, LLC
Environmental Documentation: Environmental Site Assessment Phase II	Glaus, Pyle, Schomer, Burns & DeHaven, Inc.

PART F.1:

APPENDIX 1 - ADMINISTRATIVE SUBMITTAL (FORMS A-1, C-1 AND C-2)

F.1 APPENDIX 1 – ADMINISTRATIVE SUBMITTAL (FORMS A-1, C-1, AND C-2)

FORM A-1

PROPOSAL LETTER

Name of Short-listed Offeror: **The Great Lakes Construction Co.**

Date: **January 20, 2016**

Ohio Department of Transportation
Office of Contracts, First Floor
1980 W. Broad Street
Columbus, OH 43223

On behalf of the Short-listed Offeror, the undersigned submit the documents described in paragraph 1 of this Proposal Letter in response to the Request for Proposals for the Opportunity Corridor Section 2 Project (the "**RFP**") issued by the Ohio Department of Transportation (the "**Department**").

The Short-listed Offeror hereby acknowledges delivery by Short-listed Offeror to the Department of the enclosed Price Proposal. Together with the Technical Proposal, the submittal by the DBT shall collectively constitute the "Proposal" for the purposes of this letter.

If this Proposal is accepted by the Department, the Short-listed Offeror is prepared to enter this agreement without varying or amending its terms (except for modifications agreed to by the Department in its sole discretion), and to satisfy all other conditions to the award of the contract, including compliance with all commitments contained in this Proposal.

1. Enclosed with this Proposal Letter is the Technical Proposal and Price Proposal of the Short-listed Offeror consisting of all documents and information required by the RFP.

2. The following individual(s) is/are authorized to enter into negotiations with the Department on behalf of the Short-listed Offeror in connection with this RFP:

   George J. Palko, PE, President and Albert Leonard, PE, VP of Project Management.

3. The Short-listed Offeror acknowledges receipt of following Addenda:

   Addendum 1: 9/9/2015
   Addendum 2: 11/20/2015
   Addendum 3: 12/8/2015
   Addendum 4: 12/17/2015
   Addendum 5: 12/21/2015
   Addendum 6: 12/22/2015
   Addendum 7: 12/29/2015
   Addendum 8: 12/30/2015
   Addendum 9: 1/8/2016

4. The Short-listed Offeror hereby certifies that:
   a) its Proposal is submitted without reservation, qualification, assumptions, deviations or conditions;
   b) it has carefully examined and is fully familiar with all of the provisions of the RFP, has reviewed all materials provided, the Addenda and the Department's responses to questions, and is satisfied that the RFP provides sufficient detail regarding the obligations to be performed by the Short-listed Offeror and does not contain internal inconsistencies;
   c) it has conducted such other field investigations and additional design development as is prudent and reasonable in preparing this Proposal;
   d) it has carefully checked all the words, figures and statements in the Proposal;
   e) it has notified the Department of any deficiencies or omissions in the RFP or other documents provided by the Department;
   f) the Lead Contractor has been prequalified for such work by the Department in accordance with the terms of the RFP;
   g) neither the Proposer nor its employees, members, agents, consultants or advisors have entered either directly or indirectly into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive selection in connection with its Proposal

5. The Short-listed Offeror represents that all statements made and information provided in the SOQ (except as amended, resubmitted and/or updated by the enclosed Technical Proposal) are true, correct and accurate as of the date of submission of this Technical Proposal.

6. The Short-listed Offeror further understands that all costs and expenses incurred in preparing the Technical Proposal and participating in the RFP Process will be borne solely by the Short-listed Offeror, except any stipend that may be paid in accordance with the RFP.

7. The Short-listed Offeror consents to the Department's disclosure of its Technical Proposal pursuant to the Department's public records policy to any persons as required by law after Award. The Short-listed Offeror acknowledges and agrees to the disclosure terms described in the RFP and expressly waives any right to contest such disclosures.

8. The Short-listed Offeror agrees that:
   a) The Department will not be responsible for any errors, omissions, inaccuracies or incomplete statements in the Proposal;

b) The Department's acceptance of the Proposal does not constitute any statement or determination as to its completeness, responsiveness or compliance with the requirements of the RFP;
c) If the Short-listed Offeror has the best value proposal, the Short-listed Offeror is committed to meeting the goals for New Business, Small Business, Local Business and EDGE Business involvement;
d) If the Short-listed Offeror has the best value proposal, the individuals identified as Key Personnel will be available on a full-time basis for the periods necessary to fulfill their Project-related responsibilities; and
e) in the event a substantive difference is identified before or after Award, between the terms for the Project offered by the Short-listed Offeror in its Proposal and any provision in the RFP, the provisions of the relevant Contract Document will prevail and the Short-listed Offeror will not be entitled to alter its Proposal, as applicable.

9. The Proposal shall be governed by and construed in all respects according to the law of the State of Ohio.

10. The Short-listed Offeror's business address:

2608 Great Lakes Way
Hinckley, Ohio 44233
United States of America

The Great Lakes Construction Co.

George J. Palko, PE
President & CEO

THE GREAT LAKES CONSTRUCTION CO.

Action in Writing

By

Board of Directors

The undersigned, being all the Directors of The Great Lakes Construction Co., an Ohio corporation (the "Corporation"), acting pursuant to the authority of Section 1701.54 of the Ohio Revised Code, hereby consent to the adoption of the following specified resolutions and approve and adopt such resolutions with the same force and effect as if they were approved and adopted at a duly constituted meeting of the Board of Directors of the Corporation:

RESOLVED, that from and after the date of adoption of this resolution, each of the following officers of the Corporation, namely Mark E. Grdina, John T. Habanek, Kurtis L. Knapp, Albert P. Leonard, and George J. Palko shall have full power and authority to sign and obligate the Corporation with respect to all proposals, bids, contracts, or other undertakings of any kind or nature with any federal, state, county, municipal, or other governmental entity, or with any corporation, partnership, limited liability company, joint venture, individual or other private entity, for or in connection with construction, services, equipment, retail purchases, sales or other transactions of any kind or nature involving the business of the Corporation, and such officer's signature shall be conclusive evidence that such officer was acting with the approval of the Board of Directors of the Corporation, and be it

RESOLVED FURTHER, that from and after the date of adoption of this resolution, the foregoing officers shall have full power and authority to delegate any or all of the power and authority described in the foregoing paragraph to any other officer or employee of this Corporation, with such limitations on said power and authority so delegated as shall be determined by the delegating officer, such delegation to be set forth in a writing to be entered upon the books and records of the Corporation, and be it

RESOLVED FURTHER, that all prior acts by the individuals who served as officers of the Corporation prior to the date hereof are ratified, affirmed and approved so long as taken in good faith and in the best interests of the Corporation; and be it

RESOLVED FINALLY, that all prior acts by the individuals who served as officers of the Corporation, and each of them, in connection with the foregoing resolutions and any and all other documents, instruments or agreements delivered in connection therewith to carry out and effectuate the purposes and intent of the foregoing resolutions be, and they hereby are, ratified, authorized, and approved with the same effect as if specifically authorized and approved by the Board of Directors at or prior to the time at which such acts and things were done or performed.

Dated: February 13, 2015

George J. Palko

John T. Habanek

James W. Fox

Attest: Kurtis L. Knapp, Secretary
2608 Great Lakes Way
Hinckley, OH 44233
State of Incorporation: Ohio

Sworn to before me and subscribed in my presence this 15th day of January, 2015.

Notary Public
My Commission Expires: 5/3/2020

NOTARIAL SEAL STATE OF OHIO

SHEILA A. KAVALEC
NOTARY PUBLIC
FOR THE
STATE OF OHIO
My Commission Expires
May 3, 2020

ITO/RFQ
CUY-10-20.98
PID 98695

FORM C1

Offeror INFORMATION

PROJECT NO. **163000**
COUNTY-ROUTE-SECTION **CUY-10-20.98**
PID **98695**

Offeror:	The Great Lakes Construction Co.
Contact Person:	George Palko, PE
Address:	2608 Great Lakes Way Hinckley, Ohio 44233
Telephone Number:	330.220.3952
Email Address:	gpalko@tglcc.com

Offeror's Lead Contractor:	The Great Lakes Construction Co.
Contact Person:	George Palko, PE
Address:	2608 Great Lakes Way Hinckley, Ohio 44233
Telephone Number:	330.220.3952
Email Address:	gpalko@tglcc.com

Offeror's Lead Designer:	Glaus, Pyle, Schomer, Burns & DeHaven, Inc. dba GPD Group
Contact Person:	Walid Gemayel, PE
Address:	5595 Transportation Boulevard Suite 100 Cleveland, Ohio 44125
Telephone Number:	216.518.5544
Email Address:	wgemayel@gpdgroup.com
Ohio Registration Number:	PE #57808

FORM C-2

DBT SUBCONSULTANT AND SUBCONTRACTOR INFORMATION

(Form Revised 9/9/09)

Firm Name	Type of Work	Responsible Principal	Registration/ Ohio PE License	NEW (Y/N)	SMALL (Y/N)	LOCAL (Y/N)	EDGE (Y/N)
Visibility Marketing, Inc.	Public Relations	Montrie Rucker Adams		Y			
zScapes Horticulture	Landscaping	Julie Zaremba		Y			
Kone, Inc.	GCRTA Elevator	Nick Mohler		Y			
Courtad, Inc.	GCRTA Metal Roof	Dennis Courtad		Y			
Cosmos Technologies	Roadway Design	Frederick Douglas	OH-PE69651	Y			
Ivy Development Agency	Supply & Install Rebar	Erik Johnson			Y		
American Roadway Logistics	Maintenance of Traffic	Heidi Claxton			Y		
G&T Associates	MOT/Traffic/ Landscape/ Structural Design	Kiran Patel	OH-PE51670		Y		
B&B Wrecking & Excavating	Industrial Demolition	Brian Baumann				Y	
Lightning Demolition & Excavating	Residential Demolition	Bob Deskins				Y	
TranSystems Corporation of Ohio	GCRTA Track Design	Nabil Farah	OH-PE75574			Y	
Coleman Development, Inc.	Asbestos Abatement	Mark Coleman				Y	
Integral Management	Workforce Development	June E. Taylor				Y	
Suburban Maintenance, Inc.	Caissons	Michael Fesker				Y	
RAR Contracting	Producer-Concrete	Keith Rogers					Y
Chieftain Trucking & Excavating	Waterline	Angelo Martin					Y
Chieftain Trucking & Excavating	Storm Sewer	Angelo Martin					Y
Chieftain Trucking & Excavating	Sanitary Sewer	Angelo Martin					Y
Ballast Fence	Temporary Fence	Ann Nerone					Y
Cook Paving & Construction	Asphalt Paving	Linda Fletcher					Y
Cook Paving & Construction	CPP Duct Bank	Linda Fletcher					Y
Denise's Flagging & Construction	RTA Flagging	Denise Stallworth					Y
Consulting Engineering, Inc.	Storm/Water/ Survey Design	Ray Chan	OH-PE47185				Y
DHDC	SUE & Geotechnical Design	Mohammed Haque	OH-PE63310				Y
The CADD Department	Drafting	Wayne Grant	OH-PE04595				Y
Interstate Safety & Service, Inc.	Trucking	Stacey Allen					Y
Key Cable & Supply	Electric Material Supply	Andrea Supplee					Y
RWJ Wiring	GCRTA Electrical	Michael Ballard					Y
Advanced Engineering Concepts	Lighting/Utility/ Mechanical/ Electrical Design	Lisa Huang	OH-PE59406				Y
Cuyahoga Fence	Permanent Fence	Rita Samorezov					Y

PART F.2:

APPENDIX 2 - PROJECT MANAGEMENT KEY PERSONNEL RESUMES

F.2 APPENDIX 2 – PROJECT MANAGEMENT KEY PERSONNEL RESUMES

GREAT LAKES



JASON FISCHER PE
DB PROJECT MANAGER

AREAS OF EXPERTISE:
Extensive Design-Build Experience;
Norfolk Southern Coordination Experience;
P6 Scheduling

YEARS OF EXPERIENCE:
Total years experience: 9
Years with current firm: 2

EDUCATION:
Bachelor of Science, Civil Engineering, 2006, Cleveland State University

REGISTRATION / CREDENTIALS:
Registered Professional Engineer, State of Ohio, 2010 (OH #75247)

Certified Erosion, Sediment and Storm Water Inspector (CESSWI #3924)

OTHER QUALIFICATIONS:
Exceptional attention to detail and organization
OSHA 30

CONCURRENT WORKLOAD:
ODOT Project 143005: 10%

Jason Fischer is currently employed by Great Lakes and will serve as the DB Project Manager for the OC2 Project.

Jason brings project management design-build experience from ODOT's first best value design-build project, CCG1, the Cleveland Innerbelt Project, multiple design-build projects for ODOT and the CSX National Gateway initiative. His experience also includes project engineering experience on several large ODOT projects in Districts 4 and 12. The experience on these projects will ensure that from design to final completion OC2 is delivered with safety considered at all times for the traveling public and construction workers, ODOT diversity and inclusion goals are achieved, quality procedures are followed throughout design and construction, and the project is delivered on schedule and on budget.

Key Projects:
- ODOT Project 143005, IR-271 3rd Lane **DB**, Summit County
- ODOT Project 143001, Noisewalls **DB**, Lorain County
- ODOT Project 103000, IR-90 Innerbelt Bridge CCG1 **DB**, Cuyahoga County
- ODOT Project 080211, IR-77 3rd Lane, Cuyahoga County
- ODOT Project 050316, IR-271, Summit County
- ODOT Project 110103, SR-2 Pavement & Structure Rehabilitation, Lake County

ODOT PROJECT 143005, IR-271 3RD LANE, SUMMIT COUNTY
Jason is the project manager on this **$45M design-build project** which includes the widening of IR-271 in Summit County to a six lane divided highway, construction of two structures over SR-82, construction of two new structures over a local road and two mainline Norfolk Southern tracks, construction of a new northbound ramp onto IR-271 and the reconstruction and widening of South Freeway drive near the intersection of SR-82. Jason has led the design and construction team to keep the project on schedule. At this time, design is 100% complete and construction is approximately 70% complete.

ODOT PROJECT 103000, IR-90 INNERBELT BRIDGE CCG1, CUYAHOGA COUNTY
Jason was the assistant project manager on this **$290M design-build project** which included the construction of a 3,000 foot steel delta girder bridge over the Cuyahoga Valley in Cleveland along with 16 additional structures and extensive roadway improvements. He oversaw safety, quality control, cost management, scheduling, material procurement, work plans, shop and working drawings, crane selection, pick plans, RFIs, change orders, subcontracts, purchase orders, and coordination with the independent quality firm (IQF) and ODOT. Special focus included the structural steel erection on the main viaduct structure. Jason also held a key role in a successful AISC audit.

ODOT PROJECT 080211, IR-77 3RD LANE, CUYAHOGA COUNTY
Jason was the structural project engineer on this **$93M 3rd lane widening project on IR-77** in Cuyahoga County. He was responsible for all the structure work including 13 bridges that were raised and widened, over 6,000 feet of bifurcated median concrete retaining wall and over 35,000 SF of noise barrier. This project also included tight interim completion dates for phased construction which were all achieved. His responsibilities included all structure work, safety, quality control, scheduling, material procurement, work plans, shop and working drawings, cost management, RFIs, change orders, subcontracts, purchase orders and coordination with ODOT. The project was completed on schedule and under budget.

ODOT PROJECT 050316, IR-271, SUMMIT COUNTY
Jason was the project engineer on this **$34M project** which required the replacement of twin 3,000 foot structures in the Cuyahoga Valley National Park in Summit County. The project also included MSE walls, approach pavement replacement and additional structure rehabilitation on two smaller mainline structures. He was responsible for all site project management, safety, quality control, cost management, scheduling, material procurement, work plans, shop and working drawings, RFIs, change orders, subcontracts, purchase orders, coordination with ODOT and the Cuyahoga Valley National Park. Project reached substantial completion nine months ahead of the scheduled completion date.

ODOT PROJECT 110103, SR-2 PAVEMENT & STRUCTURE REHABILITATION, LAKE COUNTY
Jason was the structural project engineer and estimator on this **$7.3M** project which required the rehabilitation of the eight structures along with roadway resurfacing. This project was a single season project with aggressive interim completion dates that were all attained. The rehabilitations included conversions to semi integral abutments, raising, bearing replacement, joint replacement, overlays, approach slabs and parapets. His project responsibilities included the management of all structural work, estimating, baseline schedule, safety, quality control, scheduling, material procurement, work plans, shop drawings, working drawings, cost management, RFIs, change orders, subcontracts, purchase orders and coordination with ODOT.

PART F.3:

APPENDIX 3 - DESIGN KEY PERSONNEL RESUMES

F.3 APPENDIX 3 – DESIGN KEY PERSONNEL RESUMES

GPD



THOMAS WASHKO PE
DB DESIGN PROJECT MANAGER

AREAS OF EXPERTISE:
Project Management; Transportation Structures; Bridge Design; Retaining Walls; Utilities and Drainage

YEARS OF EXPERIENCE:
Total years experience: 25
Years with current firm: 25

EDUCATION:
Bachelor of Science, Civil Engineering, 1990, Cleveland State University

REGISTRATION / CREDENTIALS:
Registered Professional Engineer,
State of Ohio, 1995 (OH #58966)
State of Indiana, 2007 (PE10708297)

OTHER QUALIFICATIONS:
Certified ODOT Level-2 Bridge Engineer
ODOT Level-3 bridge design experience
ABCD Member

CONCURRENT WORKLOAD:
ODOT, District 12, LAK-2-3.03: 20%
ODOT, District 6, FRA-70-12.68: 10%
OTIC Structures: 5%

Tom Washko is currently employed by GPD and will serve as the DB Design Project Manager for the OC2 Project.

As the DB Design Project Manager, Tom will lead all design aspects of the new roadway, reconstruction of the bridge over GCRTA and Norfolk Southern railroad tracks, and the new GCRTA rail platform. Tom excels in the design, management, and construction of award winning transportation infrastructure improvements throughout Ohio including bridge substructures and superstructures. His experience includes horizontally curved / haunched and constant depth steel plate girders with span lengths over 200-ft., steel beam, pre-stressed concrete, deck replacements, 3 and 4 sided precast structures, various pier and abutment types and retaining wall systems. Tom is well versed in design-build project delivery, having participated in over 12 design-build projects in the last five years totaling over $40M in construction.

Key Projects:
- CUY-Woodland Avenue, Bridge Replacement / Rehabilitation, Cleveland, Ohio
- ODOT, District 4, SUM-77-30.96 **DB**, Richfield, Ohio
- JEF-43-0.00 **DB**, Steubenville, Ohio
- ODOT, District 12, SR 176 Jennings Freeway, Cleveland, Ohio
- ODOT, District 2, Fort Meigs Memorial Bridge, Maumee / Perrysburg, Ohio

CUY-WOODLAND AVENUE BRIDGE REPLACEMENT / REHABILITATION, CLEVELAND
This **$4.3M project** involved major rehabilitation of massive full-height abutments and complete replacement of the superstructure and piers of a critically deteriorated bridge over the Norfolk Southern Railroad and the Greater Cleveland Regional Transit Authority Tracks in the city of Cleveland. As the bridge design engineer, Tom provided design and supervision of structure related plan preparation activities. The project included significant utility involvement including the design of a 12 inch waterline and electrical power conduits through the new superstructure. Avoidance of an active 48 inch waterline beneath the bridge required special pier designs as well.

ODOT DISTRICT 4, SUM-77-30.96 (DESIGN-BUILD), RICHFIELD
This **$10.1M project** involved two stages of work including preliminary design to establish quantities for bidding the project and final design and plan preparation after award of the design-build contract. The project included re-decking three sets of twin mainline bridges and complete superstructure replacement at a fourth set of twin mainline bridges along I-77, including complex phased construction. Project duties as bridge design engineer included steel design, analysis and load rating, moment plate fatigue retrofit designs for existing steel beams and substructure modifications.

TRU-80-1.68, BRIDGE NO. TRU-80-0191L&R – I-80 OVER NORFOLK SOUTHERN AND OHIO CENTRAL RAILROADS, GIRARD
Tom served as lead bridge engineer for this **$23.2M** project, which consists of adjacent five-span welded plate steel girder bridges, dog-legged at multiple locations to account for the curved alignment and variable width of the superstructure. Both the eastbound and westbound superstructures consist of reinforced concrete composite decks and are supported on reinforced concrete T-type piers and conventional abutments. The substructures are supported on both drilled shaft and pile foundations. Tom was responsible for superstructure design and was heavily involved in the railroad coordination efforts for this project.

CUY-176-10.14/10.88 (JENNINGS FREEWAY), CLEVELAND
Tom served as the bridge design engineer for this **$51M project** involving construction of a new limited access freeway link from Interstate 480 and Brookpark Road to I-71. Project duties included superstructure design for four bridges including mainline, fly-over ramp and overpass structures. Superstructure types included rolled steel beams, steel plate girders and horizontally curved steel plate girders. Project duties also included substructure design for various bridges as well as large counterfort type retaining walls.

JEF-43-0.00 (DESIGN-BUILD), STEUBENVILLE
Tom served as the lead structural engineer for this **$7.2M project** involving the pavement resurfacing (0.23 miles) and full depth concrete pavement replacement (0.83 miles) along 1.06 miles of SR 43 in the city of Steubenville from SR 7 to Belleview Boulevard. The project also included the rehabilitation of three bridges and two retaining walls, replacement of street lighting, addition of ADA compliant curb ramps and separation of 800 feet of existing combined sewer.

ODOT DISTRICT 2, FORT MEIGS MEMORIAL BRIDGE, MAUMEE AND PERRYSBURG
Tom served as the bridge design engineer for this **$9.2M project** involving the replacement of a deteriorated multi-span concrete arch structure over the Maumee River. Tom's responsibilities included final design of the seven-span horizontally curved plate girder. The design also utilized decorative railings and light poles. This project won several awards for bridge design including ACEC, NSBA and ABCD.

GPD



DANTE CASTRONOVA PE

DB LEAD STRUCTURAL ENGINEER

AREAS OF EXPERTISE:

Transportation Structures; Bridge Design and Inspection; Retaining Walls; Railroad Design Coordination

YEARS OF EXPERIENCE:

Total years experience: 18
Years with current firm: 11

EDUCATION:

Bachelor of Science, Civil Engineering, 1997, Youngstown State University

REGISTRATION / CREDENTIALS:

Registered Professional Engineer, State of Ohio, 2002 (OH #67051)

OTHER QUALIFICATIONS:

Certified ODOT Level-2 Bridge Engineer
ODOT Level-3 bridge design experience
ASCE Member

CONCURRENT WORKLOAD:

ODOT, District 6, FRA-70-12.68: 20%
ODOT, District 4, POR-CR 197-Frost Road: 5%

Dante Castronova is currently employed by GPD and will serve as the DB Lead Structural Engineer for the OC2 Project.

Dante will be responsible for meeting the requirements of the design for all structural elements on the project including bridges, walls and foundations. He is a qualified ODOT Level-2 bridge engineer with additional Level-3 bridge design experience. With more than 18 years of bridge and structure design experience, Dante has held similar positions for 12 transportation projects in District 12 and 6 (Level 3) complex bridge projects throughout the state. In the last 5 years alone, he has participated in 12 design-build bridge projects. Additionally, he has led a variety of designs associated with pier, abutments and retaining walls. In fact, Dante led all structural design for the GCRTA track realignment that was required to retire the NEORSD Kingsbury tunnels. This work was performed within close proximity to the OC2 Project area and included design efforts and stakeholder coordination that will be needed for OC2.

Key Projects:

- ODOT, District 4, SUM-77-30.96 **DB**, Richfield, Ohio
- SUM-Highland Road over Norfolk Southern Railroad, Macedonia, Ohio
- TRU-80-1.68 over NSRR (Level 3), Girard, Ohio
- FRA-70-1321A and FRA-70-1321R over Scioto River (Level 3), Franklin County, Ohio
- Fifth Avenue Bridge Rehabilitation over the Scioto River, Columbus, Ohio
- ERI-6-0609, US 6 over Norfolk Southern Railroad, Grade Separation, Sandusky, Ohio
- GCRTA Track Realignment, Cleveland, Ohio

ODOT DISTRICT 4, SUM-77-30.96 (DESIGN-BUILD), RICHFIELD

This **$10.1M project** involved two stages of work including preliminary design to establish quantities for bidding the project and final design and plan preparation after award of the design-build contract. The project included re-decking three sets of twin mainline bridges and complete superstructure replacement at a fourth set of twin mainline bridges along I-77, including complex phased construction. Project duties as bridge design engineer included steel design, analysis and load rating, moment plate fatigue retrofit designs for existing steel beams and substructure modifications.

TRU-80-1.68, BRIDGE NO. TRU-80-0191L&R – I-80 OVER NORFOLK SOUTHERN AND OHIO CENTRAL RAILROADS, GIRARD

Dante served as a bridge design team member for this **$23.2M** project, which consists of adjacent five-span welded plate steel girder bridges, dog-legged at multiple locations to account for the curved alignment and variable width of the superstructure. Both the eastbound and westbound superstructures consist of reinforced concrete composite decks and are supported on reinforced concrete T-type piers and conventional abutments. The substructures are supported on both drilled shaft and pile foundations. Dante was responsible for design of all of the piers and design checks of the complex superstructure.

STA-VIADU-0004 MARTIN LUTHER KING JR. VIADUCT BRIDGE OVER MAIN STREET AND NORFOLK SOUTHERN RAILROAD, ALLIANCE

As bridge engineer, Dante was responsible for plan preparation, design, and design checks for the **$1.5M** rehabilitation of a five-span continuous welded steel plate girder bridge on reinforced concrete T-type piers and conventional, spill-thru type abutments. Work included patching of deficient areas of the concrete abutments, concrete railing, sidewalk, and safety curb. Work also involved the removal and replacement of the existing asphalt surface course, portions of the approach slab, existing fence with decorative fence as well as the replacement of the existing sliding plate expansion joints with new strip seal expansion joints at each abutment.

SUM-8-1464Z-RAMPZZ OVER OHIO TURNPIKE, BOSTON HEIGHTS

As bridge engineer, Dante was responsible for plan preparation and design checks for a two-span continuous, welded plate steel girder bridge, supported on reinforced concrete abutments, and reinforced concrete cap-and-column piers. Due to the horizontally curved alignment, the girders were dog-legged at two splice locations, This project was one of five included in the **$40M** design of new interchange at SR 8, Ohio Turnpike, and local streets plus upgrading SR 8 to a limited access facility. The overall project included 2.1 miles of four lane rehabilitation, 1.8 miles of new surface streets / collectors, 3.0 miles of new ramps, five new bridges, two-bridge rehabilitations and widening, and one 300+ feet MSE retaining wall. Includes interchange lighting and extensive drainage and wetland design features (37 culverts).

SUM-HIGHLAND ROAD HIGHLAND ROAD OVER NORFOLK SOUTHERN RAILROAD, SUMMIT COUNTY, MACEDONIA

Dante served as bridge engineer for this **$9.4M** new single-span, welded plate, hybrid steel girder bridge with a reinforced concrete, composite deck slab and semi-integral abutments on cast-in-place reinforced concrete piles in new MSE embankment. Design work also included the vertical and horizontal geometric layout of new MSE walls that support both the east and west approaches of the new railroad grade separation structure.

PART F.4:

APPENDIX 4 - CONSTRUCTION KEY PERSONNEL RESUMES

F.4 APPENDIX 4 – CONSTRUCTION KEY PERSONNEL RESUMES

GREAT LAKES



GREG WISNIEWSKI
DB CONSTRUCTION PROJECT MANAGER

AREAS OF EXPERTISE:
Stakeholder Communication; Construction of Structures, Concrete Pavement, Earthwork, Storm Sewer, Waterline, Electrical Conduits and Landscaping

YEARS OF EXPERIENCE:
Total years experience: 11
Years with current firm: 8

EDUCATION:
Bachelor of Science, Physics, 2004, Baldwin Wallace College

REGISTRATION / CREDENTIALS:
Certified Erosion, Sediment and Storm Water Inspector (CESSWI #0443)

OTHER QUALIFICATIONS:
Extensive experience coordinating with the major stakeholders on this project

CONCURRENT WORKLOAD:

Greg has just finished a large complex project on the near west side of Cleveland for ODOT.

He will have zero concurrent projects and will be 100% dedicated to the OC2 Project.

Greg Wisniewski is currently employed by Great Lakes and will serve as the DB Construction Project Manager for the OC2 Project.

Greg's excellent leadership and organizational skills will provide ODOT and the local stakeholders with a high quality project that is constructed in a safe and efficient manner. Greg's experience listed below with railroads and urban high profile projects are proof that he can build challenging projects on schedule and on budget. Greg will work with the project team of designers and estimators to ensure a high quality proposal is submitted to ODOT.

Key Projects:

- ODOT Project 130314, Lakefront West-West 73rd Street, Cuyahoga County
- ODOT Project 127002, US-6 Retaining Walls, Cleveland, Cuyahoga County
- ODOT Project 110334, IR-71 Noisewalls, Brookpark, Cuyahoga County
- CSX Railroad and Columbia Road Grade, City of Olmsted Falls
- ODOT 060002 IR-80 Meander Reservoir, Mahoning County

ODOT PROJECT 130314, LAKEFRONT WEST-WEST 73RD STREET, CLEVELAND

Greg is the general project superintendent on this **$21M construction of a new road** from the south side of two mainline Norfolk Southern railroad tracks to the north side. Greg's role on this project will be completed in November 2015. A temporary railroad runaround was constructed to allow a new railroad structure to be built. Approximately 1,400 feet of 48 inch and 84 inch Hobas pipe was installed to relocate an existing sanitary pipe for the Northeast Ohio Regional Sewer District. An intricate sheeting system was used due to the poor soil conditions and limited access. Four new junction chambers were constructed to tie into the existing sanitary sewers. Additional work included: 10,000-sy of pavement removed, multiple structures were demolished, 50,000-cy of excavation and embankment, 1,600 feet of storm drainage, 6,300-sy of concrete pavement, waterline and multiple landscaping features.

Greg was responsible for the coordination of all GLC labor, equipment, material resources and for the scheduling of subcontractors on the project. Greg was also responsible for the project schedule and budget on the project. Greg and his team resequenced the phasing of the project along with working with ODOT staff to help accelerate the project to open the project to traffic in November 2015. Without this resequencing and acceleration, this project would not have been completed until November 2016. Completing this project allowed an adjacent ODOT project to stay on schedule and to be open for the Republican National Convention in July 2016.

ODOT PROJECT 127002, US-6 RETAINING WALLS, CLEVELAND

Greg was the project superintendent on this **$2.8M demolition** of a failed sheet pile wall and the installation of a new king pile sheeting combination wall that included 2,900 feet of casing pipe and 2,000 feet of sheeting. All of the installed sheets were concrete faced using one sided forms and then the wall was faced with decorative stainless steel mesh. This project was a highly visible construction project in District 12 for all of the traffic coming into Cleveland via the west shoreway. This project can be easily recognized by the blue iceberg aesthetic treatment that was placed on the entrance into the tunnel which connects the south side of the railroad tracks with Edgewater Park.

Greg was responsible for the coordination of all GLC labor, equipment, material resources and scheduling of subcontractors on the project. Greg was also responsible for the project schedule and budget on the project.

ODOT PROJECT 060002, IR-80 MEANDER RESERVOIR, MAHONING COUNTY

Greg was the lead project engineer on this **$80M 3rd Lane Widening** joint venture project. GLC's scope consisted of the demolition of existing 2,400 foot twin steel beam bridges and the construction of two 2,525 feet precast beam bridges over the Meander Reservoir. In addition, six additional structures were completely demolished and rebuilt for the new 3rd lane configuration.

Greg reported directly to the project superintendent on the project and assisted with the coordination of the field labor forces to make sure all needed resources were prepared for them to complete the work in a safe and efficient manner.

GREAT LAKES



PATRICK ENGLISH EI

UTILITIES / RAIL / CITY COORDINATOR

AREAS OF EXPERTISE:

ODOT Design-Build Project Experience; Norfolk Southern Coordination; GCRTA Coordination; P6 Scheduling

YEARS OF EXPERIENCE:

Total years experience: 4
Years with current firm: 4

EDUCATION:

Bachelor of Science in Civil Engineering, 2012, University of Wisconsin

OTHER QUALIFICATIONS:

GCRTA Flagger Training 2015
Rail Rule Book Training 2015

CONCURRENT WORKLOAD:

Patrick will have zero concurrent projects and will be 100% dedicated to the OC2 Project.

Patrick English is currently employed by Great Lakes and will serve as the Utilities / Rail / City Coordinator for the OC2 Project.

Patrick brings extensive local utility, rail and city coordination including design-build experience to the team. This experience with local utilities, Norfolk Southern and the Greater Cleveland Transit Authority (GCRTA) make him an excellent selection for this important position. This experience will allow him to be involved during the design phase to help design out delays due to potential conflicts. His experience working with Norfolk Southern and the GCRTA on access, demolition and erection procedures will assist our team with keeping the project on schedule. The most important role as a coordinator is communication and he has already worked successfully with many of the utilities, Norfolk Southern and the GCRTA on recent past ODOT projects. Patrick's knowledge of ODOT, District 12 and the City of Cleveland requirements is an added value to our team.

Key Projects:

- ODOT Project 143005, IR-271 3rd Lane **DB**, Summit County
- ODOT Project 120630, Bridge Replacements Over NS & GCRTA, Cleveland
- ODOT Project 080597, SR-2 Bridges & Noisewalls, Lake County
- ODOT Project 080211, IR-77 3rd Lane, Cuyahoga County
- ODOT Project 103017, **DB** Deck Replacement, Ashtabula County

ODOT PROJECT 143005, IR-271 3RD LANE, SUMMIT COUNTY

Patrick is the senior Project Engineer on this **$45M design-build project** which includes the widening of IR-271 in Summit County to a six lane divided highway, construction of two structures over SR-82, construction of two new complex structures over a local road and two mainline Norfolk Southern tracks, construction of a new northbound ramp onto IR-271 and the reconstruction and widening of South Freeway drive near the intersection of SR-82.

Patrick worked with the design team to assist with identifying possible conflict with the local utilities. The design phase is a critical time to adjust for possible utility conflicts. Being involved during the design phase of the project helps with the understanding of possible schedule conflicts and provides the advanced knowledge to adjust construction activities to minimize these potential delays.

Patrick worked with the project manager on the demolition and erection procedures that were submitted to Norfolk Southern.

ODOT 120630, BRIDGE REPLACEMENTS OVER NS & GCRTA, CLEVELAND

Patrick was the project engineer on this **$5.9M bridge replacement project**. This project included the complete removal and replacement of one bridge, removal of a second bridge and the removal and replacement of a pedestrian structure which tied into a GCRTA station building. Along with assisting the project superintendent on the coordination of labor, equipment and material on the project, he also coordinated construction activities with the utility companies, Norfolk Southern and the GCRTA. Patrick also assisted the project manager with the required submittal with these organizations.

ODOT PROJECT 080211, IR-77 3RD LANE, CUYAHOGA COUNTY

This **$3.7M project** consisted of the removal and replacement of the Maple Grove structure over IR-271 mainline and express lanes in District 12. Patrick assisted the project superintendent with the resources required to build this project. He also assisted the project manager with the demolition and erection submittal on the project. Extensive coordination with the maintenance of traffic was required during demolition and construction of this structure. Patrick worked with the team to ensure a safe project in this congested area.

ODOT 080597, SR-2 BRIDGES & NOISEWALLS, LAKE COUNTY

This project was a **$34M joint venture project** which consisted of the removal and widening of the existing pavement and structures along with the addition of noisewalls. As a co-op, Patrick assisted the project engineer with daily reports, quantities and material calculations.

ODOT 100215, 3RD LANE WIDENING, LAKE COUNTY

This project was a 3rd lane widening project. Great Lakes was a sub-contractor and removed and widened the mainline structures on SR-2 along with the addition of noisewalls throughout the project. The value of the work for Great Lakes was **$8M**. As a co-op, Patrick assisted the project engineer with daily reports, quantities and material calculations.

ODOT 103017, DESIGN-BUILD DECK REPLACEMENT, ASHTABULA COUNTY

This deck removal and replacement **design-build project** had a short 60 duration for construction. Patrick assisted the project superintendent during the multiple shifts that were required to complete this project on time. Patrick assisted the project engineer with daily reports, quantities and material calculations.

PART F.5:

APPENDIX 5 - COMMUNITY INVOLVEMENT AND DIVERSITY & INCLUSION KEY PERSONNEL RESUMES

F.5 APPENDIX 5 – COMMUNITY INVOLVEMENT AND DIVERSITY & INCLUSION KEY PERSONNEL RESUMES

COMMASA



GLEN SHUMATE

DB DIVERSITY / OUTREACH LEAD MANAGER

AREAS OF EXPERTISE:
Community Engagement; Communications; Marketing; Public Affairs; Business Development

YEARS OF EXPERIENCE:
Total years experience: 20
Years with current firm: 10

EDUCATION:
Leading Growth Enterprises Certificate, 2006-2007, Case Western Reserve University

OTHER QUALIFICATIONS:
Actively engaged with over a dozen diversity and inclusion organizations throughout Northeast Ohio

CONCURRENT WORKLOAD:
Construction Employers Association: 50%
ODOT Project 133000: 5%

Glen Shumate is the owner of COMMASA and will serve as the DB Diversity / Outreach Lead Manager for the OC2 Project.

Glen's experience in Cleveland and his understanding of the area's need for diversity and inclusion along with his recent experience with ODOT on the George V. Voinovich / Innerbelt Bridge design-build project make him an excellent team member for this project.

Glen has distinguished himself as an innovator in communications and marketing, public affairs and business development. He is committed to developing programs to increase community engagement, program results and improved communications. He is experienced in engagement, small business capacity building, and facilitating solutions (with public officials, institutions and the public). These experiences provide Glen the foundation for advancement of Inclusion, Workforce and Youth programs for Greater Cleveland development projects including: George V. Voinovich / Innerbelt Bridge, Nucleus Project, Cleveland Flats East Bank, and others.

Key ODOT Experience:

- ODOT Project 133000, Cleveland Innerbelt Bridge DB, Cuyahoga County

ODOT PROJECT 133000, CLEVELAND INNERBELT BRIDGE, CLEVELAND

- ODOT **$273M** Design Build Project
- District 12

Glen led the joint venture team of the Trumbull Corporation, The Great Lakes Construction Co., and the Ruhlin Company (TGR) in the pursuit of achieving the project goal for Disadvantaged Business Enterprise (DBE) goal of 15%. Multiple group outreach events were held to help achieve this goal. Glen worked with Design-Build Coordinator, Steve Layer, breaking work scope packages into manageable pieces that new and local businesses were able to quote to the team. Glen's involvement helped foster multiple face to face meetings with new and local vendors during the successful buyout of the project. Along with achieving the DBE project goal, Glen led the TGR team in youth education by having members of the TGR team present to the students in local Cleveland schools throughout the duration of the project. This youth education is ongoing today.

COMMUNITY INVOLVEMENT

- City of Cleveland – Fannie Lewis Resident Employment Board member
- City of Cleveland – Community Benefit Agreement/Construction Diversity & Inclusion
- Executive Committee and Co-Chair, Data & Reporting Committee
- ACE Mentoring Cleveland – Mentor and Board of Directors
- Cuyahoga Community College – Construction Engineering Technology Advisory Council
- Cleveland Metropolitan School District, Max Hayes High School – Construction Advisory Board
- Northeast Ohio Union Construction Industry Program – Apprenticeship Committee
- Cleveland Clinic Foundation – Supplier Diversity & Inclusion Advisory Board
- Kent State University – Supplier Diversity & Inclusion Advisory Board
- Cleveland State University – Supplier Diversity & Inclusion Advisory Board
- Case Western Reserve University – Supplier Diversity & Inclusion Advisory Board
- Ohio Dept. of Education, Ohio Construction Advisory Council – Career Technical Advisory Panel
- Ohio Lobbying Association – Member
- BuildOhio.org (construction career program) Founding member and Director
- Travel Professionals of Color – National Board member/Treasurer
- Society for Marketing Professional Services – member/presenter

GREAT LAKES



JACQUELINE (JACKIE) JACOB

CONTRACTOR DIVERSITY / OUTREACH LEAD ENGINEER

AREAS OF EXPERTISE:
ODOT Design-Build Experience; Local Outreach; Local Community Engagement; Communications

YEARS OF EXPERIENCE:
Total years experience: 5
Years with current firm: 5

EDUCATION:
Bachelor of Science in Civil & Construction Engineering, 2011, Youngstown State University,

A.A.S. Drafting & Design Tech, 2009, Youngstown State University

OTHER QUALIFICATIONS:
Actively engaged with over a dozen diversity and inclusion organizations throughout Northeast Ohio

CONCURRENT WORKLOAD:

Jackie will have zero concurrent projects and will be 100% dedicated to the OC2 Project.

Jackie Jacob is currently employed by Great Lakes and will serve as the Contractor Diversity / Outreach Manager for the OC2 Project.

Jackie has worked on the second phase of the George V. Voinovich as a Project Engineer whose role included active involvement with Glen Shumate on the Mentoring and Education of the local grade school and high school kids. Jackie also worked with Glen on the tracking and documentation of the project Disadvantaged Business Enterprise goals. This detailed reporting assisted ODOT with communicating to concerned local individuals and groups that the construction team of TGR was executing all contract and technical proposal requirements.

Jackie will be on site 100% of the time on the Opportunity Corridor Phase 2 project assisting Glen on the documentation of project goals for Small, New, Local, Economically Disadvantaged Businesses (EDGE), On the Job Training (OJT) hours and Cleveland Residents hours.

Jackie will also work under Glen during the buyout of the project to ensure all project goals are exceeded. She will also lead the youth educational component of our team's Diversity, Inclusion and Opportunity Plan (DIOP). Our DIOP along with her role for youth education is describe in more detail in the appropriate appendix of this document.

Key ODOT Experience:

- ODOT Project 133000, Cleveland Innerbelt Bridge DB, Cuyahoga County

ODOT PROJECT 133000, CLEVELAND INNERBELT BRIDGE, CLEVELAND

Jackie was a project engineer on this ODOT **$265M design-build** best value project which consisted of the construction of the west and east approaches to the Innerbelt bridge. Major work items on the project included the removal of the existing east and west approach roadway and structures along with the demolition of the existing Innerbelt Bridge and the construction of the second valley structure now known as the George V. Voinovich bridges. Jackie worked with the project Diversity and Inclusion consultant Glen Shumate documenting the project goals along with active involvement with youth mentoring.

ODOT PROJECT 127002, US-6 RETAINING WALLS, CLEVELAND

Jackie was the Project Engineer on this **$2.8M** demolition of a failed sheet pile wall and the installation of a new king pile sheeting combination wall that included 2,900 feet of casing pipe and 2,000 feet of sheeting. All of the installed sheets were concrete faced using one sided forms and then the wall was faced with decorative stainless steel mesh. This project was a highly visible construction project in District 12 for all of the traffic coming into Cleveland via the west shoreway. This project can be easily recognized by the blue iceberg aesthetic treatment that was placed on the entrance into the tunnel which connects the south side of the railroad tracks with Edgewater Park.

Jackie was responsible for assisting the Project Superintendent Greg Wisniewski with coordinating GLC labor, equipment, material resources and scheduling of sub-contractors on the project. Jackie was also responsible for updating the project schedule and the daily reports for both Great Lakes and the owner.

CITY OF YOUNGSTOWN, V & M STAR BRIER HILL PARK PHASE 2

This **$14M** project expanded rail facilities on approximately 105 acres of property into a new industrial park. The work included site excavation and embankment construction, removal of unsuitable and excess materials, site grading, construction of new track drains and under drains, construction of 80,000 feet of new railroad track including sub ballast and ballast, boring and jacking utility crossings and installation of chain link fence. Responsibilities include preparing daily progress reports, review foreman's timesheets, prepare / review quantities with owner, organize / control documents on-site, review / prepare production reports, giving weekly safety talks, updating RFI and Submittal logs, ordering of material and trucking needed, and assisted the Project Manager and Superintendent.

COMMUNITY INVOLVEMENT

- ACE Mentoring (2014 and 2015): Helping students in the Max Hayes program with a project on an ACE topic throughout the fall & winter. Prepared a presentation to give in a competition with other schools where they can win scholarships.
- Presentations/Afterschool Activities at Marion Sterling and George Washington Grades 6-8 (2014): Gave presentations on TGR, careers in construction and also participated in a hands on activity.
- CMSD STEM Engagement Pilot Program with Orchard and Urban Community Schools: 2015 (Min. of 6 sessions of 1.5 hour at each school with 6-8 grade students providing Construction Engagement, Informative hands-on challenges and activities, tour and presentations with competitions)
- Numerous School Tours (2014 and 2015)
- CMSD STEM Fair Showcase (2014): Helped CMSD Schools present and judge for their bridge building competition.
- St. Martin De Porres High School Work-Study Program (2015): A St. Martin student works for TGR one day a week and in turn, TGR pays for their tuition and they gain knowledge of our industry.

PART F.6:

APPENDIX 6 - PRELIMINARY CPM SCHEDULE & NARRATIVE

Opportunity Corridor – Projecy 2 Design-Build Project

CUY – 10 – 20.98
Project Number: 163000
PID Number: 98695
Contract ID: CUY98695

Preliminary CPM Schedule & Schedule Narrative

Completion Date: September 1, 2018

Submittal Date: January 20, 2016

This schedule narrative has been prepared using the general guidelines of the Standard Specification for Construction of Roads and Bridges on Federal Highway Projects, section 155 – SCHEDULES FOR CONSTRUCTION CONTRACTS.

The attached Preliminary CPM Schedule is in general conformance with the project required PN 107. It provides details for major items associated with design, submittals, fabrication / delivery and construction. A complete scheduling / leveling report (SCHEDLOG.TXT) has been included at the end of this section for the reviewer's convenience.

Critical Path / Milestones
Our critical path will begin with the submittal of the draft Diversity, Inclusion & Outreach Plan (DIOP) preceded by the start milestone activity ANTICIPATED AWARD and succeeded by activity START PROJECT or contract execution which will not occur until the submittal of the draft DIOP.

Public utility design, roadway design and utility coordination are next on the critical path and will begin upon contract execution. Critical construction activities begin at the Quincy Avenue and E. 105th Street intersection to be able to close E. 105th Street and begin structure CUY-E 105 demolition prior to the winter of 2017. This will be followed by substructure activities, superstructure activities and roadway activities at Quebec Avenue, E. 105th Street and phase 2 Quincy Avenue.

We are expecting substantial completion of all work regions by the winter of 2017/2018 and to finish final striping and landscaping prior to the summer of 2018. **The finish milestone activity END PROJECT is showing a June 1, 2018 completion date, 3 months ahead of schedule**.

Our preliminary schedule shows 93 calendar days of project float to be used as a shared commodity to be used by any party.

Level of Effort Activities
Level of effort activities have been included for all long term stationary closures/one-way including:
- ***QUINCY PHASE 1 DURATION***
- ***CLOSURE DURATION CUY-E105***
- ***CLOSURE DURATION E 93RD***

Constraints
Constraints were not used in this schedule, a project must finish by date of September 2, 2018 was used.

Calendars
The following calendars were used in this schedule:

163000-7 DAY – This 7 day calendar is generally used for contractor responsible submittals, review activities with calendar day durations and concrete cure.

163000-REVIEW – This calendar is based on the Scope of Services section 17 for stage review submissions and uses workdays as defined in C&MS 101 excluding State Holidays, Federal Holidays, Saturdays, Sundays, Friday after Thanksgiving Day, the day before Christmas Day and the days between Christmas Day and New Year's Day.

163000-5D WEATHER – This 5 day calendar includes weather and seasonal conditions as shown in C&MS 108.06 evenly dispersed as non-work days. It is used primarily for structure CUY-E 105 activities, building demolition activities and GCRTA Station activities.

163000-5D WINTER – This 5 day calendar includes weather and seasonal conditions as shown in C&MS 108.06 evenly dispersed as non-work days, it also includes the days between December 1st and March 31st as non-work days. It is primarily used for roadway activities and structure CUY-E 105 superstructure activities.

Design Activities
Design includes activities for the submittal and approval for Stage 1 and Stage 2 submittals and also includes an activity for the submittal of the "for construction" drawings. Submittals of the "for construction" drawings are linked to their respective construction activities. The five (5) buildable units listed are general, sub-categories for each general buildable unit may be required and will be determined as design progresses. All buildable unit review durations account for 3rd party reviews except for Maintenance of Traffic (MOT) which will only require ODOT and the City of Cleveland.

Submittal Activities
Submittal activities are included for key activities and activities with long lead times only, including:
- Demolition Notifications
- Track Crossing
- Shop Drawings
- Working Drawings
- Certified Drawings

Fabrication / Delivery Activities
Fabrication and delivery activities are included for key activities and activities with long lead times only, including:
- Expansion Joints
- Bearings
- Structural Steel (CUY-E105 & GCRTA Station)
- GCRTA Elevator

Construction Activities
Construction will begin with the stage 2 & 3 demolition and associated environmental remediation in the summer of 2016 and continue into early 2017. MOT activities will begin late summer 2016 with the one-way restriction of traffic on Quincy Avenue for up to 60 days followed by the 400 day closure of E. 105th Street and Quebec Avenue occurring approximately from the fall of 2016 to late fall 2017. Additional maintenance of traffic impacts on E. 93rd and Woodland Avenue will occur during summer / fall 2017.

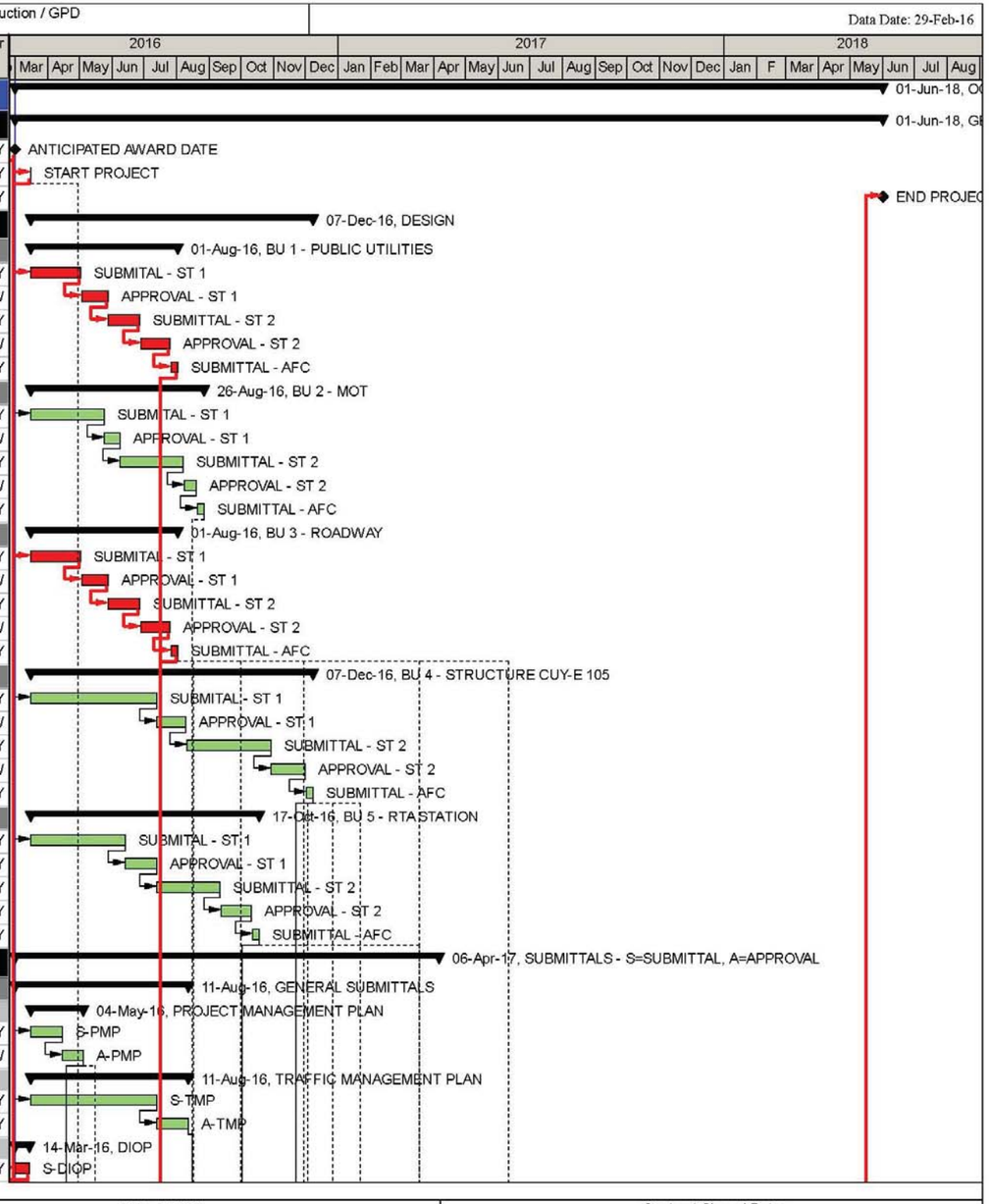
Roadway work on the new Opportunity Corridor Bouvelard will proceed following the stage 2 demolition and environmental remediation in the second half of 2016 and is expected to complete prior to the winter of 2017/2018. Roadway work on the north side of Quincy Avenue, E. 105th Street and Quebec Avenue will begin with the closure of E. 105th Street in in the fall of 2016 and is expected to complete within 400 days, prior to the winter of 2017/2018. Roadway work on E. 93rd Street will begin upon completion of the underground work on the new Opportunity Corridor Boulevard in the summer of 2017 and is expected to complete prior to the winter of 2017/2018.

Structure CUY-E 105 and the GCRTA station will begin in the fall/winter 2016 and are expected to complete prior to the winter of 2017. Substantial completion is expected prior to the winter of 2017/2018 leaving only final striping and landscaping for 2018. Project completion is expected to be June 1, 2018. For additional details on these activities of work, please refer to section C.2.

Utility Relocation Activities
Utility coordination will begin immediately upon contract execution, relocation activities are shown to provide an understanding of when relocations need to occur by location. The durations listed in the Preliminary CPM Schedule are estimated at this time based on conversations with known impacted utilities and are achievable.

163000 OC 2 - PRELIMINARY SCHEDULE | Great Lakes Construction / GPD | Data Date: 29-Feb-16

Activity ID	Activity Name	Original Duration	Remaining Duration	Total Float	Start	Finish	Calendar
OC 2 - PRELIMINARY SCHEDULE							
GENERAL							
G110	ANTICIPATED AWARD DATE	0	0	33	29-Feb-16		163000-7 DAY
G120	START PROJECT	0	0	35	15-Mar-16	15-Mar-16	163000-7 DAY
G130	END PROJECT	0	0	93	01-Jun-18		163000-7 DAY
DESIGN							
BU 1 - PUBLIC UTILITIES							
BU1-100	SUBMITAL - ST 1	48	48	35	15-Mar-16	01-May-16	163000-7 DAY
BU1-110	APPROVAL - ST 1	20	20	24	02-May-16	27-May-16	163000-REVIEW
BU1-120	SUBMITTAL - ST 2	30	30	35	28-May-16	26-Jun-16	163000-7 DAY
BU1-130	APPROVAL - ST 2	20	20	24	27-Jun-16	25-Jul-16	163000-REVIEW
BU1-140	SUBMITTAL - AFC	7	7	33	26-Jul-16	01-Aug-16	163000-7 DAY
BU 2 - MOT							
BU2-100	SUBMITAL - ST 1	70	70	37	15-Mar-16	23-May-16	163000-7 DAY
BU2-110	APPROVAL - ST 1	10	10	26	23-May-16	07-Jun-16	163000-REVIEW
BU2-120	SUBMITTAL - ST 2	60	60	37	08-Jun-16	06-Aug-16	163000-7 DAY
BU2-130	APPROVAL - ST 2	10	10	25	08-Aug-16	19-Aug-16	163000-REVIEW
BU2-140	SUBMITTAL - AFC	7	7	38	20-Aug-16	26-Aug-16	163000-7 DAY
BU 3 - ROADWAY							
BU3-100	SUBMITAL - ST 1	48	48	35	15-Mar-16	01-May-16	163000-7 DAY
BU3-110	APPROVAL - ST 1	20	20	24	02-May-16	27-May-16	163000-REVIEW
BU3-120	SUBMITTAL - ST 2	30	30	35	28-May-16	26-Jun-16	163000-7 DAY
BU3-130	APPROVAL - ST 2	20	20	24	27-Jun-16	25-Jul-16	163000-REVIEW
BU3-140	SUBMITTAL - AFC	7	7	33	26-Jul-16	01-Aug-16	163000-7 DAY
BU 4 - STRUCTURE CUY-E 105							
BU4-100	SUBMITAL - ST 1	120	120	100	15-Mar-16	12-Jul-16	163000-7 DAY
BU4-110	APPROVAL - ST 1	20	20	70	12-Jul-16	09-Aug-16	163000-REVIEW
BU4-120	SUBMITTAL - ST 2	80	80	102	10-Aug-16	28-Oct-16	163000-7 DAY
BU4-130	APPROVAL - ST 2	20	20	62	28-Oct-16	30-Nov-16	163000-REVIEW
BU4-140	SUBMITTAL - AFC	7	7	98	01-Dec-16	07-Dec-16	163000-7 DAY
BU 5 - RTA STATION							
BU5-100	SUBMITAL - ST 1	90	90	282	15-Mar-16	12-Jun-16	163000-7 DAY
BU5-110	APPROVAL - ST 1	30	30	282	13-Jun-16	12-Jul-16	163000-7 DAY
BU5-120	SUBMITTAL - ST 2	60	60	282	13-Jul-16	10-Sep-16	163000-7 DAY
BU5-130	APPROVAL - ST 2	30	30	282	11-Sep-16	10-Oct-16	163000-7 DAY
BU5-140	SUBMITTAL - AFC	7	7	282	11-Oct-16	17-Oct-16	163000-7 DAY
SUBMITTALS - S=SUBMITTAL, A=APPROVAL							
GENERAL SUBMITTALS							
PROJECT MANAGEMENT PLAN							
PMP-S	S-PMP	30	30	284	15-Mar-16	13-Apr-16	163000-7 DAY
PMP-A	A-PMP	15	15	188	13-Apr-16	04-May-16	163000-REVIEW
TRAFFIC MANAGEMENT PLAN							
TMP-S	S-TMP	120	120	53	15-Mar-16	12-Jul-16	163000-7 DAY
TMP-A	A-TMP	30	30	53	13-Jul-16	11-Aug-16	163000-7 DAY
DIOP							
DIOP-S	S-DIOP	14	14	33	29-Feb-16	13-Mar-16	163000-7 DAY



Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | Summary

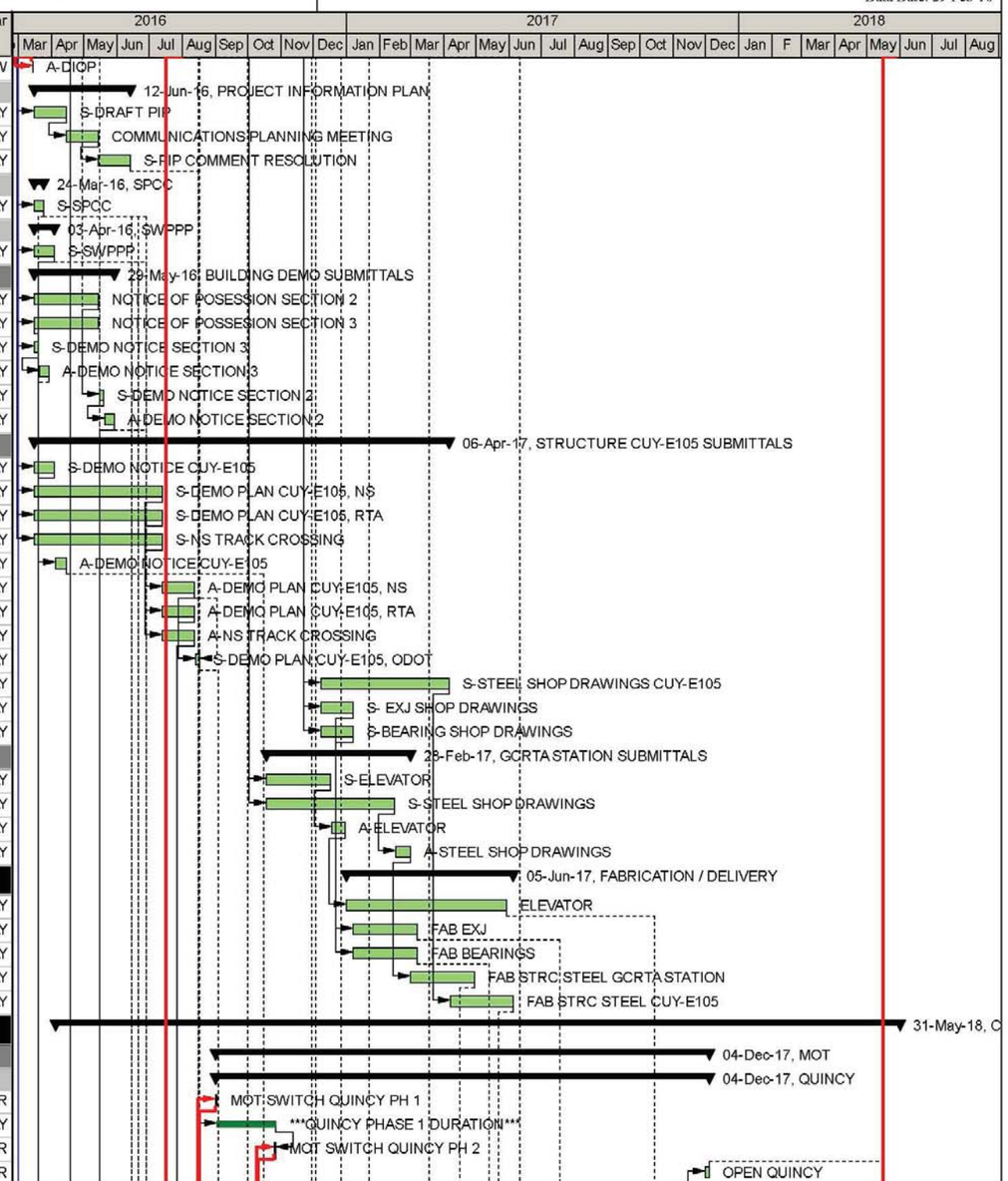
PID: 98695

Contract Signed Date:

Completion Date: 9/1/2018

163000 OC 2 - PRELIMINARY SCHEDULE | Great Lakes Construction / GPD | Data Date: 29-Feb-16

Activity ID	Activity Name	Original Duration	Remaining Duration	Total Float	Start	Finish	Calendar
DIOP-A	A-DIOP	1	1	25	14-Mar-16	14-Mar-16	163000-REVIEW
PROJECT INFORMATION PLAN							
PIP-S	S-DRAFT PIP	30	30	113	15-Mar-16	13-Apr-16	163000-7 DAY
PIP-M	COMMUNICATIONS PLANNING MEETING	30	30	113	14-Apr-16	13-May-16	163000-7 DAY
PIP-A	S-PIP COMMENT RESOLUTION	30	30	113	14-May-16	12-Jun-16	163000-7 DAY
SPCC							
SPCC	S-SPCC	10	10	334	15-Mar-16	24-Mar-16	163000-7 DAY
SWPPP							
SWPPP	S-SWPPP	20	20	315	15-Mar-16	03-Apr-16	163000-7 DAY
BUILDING DEMO SUBMITTALS							
BD100	NOTICE OF POSESSION SECTION 2	61	61	268	15-Mar-16	14-May-16	163000-7 DAY
BD110	NOTICE OF POSSESION SECTION 3	61	61	805	15-Mar-16	14-May-16	163000-7 DAY
BD140	S-DEMO NOTICE SECTION 3	5	5	790	15-Mar-16	19-Mar-16	163000-7 DAY
BD150	A-DEMO NOTICE SECTION 3	10	10	790	20-Mar-16	29-Mar-16	163000-7 DAY
BD120	S-DEMO NOTICE SECTION 2	5	5	268	15-May-16	19-May-16	163000-7 DAY
BD130	A-DEMO NOTICE SECTION 2	10	10	268	20-May-16	29-May-16	163000-7 DAY
STRUCTURE CUY-E105 SUBMITTALS							
SD100	S-DEMO NOTICE CUY-E105	20	20	314	15-Mar-16	03-Apr-16	163000-7 DAY
SD110	S-DEMO PLAN CUY-E105, NS	120	120	145	15-Mar-16	12-Jul-16	163000-7 DAY
SD120	S-DEMO PLAN CUY-E105, RTA	120	120	145	15-Mar-16	12-Jul-16	163000-7 DAY
SD130	S-NS TRACK CROSSING	120	120	108	15-Mar-16	12-Jul-16	163000-7 DAY
SD140	A-DEMO NOTICE CUY-E105	10	10	314	04-Apr-16	13-Apr-16	163000-7 DAY
SD150	A-DEMO PLAN CUY-E105, NS	30	30	145	13-Jul-16	11-Aug-16	163000-7 DAY
SD160	A-DEMO PLAN CUY-E105, RTA	30	30	145	13-Jul-16	11-Aug-16	163000-7 DAY
SD170	A-NS TRACK CROSSING	30	30	108	13-Jul-16	11-Aug-16	163000-7 DAY
SD180	S-DEMO PLAN CUY-E105, ODOT	5	5	145	12-Aug-16	16-Aug-16	163000-7 DAY
SD190	S-STEEL SHOP DRAWINGS CUY-E105	120	120	98	08-Dec-16	06-Apr-17	163000-7 DAY
SD200	S- EXJ SHOP DRAWINGS	30	30	251	08-Dec-16	06-Jan-17	163000-7 DAY
SD220	S-BEARING SHOP DRAWINGS	30	30	176	08-Dec-16	06-Jan-17	163000-7 DAY
GCRTA STATION SUBMITTALS							
RTA100	S-ELEVATOR	60	60	435	18-Oct-16	16-Dec-16	163000-7 DAY
RTA110	S-STEEL SHOP DRAWINGS	120	120	282	18-Oct-16	14-Feb-17	163000-7 DAY
RTA120	A-ELEVATOR	14	14	435	17-Dec-16	30-Dec-16	163000-7 DAY
RTA130	A-STEEL SHOP DRAWINGS	14	14	282	15-Feb-17	28-Feb-17	163000-7 DAY
FABRICATION / DELIVERY							
FAB120	ELEVATOR	150	150	435	31-Dec-16	29-May-17	163000-7 DAY
FAB100	FAB EXJ	60	60	251	07-Jan-17	07-Mar-17	163000-7 DAY
FAB110	FAB BEARINGS	60	60	176	07-Jan-17	07-Mar-17	163000-7 DAY
FAB130	FAB STRC STEEL GCRTA STATION	60	60	282	01-Mar-17	29-Apr-17	163000-7 DAY
FAB140	FAB STRC STEEL CUY-E105	60	60	98	07-Apr-17	05-Jun-17	163000-7 DAY
CONSTRUCTION							
MOT							
QUINCY							
MOT100	MOT SWITCH QUINCY PH 1	1	1	17	31-Aug-16	01-Sep-16	163000-5D WEATHER
MOT110	***QUINCY PHASE 1 DURATION***	56	56	117	01-Sep-16	26-Oct-16	163000-7 DAY
MOT120	MOT SWITCH QUINCY PH 2	1	1	52	25-Oct-16	26-Oct-16	163000-5D WEATHER
MOT130	OPEN QUINCY	1	1	138	30-Nov-17	04-Dec-17	163000-5D WEATHER



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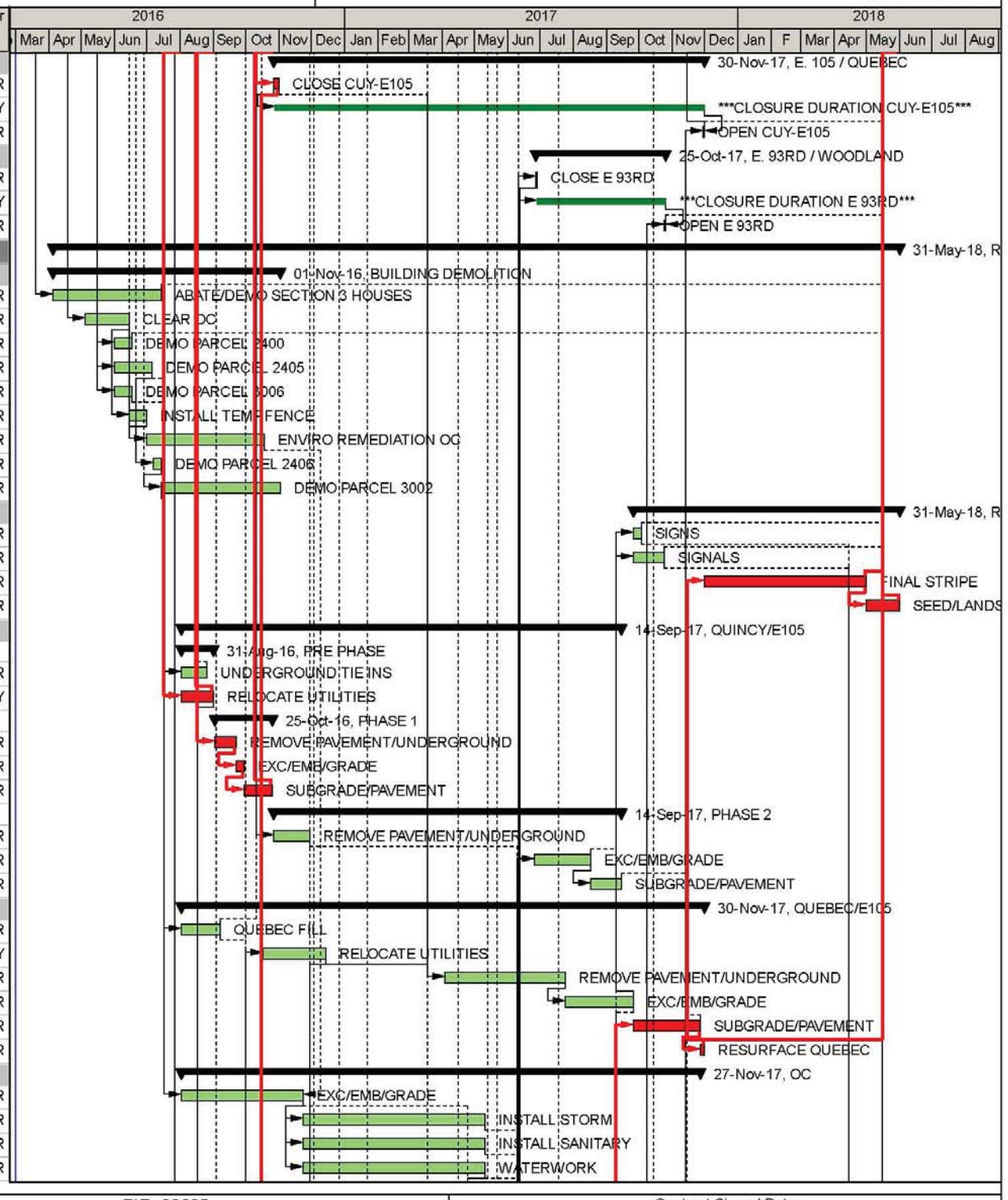
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Activity ID	Activity Name	Original Duration	Remaining Duration	Total Float	Start	Finish	Calendar
E. 105 / QUEBEC							
MOT200	CLOSE CUY-E105	1	1	52	26-Oct-16	31-Oct-16	163000-5D WEATHER
MOT210	***CLOSURE DURATION CUY-E105***	400	400	273	27-Oct-16	30-Nov-17	163000-7 DAY
MOT220	OPEN CUY-E105	1	1	138	29-Nov-17	30-Nov-17	163000-5D WEATHER
E. 93RD / WOODLAND							
MOT400	CLOSE E 93RD	1	1	71	27-Jun-17	28-Jun-17	163000-5D WINTER
MOT410	***CLOSURE DURATION E 93RD***	120	120	310	28-Jun-17	25-Oct-17	163000-7 DAY
MOT420	OPEN E 93RD	1	1	157	24-Oct-17	25-Oct-17	163000-5D WEATHER
ROADWAY							
BUILDING DEMOLITION							
BD1000	ABATE/DEMO SECTION 3 HOUSES	55	55	398	04-Apr-16	13-Jul-16	163000-5D WEATHER
BD1030	CLEAR OC	20	20	143	04-May-16	14-Jun-16	163000-5D WEATHER
BD1010	DEMO PARCEL 2400	10	10	413	31-May-16	16-Jun-16	163000-5D WEATHER
BD1040	DEMO PARCEL 2405	20	20	136	31-May-16	05-Jul-16	163000-5D WEATHER
BD1020	DEMO PARCEL 3006	10	10	151	31-May-16	16-Jun-16	163000-5D WEATHER
BD1050	INSTALL TEMP FENCE	10	10	143	14-Jun-16	30-Jun-16	163000-5D WEATHER
BD1070	ENVIRO REMEDIATION OC	60	60	143	30-Jun-16	17-Oct-16	163000-5D WEATHER
BD1060	DEMO PARCEL 2406	5	5	136	06-Jul-16	13-Jul-16	163000-5D WEATHER
BD1080	DEMO PARCEL 3002	60	60	136	14-Jul-16	01-Nov-16	163000-5D WEATHER
ROADWAY GENERAL							
RG100	SIGNS	5	5	96	26-Sep-17	03-Oct-17	163000-5D WINTER
RG110	SIGNALS	15	15	86	26-Sep-17	24-Oct-17	163000-5D WINTER
RG120	FINAL STRIPE	15	15	52	30-Nov-17	30-Apr-18	163000-5D WINTER
RG130	SEED/LANDSCAPE	17	17	52	30-Apr-18	31-May-18	163000-5D WINTER
QUINCY/E105							
PRE PHASE							
R110	UNDERGROUND TIE INS	15	15	20	01-Aug-16	25-Aug-16	163000-5D WINTER
R100	RELOCATE UTILITIES	30	30	33	02-Aug-16	31-Aug-16	163000-7 DAY
PHASE 1							
R120	REMOVE PAVEMENT/UNDERGROUND	10	10	17	01-Sep-16	21-Sep-16	163000-5D WINTER
R130	EXC/EMB/GRADE	5	5	17	21-Sep-16	29-Sep-16	163000-5D WINTER
R140	SUBGRADE/PAVEMENT	13	13	17	29-Sep-16	25-Oct-16	163000-5D WINTER
PHASE 2							
R150	REMOVE PAVEMENT/UNDERGROUND	15	15	137	26-Oct-16	29-Nov-16	163000-5D WINTER
R160	EXC/EMB/GRADE	30	30	91	26-Jun-17	17-Aug-17	163000-5D WINTER
R170	SUBGRADE/PAVEMENT	15	15	91	17-Aug-17	14-Sep-17	163000-5D WINTER
QUEBEC/E105							
R200	QUEBEC FILL	20	20	44	01-Aug-16	06-Sep-16	163000-5D WINTER
R210	RELOCATE UTILITIES	60	60	209	16-Oct-16	14-Dec-16	163000-7 DAY
R220	REMOVE PAVEMENT/UNDERGROUND	60	60	53	03-Apr-17	24-Jul-17	163000-5D WINTER
R230	EXC/EMB/GRADE	35	35	53	25-Jul-17	25-Sep-17	163000-5D WINTER
R240	SUBGRADE/PAVEMENT	30	30	52	26-Sep-17	27-Nov-17	163000-5D WINTER
R250	RESURFACE QUEBEC	3	3	52	27-Nov-17	30-Nov-17	163000-5D WINTER
OC							
R300	EXC/EMB/GRADE	60	60	70	01-Aug-16	22-Nov-16	163000-5D WINTER
R305	INSTALL STORM	25	25	95	22-Nov-16	11-May-17	163000-5D WINTER
R310	INSTALL SANITARY	25	25	95	22-Nov-16	11-May-17	163000-5D WINTER
R315	WATERWORK	25	25	70	22-Nov-16	11-May-17	163000-5D WINTER



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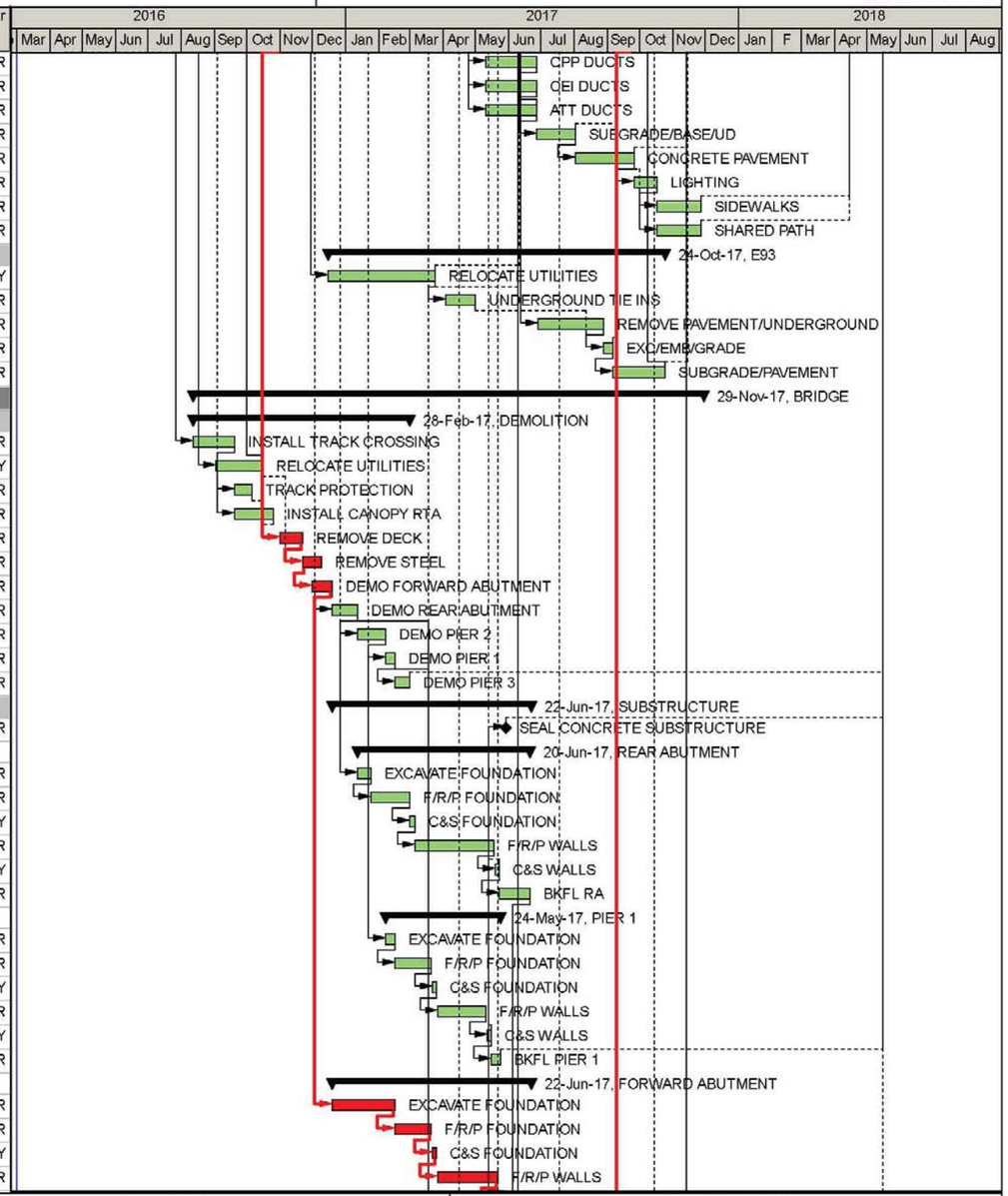
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Activity ID	Activity Name	Original Duration	Remaining Duration	Total Float	Start	Finish	Calendar
R320	CPP DUCTS	25	25	70	11-May-17	27-Jun-17	163000-5D WINTER
R325	CEI DUCTS	25	25	70	11-May-17	27-Jun-17	163000-5D WINTER
R330	ATT DUCTS	25	25	70	11-May-17	27-Jun-17	163000-5D WINTER
R335	SUBGRADE/BASE/UD	20	20	70	27-Jun-17	02-Aug-17	163000-5D WINTER
R340	CONCRETE PAVEMENT	30	30	70	02-Aug-17	26-Sep-17	163000-5D WINTER
R345	LIGHTING	10	10	70	26-Sep-17	17-Oct-17	163000-5D WINTER
R350	SIDEWALKS	20	20	70	17-Oct-17	27-Nov-17	163000-5D WINTER
R355	SHARED PATH	20	20	70	17-Oct-17	27-Nov-17	163000-5D WINTER
E93							
R400	RELOCATE UTILITIES	100	100	228	15-Dec-16	24-Mar-17	163000-7 DAY
R410	UNDERGROUND TIE INS	15	15	136	03-Apr-17	01-May-17	163000-5D WINTER
R420	REMOVE PAVEMENT/UNDERGROUND	33	33	71	28-Jun-17	28-Aug-17	163000-5D WINTER
R430	EXC/EMB/GRADE	5	5	71	28-Aug-17	06-Sep-17	163000-5D WINTER
R440	SUBGRADE/PAVEMENT	25	25	71	06-Sep-17	24-Oct-17	163000-5D WINTER
BRIDGE							
DEMOLITION							
STRC1000	INSTALL TRACK CROSSING	20	20	54	11-Aug-16	19-Sep-16	163000-5D WEATHER
STRC1010	RELOCATE UTILITIES	45	45	151	01-Sep-16	15-Oct-16	163000-7 DAY
STRC1020	TRACK PROTECTION	10	10	64	19-Sep-16	05-Oct-16	163000-5D WEATHER
STRC1030	INSTALL CANOPY RTA	20	20	54	19-Sep-16	25-Oct-16	163000-5D WEATHER
STRC1040	REMOVE DECK	10	10	52	31-Oct-16	21-Nov-16	163000-5D WEATHER
STRC1050	REMOVE STEEL	10	10	52	21-Nov-16	08-Dec-16	163000-5D WEATHER
STRC1060	DEMO FORWARD ABUTMENT	10	10	52	30-Nov-16	19-Dec-16	163000-5D WEATHER
STRC1070	DEMO REAR ABUTMENT	10	10	52	19-Dec-16	11-Jan-17	163000-5D WEATHER
STRC1080	DEMO PIER 2	10	10	57	11-Jan-17	06-Feb-17	163000-5D WEATHER
STRC1090	DEMO PIER 1	5	5	135	06-Feb-17	15-Feb-17	163000-5D WEATHER
STRC1100	DEMO PIER 3	5	5	284	15-Feb-17	28-Feb-17	163000-5D WEATHER
SUBSTRUCTURE							
STRC2170	SEAL CONCRETE SUBSTRUCTURE	0	0	239		30-May-17	163000-5D WEATHER
REAR ABUTMENT							
STRC2010	EXCAVATE FOUNDATION	5	5	52	11-Jan-17	24-Jan-17	163000-5D WEATHER
STRC2020	F/R/P FOUNDATION	15	15	52	24-Jan-17	28-Feb-17	163000-5D WEATHER
STRC2060	C&S FOUNDATION	5	5	101	01-Mar-17	05-Mar-17	163000-7 DAY
STRC2070	F/R/P WALLS	40	40	54	06-Mar-17	18-May-17	163000-5D WEATHER
STRC2140	C&S WALLS	5	5	99	19-May-17	23-May-17	163000-7 DAY
STRC2160	BKFL RA	15	15	146	23-May-17	20-Jun-17	163000-5D WEATHER
PIER 1							
STRC2030	EXCAVATE FOUNDATION	5	5	57	06-Feb-17	15-Feb-17	163000-5D WEATHER
STRC2040	F/R/P FOUNDATION	15	15	57	15-Feb-17	21-Mar-17	163000-5D WEATHER
STRC2080	C&S FOUNDATION	5	5	108	22-Mar-17	26-Mar-17	163000-7 DAY
STRC2100	F/R/P WALLS	25	25	58	27-Mar-17	11-May-17	163000-5D WEATHER
STRC2120	C&S WALLS	5	5	106	12-May-17	16-May-17	163000-7 DAY
STRC2130	BKFL PIER 1	5	5	240	16-May-17	24-May-17	163000-5D WEATHER
FORWARD ABUTMENT							
STRC2000	EXCAVATE FOUNDATION	25	25	54	19-Dec-16	15-Feb-17	163000-5D WEATHER
STRC2050	F/R/P FOUNDATION	15	15	54	15-Feb-17	21-Mar-17	163000-5D WEATHER
STRC2090	C&S FOUNDATION	5	5	100	22-Mar-17	26-Mar-17	163000-7 DAY
STRC2110	F/R/P WALLS	30	30	53	27-Mar-17	22-May-17	163000-5D WEATHER



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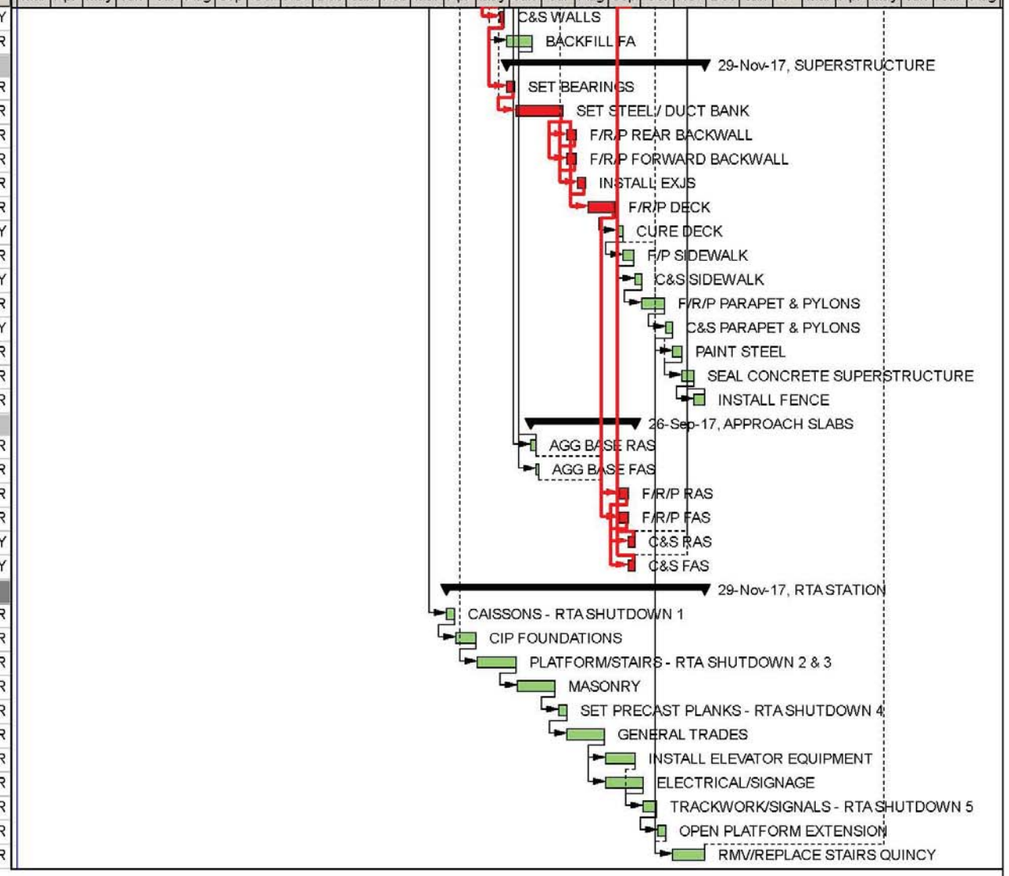
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STRC2150	C&S WALLS	5	5	95	23-May-17	27-May-17	163000-7 DAY
STRC2180	BACKFILL FA	15	15	147	30-May-17	22-Jun-17	163000-5D WEATHER
SUPERSTRUCTURE							
STRC3000	SET BEARINGS	5	5	53	30-May-17	06-Jun-17	163000-5D WINTER
STRC3010	SET STEEL / DUCT BANK	25	25	53	07-Jun-17	20-Jul-17	163000-5D WINTER
STRC3020	F/R/P REAR BACKWALL	7	7	53	24-Jul-17	02-Aug-17	163000-5D WINTER
STRC3030	F/R/P FORWARD BACKWALL	7	7	53	24-Jul-17	02-Aug-17	163000-5D WINTER
STRC3040	INSTALL EXJS	5	5	53	03-Aug-17	10-Aug-17	163000-5D WINTER
STRC3050	F/R/P DECK	15	15	53	14-Aug-17	07-Sep-17	163000-5D WINTER
STRC3060	CURE DECK	7	7	284	08-Sep-17	14-Sep-17	163000-7 DAY
STRC3070	F/P SIDEWALK	5	5	84	14-Sep-17	25-Sep-17	163000-5D WINTER
STRC3080	C&S SIDEWALK	7	7	281	26-Sep-17	02-Oct-17	163000-7 DAY
STRC3090	F/R/P PARAPET & PYLONS	10	10	83	02-Oct-17	23-Oct-17	163000-5D WINTER
STRC3100	C&S PARAPET & PYLONS	7	7	279	24-Oct-17	30-Oct-17	163000-7 DAY
STRC3110	PAINT STEEL	5	5	83	30-Oct-17	08-Nov-17	163000-5D WINTER
STRC3120	SEAL CONCRETE SUPERSTRUCTURE	5	5	83	08-Nov-17	20-Nov-17	163000-5D WINTER
STRC3130	INSTALL FENCE	5	5	83	20-Nov-17	29-Nov-17	163000-5D WINTER
APPROACH SLABS							
STRC4010	AGG BASE RAS	3	3	146	20-Jun-17	26-Jun-17	163000-5D WEATHER
STRC4000	AGG BASE FAS	3	3	147	26-Jun-17	28-Jun-17	163000-5D WEATHER
STRC4020	F/R/P RAS	6	6	108	11-Sep-17	19-Sep-17	163000-5D WEATHER
STRC4030	F/R/P FAS	6	6	108	11-Sep-17	19-Sep-17	163000-5D WEATHER
STRC4040	C&S RAS	7	7	224	20-Sep-17	26-Sep-17	163000-7 DAY
STRC4050	C&S FAS	7	7	224	20-Sep-17	26-Sep-17	163000-7 DAY
RTA STATION							
RTA1000	CAISSONS - RTA SHUTDOWN 1	5	5	114	03-Apr-17	11-Apr-17	163000-5D WINTER
RTA1010	CIP FOUNDATIONS	10	10	114	12-Apr-17	01-May-17	163000-5D WINTER
RTA1020	PLATFORM/STAIRS - RTA SHUTDOWN 2 & 3	20	20	143	02-May-17	07-Jun-17	163000-5D WEATHER
RTA1030	MASONRY	20	20	143	08-Jun-17	13-Jul-17	163000-5D WEATHER
RTA1040	SET PRECAST PLANKS - RTA SHUTDOWN 4	5	5	143	17-Jul-17	24-Jul-17	163000-5D WEATHER
RTA1050	GENERAL TRADES	20	20	143	25-Jul-17	28-Aug-17	163000-5D WEATHER
RTA1060	INSTALL ELEVATOR EQUIPMENT	15	15	148	29-Aug-17	25-Sep-17	163000-5D WEATHER
RTA1070	ELECTRICAL/SIGNAGE	20	20	143	29-Aug-17	03-Oct-17	163000-5D WEATHER
RTA1080	TRACKWORK/SIGNALS - RTA SHUTDOWN 5	5	5	143	04-Oct-17	16-Oct-17	163000-5D WEATHER
RTA1090	OPEN PLATFORM EXTENSION	5	5	143	17-Oct-17	24-Oct-17	163000-5D WEATHER
RTA1100	RMV/REPLACE STAIRS QUINCY	15	15	140	30-Oct-17	29-Nov-17	163000-5D WEATHER



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SCHEDLOG

Scheduling/Leveling Report - 14-Jan-16 - PM.exe

Default Project.....163000

Projects:
163000.....OC 2 - PRELIMINARY SCHEDULE

Scheduling/Leveling Settings:

General

Scheduling .....Yes
Leveling .....No
Ignore relationships to and from other projects .....Yes
Make open-ended activities critical .....No
Use Expected Finish Dates .....Yes
Schedule automatically when a change affects dates .....No
Level resources during scheduling .....No
Recalculate assignment costs after scheduling .....No
When scheduling progressed activities use .....Retained Logic
Calculate start-to-start lag from .....Early Start
Define critical activities as .....Longest Path
Compute Total Float As .....Finish Float
Calculate float based on finish date of .....Each project
Calendar for scheduling Relationship Lag .....Predecessor Activity Calendar

Advanced

Calculate multiple float paths.....No

Statistics:

Projects.....1
Activities.....181
Not Started.....181
In Progress.....0
Completed.....0
Relationships.....300
Activities with Constraint.....0

Errors:

Warnings:

Activities without predecessors.....1
Project: 163000 Activity: G110 ANTICIPATED AWARD DATE

Activities without successors.....1
Project: 163000 Activity: G130 END PROJECT

Out-of-sequence activities.....0

Activities with Actual Dates > Data Date.....0

Milestone Activities with invalid relationships.....0

Scheduling/Leveling Results:

Projects Scheduled/Leveled.....1
Activities Scheduled/Leveled.....181
Data Date.....29-Feb-16
Earliest Early Start Date.....29-Feb-16
Latest Early Finish Date.....01-Jun-18

Exceptions:

Critical Activities.....44
Project: 163000 Activity: BU1-100 SUBMITAL - ST 1
Project: 163000 Activity: BU1-110 APPROVAL - ST 1
Project: 163000 Activity: BU1-120 SUBMITTAL - ST 2
Project: 163000 Activity: BU1-130 APPROVAL - ST 2
Project: 163000 Activity: BU1-140 SUBMITTAL - AFC
Project: 163000 Activity: BU3-100 SUBMITAL - ST 1
Project: 163000 Activity: BU3-110 APPROVAL - ST 1
Project: 163000 Activity: BU3-120 SUBMITTAL - ST 2
Project: 163000 Activity: BU3-130 APPROVAL - ST 2
Project: 163000 Activity: BU3-140 SUBMITTAL - AFC
Project: 163000 Activity: DIOP-A A-DIOP

Project: 163000 Activity: DIOP-S S-DIOP
Project: 163000 Activity: G110 ANTICIPATED AWARD DATE
Project: 163000 Activity: G120 START PROJECT
Project: 163000 Activity: G130 END PROJECT
Project: 163000 Activity: MOT100 MOT SWITCH QUINCY PH 1
Project: 163000 Activity: MOT120 MOT SWITCH QUINCY PH 2
Project: 163000 Activity: MOT200 CLOSE CUY-E105
Project: 163000 Activity: R100 RELOCATE UTILITIES
Project: 163000 Activity: R120 REMOVE PAVEMENT/UNDERGROUND
Project: 163000 Activity: R130 EXC/EMB/GRADE
Project: 163000 Activity: R140 SUBGRADE/PAVEMENT
Project: 163000 Activity: R240 SUBGRADE/PAVEMENT
Project: 163000 Activity: R250 RESURFACE QUEBEC
Project: 163000 Activity: RG120 FINAL STRIPE
Project: 163000 Activity: RG130 SEED/LANDSCAPE
Project: 163000 Activity: STRC1040 REMOVE DECK
Project: 163000 Activity: STRC1050 REMOVE STEEL
Project: 163000 Activity: STRC1060 DEMO FORWARD ABUTMENT
Project: 163000 Activity: STRC2000 EXCAVATE FOUNDATION
Project: 163000 Activity: STRC2050 F/R/P FOUNDATION
Project: 163000 Activity: STRC2090 C&S FOUNDATION
Project: 163000 Activity: STRC2110 F/R/P WALLS
Project: 163000 Activity: STRC2150 C&S WALLS
Project: 163000 Activity: STRC3000 SET BEARINGS
Project: 163000 Activity: STRC3010 SET STEEL / DUCT BANK
Project: 163000 Activity: STRC3020 F/R/P REAR BACKWALL
Project: 163000 Activity: STRC3030 F/R/P FORWARD BACKWALL
Project: 163000 Activity: STRC3040 INSTALL EXJS
Project: 163000 Activity: STRC3050 F/R/P DECK
Project: 163000 Activity: STRC4020 F/R/P RAS
Project: 163000 Activity: STRC4030 F/R/P FAS
Project: 163000 Activity: STRC4040 C&S RAS
Project: 163000 Activity: STRC4050 C&S FAS

Activities with unsatisfied constraints.....0

Activities with unsatisfied relationships.....0

Activities with external dates.....0

PART F.7:

APPENDIX 7 - CONCEPTUAL PLANS

F.7 APPENDIX 7 – CONCEPTUAL PLANS

CONCEPTUAL PLAN INDEX

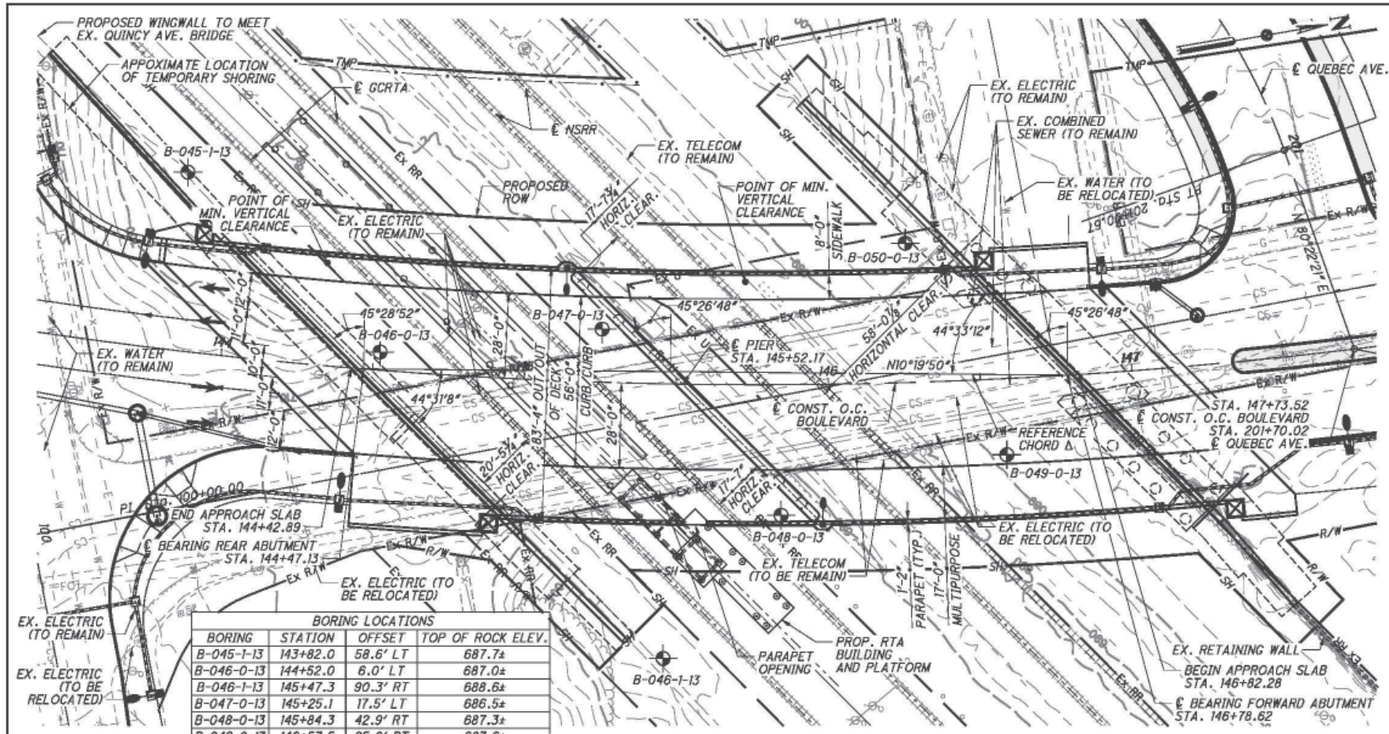
Sheet 1: Site Plan
Sheet 2: Drilled Shaft Layout Plan
Sheet 3: Rear Abutment – 1
Sheet 4: Rear Abutment – 2
Sheet 5: Rear Abutment Section Detail
Sheet 6: Rear Abutment Section Detail
Sheet 7: Forward Abutment – 1
Sheet 8: Forward Abutment – 2
Sheet 9: Forward Abutment Section Detail
Sheet 10: Forward Abutment Section Detail
Sheet 11: Forward Abutment Section Detail
Sheet 12: Pier Plan & Elevation
Sheet 13: Pier Sections
Sheet 14: Pier Sections
Sheet 15: Transverse Section
Sheet 16: Framing Plan & Girder Elevation
Sheet 17: Intermediate Crossframe Details

CONCEPTUAL RENDERINGS

Rendering 1: OC2 E. 105th Street Bridge and Proposed GCRTA Station Aerial View
Rendering 2: OC2 North Region Aerial View
Rendering 3: Proposed OC Boulevard Street View

DRAINAGE AREA MAPS

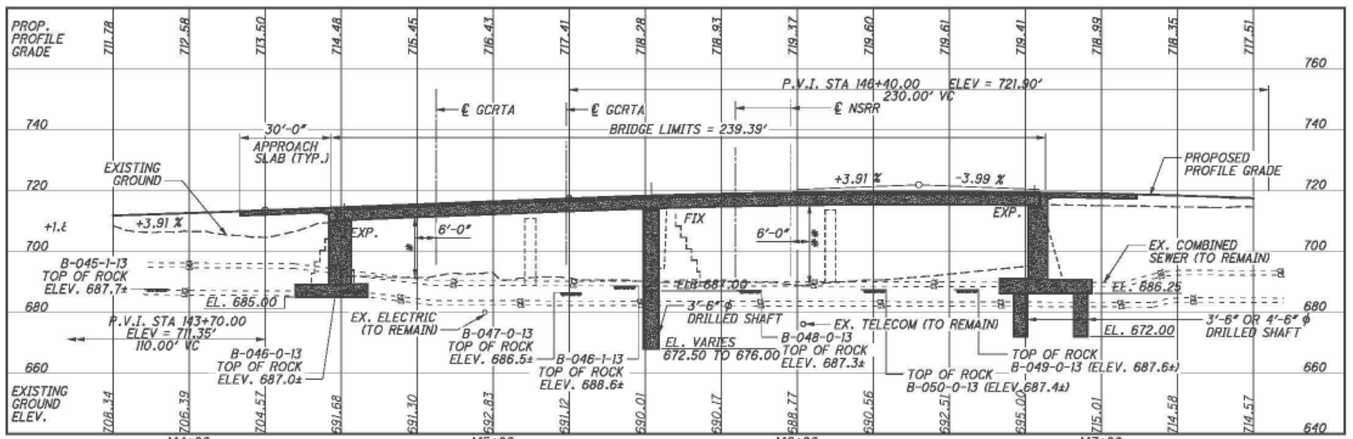
Existing Drainage Areas
Proposed Drainage Areas



BORING LOCATIONS

BORING	STATION	OFFSET	TOP OF ROCK ELEV.
B-045-1-13	143+82.0	58.6' LT	687.7±
B-046-0-13	144+52.0	6.0' LT	687.0±
B-046-1-13	145+47.3	90.3' RT	688.6±
B-047-0-13	145+25.1	17.5' LT	686.5±
B-048-0-13	145+84.3	42.9' RT	687.3±
B-049-0-13	146+57.5	25.0' RT	687.6±
B-050-0-13	146+57.8	40.34' LT	687.4±

PLAN



PROFILE ALONG ℄ CONST. O.C. BOULEVARD

SHEAR STUD NOT SHOWN

BENCHMARK DATA

BENCHMARK MN7 : STA. 139+11.73, 558.71' LT., ELEV. 690.52 FT.
DESCRIPTION: FENO SET IN RD. BOX INSIDE GRASS AREA IN FRONT OF JUVI JUSTICE FACILITY

BENCHMARK MN8 : STA. 128+66.02, 1279.91' LT., ELEV. 705.70 FT.
DESCRIPTION: FENO SET IN RD. BOX AT SW CORNER QUINCY & NS/GCRTA RAILROADS IN JUVI JUSTICE FACILITY

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEET ⊖

NOTES

EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

DESIGN TRAFFIC:
2010 ADT = 13374 2010 ADTT = 803
2020 ADT = 29270 2020 ADTT = 1756
DIRECTIONAL DISTRIBUTION = 0.53

LEGEND

⊕ BORING LOCATION
* 17.00' REQUIRED MINIMUM VERTICAL CLEARANCE OVER GCRTA
17.41' PROPOSED MINIMUM VERTICAL CLEARANCE OVER GCRTA
** 23.00' REQUIRED MINIMUM VERTICAL CLEARANCE OVER NSRR
23.30' PROPOSED MINIMUM VERTICAL CLEARANCE OVER NSRR
△ REFERENCE CHORD IS A STRAIGHT LINE BETWEEN ℄ BEARING OF REAR ABUTMENT AND ℄ BEARING OF FORWARD ABUTMENT

℄ CONST. O.C. BOULEVARD
P.I. STA.: 143+26.68
Δ= 40°26'41.44" (LT)
Do= 3°30'00.17"
R= 1637.00'
T= 603.03'
L= 1155.55'
E= 107.54'

EXISTING STRUCTURE

TYPE: REINFORCED CONCRETE DECK SLAB ON FOUR-SPAN CONTINUOUS COMPOSITE ROLLED STEEL BEAMS SUPPORTED ON REINFORCED CONCRETE STRUCTURE

SPANS: 52'-11½, 37'-10⅝, 45'-8⅝, 60'-0±
ROADWAY: 34'-0" T/T, 6'-0" SIDEWALKS
LOADING: HS20-44 CASE II AND ALTERNATE MILITARY
SKEW: 34°22'30"± RIGHT FORWARD
APPROACH SLABS: 15'-0" (AS-1-81)
ALIGNMENT: TANGENT
WEARING SURFACE: 1" MONOLITHIC CONCRETE
CROWN: 0.021 FT/FT
STRUCTURAL FILE NUMBER: 1870017
DATE BUILT: 1910, 1929, AND 2005
DISPOSITION: TO BE REPLACED

PROPOSED STRUCTURE

TYPE: REINFORCED CONCRETE DECK SLAB ON TWO-SPAN CURVED PLATE GIRDERS WITH NEW SUBSTRUCTURES FOUNDED ON SPREAD FOOTINGS AND DRILLED SHAFTS INTO BEDROCK

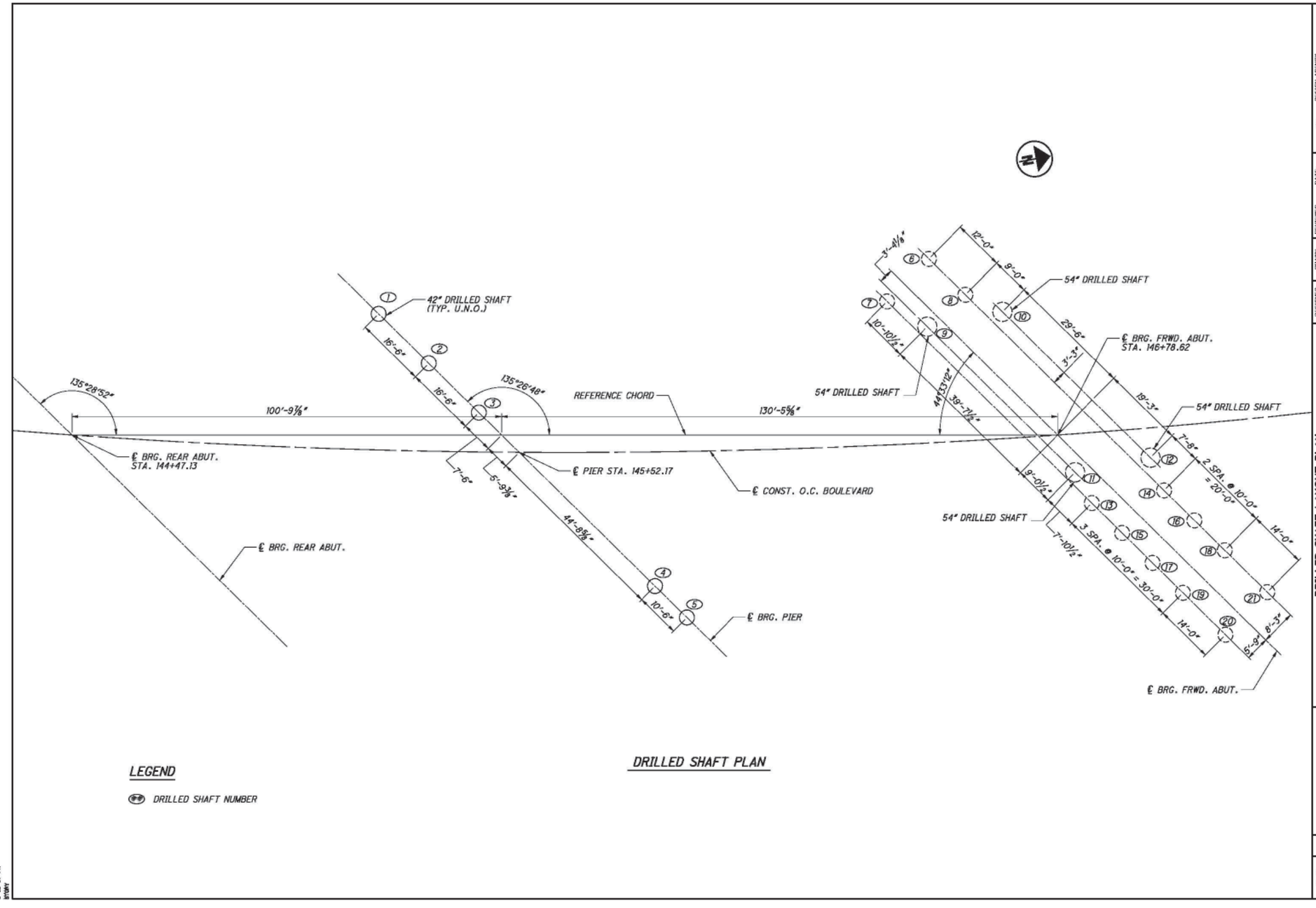
SPANS: 100'-9⅞", 130'-5⅝" C/C OF BEARINGS (MEASURED ALONG REFERENCE CHORD)
ROADWAY: 56'-0" CURB-TO-CURB, 8'-0" SIDEWALK, 17'-0" MULTIPURPOSE
LOADING: HL-93
SKEW: VARIES
APPROACH SLABS: 30'-0" LONG (AS-1-81)
ALIGNMENT: 3°30'0" CURVE TO THE LEFT
WEARING SURFACE: 1" MONOLITHIC CONCRETE
CROWN: VARIES FROM 0.0200 FT/FT TO -0.0288 FT/FT
COORDINATES: LATITUDE 41°29'38"
LONGITUDE 81°36'55"

DESIGN AGENCY
GPD GROUP
DESIGNED DJC
DRAWN RPR
REVIEWED TJW
DATE 1-16-16
CHECKED DGN
REVISED
STRUCTURE FILE NUMBER TO BE DETERMINED

CUYAHOGA COUNTY
STA. 144+42.89
STA. 146+82.28

SITE PLAN
CUY-E 105TH ST
PID No. 98695
E. 105TH ST. BRIDGE OVER NORFOLK SOUTHERN CORPORATION AND GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY

1/17



DESIGN AGENCY
GPD GROUP.
Chase Tower, Suite 1700, Cleveland, Ohio 44113 216.575.1544
3955 Embassador Blvd., Suite 100, Cleveland, Ohio 44114
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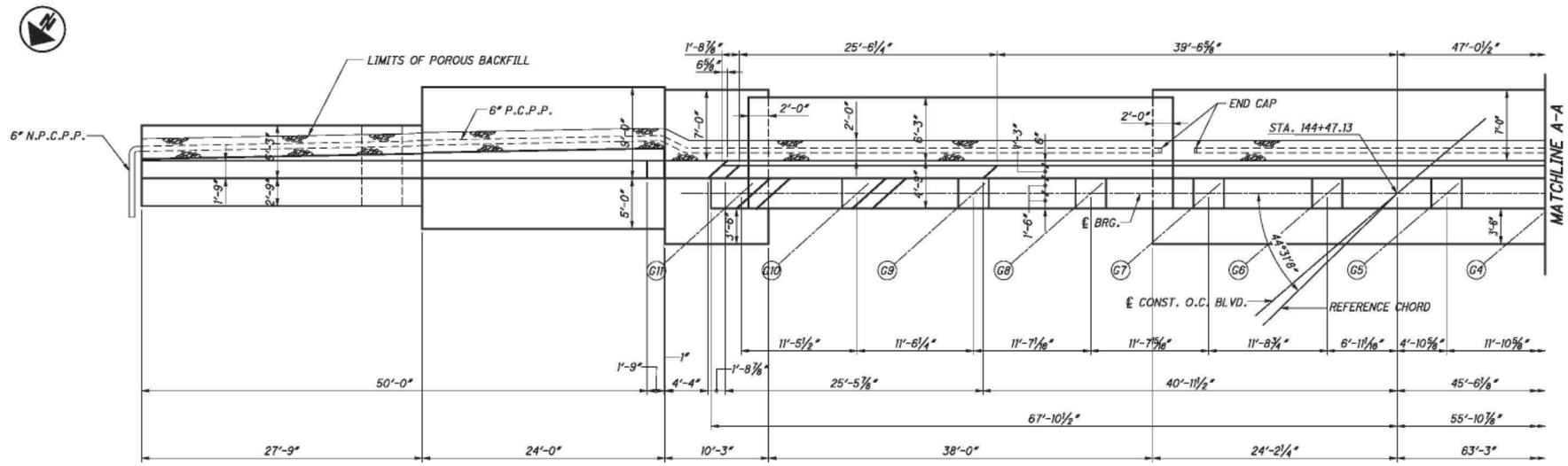
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SAT	SAT	T.JW	1-16-16
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DGN		TO BE DETERMINED	

DRILLED SHAFT LAYOUT PLAN
E. 105TH ST. BRIDGE OVER NORFOLK SOUTHERN CORPORATION
AND GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY

CUY-E 105TH ST
PID No. 98895

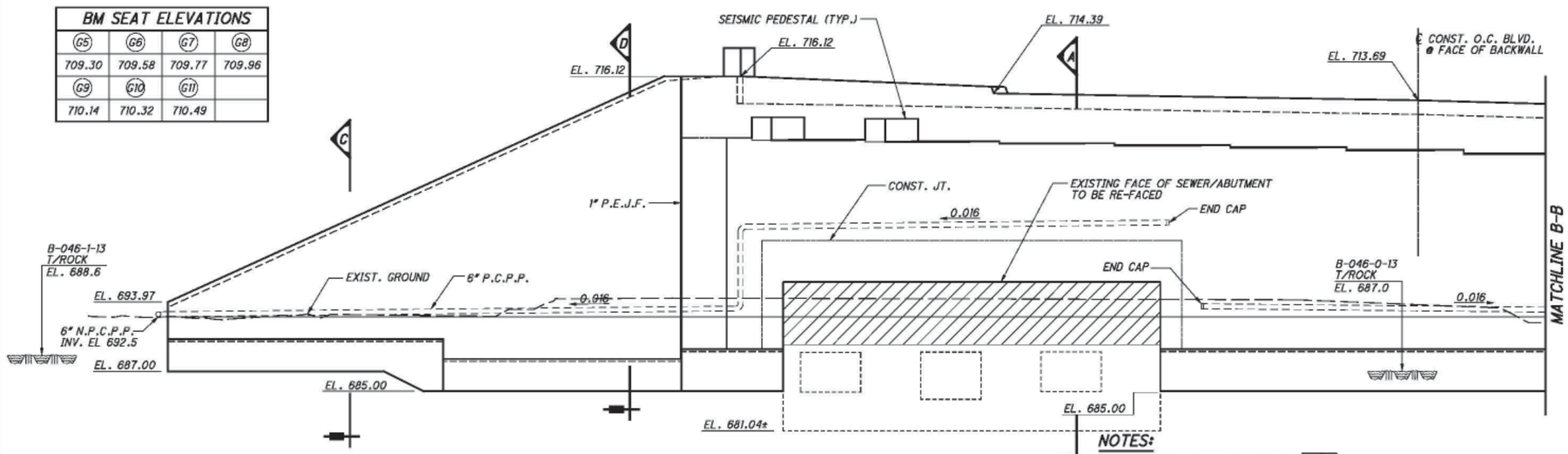
2 / 17

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01/15/16
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STORY



PLAN

BM SEAT ELEVATIONS			
G5	G6	G7	G8
709.30	709.58	709.77	709.96
G9	G10	G11	
710.14	710.32	710.49	



ELEVATION

NOTES:

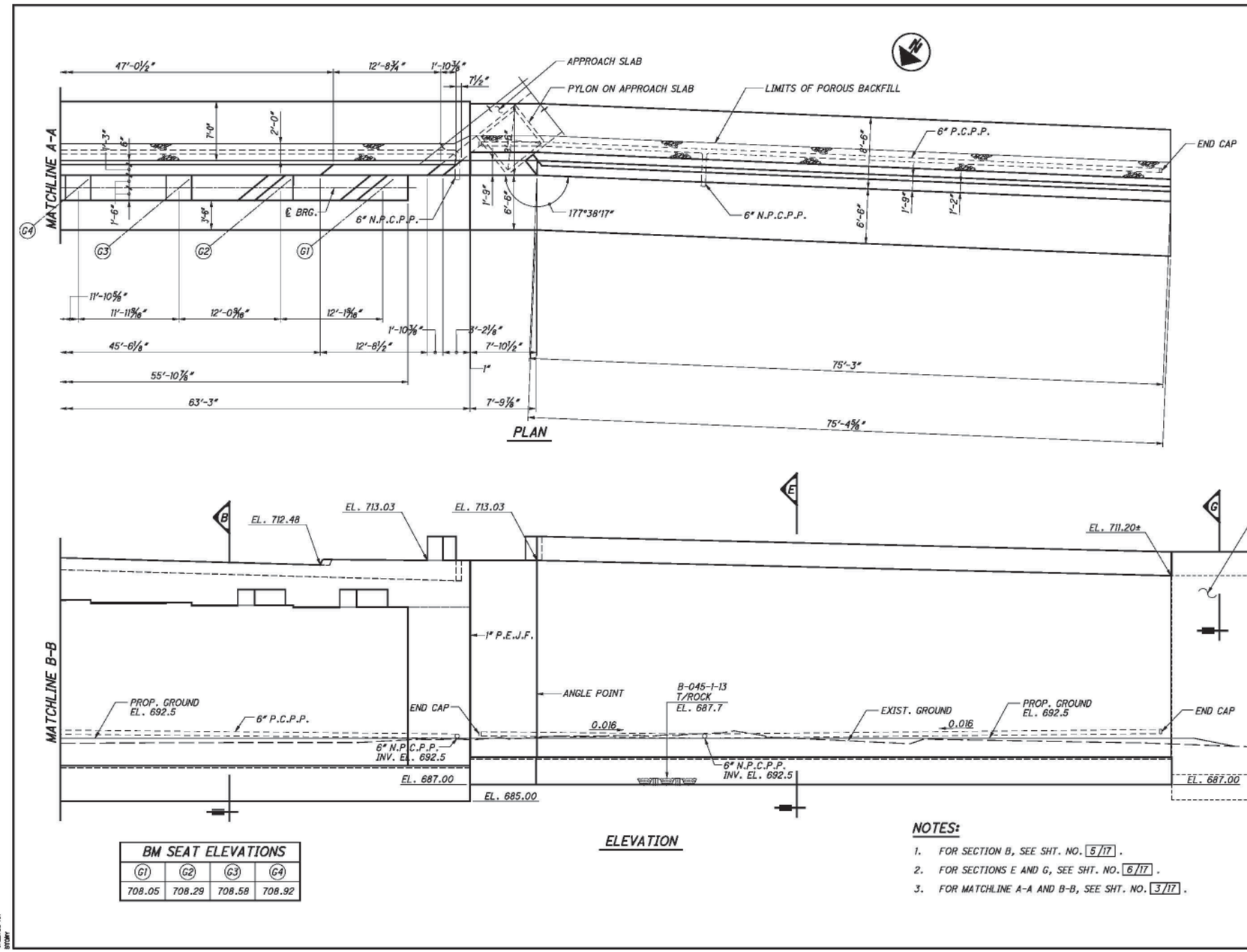
1. FOR SECTION A, SEE SHT. NO. 5/17 .
2. FOR SECTIONS C AND D, SEE SHT. NO. 6/17 .
3. FOR MATCHLINE A-A AND B-B, SEE SHT. NO. 4/17 .
4. THE PROPOSED REAR ABUTMENT, OVER THE REMAINING PORTION OF THE EXISTING ABUTMENT WALL AND INTEGRAL SEWER, IS DESIGNED SUCH THAT THE PROPOSED LOAD DOES NOT EXCEED THOSE LOADS APPLIED BY THE EXISTING STRUCTURE.

DESIGN AGENCY: CPD GROUP
DESIGNED: DJC | DRAWN: RPR | REVIEWED: TJW | DATE: 1-16-16
CHECKED: DGN | REVISED: | STRUCTURE FILE NUMBER: TO BE DETERMINED

REAR ABUTMENT - 1
E. 105TH ST. BRIDGE OVER NORFOLK SOUTHERN CORP.
AND GREATER CLEVELAND REGIONAL TRANSIT AUTH.

CUY-E 105TH ST
PID No. 98695

3 / 17



BM SEAT ELEVATIONS			
G1	G2	G3	G4
708.05	708.29	708.58	708.92

NOTES:

1. FOR SECTION B, SEE SHT. NO. 5/17.
2. FOR SECTIONS E AND G, SEE SHT. NO. 6/17.
3. FOR MATCHLINE A-A AND B-B, SEE SHT. NO. 3/17.

DESIGN AGENCY: GPD GROUP

DESIGNED DJC | DRAWN RPR | REVIEWED TJM | DATE 1-16-16

CHECKED DGN | REVISED | STRUCTURE FILE NUMBER TO BE DETERMINED

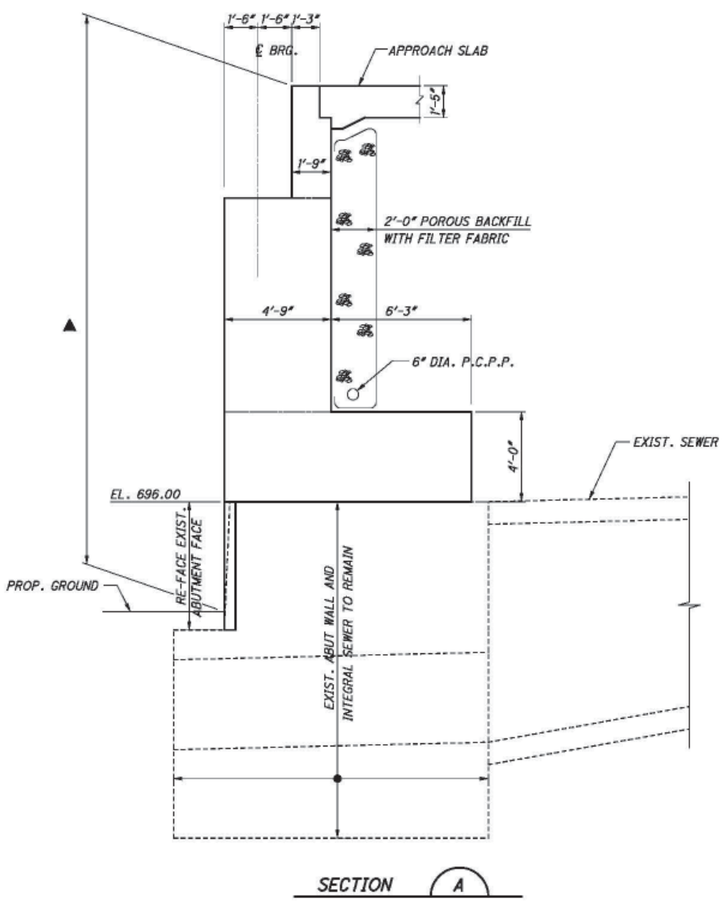
REAR ABUTMENT - 2

E. 105TH ST. BRIDGE OVER NORFOLK SOUTHERN CORP.
AND GREATER CLEVELAND REGIONAL TRANSIT AUTH.

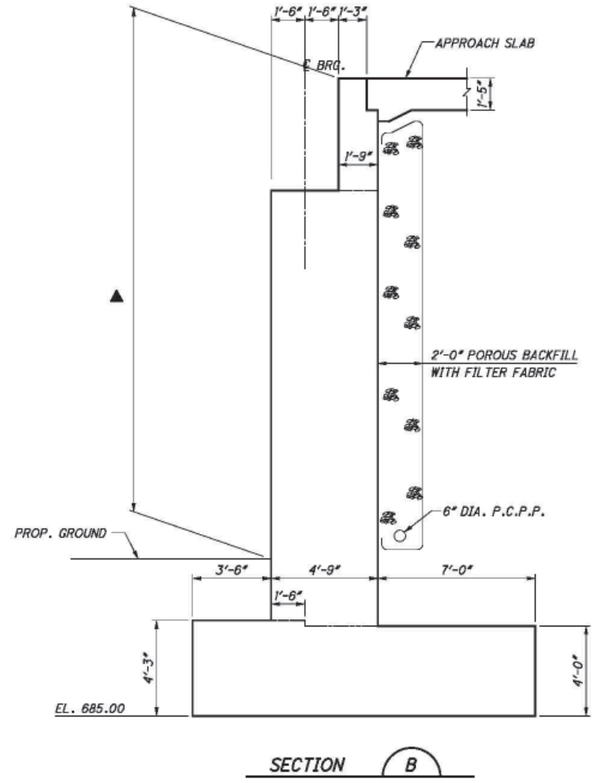
CUY-E 105TH ST

PID No. 98695

4 / 17



SECTION A



SECTION B

LEGEND:

▲ INDICATED LIMITS OF ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE WITH ANTI-GRAFFITI COATING)

DESIGN AGENCY
GPD GROUP

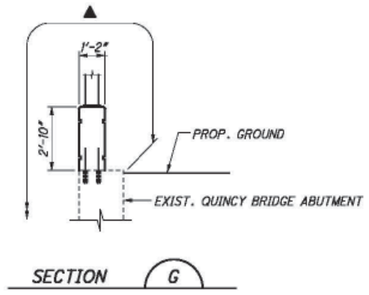
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DJC	RPR	TJW	1-16-16
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DGN		TO BE DETERMINED	

REAR ABUTMENT SECTION DETAIL
E. 105TH ST. BRIDGE OVER NORFOLK SOUTHERN CORPORATION
AND GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY

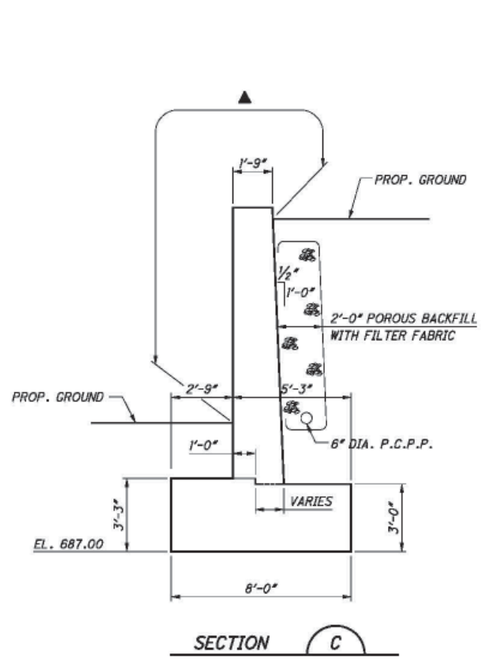
CUY-E 105TH ST
PID No. 98695

5 / 17

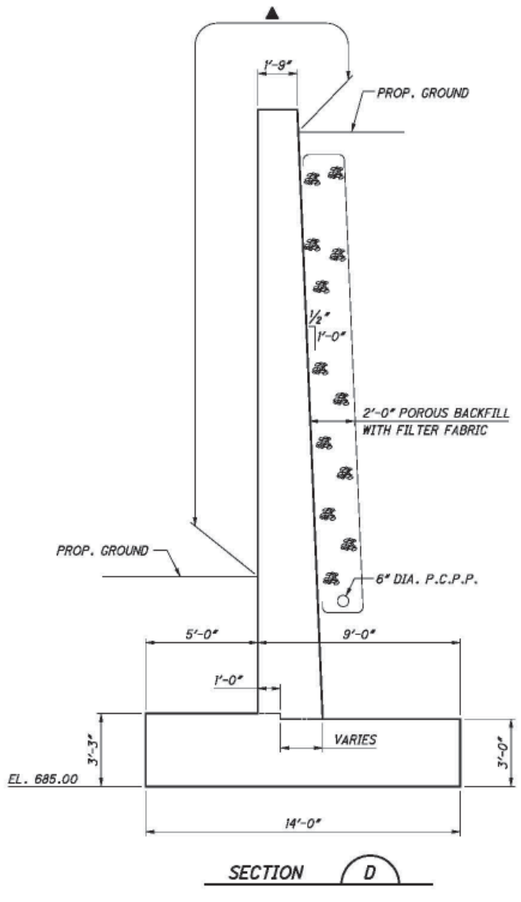
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SECTION G



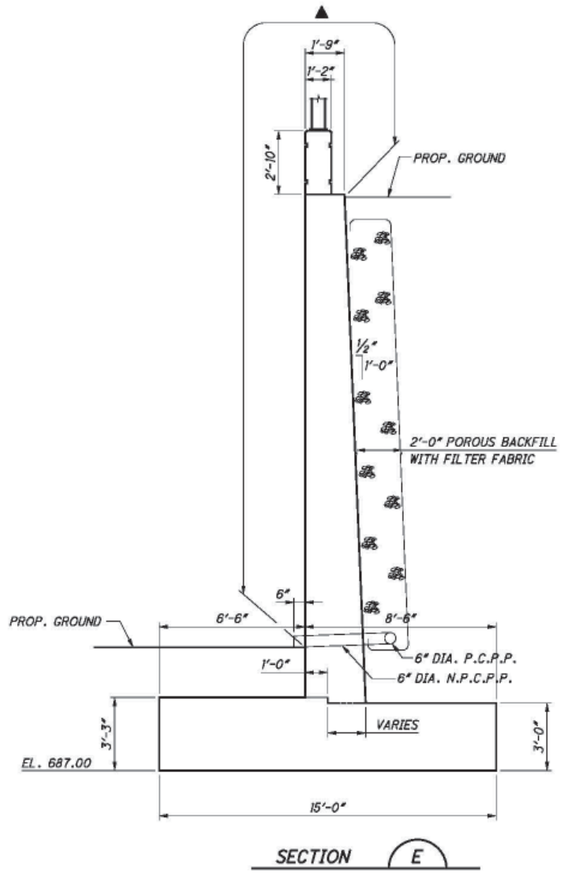
SECTION C



SECTION D

LEGEND:

▲ INDICATED LIMITS OF ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE WITH ANTI-GRAFFITI COATING)



SECTION E

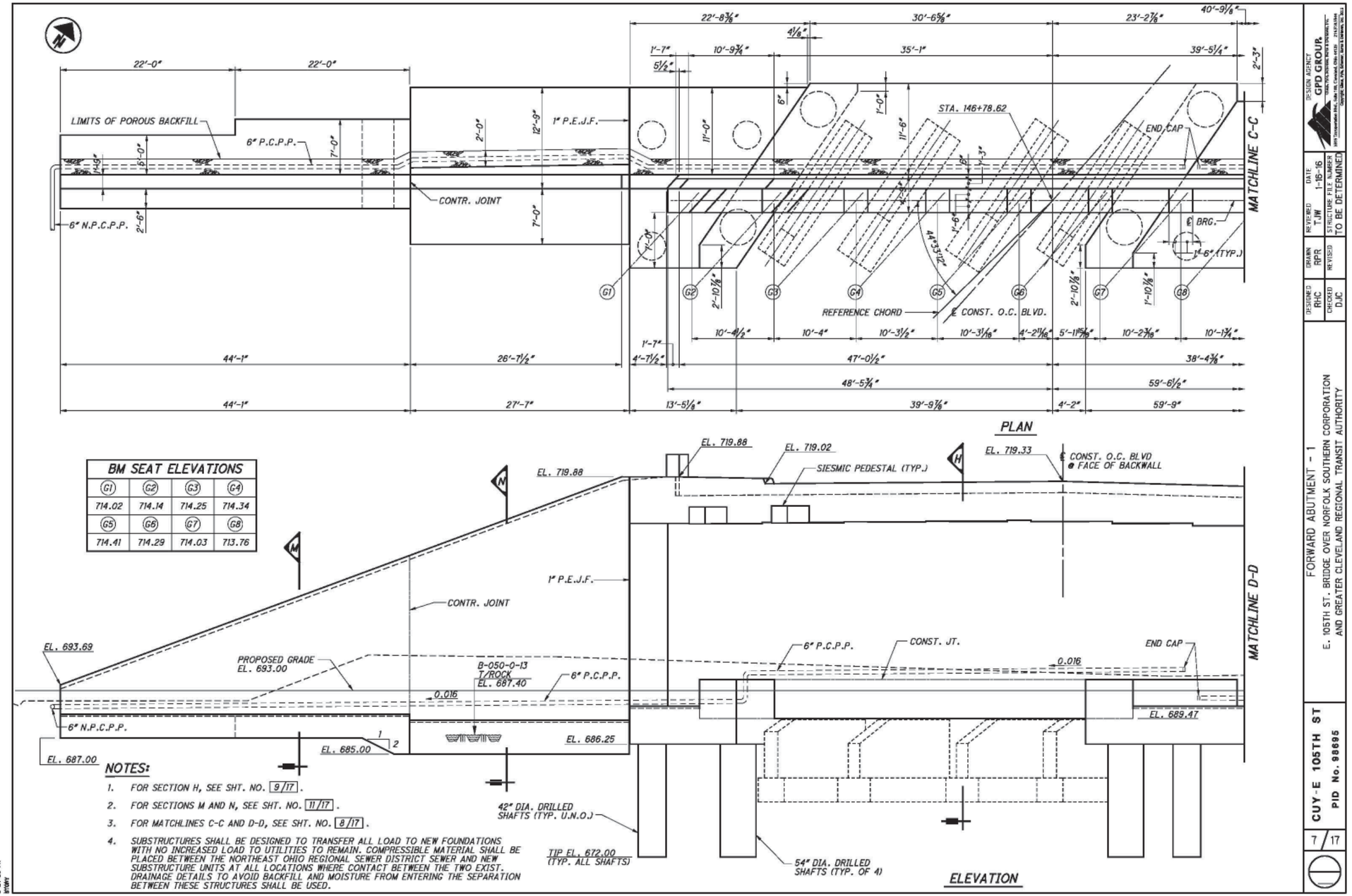
DESIGN AGENCY
GPD GROUP

DESIGNED	DRAWN	REVIEWED	DATE
DJC	RPR	TJW	1-16-16
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DGN		TO BE DETERMINED	

REAR ABUTMENT SECTION DETAIL
E. 105TH ST. BRIDGE OVER NORFOLK SOUTHERN CORPORATION
AND GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY

CUY-E 105TH ST
PID No. 98695

6 / 17



NOTES:

1. FOR SECTION H, SEE SHT. NO. 9/17.
2. FOR SECTIONS M AND N, SEE SHT. NO. 11/17.
3. FOR MATCHLINES C-C AND D-D, SEE SHT. NO. 8/17.
4. SUBSTRUCTURES SHALL BE DESIGNED TO TRANSFER ALL LOAD TO NEW FOUNDATIONS WITH NO INCREASED LOAD TO UTILITIES TO REMAIN. COMPRESSIBLE MATERIAL SHALL BE PLACED BETWEEN THE NORTHEAST OHIO REGIONAL SEWER DISTRICT SEWER AND NEW SUBSTRUCTURE UNITS AT ALL LOCATIONS WHERE CONTACT BETWEEN THE TWO EXIST. DRAINAGE DETAILS TO AVOID BACKFILL AND MOISTURE FROM ENTERING THE SEPARATION BETWEEN THESE STRUCTURES SHALL BE USED.

DESIGN AGENCY GPD GROUP

DESIGNED	DRAWN	REVIEWED	DATE
RHC	RPR	TJW	1-15-16
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DJC		TO BE DETERMINED	

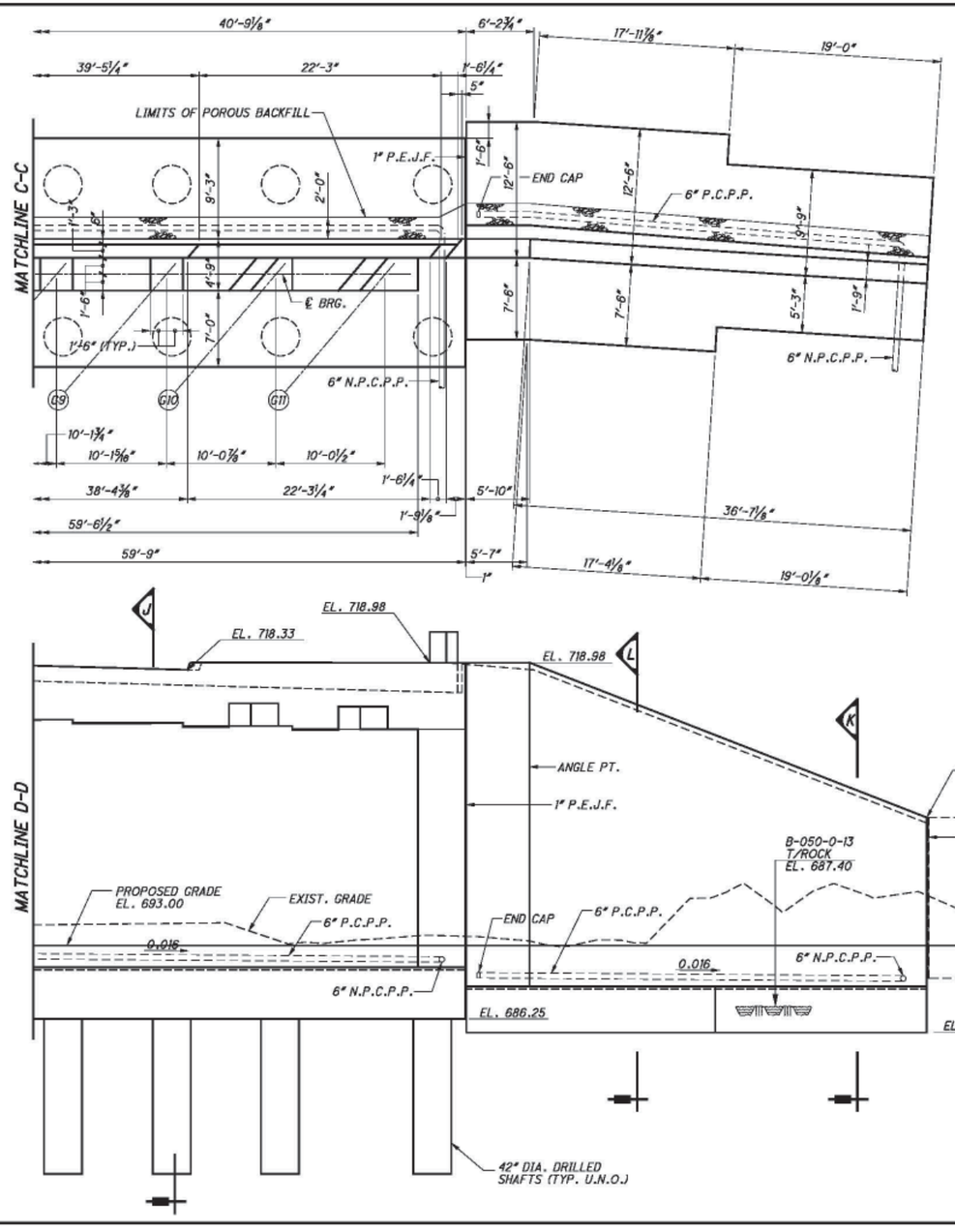
FORWARD ABUTMENT - 1

E. 105TH ST. BRIDGE OVER NORFOLK SOUTHERN CORPORATION AND GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY

CUY-E 105TH ST

PID No. 98695

7/17



BM SEAT ELEVATIONS			
G9	G10	G11	
713.47	713.17	712.86	

NOTES:

1. FOR SECTION J, SEE SHT. NO. 9/17.
2. FOR SECTIONS L AND K, SEE SHT. NO. 10/17.
3. FOR MATCHLINES C-C AND D-D, SEE SHT. NO. 7/17.

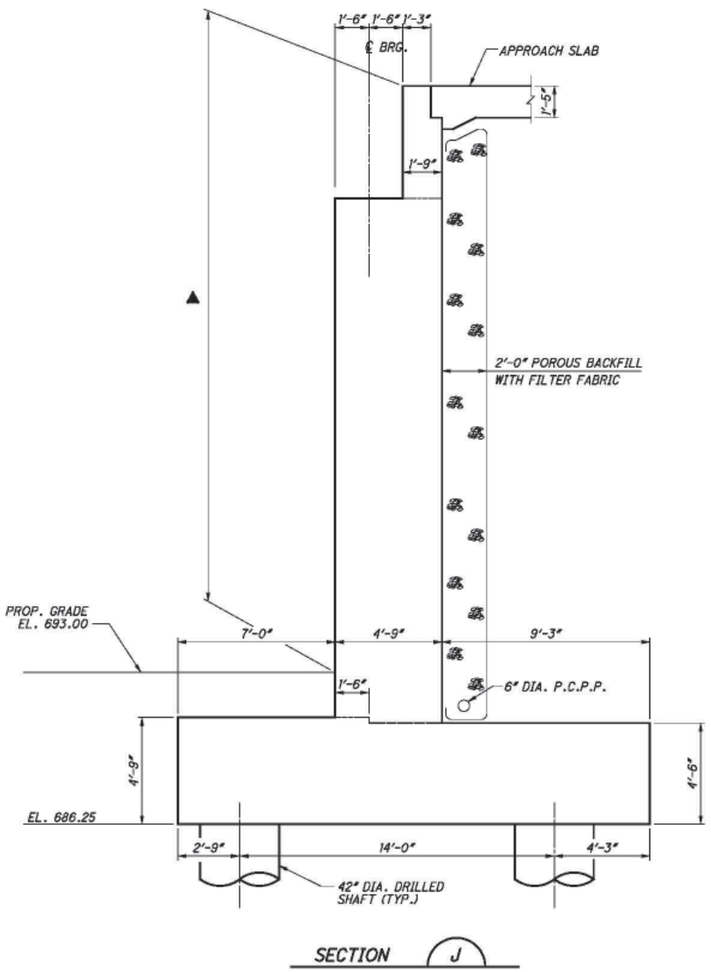
DESIGNED RHC
CHECKED DJC
DRAWN RPR
REVISED
REVIEWED TJW
DATE 1-16-16
STRUCTURE FILE NUMBER TO BE DETERMINED

DESIGN AGENCY
GPD GROUP.

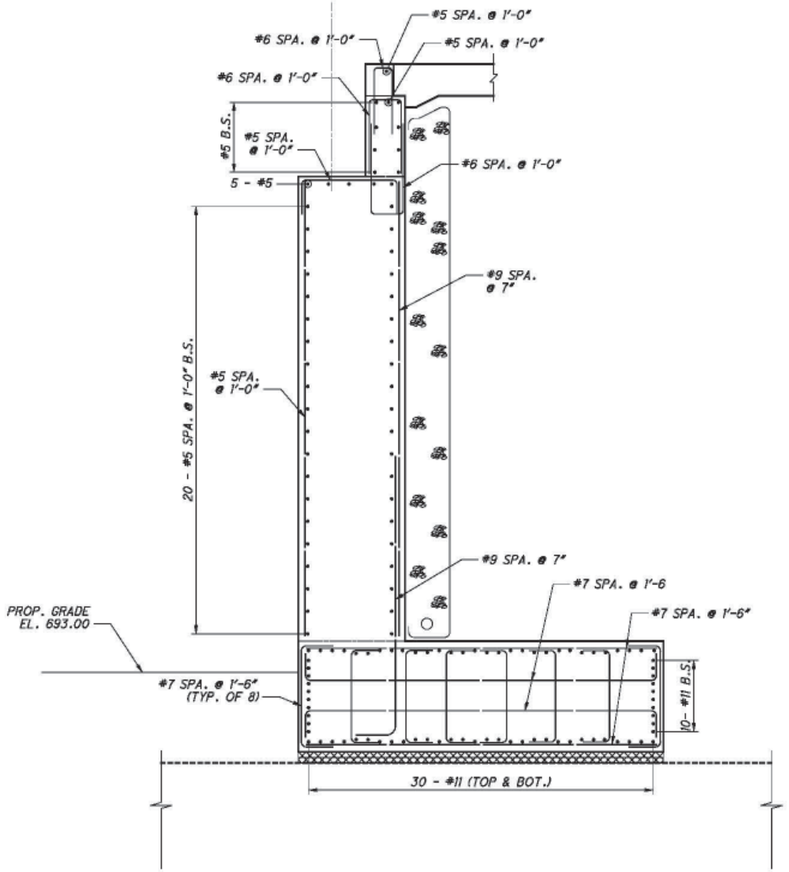
FORWARD ABUTMENT - 2
E. 105TH ST. BRIDGE OVER NORFOLK SOUTHERN CORPORATION
AND GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY

CUY-E 105TH ST
PID No. 98695

8/17



SECTION J



SECTION H

LEGEND:

▲ INDICATED LIMITS OF ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE WITH ANTI-GRAFFITI COATING)

DESIGNED RHC | DRAWN SAT | REVIEWED TJW | DATE 1-16-16
CHECKED DGN | REVISED | STRUCTURE FILE NUMBER TO BE DETERMINED

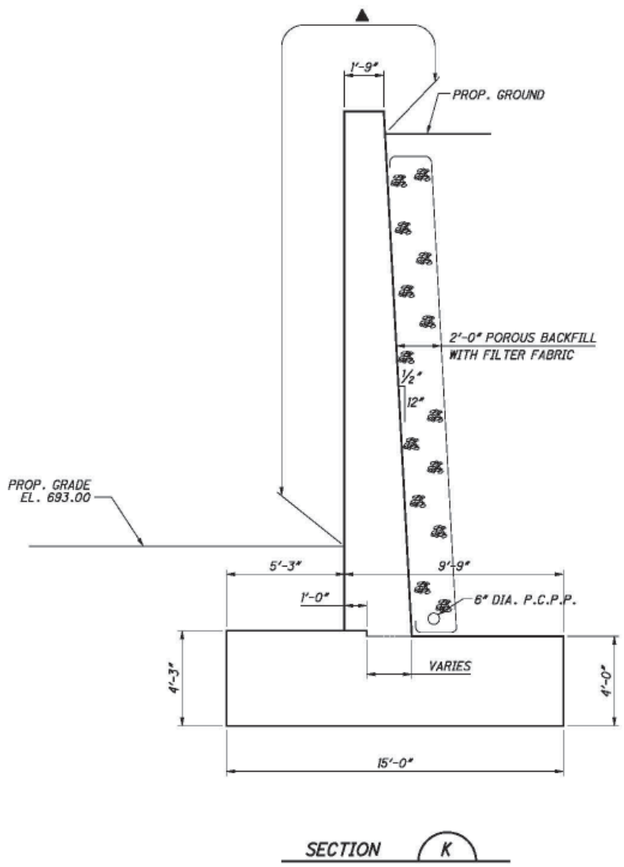
DESIGN AGENCY
GPD GROUP.

FORWARD ABUTMENT SECTION DETAIL
E. 105TH ST. BRIDGE OVER NORFOLK SOUTHERN CORPORATION
AND GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY

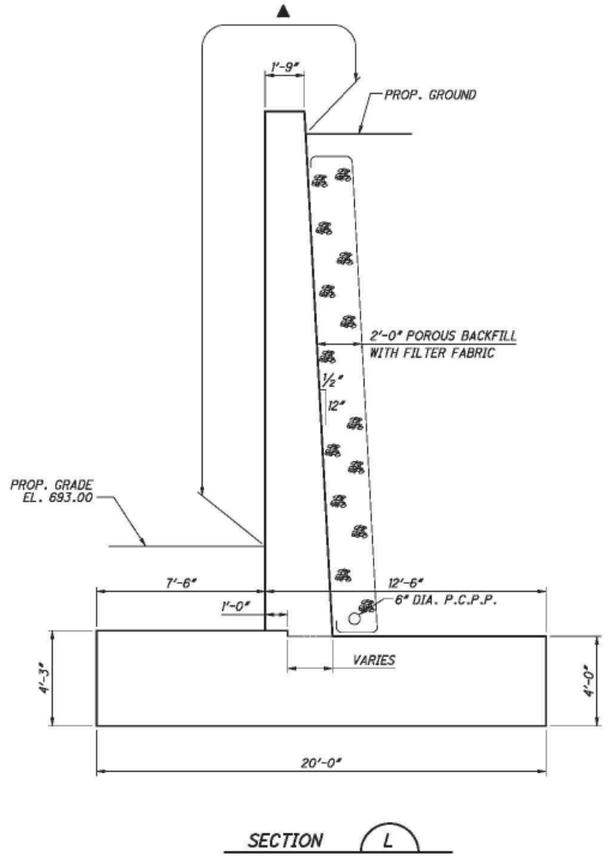
CUY-E 105TH ST
PID No. 98695

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SECTION K



SECTION L

LEGEND:

▲ INDICATED LIMITS OF ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE WITH ANTI-GRAFFITI COATING)

DESIGN AGENCY
GPD GROUP
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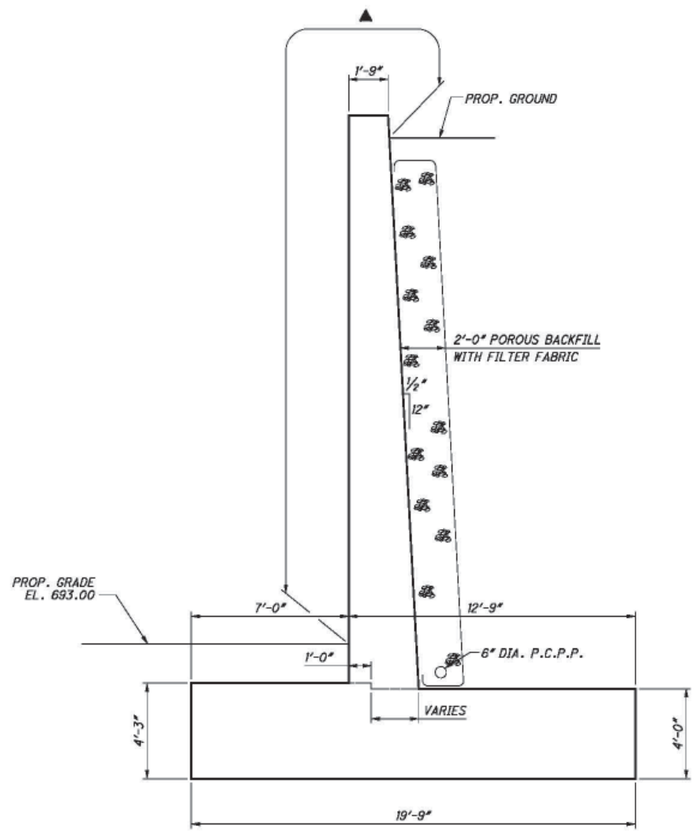
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DRAWN SAT
REVIEWED TJW
DATE 1-16-16
CHECKED DJC
REVISED
STRUCTURE FILE NUMBER TO BE DETERMINED

FORWARD ABUTMENT SECTION DETAIL
E. 105TH ST. BRIDGE OVER NORFOLK SOUTHERN CORPORATION
AND GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY

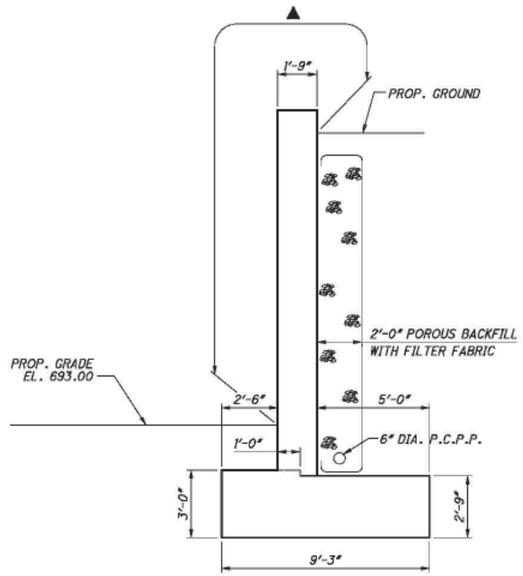
CUY-E 105TH ST
PID No. 98695

10/17

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STORY



SECTION N



SECTION M

LEGEND:

▲ INDICATED LIMITS OF ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE WITH ANTI-GRAFFITI COATING)

DESIGNED RHC | DRAWN SAT | REVIEWED TJW | DATE 1-16-16
CHECKED DJC | REVISED | STRUCTURE FILE NUMBER TO BE DETERMINED

DESIGN AGENCY
CPD GROUP

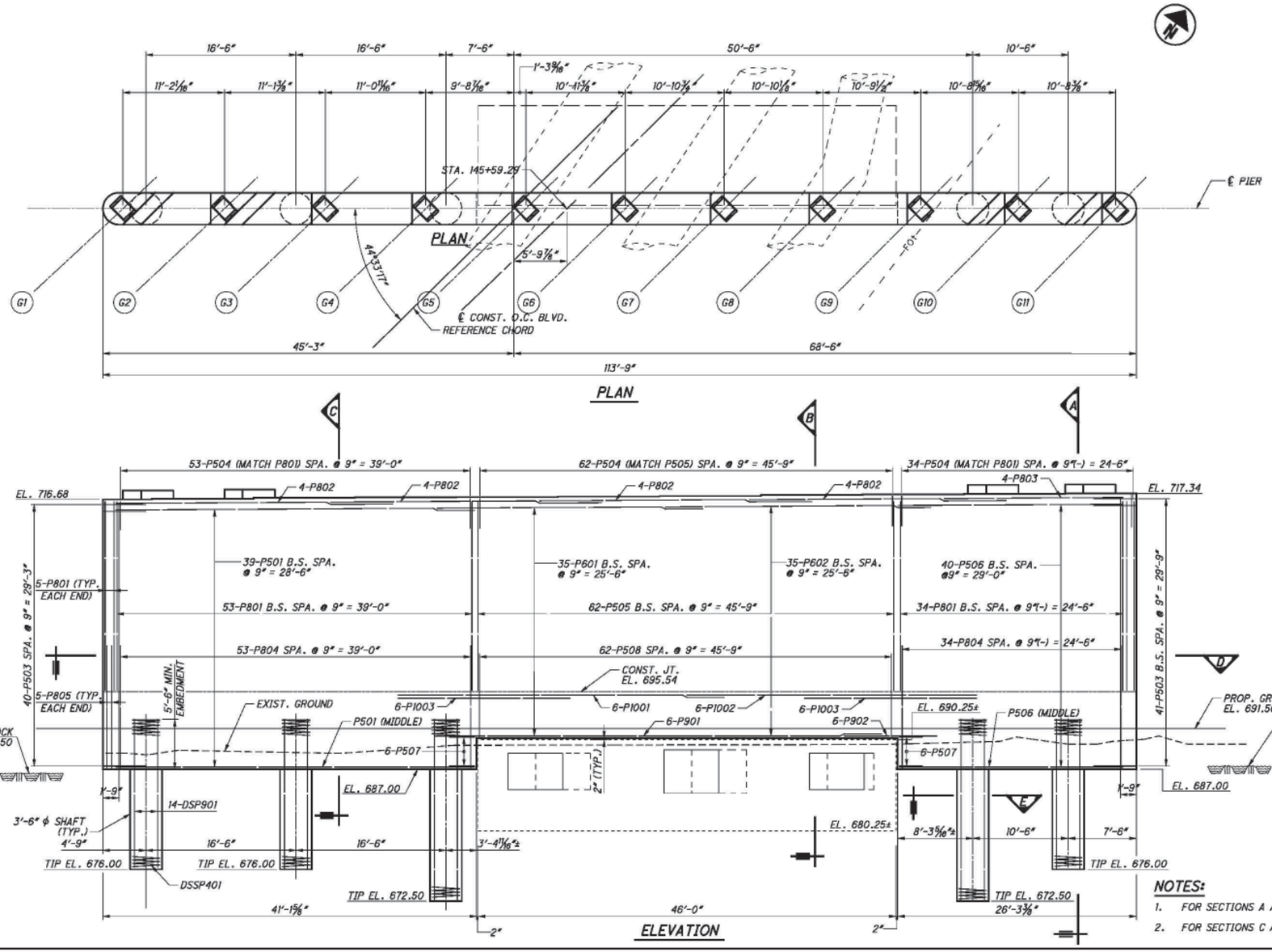
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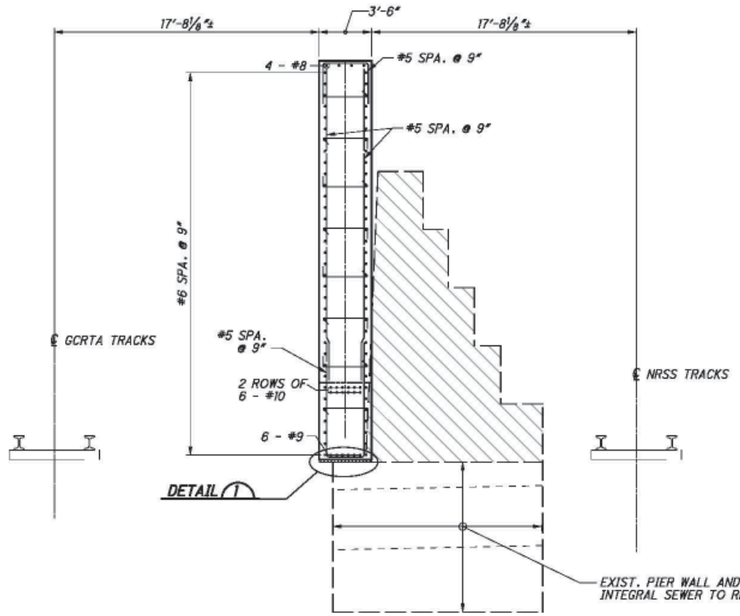
E. 105TH ST. BRIDGE OVER NORFOLK SOUTHERN CORPORATION AND GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY

CUY-E 105TH ST
PID No. 98695

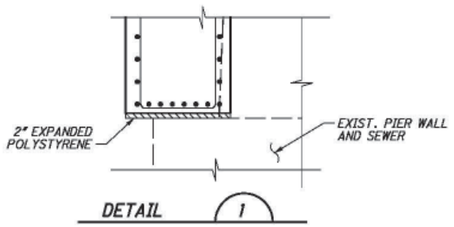
11 / 17

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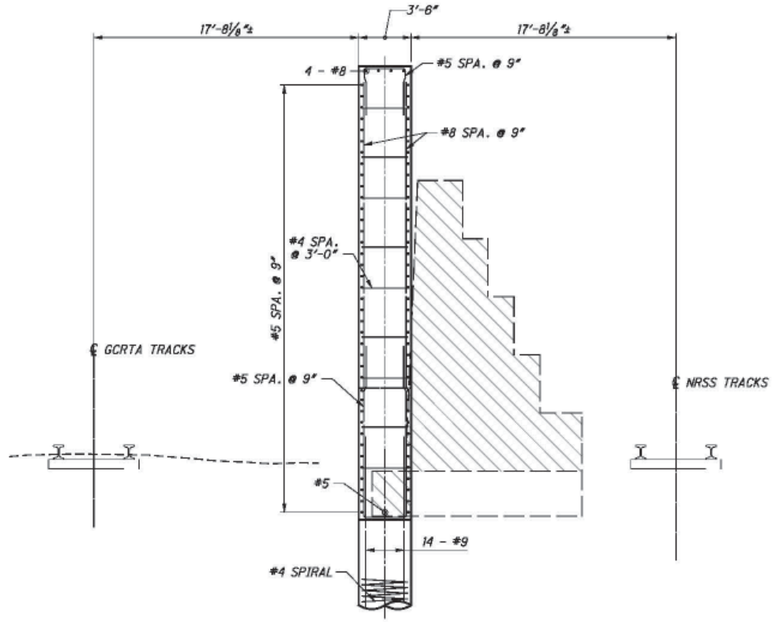

16'-6"
16'-6"
7'-6"
50'-6"
10'-6"
11'-2 1/16"
11'-1 3/8"
11'-0 11/16"
9'-8 7/8"
1'-3 9/16"
10'-4 7/8"
10'-10 3/4"
10'-10 1/8"
10'-9 1/2"
10'-8 5/16"
10'-8 7/8"
STA. 145+59.29
℄ PIER
PLAN
44°33'11"
5'-9 7/8"
G1
G2
G3
G4
G5
G6
G7
G8
G9
G10
G11
F01
℄ CONST. O.C. BLVD.
REFERENCE CHORD
45'-3"
68'-6"
113'-9"
PLAN
C
B
A
53-P504 (MATCH P801) SPA. @ 9" = 39'-0"
62-P504 (MATCH P505) SPA. @ 9" = 45'-9"
34-P504 (MATCH P801) SPA. @ 9"(-) = 24'-6"
4-P802
4-P803
EL. 716.68
EL. 717.34
39-P501 B.S. SPA. @ 9" = 28'-6"
35-P601 B.S. SPA. @ 9" = 25'-6"
35-P602 B.S. SPA. @ 9" = 25'-6"
40-P506 B.S. SPA. @9" = 29'-0"
40-P503 SPA. @ 9" = 29'-3"
41-P503 B.S. SPA. @ 9" = 29'-9"
5-P801 (TYP. EACH END)
53-P801 B.S. SPA. @ 9" = 39'-0"
62-P505 B.S. SPA. @ 9" = 45'-9"
34-P801 B.S. SPA. @ 9"(-) = 24'-6"
53-P804 SPA. @ 9" = 39'-0"
62-P508 SPA. @ 9" = 45'-9"
34-P804 SPA. @ 9"(-) = 24'-6"
CONST. JT. EL. 695.54
5-P805 (TYP. EACH END)
5'-6" MIN. EMBEDMENT
EXIST. GROUND
6-P1003
6-P1001
6-P1002
6-P1003
6-P902
6-P901
P501 (MIDDLE)
P506 (MIDDLE)
EL. 690.25±
PROP. GROUND EL. 691.50
T/ROCK EL. 686.50
6-P507
6-P507
T/ROCK EL. 687.30
2" (TYP.)
EL. 687.00
EL. 687.00
1'-9"
1'-9"
14-DSP901
3'-6" ϕ SHAFT (TYP.)
4'-9"
16'-6"
16'-6"
3'-4 11/16"±
EL. 680.25±
8'-3 5/16"±
10'-6"
7'-6"
TIP EL. 676.00
TIP EL. 676.00
TIP EL. 676.00
DSSP401
TIP EL. 672.50
TIP EL. 672.50
41'-1 5/8"
46'-0"
26'-3 3/16"
2"
2"
ELEVATION
NOTES:
1. FOR SECTIONS A AND B, SEE SHT. NO. 13/17.
2. FOR SECTIONS C AND D, SEE SHT. NO. 14/17.
DESIGNED DJC
DRAWN SAT
CHECKED DGN
REVISED
REVIEWED TJW
DATE 1-16-16
STRUCTURE FILE NUMBER TO BE DETERMINED
DESIGN AGENCY GPD GROUP
PIER PLAN & ELEVATION
E. 105TH ST. BRIDGE OVER NORFOLK SOUTHERN CORPORATION AND GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY
CUY-E 105TH ST
PID No. 98695
12/17
1



SECTION B



DETAIL 1



SECTION A

LEGEND:

- PIER TO BE REMOVED

PIER SECTIONS

E. 105TH ST. BRIDGE OVER NORFOLK SOUTHERN CORPORATION AND GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY

CUY-E 105TH ST

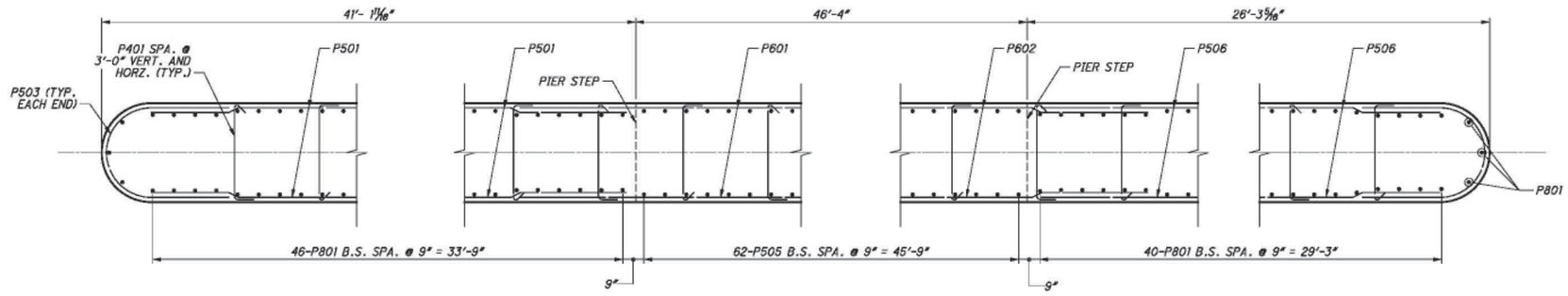
PID No. 98695

13 / 17

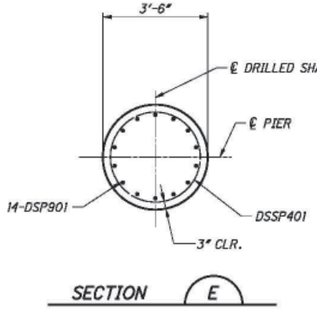
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DRAWN SAT
REVIEWED TJW
DATE 1-16-16
CHECKED DGN
REVISED
STRUCTURE FILE NUMBER TO BE DETERMINED

DESIGN AGENCY GPD GROUP.

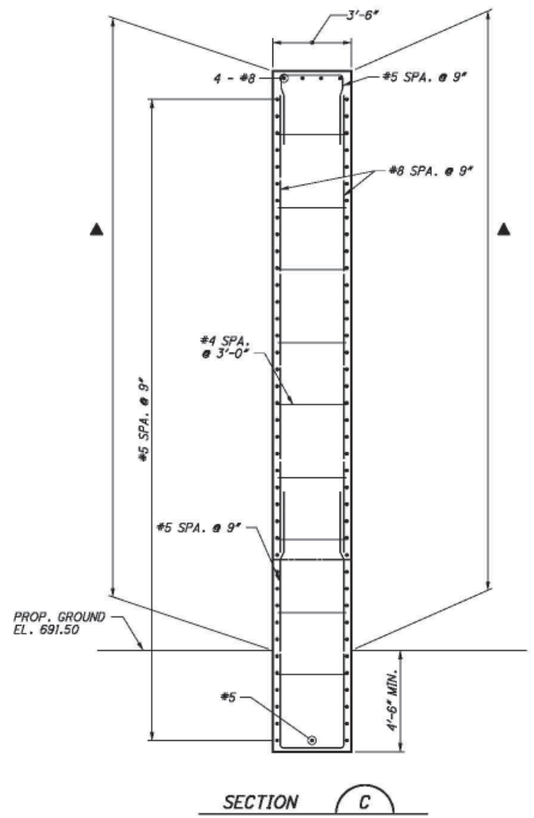
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8/29/18
8:52:28 AM
BYDAY



SECTION D



SECTION E



SECTION C

LEGEND:

▲ - ITEM 513 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE WITH ANTI-GRAFFITI COATING)

DESIGN AGENCY
GPD GROUP.

DESIGNED	DRAWN	REVIEWED	DATE
DJC	SAT	TJW	1-16-16
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DGN		TO BE DETERMINED	

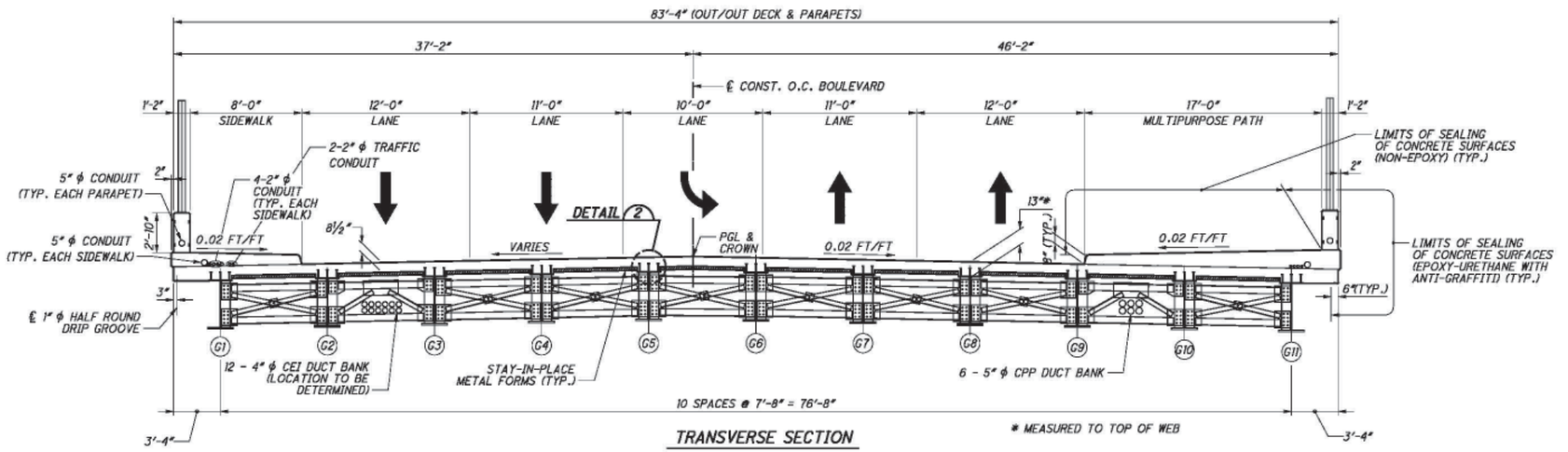
PIER SECTIONS

E. 105TH ST. BRIDGE OVER NORFOLK SOUTHERN CORPORATION AND GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY

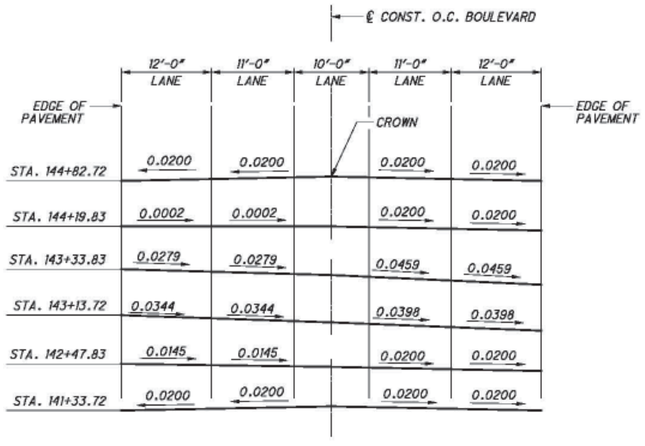
CUY-E 105TH ST

PID No. 98695

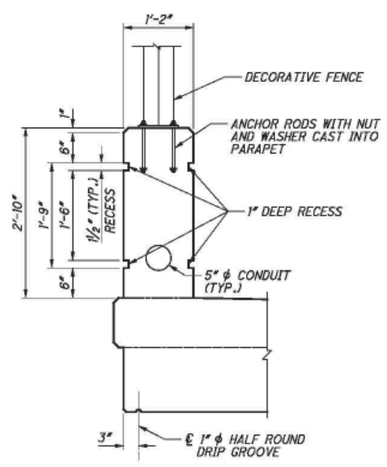
14 / 17



TRANSVERSE SECTION

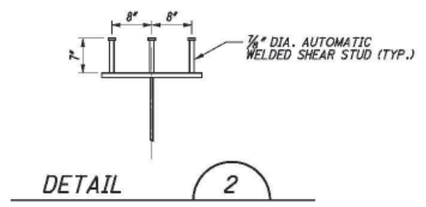


E. 105TH ST. CROSS SLOPE TRANSITION DIAGRAM



TYPICAL BARRIER SECTION DETAIL

REINFORCING STEEL NOT SHOWN



DETAIL 2

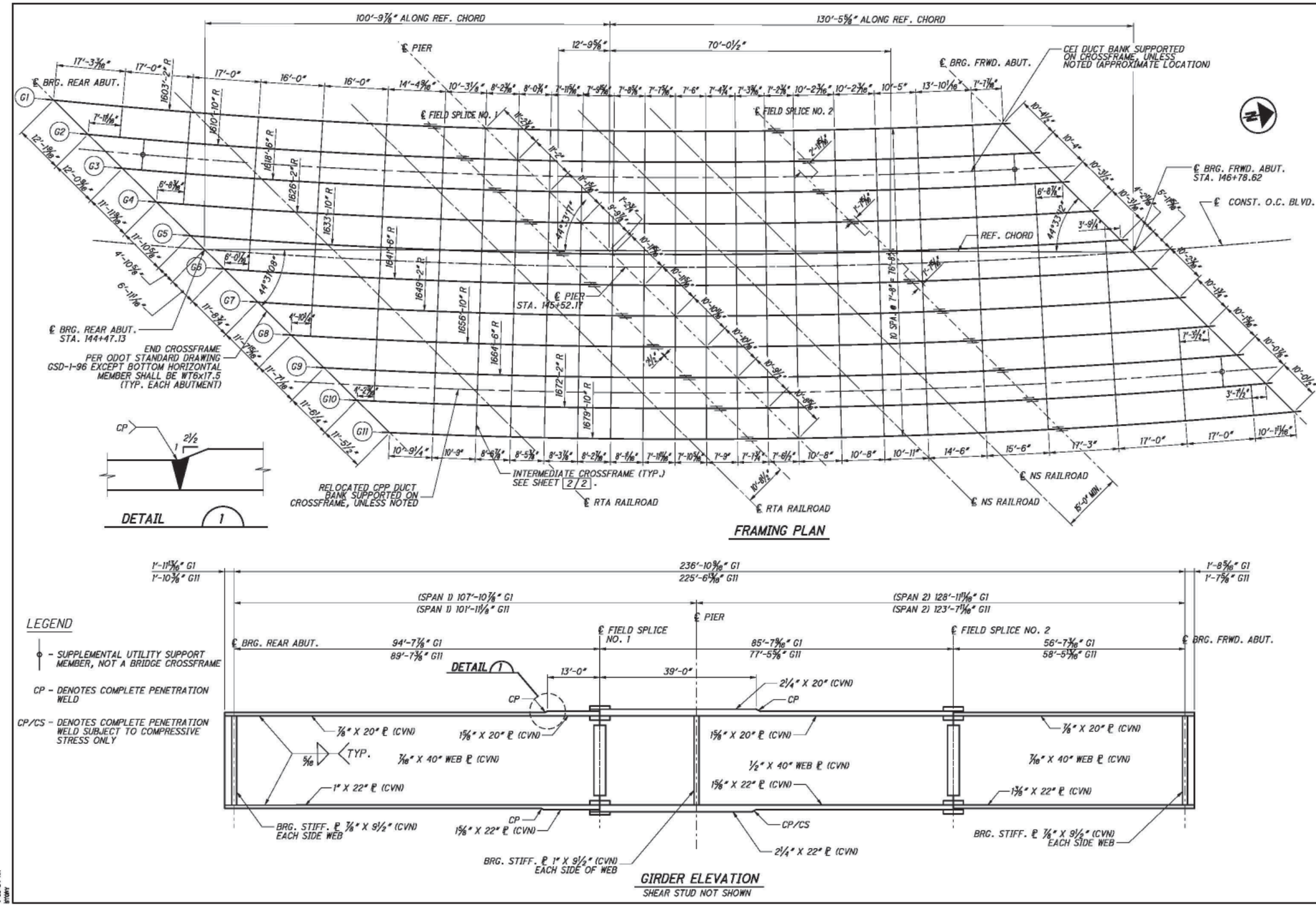
DESIGN AGENCY
GPD GROUP.

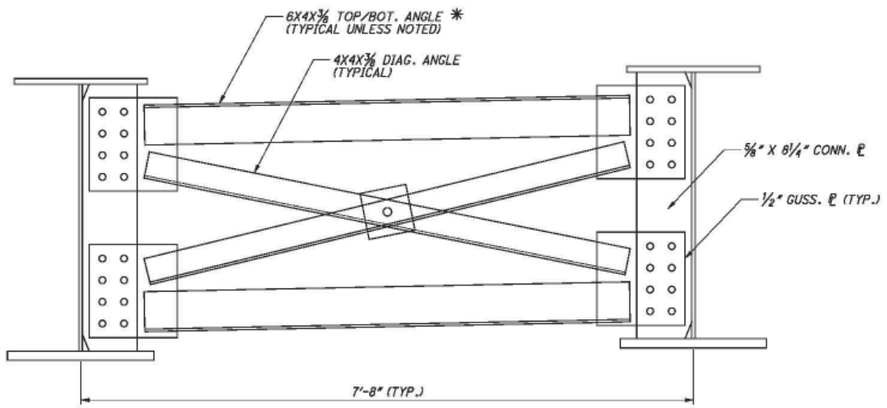
DESIGNED	DRAWN	REVIEWED	DATE
DJC	RPR	TJW	1-16-16
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DGN		TO BE DETERMINED	

TRANSVERSE SECTION
E. 105TH ST. BRIDGE OVER NORFOLK SOUTHERN CORPORATION
AND GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY

CUY-E 105TH ST
PID No. 98695

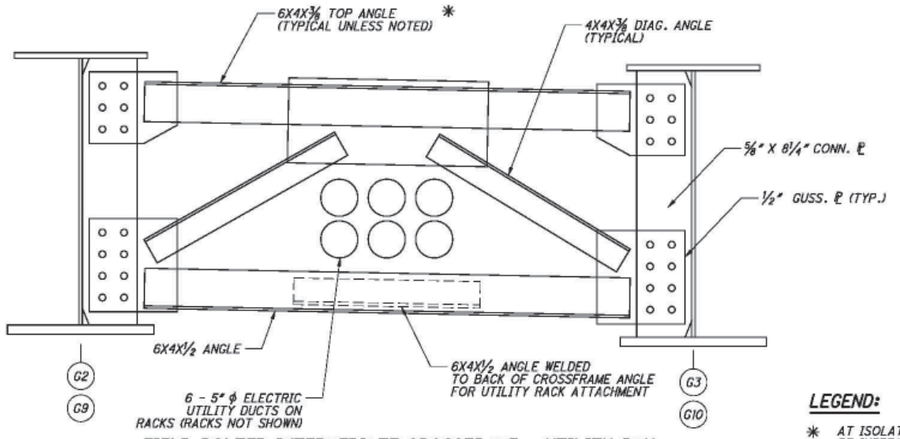
15 / 17


100'-9⅞" ALONG REF. CHORD
130'-5⅝" ALONG REF. CHORD
℄ PIER
℄ BRG. REAR ABUT.
℄ BRG. FRWD. ABUT.
CEI DUCT BANK SUPPORTED ON CROSSFRAME, UNLESS NOTED (APPROXIMATE LOCATION)
℄ FIELD SPLICE NO. 1
℄ FIELD SPLICE NO. 2
℄ BRG. FRWD. ABUT. STA. 146+78.62
℄ CONST. O.C. BLVD.
REF. CHORD
℄ PIER STA. 145+52.17
℄ BRG. REAR ABUT. STA. 144+47.13
END CROSSFRAME PER ODOT STANDARD DRAWING GSD-1-96 EXCEPT BOTTOM HORIZONTAL MEMBER SHALL BE WT6x17.5 (TYP. EACH ABUTMENT)
INTERMEDIATE CROSSFRAME (TYP.) SEE SHEET 2 / 2 .
RELOCATED CPP DUCT BANK SUPPORTED ON CROSSFRAME, UNLESS NOTED
℄ RTA RAILROAD
℄ NS RAILROAD
15'-0" MIN.
G1
G2
G3
G4
G5
G6
G7
G8
G9
G10
G11
CP
2½
1
DETAIL 1
FRAMING PLAN
1'-11¾⁄16" G1
1'-10⅞" G11
236'-10⅜⁄16" G1
225'-6⅝⁄16" G11
1'-8⅝⁄16" G1
1'-7⅝" G11
(SPAN 1) 107'-10⅜" G1
(SPAN 1) 101'-11⅛" G11
(SPAN 2) 128'-11⅛⁄16" G1
(SPAN 2) 123'-7⅛⁄16" G11
94'-7⅛" G1
89'-7⅞" G11
85'-7⅝⁄16" G1
77'-5⅝" G11
56'-7⅜⁄16" G1
58'-5⅝⁄16" G11
13'-0"
39'-0"
2¼" X 20" (CVN)
⅞" X 20" ℄ (CVN)
1⅝" X 20" ℄ (CVN)
⅝" TYP.
⅜" X 40" WEB ℄ (CVN)
½" X 40" WEB ℄ (CVN)
1" X 22" ℄ (CVN)
1⅝" X 22" ℄ (CVN)
1⅜" X 22" ℄ (CVN)
BRG. STIFF. ℄ ⅞" X 9½" (CVN) EACH SIDE WEB
BRG. STIFF. ℄ 1" X 9½" (CVN) EACH SIDE OF WEB
2¼" X 22" ℄ (CVN)
CP/CS
LEGEND
- SUPPLEMENTAL UTILITY SUPPORT MEMBER, NOT A BRIDGE CROSSFRAME
CP - DENOTES COMPLETE PENETRATION WELD
CP/CS - DENOTES COMPLETE PENETRATION WELD SUBJECT TO COMPRESSIVE STRESS ONLY
GIRDER ELEVATION
SHEAR STUD NOT SHOWN
DESIGNED DJC
DRAWN SAT
CHECKED DGN
REVISED T.JW
DATE 1-16-16
STRUCTURE FILE NUMBER TO BE DETERMINED
DESIGN AGENCY GPD GROUP
FRAMING PLAN & GIRDER ELEVATION
CUY-E 105TH ST
PID No. 98695
E. 105TH ST. BRIDGE OVER NORFOLK SOUTHERN
AND GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY
16 / 17



FIELD BOLTED INTERMEDIATE CROSSFRAME

ALL BOLTS 1" ϕ A325 OVERSIZED HOLES IN GUSSET,
STANDARD HOLES IN CONN. ℄



FIELD BOLTED INTERMEDIATE CROSSFRAME - UTILITY BAY

ALL BOLTS 1" ϕ A325 OVERSIZED HOLES IN GUSSET,
STANDARD HOLES IN CONN. ℄
CPP DUCT CONFIGURATION SHOWN, SEE TRANSVERSE
SECTION FOR CEI DUCT BANK CONFIGURATION

LEGEND:

* AT ISOLATED CROSSFRAME LOCATIONS, THE TOP CHORD MEMBER SIZE SHALL BE INCREASED WHERE DICTATED BY MEMBER LOAD.

DESIGN AGENCY
GPD GROUP
Akron, Ohio Cincinnati, Ohio Columbus, Ohio Pittsburgh, Pa.
520 South Main Street, Suite 2531, Akron, OH 44311-1050 330.434.9444
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DESIGNED DJC
DRAWN SAT
REVIEWED T.JW
DATE 1-16-16
CHECKED DGN
REVISED
STRUCTURE FILE NUMBER TO BE DETERMINED

INTERMEDIATE CROSSFRAME DETAILS
E. 105TH ST. BRIDGE OVER NORFOLK SOUTHERN CORPORATION
AND GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY

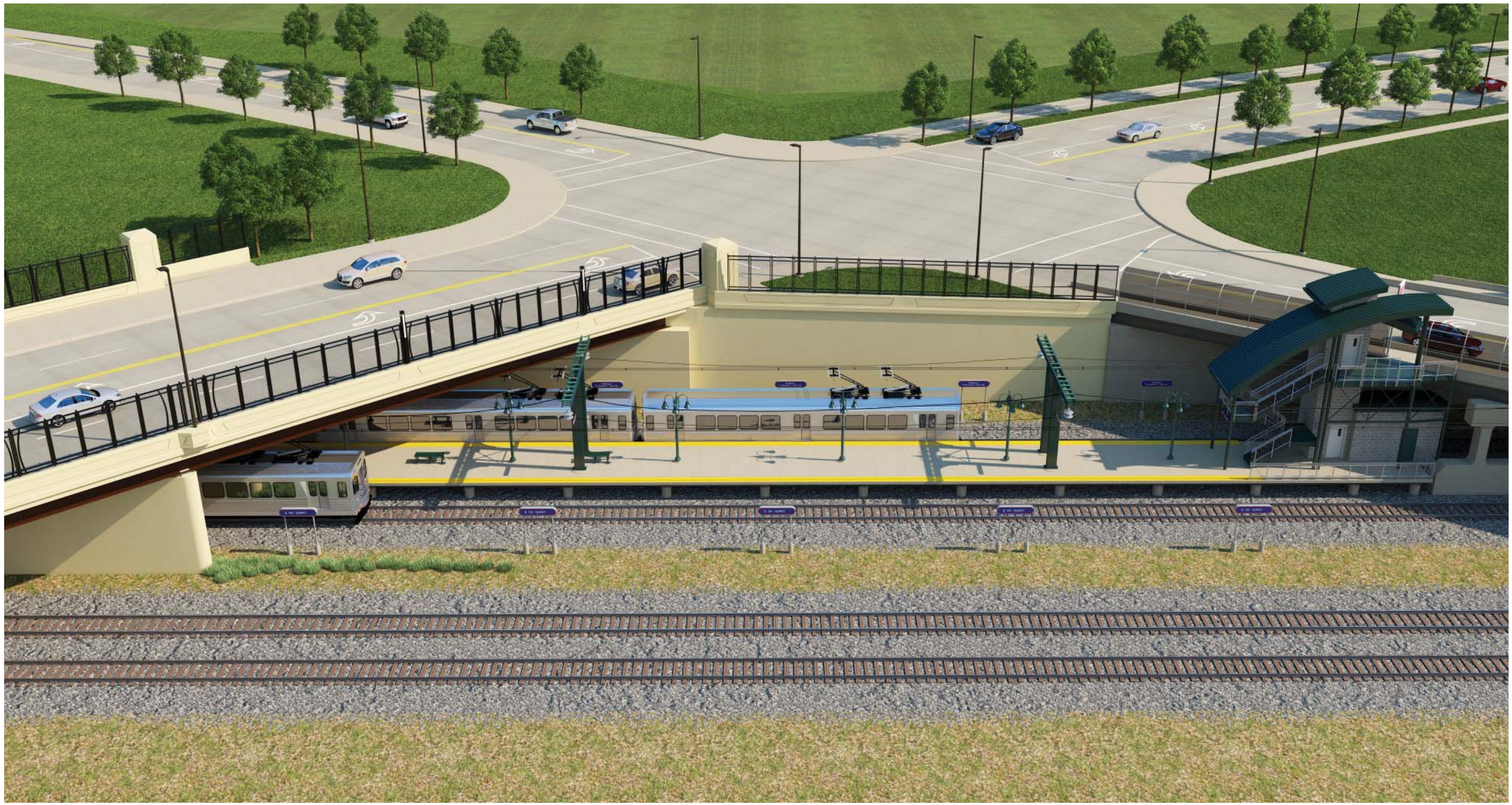
CUY-E 105TH ST
PID No. 98695

17 / 17

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8/15/16
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BTOMY



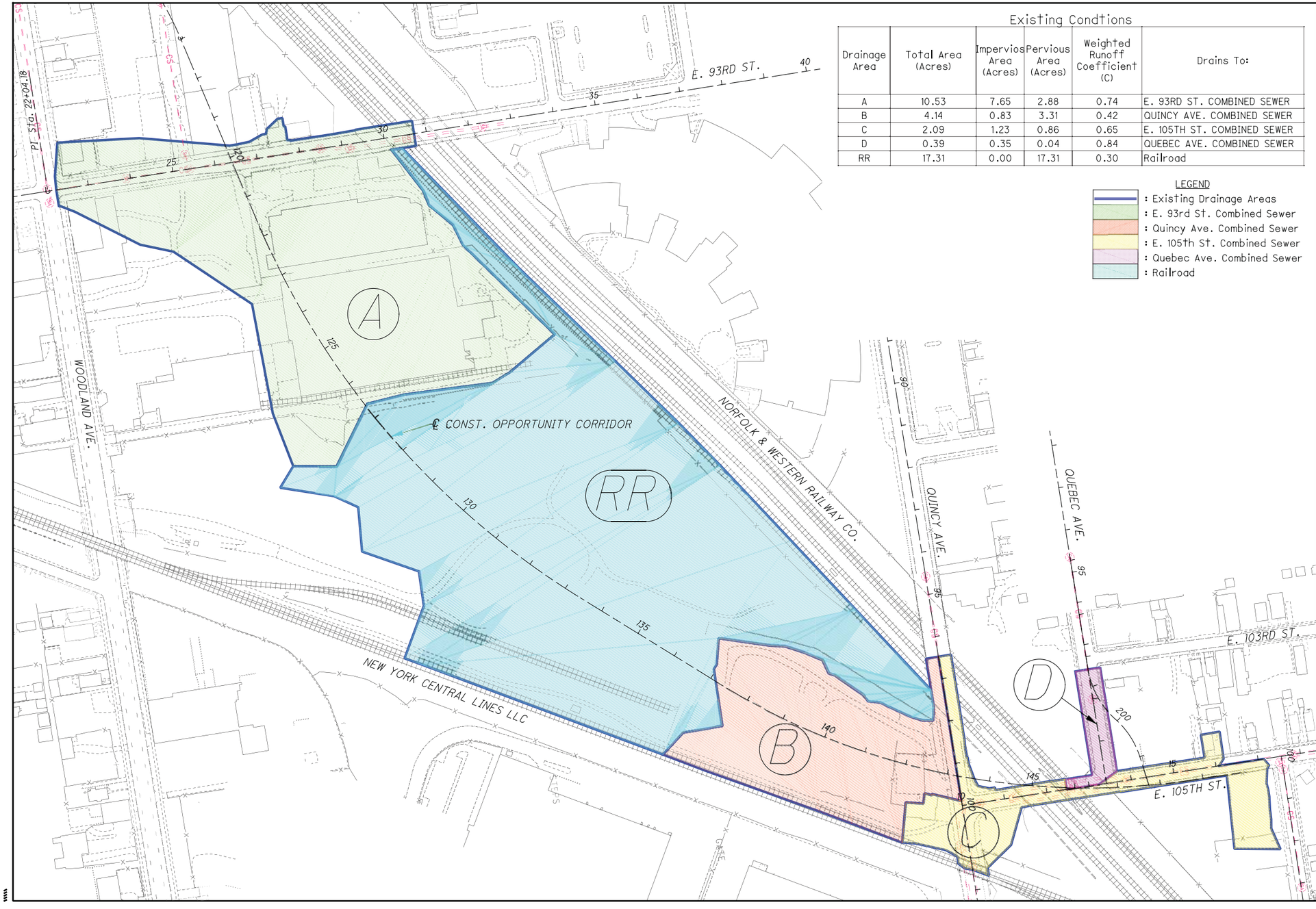
Rendering 1: OC2 E. 105th Street Bridge and Proposed GCRTA Station Aerial View



Rendering 2: OC2 North Region Aerial View



Rendering 3: Proposed OC Boulevard Street View



Existing Condtions

Drainage Area	Total Area (Acres)	Impervios Area (Acres)	Pervious Area (Acres)	Weighted Runoff Coefficient (C)	Drains To:
A	10.53	7.65	2.88	0.74	E. 93RD ST. COMBINED SEWER
B	4.14	0.83	3.31	0.42	QUINCY AVE. COMBINED SEWER
C	2.09	1.23	0.86	0.65	E. 105TH ST. COMBINED SEWER
D	0.39	0.35	0.04	0.84	QUEBEC AVE. COMBINED SEWER
RR	17.31	0.00	17.31	0.30	Railroad

LEGEND

: Existing Drainage Areas
: E. 93rd St. Combined Sewer
: Quincy Ave. Combined Sewer
: E. 105th St. Combined Sewer
: Quebec Ave. Combined Sewer
: Railroad

N

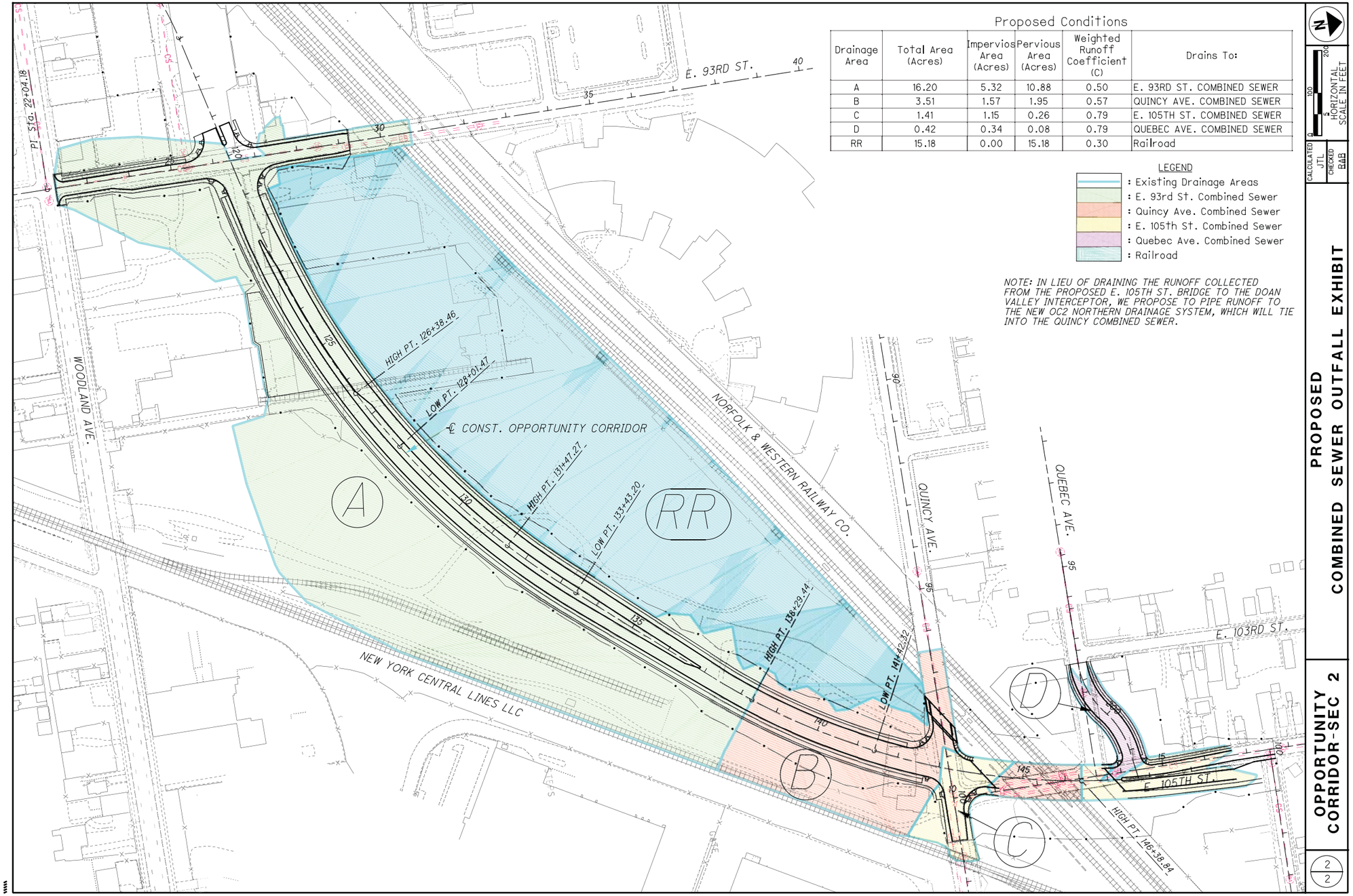
0 100 200
5
HORIZONTAL SCALE IN FEET

CALCULATED UTL
CHECKED

EXISTING COMBINED SEWER OUTFALL EXHIBIT

OPPORTUNITY CORRIDOR-SEC 2

1/2



Proposed Conditions

Drainage Area	Total Area (Acres)	Impervious Area (Acres)	Pervious Area (Acres)	Weighted Runoff Coefficient (C)	Drains To:
A	16.20	5.32	10.88	0.50	E. 93RD ST. COMBINED SEWER
B	3.51	1.57	1.95	0.57	QUINCY AVE. COMBINED SEWER
C	1.41	1.15	0.26	0.79	E. 105TH ST. COMBINED SEWER
D	0.42	0.34	0.08	0.79	QUEBEC AVE. COMBINED SEWER
RR	15.18	0.00	15.18	0.30	Railroad

LEGEND

: Existing Drainage Areas
: E. 93rd St. Combined Sewer
: Quincy Ave. Combined Sewer
: E. 105th St. Combined Sewer
: Quebec Ave. Combined Sewer
: Railroad

NOTE: IN LIEU OF DRAINING THE RUNOFF COLLECTED FROM THE PROPOSED E. 105TH ST. BRIDGE TO THE DOAN VALLEY INTERCEPTOR, WE PROPOSE TO PIPE RUNOFF TO THE NEW OC2 NORTHERN DRAINAGE SYSTEM, WHICH WILL TIE INTO THE QUINCY COMBINED SEWER.

N

0 5 100 200 HORIZONTAL SCALE IN FEET

CALCULATED UTL
CHECKED BAB

PROPOSED COMBINED SEWER OUTFALL EXHIBIT

OPPORTUNITY CORRIDOR-SEC 2

2/2

PART F.8:

APPENDIX 8 - WORK HISTORY FORM

FORM D1

PROJECT NAME AND LOCATION	NAME OF FIRM AND NATURE OF FIRM'S RESPONSIBILITY	PROJECT OWNER'S NAME AND ADDRESS; OWNER'S PROJECT MANAGER'S NAME, PHONE NUMBER AND EMAIL	ACTUAL OR ESTIMATED COMPLETION DATE AND PERCENTAGE OF WORK COMPLETE	COST OF PROJECT	COST OF WORK FOR WHICH FIRM SELF-PERFORMED
ODOT 130151 Buckeye District 12 Cuyahoga County Cleveland	The Great Lakes Construction Co. Prime Contractor	Ohio Department of Transportation 1980 W. Broad Street Columbus, Ohio 43223 Timothy Sturges, PE 216.584.2165 Timothy.sturges@dot.state.oh.us	Completion Date: 05/04/2016 90% Complete	$ 9,348,429	$7,300,000
ODOT 130314 West 73rd Street District 12 Cuyahoga County Cleveland	The Great Lakes Construction Co. Prime Contractor	Ohio Department of Transportation 1980 W. Broad Street Columbus, Ohio 43223 Robert Wallace 216.312.0530 Robert.wallace@dot.ohio.gov	Completion Date: 06/01/2016 95% Complete	$ 23,900,000	$20,000,000
ODOT 143005 IR-271 ***Design-Build*** District 4 Summit County Macedonia	The Great Lakes Construction Co. Prime Contractor	Ohio Department of Transportation 1980 W. Broad Street Columbus, Ohio 43223 Thomas Powell, PE 330.786.4834 Thomas.powell2@dot.state.oh.us	Completion Date: 9/30/2016 Design: 100% Complete Construction: 85% Complete	$ 46,000,000	$34,000,000
ODOT 083003 IR-77 ***Design-Build*** District 4 Summit County Richfield	The Great Lakes Construction Co. Prime Contractor	Ohio Department of Transportation 1980 W. Broad Street Columbus, Ohio 43223 Thomas Powell, PE 330.786.4834 Thomas.powell2@dot.state.oh.us	Actual Completion Date: 4/28/2011 100 % Complete	$ 10,151,196	$8,000,000
ODOT 133000 Cleveland Innerbelt Bridge ***Design-Build*** District 12 Cuyahoga County Cleveland	COMMASA Diversity & Inclusion Consultant	Ohio Department of Transportation 1980 W. Broad Street Columbus, Ohio 43223 Thomas Hyland, PE 216.312.0506 Thomas.hyland@dot.ohio.gov	Completion Date:10/06/2016 Design: 100% Complete Construction: 80% Complete	$ 273,000,000	$ 250,000

FORM D1

PROJECT NAME AND LOCATION	NAME OF FIRM AND NATURE OF FIRM'S RESPONSIBILITY	PROJECT OWNER'S NAME AND ADDRESS; OWNER'S PROJECT MANAGER'S NAME, PHONE NUMBER AND EMAIL	ACTUAL OR ESTIMATED COMPLETION DATE AND PERCENTAGE OF WORK COMPLETE	COST OF PROJECT	COST OF WORK FOR WHICH FIRM SELF-PERFORMED
CUY-Woodland Avenue Bridge PID #77590 Cuyahoga County Cleveland	GPD Group Prime Consultant	City of Cleveland 601 Lakeside Avenue, Room 518 Cleveland, Ohio 44114 James Deidrick 216.664.7424 jdeidrick@city.cleveland.oh.us	Actual Completion Date: 7/22/2005 Design: 100% Complete Construction: 100% Complete	$ 4,300,000 $ 340,000 (design)	$ 275,000
CUY-176-10.14/10.88 (Jennings Freeway) Cleveland	GPD Group Prime Consultant	Cuyahoga County Engineer 2100 Superior Viaduct Cleveland, Ohio 44113 Thomas Gabanic 216.348.3933 tgabanic@cuyahogacounty.us	Actual Completion Date: 8/30/1993 Design: 100% Complete Construction: 100% Complete	$ 51,000,000 $ 3,100,000 (design)	$ 2,700,000
ODOT 083303 SUM-77-30.96 ***Design-Build*** District 4 Summit County Richfield	GPD Group Prime Consultant	Ohio Department of Transportation 1980 W. Broad Street Columbus, Ohio 43223 Thomas Powell, PE 330.786.4834 Thomas.powell2@dot.state.oh.us	Actual Completion Date: 4/28/2011 Design: 100% Complete Construction: 100% Complete	$ 10,151,196 $ 471,000 (design)	$ 451,000
JEF-43-0.00 ***Design-Build*** Steubenville	GPD Group Prime Consultant	City of Steubenville 115 South Third Street, Suite 107 Steubenville, Ohio 43952 Michael Dolak , PE 740.283.6000 Ext. 3303 mdolak@cityofsteubenville.us	Actual Completion Date: 12/23/2011 Design: 100% Complete Construction: 100% Complete	$ 7,200,000 $ 470,000 (design)	$ 410,000
ODOT FRA-070-13.54, PID# 77372 District 6 Franklin County Columbus	GPD Group Prime Consultant	Ohio Department of Transportation 1980 W. Broad Street Columbus, Ohio 43223 Leslie Montgomery 740.833.8269 leslie.montgomery@dot.state.oh.us	Completion Date: 12/31/2017 Design: 75% Complete	$ 210,000,000 $ 15,500,000 (design)	$ 8,500,000

PART F.9:

APPENDIX 9 - LETTERS OF COMMITMENT FROM NEW, SMALL, LOCAL AND SOCIALLY AND ECONOMICALLY DISADVANTAGED BUSINESSES

F.9 APPENDIX 9 – LETTER OF COMMITMENT FROM NEW, SMALL, LOCAL, AND SOCIALLY AND ECONOMICALLY DISADVANTAGED BUSINESSES

NEW

Vendor Name	Function of the Firm	Committed Percentage	Adjustment Factor	Adjusted Committed Percentage
Visibility Marketing, Inc.	Public Relations	0.540%	100%	0.540%
Zscape	Landscaping	0.653%	100%	0.653%
Kone Inc	GCRTA Elevator	0.526%	100%	0.526%
Courtad	GCRTA Metal Roof	0.284%	100%	0.284%
Cosmos Technologies	Roadway Design	0.088%	100%	0.088%
		NEW TOTAL		2.091%

SMALL

Vendor Name	Function of the Firm	Committed Percentage	Adjustment Factor	Adjusted Committed Percentage
Ivy Development Agency	Supply & Install Rebar	1.903%	100%	1.903%
American Roadway Logistics	Maintenance of Traffic	0.114%	100%	0.114%
G&T Associates	MOT/Traff/Landscape/Str	0.090%	100%	0.090%
		SMALL TOTAL		2.107%

LOCAL

Vendor Name	Function of the Firm	Committed Percentage	Adjustment Factor	Adjusted Committed Percentage
B&B Wrecking & Excavating	Industrial Demo	3.324%	100%	3.324%
Lightning Demolition & Excavating	Residential Demo	2.656%	100%	2.656%
TranSystems Corporation of Ohio	GCRTA Track Design	0.332%	100%	0.332%
Coleman Development, Inc	Asbestos Abatement	1.378%	100%	1.378%
Integral Management	Workforce Devel.	0.426%	100%	0.426%
Suburban Maintenance & Constructio	Caissons	0.284%	100%	0.284%
		LOCAL TOTAL		8.400%

EDGE

Vendor Name	Function of the Firm	Committed Percentage	Adjustment Factor	Adjusted Committed Percentage
RAR Contracting	Producer-Concrete	4.247%	100%	4.247%
Chieftain Trucking & Excavating	Waterline	1.847%	100%	1.847%
Chieftain Trucking & Excavating	Storm Sewer	1.918%	100%	1.918%
Chieftain Trucking & Excavating	Sanitary Sewer	1.278%	100%	1.278%
Ballast Fence	Temporary Fence	0.313%	100%	0.313%
Cook Paving & Construction	Asphalt Paving	0.923%	100%	0.923%
Cook Paving & Construction	CPP Duct	1.563%	100%	1.563%
Denise's Flagging & Construction	RTA Flagging	0.474%	100%	0.474%
Consulting Engineering, Inc.	Storm/Water/Survey Design	0.142%	100%	0.142%
DHDC Engineering Consulting Servic	SUE/Geotechnical Design	0.185%	100%	0.185%
The CADD Dept.	Drafting	0.028%	100%	0.028%
Interstate Safety & Service, Inc.	Trucking	2.720%	100%	2.720%
Key Cable & Supply	Electrical Material Supply	2.841%	60%	1.705%
RWJ Wiring	GCRTA Electrical	1.491%	100%	1.491%
Advanced Engineering Consultants (	Lighting/Utility/Mechanical/Electrical Design	0.259%	100%	0.259%
Cuyahoga Fence, LLC	Permanent Fence	0.795%	100%	0.795%
		EDGE TOTAL		19.887%

THE GREAT LAKES CONSTRUCTION CO.

January 20, 2016

Ohio Department of Transportation
Letting Manager
Division of Construction Management, First Floor
Mail Stop 5100
1980 West Broad Street
Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:

Visibility Marketing, Inc,
24700 Chagrin Blvd #306
Beachwood OH 44122

Phone Number: 440-684-9920
State of Incorporation: OH
Tax ID: 34-1922836

Project goal certification type used on this project: (New) **Small, Local, EDGE;**

Adjusted weighted percentage: 0.5% %

WORK SCOPE ITEMS:

Public relations

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

Visibility Marketing, Inc,

Statutory Agent Signature

MONTRIE RUCKER ADAMS
Statutory Agent Name (please print)

PRESIDENT
Statutory Agent Title (please print)

2608 Great Lakes Way ● Hinckley, OH 44233-9590 ● www.tglcc.com
Office (330) 220-3900 ● Fax (330) 220-7670 ● Eng./Est. Fax (330) 220-3998

An Equal Opportunity Employer

THE GREAT LAKES CONSTRUCTION CO.

January 20, 2016

Ohio Department of Transportation
Letting Manager
Division of Construction Management, First Floor
Mail Stop 5100
1980 West Broad Street
Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:

Zscape
14900 York Rd
North Royalton OH 44133

Phone Number: 440-343-3180
State of Incorporation: OH
Tax ID: 26-3953850

Project goal certification type used on this project: (New) **Small, Local, EDGE;**

Adjusted weighted percentage: 0.653 %

WORK SCOPE ITEMS:

Landscaping

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

Zscape

Statutory Agent Signature

Julie Zaremba
Statutory Agent Name (please print)

President (Owner)
Statutory Agent Title (please print)

2608 Great Lakes Way ● Hinckley, OH 44233-9590 ● www.tglcc.com
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An Equal Opportunity Employer

THE GREAT LAKES CONSTRUCTION CO.

January 20, 2016

Ohio Department of Transportation
Letting Manager
Division of Construction Management, First Floor
Mail Stop 5100
1980 West Broad Street
Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:

Kone Inc
6670 W Snowville Road Suite 7
Brecksville OH 44141

Phone Number: 440-546-1100
State of Incorporation: DE
Tax ID: 36-2357423

Project goal certification type used on this project: (New), Small, Local, EDGE;

Adjusted weighted percentage: 0.526%

WORK SCOPE ITEMS:

GCRTA Elevator

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

Kone Inc

Statutory Agent Signature

Nick Mohler
Statutory Agent Name (please print)

Sr. Sales Consultant
Statutory Agent Title (please print)

2608 Great Lakes Way ● Hinckley, OH 44233-9590 ● www.tglcc.com
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Division of Construction Management, First Floor
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1980 West Broad Street
Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:

Courtad
11733 Timber Point Trail
Mantua OH 44255

Phone Number: 330-274-3100
State of Incorporation: OH
Tax ID: 26-3150778

Project goal certification type used on this project: (New), Small, Local, EDGE;

Adjusted weighted percentage: 0.184%

WORK SCOPE ITEMS:

GCRTA metal roof

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

Courtad, Inc.

Statutory Agent Signature

Dennis Courtad, President
Statutory Agent Name (please print)

President 1/14/2016
Statutory Agent Title (please print)

2608 Great Lakes Way ● Hinckley, OH 44233-9590 ● www.tglcc.com
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January 20, 2016

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Division of Construction Management, First Floor
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1980 West Broad Street
Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:

Cosmos Technologies
850 Euclid Ave #1120
Cleveland OH 44114

Phone Number: 216-664-1170
State of Incorporation:
Tax ID:

Project goal certification type used on this project: (New) Small, Local, EDGE;

Adjusted weighted percentage: 0.088%

WORK SCOPE ITEMS:

Roadway design

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

Cosmos Technologies

Statutory Agent Signature

FREDERICK DOUGLAS
Statutory Agent Name (please print)

PRESIDENT
Statutory Agent Title (please print)

2608 Great Lakes Way ● Hinckley, OH 44233-9590 ● www.tglcc.com
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January 20, 2016

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Letting Manager
Division of Construction Management, First Floor
Mail Stop 5100
1980 West Broad Street
Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:

Ivy Development Agency
PO Box 80274
Toledo OH 43608

Phone Number: 419-466-0337
State of Incorporation: OH
Tax ID: 20-5787394

Project goal certification type used on this project: New, (Small,) Local, EDGE;

Adjusted weighted percentage: 1.903%

WORK SCOPE ITEMS:

Supply and install rebar

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

Ivy Development Agency

Statutory Agent Signature

Erik C. Johnson
Statutory Agent Name (please print)

PRESIDENT
Statutory Agent Title (please print)

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January 20, 2016

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Letting Manager
Division of Construction Management, First Floor
Mail Stop 5100
1980 West Broad Street
Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:
American Roadway Logistics
3920 Congress Parkway
Richfield OH 44286

Phone Number: 330-659-2013
State of Incorporation: OH
Tax ID: 20-5239386

Project goal certification type used on this project: New, Small, Local, EDGE;

Adjusted weighted percentage: 0.114 **%**

WORK SCOPE ITEMS:

Maintenance of traffic

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

American Roadway Logistics

Statutory Agent Signature

Heidi A. Claxton
Statutory Agent Name (please print)

President
Statutory Agent Title (please print)

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January 20, 2016

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Letting Manager
Division of Construction Management, First Floor
Mail Stop 5100
1980 West Broad Street
Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:
G&T Associates
11925 Pearl Road
Strongsville OH 44136

Phone Number: 440-572-0555
State of Incorporation: OH
Tax ID: 34-1506300

Project goal certification type used on this project: New, Small, Local, EDGE;

Adjusted weighted percentage: 0.070 **%**

WORK SCOPE ITEMS:

Maintenance of traffic / traffic control / landscape / structural design

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

G&T Associates

Statutory Agent Signature

KIRAN PATEL, P.E., P.S.
Statutory Agent Name (please print)

VICE-PRESIDENT
Statutory Agent Title (please print)

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January 20, 2016

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Letting Manager
Division of Construction Management, First Floor
Mail Stop 5100
1980 West Broad Street
Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:

B&B Wrecking & Excavating
4510 East 71 St Street Suite 6
Cleveland OH 44105

Phone Number: 216-429-1700
State of Incorporation: OH
Tax ID: 34-0877664

Project goal certification type used on this project: New, Small, Local EDGE;

Adjusted weighted percentage: 3.324%

WORK SCOPE ITEMS:

Industrial demolition

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

B&B Wrecking & Excavating

Statutory Agent Signature

Brian J. Baumann
Statutory Agent Name (please print)

President
Statutory Agent Title (please print)

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January 20, 2016

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Letting Manager
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Mail Stop 5100
1980 West Broad Street
Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:

Lightning Demolition & Excavating
3300 E. 87th St.
Cleveland OH 44127

Phone Number: 216-883-0017
State of Incorporation: OH
Tax ID: 34-1794461

Project goal certification type used on this project: New, Small, Local EDGE;

Adjusted weighted percentage: 2.656%

WORK SCOPE ITEMS:

Residential demolition

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

Lightning Demolition & Excavating

Statutory Agent Signature

Bob Deskins
Statutory Agent Name (please print)

President
Statutory Agent Title (please print)

2608 Great Lakes Way ● Hinckley, OH 44233-9590 ● www.tglcc.com
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THE GREAT LAKES CONSTRUCTION CO.

January 20, 2016

Ohio Department of Transportation
Letting Manager
Division of Construction Management, First Floor
Mail Stop 5100
1980 West Broad Street
Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:

TranSystems Corporation of Ohio
55 Public Square, Suite 1900
Cleveland, OH 44113

Phone Number: 216-861-1780
State of Incorporation: OH
Tax ID: 36-4269079

Project goal certification type used on this project: New, Small, (Local) EDGE;

Adjusted weighted percentage: 0.332%

WORK SCOPE ITEMS:

GCRTA Track design

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

TranSystems Corporation of Ohio

Statutory Agent Signature

NABIL FARAH, PE
Statutory Agent Name (please print)

ASSISTANT VICE PRESIDENT
Statutory Agent Title (please print)

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January 20, 2016

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Letting Manager
Division of Construction Management, First Floor
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1980 West Broad Street
Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:

Coleman Development, Inc
3580 E. 93rd St.
Cleveland OH 44105

Phone Number: 216-441-7615
State of Incorporation: OH
Tax ID: 34-1309514

Project goal certification type used on this project: New, Small, (Local) EDGE;

Adjusted weighted percentage: 1.378%

WORK SCOPE ITEMS:

Asbestos abatement

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

Coleman Development, Inc

Statutory Agent Signature

Mark Coleman
Statutory Agent Name (please print)

Vice President
Statutory Agent Title (please print)

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January 20, 2016

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Letting Manager
Division of Construction Management, First Floor
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Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:

Integral Management — Phone Number: 216.533.7640
11470 Euclid Avenue — State of Incorporation: Ohio
Cleveland, OH 44106 — Tax ID: 30-0035800

Project goal certification type used on this project: New, Small, Local, EDGE; Adjusted weighted percentage: 0.426 %

WORK SCOPE ITEMS:

Workforce Development Consultant

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

INTEGRAL MANAGEMENT

Authorized Agent Signature

June E. Taylor
Authorized Agent Name (please print)

President/CEO
Authorized Agent Title (please print)

THE GREAT LAKES CONSTRUCTION CO.

January 20, 2016

Ohio Department of Transportation
Letting Manager
Division of Construction Management, First Floor
Mail Stop 5100
1980 West Broad Street
Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:

Suburban Maintenance & Construction, Inc. — Phone Number: 440-237-7765
18330 York Road — State of Incorporation: OH
North Royalton OH 44133 — Tax ID: 34-1736236

Project goal certification type used on this project: New, Small, Local, EDGE;

Adjusted weighted percentage: 0.284%

WORK SCOPE ITEMS:

Caissons

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

Suburban Maintenance & Construction, Inc.

Statutory Agent Signature

Michael B. Fesler
Statutory Agent Name (please print)

Secretary & General Counsel
Statutory Agent Title (please print)

THE GREAT LAKES CONSTRUCTION CO.

January 20, 2016

Ohio Department of Transportation
Letting Manager
Division of Construction Management, First Floor
Mail Stop 5100
1980 West Broad Street
Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:
RAR Contracting
5350 Transportation Blvd
Garfield Heights OH 44125

Phone Number: 440-735-1946
State of Incorporation: OH
Tax ID: 51-0513035

Project goal certification type used on this project: New, Small, Local, EDGE;

Adjusted weighted percentage: 4.247 %

WORK SCOPE ITEMS:

Producer - concrete

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

RAR Contracting

Statutory Agent Signature

Keith L. Rogers
Statutory Agent Name (please print)

President
Statutory Agent Title (please print)

2608 Great Lakes Way ● Hinckley, OH 44233-9590 ● www.tglcc.com
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THE GREAT LAKES CONSTRUCTION CO.

January 20, 2016

Ohio Department of Transportation
Letting Manager
Division of Construction Management, First Floor
Mail Stop 5100
1980 West Broad Street
Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:
Chieftain Trucking & Excavating
3926 Valley Rd Ste 300
Cleveland OH 44109

Phone Number: 216-485-8034
State of Incorporation: OH
Tax ID: 34-1708025

Project goal certification type used on this project: New, Small, Local, EDGE;

Adjusted weighted percentage: 5.043 %

WORK SCOPE ITEMS:

Water line, storm sewer, sanitary sewer

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

Chieftain Trucking & Excavating

Aileen Martin
Statutory Agent Signature

Eileen Martin
Statutory Agent Name (please print)

President
Statutory Agent Title (please print)

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January 20, 2016

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Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:

Ballast Fence
19501 S. Miles Rd Suite #2
Warrensville Hts. OH 44128

Phone Number: 216-662-2436
State of Incorporation: OH
Tax ID: 34-1761479

Project goal certification type used on this project: New, Small, Local, EDGE;

Adjusted weighted percentage: 0.313%

WORK SCOPE ITEMS:

Fencing

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

Ballast Fence

Ann M. Nerone, Pres. (SN)
Statutory Agent Signature

Ann M. Nerone
Statutory Agent Name (please print)

President
Statutory Agent Title (please print)

2608 Great Lakes Way ● Hinckley, OH 44233-9590 ● www.tglcc.com
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January 20, 2016

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Letting Manager
Division of Construction Management, First Floor
Mail Stop 5100
1980 West Broad Street
Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:

Cook Paving & Construction
11360 Brookpark Rd Ste 212
Cleveland OH 44130

Phone Number: 216-267-7705
State of Incorporation: OH
Tax ID: 34-0703232

Project goal certification type used on this project: New, Small, Local, EDGE;

Adjusted weighted percentage: 2.486%

WORK SCOPE ITEMS:

Asphalt paving, CPP duct

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

Cook Paving & Construction

Statutory Agent Signature

Linda Fletcher
Statutory Agent Name (please print)

President
Statutory Agent Title (please print)

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January 20, 2016

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Letting Manager
Division of Construction Management, First Floor
Mail Stop 5100
1980 West Broad Street
Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:

Denise's Flagging & Construction
4541 St. Germain Blvd.
Warrensville Hts. OH 44128

Phone Number: 216-403-2429
State of Incorporation: OH
Tax ID: 71-0990119

Project goal certification type used on this project: New, Small, Local, EDGE;

Adjusted weighted percentage: 0.474%

WORK SCOPE ITEMS:

GCRTA Flagging

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

Denise's Flagging & Construction

Denise Stallworth
Statutory Agent Signature

Denise STALLWORTH
Statutory Agent Name (please print)

Owner
Statutory Agent Title (please print)

2608 Great Lakes Way ● Hinckley, OH 44233-9590 ● www.tglcc.com
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THE GREAT LAKES CONSTRUCTION CO.

January 20, 2016

Ohio Department of Transportation
Letting Manager
Division of Construction Management, First Floor
Mail Stop 5100
1980 West Broad Street
Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:

Consulting Engineering, Inc.
13477 Prospect Rd Suite 214
Strongsville OH 44149

Phone Number: 440-238-9699
State of Incorporation: OH
Tax ID: 20-4275786

Project goal certification type used on this project: New, Small, Local, EDGE;

Adjusted weighted percentage: 0.142%

WORK SCOPE ITEMS:

Storm sewer / water line / survey design

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

Consulting Engineering, Inc.

Statutory Agent Signature

RAY C.S. CHAN
Statutory Agent Name (please print)

PRESIDENT
Statutory Agent Title (please print)

2608 Great Lakes Way ● Hinckley, OH 44233-9590 ● www.tglcc.com
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January 20, 2016

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Letting Manager
Division of Construction Management, First Floor
Mail Stop 5100
1980 West Broad Street
Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:

DHDC Engineering Consulting Services
2390 Advanced Business Center Drive
Columbus OH 43228

Phone Number: 614-527-7656
State of Incorporation: OH
Tax ID: 32-0376762

Project goal certification type used on this project: New, Small, Local, EDGE;

Adjusted weighted percentage: 0.185%

WORK SCOPE ITEMS:

SUE / Geotechnical design

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

DHDC Engineering Consulting Services

Statutory Agent Signature

MOHAMMED O. HAQUE
Statutory Agent Name (please print)

PRESIDENT
Statutory Agent Title (please print)

2608 Great Lakes Way ● Hinckley, OH 44233-9590 ● www.tglcc.com
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January 20, 2016

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Letting Manager
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Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:

The CADD Dept.
13916 Euclid Ave Ste 5
Cleveland OH 44112

Phone Number: 216-269-5901
State of Incorporation: OH
Tax ID: 32-0207160

Project goal certification type used on this project: New, Small, Local, EDGE;

Adjusted weighted percentage: 0.028%

WORK SCOPE ITEMS:

Drafting

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

The CADD Dept.

Statutory Agent Signature

Wayne Andre Grant
Statutory Agent Name (please print)

President / CEO
Statutory Agent Title (please print)

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RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:
Interstate Safety & Service, Inc.
3566 E. 55th Street
Cleveland OH 44105

Phone Number: 216-641-6776
State of Incorporation: OH
Tax ID: 34-1334532

Project goal certification type used on this project: New, Small, Local, EDGE;

Adjusted weighted percentage: 2.720%

WORK SCOPE ITEMS:

Trucking

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

Interstate Safety & Service, Inc.

Statutory Agent Signature

Stacey M Allen
Statutory Agent Name (please print)

President
Statutory Agent Title (please print)

2608 Great Lakes Way ● Hinckley, OH 44233-9590 ● www.tglcc.com
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January 20, 2016

Ohio Department of Transportation
Letting Manager
Division of Construction Management, First Floor
Mail Stop 5100
1980 West Broad Street
Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:
Key Cable & Supply
4037 Genoa Rd
Perrysburg OH 43551

Phone Number: 419-837-6181
State of Incorporation: OH
Tax ID: 20-2347525

Project goal certification type used on this project: New, Small, Local, EDGE;

Adjusted weighted percentage: 1.765%

WORK SCOPE ITEMS:

Electrical material supply

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

Key Cable & Supply

Andrea K. Supplee
Statutory Agent Signature

Andrea K. Supplee
Statutory Agent Name (please print)

President
Statutory Agent Title (please print)

2608 Great Lakes Way ● Hinckley, OH 44233-9590 ● www.tglcc.com
Office (330) 220-3900 ● Fax (330) 220-7670 ● Eng./Est. Fax (330) 220-3998

An Equal Opportunity Employer

THE GREAT LAKES CONSTRUCTION CO.

January 20, 2016

Ohio Department of Transportation
Letting Manager
Division of Construction Management, First Floor
Mail Stop 5100
1980 West Broad Street
Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:
RWJ Wiring
1287 Marquette St. Suite 3
Cleveland OH 44114

Phone Number: 216-261-7959
State of Incorporation: OH
Tax ID: 27-2278488

Project goal certification type used on this project: New, Small, Local, EDGE;

Adjusted weighted percentage: 6.491%

WORK SCOPE ITEMS:
GCRTA Electrical

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

RWJ Wiring

Statutory Agent Signature

Michael Bullard
Statutory Agent Name (please print)

President
Statutory Agent Title (please print)

2608 Great Lakes Way ● Hinckley, OH 44233-9590 ● www.tglcc.com
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THE GREAT LAKES CONSTRUCTION CO.

January 20, 2016

Ohio Department of Transportation
Letting Manager
Division of Construction Management, First Floor
Mail Stop 5100
1980 West Broad Street
Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:
Advanced Engineering Consultants (AEC)
1405 Dublin Road
Columbus OH 43215

Phone Number: 614-486-4778
State of Incorporation: OH
Tax ID: 31-1612308

Project goal certification type used on this project: New, Small, Local, EDGE;

Adjusted weighted percentage: 0.259%

WORK SCOPE ITEMS:
Lighting/Utility/Mechanical/Electrical Design

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

Advanced Engineering Consultants, LLC

Lisa Huang, Ph.D., PE, RCDD
President

2608 Great Lakes Way ● Hinckley, OH 44233-9590 ● www.tglcc.com
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THE GREAT LAKES CONSTRUCTION CO.

January 20, 2016

Ohio Department of Transportation
Letting Manager
Division of Construction Management, First Floor
Mail Stop 5100
1980 West Broad Street
Columbus, OH 43223

RE: ***Project 163000 Cuyahoga County | Commitment Letter***

To Whom It May Concern,

The company listed below will be providing the work scope on the above referenced project as detailed below.

VENDOR INFORMATION:

Cuyahoga Fence, LLC
3100 East 45 Suite #516
Cleveland OH 44127

Phone Number: 216-830-2200
State of Incorporation: OH
Tax ID: 26-3687078

Project goal certification type used on this project: New, Small, Local, EDGE;

Adjusted weighted percentage: 0.795%

WORK SCOPE ITEMS:

Fencing

Sincerely,

THE GREAT LAKES CONSTRUCTION CO.

George J. Palko, PE
President & CEO

Cuyahoga Fence, LLC

Rita Samorczor
Statutory Agent Signature

Rita Samorczor
Statutory Agent Name (please print)

Managing Member
Statutory Agent Title (please print)

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PART F.10:

APPENDIX 10 - DRAFT DIVERSITY, INCLUSION AND OUTREACH PLAN (DIOP)

Opportunity Corridor – Project 2

ODOT Project 163000
CUY – 10 – 20.98
PID 98695

Draft
Diversity, Inclusion and Outreach Plan

The Great Lakes Construction Co.

January 20, 2016

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   b. Interaction with Local Construction Union Representation
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INTRODUCTION

This Diversity, Inclusion and Outreach Plan (DIOP) incorporates best practices from a host of varied and successful experiences and will target three key areas:

- Business Development
- Workforce Development
- Youth Education

The DIOP will define key leadership roles and responsibilities detailed below. It will also define management and reporting needs as well as evaluation criteria by which program success can be measured.

DIVERSITY AND INCLUSION LEADERSHIP AND ORGANIZATION

A strong and implementable DIOP begins with its leadership. The active management of the ODOT approved DIOP will be by DB Diversity / Outreach Lead Manager Glen Shumate. Glen will also lead the Business Development Section of the DIOP. Glen reports directly to Jason Fischer, PE who is the DB Project Manager of the project. Glen will be assisted by June Taylor and Jackie Jacob. June Taylor will lead the Workforce Development Section while Jackie Jacob will lead the Youth Education Section of the DIOP along with project specific goal tracking (see Table F.10.1).

GLEN SHUMATE
DB DIVERSITY / OUTREACH LEAD MANAGER

Role & Responsibility

Glen will be the DB Diversity / Outreach Lead Manager. Glen, who is the owner of COMMASA, will report directly to DB Project Manager Jason Fischer.

Glen's experience in Cleveland and his understanding of the area's need for diversity and inclusion along with his recent experience with ODOT on the George V. Voinovich / Innerbelt Bridge design-build project make him an excellent team member for this project. Glen will lead our DBT to ensure that community involvement, diversity and inclusion with new, small, local and socially and economically disadvantaged businesses is at the forefront of all task force meetings during the design, buyout and construction of the project. Glen will work with our team to make sure all of the OC2 Project expectations are all exceeded. Glen will execute our DIOP.

JACQUELINE (JACKIE) JACOB
CONTRACTOR DIVERSITY / OUTREACH LEAD MANAGER

Role & Responsibility

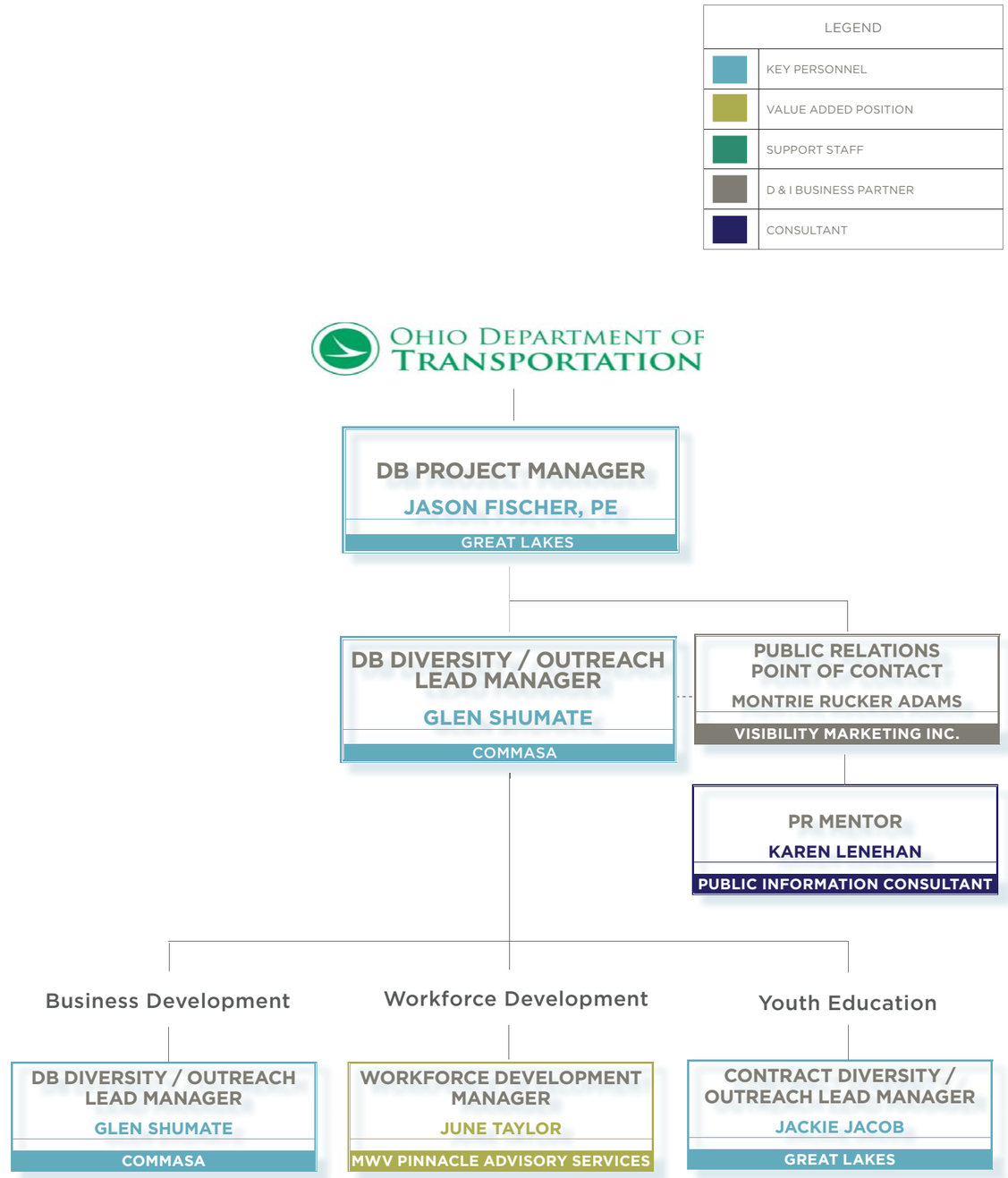
Jackie will work with Glen during the buyout of the project to ensure all project goals are attained. She will also keep track monthly of all project goals, including the Wards 4, 5 and 6 On the Job Training and the project specific Fannie Lewis Law workforce hours. Jackie is a full time employee at The Great Lakes Construction Co. (GLC) and therefore will report directly to Jason Fischer.

Jackie will also lead the charge in reaching out and working with the local programs established for Youth Education as further detailed in our DIOP.

JUNE TAYLOR – VALUE ADDED POSITION
WORKFORCE DEVELOPMENT

Role & Responsibility

June will lead the efforts under Glen's supervision in local Workforce Development. This is a critical component for the success of ODOT's Diversity, Outreach and Inclusion goals on this project. The intent of this component is to make sure the proper focus and attention is made in the area of workforce development in Wards 4, 5 and 6. Under June's guidance, the successful workforce development in these Wards will not only benefit this project and the local community but also will help establish a workforce base for future Opportunity Corridor and other local construction projects



BUSINESS DEVELOPMENT

The goal of the Business Development is to mentor the New, Small, Local and EDGE designers, contractors and suppliers on how to conduct business with ODOT. This education will allow them to work more efficiently on this project while gaining an understanding on how to pursue and execute work on future ODOT projects. The DBT will accomplish this through outreach and mentoring.

Outreach

The GLC team participated in ODOT's Outreach Event for this project which was held on December 7, 2015. In addition, our team held an Outreach Event on Monday December 21, 2015 with local New, Small, Local and EDGE contractors and material suppliers.

Community Outreach meetings will be held monthly until all New, Small, Local and EDGE project goals have been achieved.

Project design and construction scope packages will be broken down into manageable scope packages for these New, Small, Local and EDGE businesses. These smaller work scope packages allows for more participation from these companies.

Mentoring

Mentoring of project New, Small, Local and EDGE businesses will consist of the following key topics to help educate these companies how to conduct business with ODOT. These key topics are listed below and will be modified as needed from the feedback received by ODOT and other local stakeholders.

Topic 1: Pre-Bid Workshop

- The Pre-Bid workshop topics will include:
- ODOT Pre-qualification
- Small, EDGE and DBE Certifications
- Contract Documents
- ODOT Project Drawings
- ODOT Standard Drawings
- ODOT Construction and Material Specifications
- Insurance
- Bonding
- Quoting Project Scope Packages
- Estimating Scope Packages
- Understanding the Cost of Work
- Cash Flow

Topic 2: Construction Workshop

The Construction workshop topics will include:

- Construction Scheduling
- Execution of the Work
- Certified Materials
- ODOT's Manual of Procedures

Topic 3: Post-Construction Workshop

The Post-Construction workshop topics will include:

- How to Get Paid, Submitting Invoices
- Certified Payroll
- Project Closeout

Topic 4: Design Consultant Workshop

The Design Consultant workshop topics will include:

- ODOT Pre-qualification
- Small, EDGE and DBE Certifications

Four hour workshop sessions for each topic will be led by the DBT project members along with the appropriate ODOT personnel. Follow up one on one meetings, as needed, will be determined on a case by case basis. Some of the companies that have not conducted business with ODOT in the past will receive additional training, as needed, by the appropriate project team members.

Businesses interested in ODOT's Mentor-Protégé Program will be referred to ODOT for further instruction.

GLC and GPD will mentor a sub-contractor and two designers / consultants as part of ODOT's Mentor-Protégé Program.

TABLE F.10.1 – DIVERSITY, INCLUSION AND OUTREACH PLAN APPROACH

BUSINESS DEVELOPMENT	WORKFORCE DEVELOPMENT	YOUTH EDUCATION
Leadership GLEN SHUMATE Diversity, Inclusion and Outreach Consultant	***Leadership*** JUNE TAYLOR Workforce Development Consultant	***Leadership*** JACKIE JACOB Contractor Diversity / Outreach Lead Manager
Objective Help NEW businesses understand how to do business with ODOT	***Objective*** Achieve 20% Cleveland residency & OJT goals and remove workforce barriers	***Objective*** Showcase construction opportunities to local youth
Key Tasks/Activities • Monthly outreach meetings • Mentoring / workshops » Pre-Bid » Construction » Post-Construction » Design	***Key Tasks/Activities*** • On-site and outreach meetings • Interaction with local construction union representatives • Removing workforce barriers	***Key Tasks/Activities*** • Involvement in local youth education programs » ACE Mentoring » CMSD STEM Engagement Pilot Program » Boys & Girls Club

GPD will mentor new MBE firm Cosmos Technologies on roadway design. Cosmos joined GPD's Minority Business Incubator in the spring of 2015. Headquartered in Pittsburgh, PA, Cosmos is a civil engineering, construction management and inspection, environmental, energy management and surveying company. The firm came to Northeast Ohio in 2013 with the hopes of expanding its footprint in a variety of public works and water infrastructure projects. We will work with the firm to obtain some level of ODOT pre-qualification as a result of their anticipated design efforts on the project.

GPD will mentor G&T Associates on design tasks associated with roadway to help them re-establish their ODOT pre-qualification status. G&T is a Local, Small, Minority firm specializing in civil. mechanical and analytical engineering and planning, design, surveying and construction phase services to the public and private sector since 1984.

WORKFORCE DEVELOPMENT

The Diversity and Inclusion Consultant will work with Ohio Means Jobs to identify residents in Wards 4, 5 and 6 to give them an opportunity to work in the design and construction fields; specifically an opportunity to work on this project. This engagement will assist the DBT with On the Job Training goals for the project.

Workforce Development will be accomplished by:

- On-site and outreach meetings
- Interaction with local construction union representatives
- Removing workforce barriers

On-site and Outreach Meetings

Monthly workforce meetings will be conducted within a mile of the project site to inform interested individuals of what design and construction opportunities are available on this project and in the construction industry. This meeting will be managed by Workforce Development Consultant June Taylor under the guidance of the Diversity and Inclusion Consultant Glen Shumate. The intent of these meetings is to open lines of communication to help the community, designers and contractors better understand the wants and needs of each other. These meetings will promote stronger communication and, more importantly, a sense of trust amongst all of the Wards.

Interaction with Local Construction Union Representation

It is anticipated that local construction union representatives will be at the on-site meetings to assist with questions that the local community may have with regards to joining a construction union.

Removing Workforce Barriers

These meetings will generate much discussion on the barriers to join the workforce. Some of these barriers include:

- How to join a union
- What work is really available and when is it available
- What level of education is required
- Is a driver license required

This critical feedback will be used by our workforce consultant to create solutions to help remove these barriers. This is the most challenging issue with workforce development but the most important one to solve. Because of the impact these barriers present to successful Diversity and Inclusion goals, a Workforce Development Consultant was engaged to support the team. Once solutions are identified, additional project meetings will be held with the local community to start the process of building up the local community workforce on this project and in the construction community.

This project alone will not satisfy the needs of the local community, therefore, the goal of this workforce development plan is to help increase the local workforce for the entire Cleveland construction community.

To assist with keeping open lines of communication which will help foster attendance at our Workforce events, we are including the community involvement activities below.

Our team will host two community outreach events near the project site either at an agreed upon community center or church during each construction season. The goal of these meetings will be for our team and the community to get to know each other to help keep lines of communication open.

Our team will sponsor a local community service project. This project will be discussed throughout the duration of the project with the Opportunity Corridor Inclusion and Advisory Committee. The service project will start near the end of the completion of the project. GLC has completed local service projects in the past and it's a great way to build up relations with the local community.

YOUTH EDUCATION

The success of educating a local community on workforce development and diversity and inclusion must include and begin with the youth in a community.

The goal of the Youth Education Section will be to communicate to the local youth in the community what opportunities are available to them in the construction industry. This youth education will provide the information for them to decide if a career in design and/or construction is for them. Youth Education is a key component of for future Workforce Development.

Jackie Jacob will lead the Youth Education Section on this project due to her recent successful experiences with similar programs.

The GLC DBT will actively participate in the following local youth education programs.

ACE Mentoring

Our project team will work with John Hay High School students during the fall and winter of 2016 / 2017 to assist them in preparing for a spring 2017 competition where team members have the opportunity to win scholarships for college and possible internship opportunities. This will consist of seven (7) two (2) hour sessions at the school.

CMSD STEM Engagement Pilot Program

Four (4) classroom sessions with 7th and 8th grade students from three Ward 4, 5 and 6 elementary schools such as Anton Grdina, George Washington Carver, Bolton or schools interested in this partnership opportunity will be held to discuss general design and construction topics, informative hands-on challenges and activities along with project site visits. These sessions will be a minimum of two (2) hours in duration.

Boys & Girls Clubs

Three (3) Presentations will be given at Boys & Girls Club sites in Wards 4, 5, and 6 for a total of nine (9) presentations. Careers in the design and construction industry will be discussed at these meetings. Involvement from representatives from the project New, Small, Local and EDGE will be used to help communicate success stories to the participants. These presentations will be a minimum of two (2) hours in duration.

OPPORTUNITY CORRIDOR INCLUSION AND ADVISORY COMMITTEE

A Partnering session will be held with the Opportunity Corridor Inclusion and Advisory Committee within 60 days of award of the project. DB Diversity / Outreach Lead Manager Glen Shumate will be the main contact between GLC and the Committee. Monthly meetings will be held with the Committee throughout the duration of the project to discuss project goals.

MANAGEMENT OF CHANGE

This Diversity, Inclusion and Opportunity Plan is a living document and comments from ODOT, the Opportunity Corridor Inclusion and Advisory Committee and other project stakeholders approved by ODOT will be used to update the DIOP as needed. All changes must be approved by ODOT and within the project scope requirements.

REPORTING

The following items will be tracked per scope section 6.2 - Diversity Inclusion and Outreach:

- Project Outreach Database will be updated bi-weekly.
- Project goals for New, Small, Local and EDGE will be updated bi-weekly based off of amount under contract and amount completed and paid.
- Project goals for On the Job Training will be updated bi-weekly.
- Project goals for City of Cleveland Residents will be updated bi-weekly.

RATING DIOP SUCCESS

The success of the DIOP will be determined with the successful execution of the following figures in each category.

1. New Business Project Participation (minimum of 2%)
2. Small Business Project Participation (minimum of 2%)
3. Local Business Project Participation (minimum of 8%)
4. EDGE Business Project Participation (minimum of 8%)
5. OJT Ward 4, 5 and 6 (minimum of 10,000 hours)
6. City of Cleveland Residents (minimum of 20% of project total hours)
7. Mentoring of a design and a construction company
8. Community outreach events (4 each)
9. Community service project (1 each)
10. ACE Mentoring (14 team hours)
11. CMSD STEM Engagement Pilot Program (24 team hours)
12. Boys & Girls Clubs (18 team hours)

PROJECT OUTREACH DATABASE

Type of Business	Work Type	Company Name	Contact	Initial Contact Date	Method of Contact	2nd Contact Date	Used on Project	Comments
EDGE	Lighting & Utility Design	AEC	Lisa Huang	1/13/2016	Phone & Email		Yes	
EDGE	Bridge Painting	Athos Contracting	John Scordos	1/6/2016	Email	1/11/2015	No	Did not quote
EDGE	Fence	Ballast Fence	Alex Kocher	12/21/2015	Phone & Email	1/11/2015	Yes	
EDGE	Asphalt Paving	Barbicas Construction	Sean Woods	1/5/2016	Phone & Email	1/11/2015	No	Other EDGE subcontractor used
EDGE	Steel Erection-RTA	Chagrin Valley Steel Erectors	John Ruple	12/14/2015	Phone & Email	1/7/2015	No	responded not quoting
EDGE	Sanitary Sewer Const	Chieftain Trucking & Excavating	Angelo Martin	12/1/2015	Phone & Meeting	1/11/2015	Yes	
EDGE	Storm Sewer Const	Chieftain Trucking & Excavating	Angelo Martin	12/1/2015	Phone & Meeting	1/11/2015	Yes	
EDGE	Waterline Const	Chieftain Trucking & Excavating	Angelo Martin	12/1/2015	Phone & Meeting	1/11/2015	Yes	
EDGE	Water Design	Consulting Engineering, Inc.	Ray Chan	1/13/2016	Phone & Email		Yes	
EDGE	Asphalt Paving	Cook Paving & Construction	Jeff Jones	12/21/2015	Phone & Meeting	1/11/2015	Yes	
EDGE	CPP Duct	Cook Paving & Construction	Jeff Jones	12/21/2015	Phone & Meeting	1/11/2015	Yes	
EDGE	Fence	Cuyahoga Fence, LLC	Don Zaderozny	12/21/2015	Phone & Meeting	1/11/2015	No	Other EDGE subcontractor used
EDGE	RTA Flagging	Denise's Flagging & Construction	Denise Stallworth	12/21/2015	Email	1/11/2015	Yes	
EDGE	SUE/Geotechnical Design	DHDC Engineering Consulting Services	Savvac Sophocle	1/13/2016	Phone & Email		Yes	
EDGE	Asphalt Paving	Ebony Construction	Chad Hartman	1/5/2016	Phone & Email	1/11/2015	No	responded not quoting
EDGE	Metal Fabrication	Fabrication Group, LLS	Patricia Setlock	12/15/2015	Phone & Email		No	responded not quoting
EDGE	RTA Electrical	Gateway Electric, LLC	Rajinder Singh	12/15/2015	Phone & Email	12/28/2015	No	LOCAL subcontractor used
EDGE	RTA Electrical	Hogan Electric Company, LLC	John Hogan	1/5/2016	Phone & Email		No	responded not quoting
EDGE	Trucking	Interstate Safety & Service, Inc.	Tony Triafante	1/6/2015	Phone	1/11/2015	Yes	
EDGE	Resteel	Ivy Development Agency	Erik Johnson	12/28/2015	Email	1/11/2015	Yes	
EDGE	Concrete Sealing	Jadco	Mike Biegacki	1/6/2016	Email	1/11/2015	Yes	
EDGE	CPP Duct Supply	Key Cable & Supply	Andrea Supplee	12/21/2015	Email	1/11/2015	Yes	
EDGE	RTA Electrical	Minority Electric Co, Inc.	Erik Holston	1/8/2016	Phone & Email	1/11/2015	No	Did not quote
EDGE	Trucking	R.L. Cole	Curtis Thompson	1/6/2016	Phone	1/11/2015	No	Other EDGE subcontractor used
EDGE	Trucking	Ramos Trucking Corp	Jose Ramos	1/6/2016	Phone & Email	1/11/2015	No	Did not quote
EDGE	Concrete Redimix	RAR	Keith Rogers	12/21/2015	Phone & Meeting	1/11/2015	Yes	
EDGE	Pipe Supply	Rath Builders Supply, Inc.	Barb Rath	1/6/2016	Phone & Email	1/11/2015	No	Other EDGE subcontractor used
EDGE	Concrete Walks	RMI Cement, LLC	Lynn Courtney	1/6/2015	Phone & Email	1/11/2015	No	Not competitive
EDGE	Concrete Redimix	Rockport Construction & Materials	Jim Broz	12/21/2015	Phone & Meeting	1/11/2015	No	Other EDGE subcontractor used
EDGE	Seeding	Royal Landscape Gardening	Chuck Grasser	12/21/2015	Phone & Meeting	1/11/2015	No	NEW subcontractor used
EDGE	RTA Electrical	RWJ Wiring	Mike Ballard	12/21/2015	Phone & Meeting	1/11/2015	No	LOCAL subcontractor used
EDGE	Project Photos	Timeline Photography	Linda Reinert	1/7/2016	Email	1/11/2015	Yes	
EDGE	Marketing	Visibility Marketing, Inc,	Montrie Adams	12/1/2015	Phone & Email	1/11/2015	Yes	
EDGE	RTA Mechanical	Western Reserve Mechanical	Larry Moore	12/15/2015	Phone & Email		No	responded not quoting
EDGE	Paving Accessories	Zaymat Distributors	David Elbert	12/21/2015	Phone & Meeting	1/11/2015	No	Did not quote

NEW, SMALL, LOCAL & EDGE VENDOR COMMITMENT LIST

Type of Business	Work Type	Company Name	Contact	Initial Contact Date	Method of Contact	2nd Contact Date	Used on Project	Comments
NEW	Metal Fabrication	Beauty Craft Metal Fabrication, Inc.	Ron Walnsch	12/18/2015	Phone & Email		No	responded not quoting
NEW	Steel Erection-RTA	Chagrin Valley Steel Erectors	John Ruple	12/15/2015	Phone & Email	1/7/2015	No	responded not quoting
NEW	Roadway Design	Cosmos Technologies	Elida Rraza	9/1/2015	Phone & Email		Yes	
NEW	Metal Roofing	Courtad	Dennis Courtad	12/18/2015	Phone & Email	1/11/2015	Yes	
NEW	RTA Electrical	Gateway Electric, LLC	Rajinder Singh	12/15/2015	Phone & Email	12/28/2015	No	LOCAL subcontractor used
NEW	RTA Electrical	Hogan Electric Company, LLC	John Hogan	1/5/2016	Phone & Email		No	responded not quoting
NEW	Elevator	Kone	Dave Kone	12/15/2015	Phone & Email		Yes	
NEW	RTA Electrical	Minority Electric Co, Inc.	Erik Holston	1/8/2016	Phone & Email	1/11/2015	No	Did not quote
NEW	Masonry	Norm King Construction	Dave King	12/18/2015	Phone & Email	1/11/2015	No	not competitive
NEW	Marketing	Visibility Marketing, Inc,	Montrie Adams	12/1/2015	Phone & Email	1/11/2015	Yes	
NEW	Paving Accessories	Zaymat Distributors	David Elbert	12/21/2015	Phone & Meeting	1/11/2015	No	Did not quote
NEW	Seeding	ZscapeS	Julie Zaremba	12/21/2015	Phone & Meeting	1/11/2015	Yes	
SMALL	Asphalt	Barbicas	Sean Woods	1/6/2016	Phone & Email	1/11/2015	No	EDGE subcontractor used
SMALL	Bridge Fence	Cuyahoga Fence	Don Zadorozny	12/21/2015	Phone & Meeting	1/11/2015	No	EDGE subcontractor used
SMALL	Drafting	The CADD Dept.	Wayne Grant	9/1/2015	Phone & Email		Yes	
SMALL	Fence	Ballast Fence	Alex Kocher	11/30/2015	Phone & Email	1/11/2015	Yes	
SMALL	Maint of Traffic	American Roadway Logistics	Scott Hindulak	12/22/2015	Phone	1/11/2015	Yes	
SMALL	Photos	Timeline Photography	Linda Reinhart	1/7/2016	Email	1/11/2015	Yes	
SMALL	Readymix Concrete	RAR Contracting	Keith Rogers	12/21/2015	Phone & Meeting	1/11/2015	Yes	
SMALL	Readymix Concrete	Rockport	Jim Broz	12/21/2015	Phone & Meeting	1/11/2015	No	
SMALL	Resteel	Cuyahoga Bridge & Road	Joyce Schemp	1/8/2016	Phone & Email	1/12/2015	No	SMALL subcontractor used
SMALL	Resteel	Foundation Steel	Dan Dymarkowski	1/5/2016	Phone		No	responded not quoting
SMALL	Roadway/Structural Design	G&T Associates	Kiren Patel	9/1/2015	Phone & Email		Yes	
SMALL	RTA Electric	RWJ Wiring	Mike Ballard	12/21/2015	Phone & Meeting	1/11/2015	No	LOCAL subcontractor used
SMALL	RTA Flagging	Denise's Flagging	Denise Stallworth	12/21/2015	Email	1/11/2015	Yes	
LOCAL	Demolition	B&B Wrecking	Brian Baumann	11/30/2015	Phone & Email	1/11/2015	Yes	
LOCAL	Trucking Services	Brown Transfer	Mario Brown	12/21/2015	Phone & Meeting	1/11/2015	No	EDGE subcontractor used
LOCAL	Asbestos Abatement	Coleman Development	Dale Palmer	12/8/2015	Phone & Email	1/11/2015	Yes	
LOCAL	Demolition	Coleman Development	Dale Palmer	12/8/2015	Phone & Email	1/11/2015	No	Other LOCAL subcontractor used
LOCAL	MOT/Traffic/Survey/Env Design	Cosmos Technologies	Elida Rraza	9/1/2015	Phone & Email		Yes	
LOCAL	Paving Accessories	Cuyahoga Supply	Chris Muzzin	12/21/2015	Phone & Meeting	1/11/2015	Yes	
LOCAL	RTA Electrical	D.E. Williams Electric, Inc.	Ted Williams	12/14/2015	Phone & Email	12/28/2015	Yes	
LOCAL	Steel Erection-Bridge	Forest City Erectors	Rich Kreal	12/28/2015	Phone & Email	1/11/2015	No	Other LOCAL subcontractor used
LOCAL	Trucking Services	Interstate Safety	Vic Allen	1/6/2016	Phone	1/11/2015	Yes	
LOCAL	Soil Supply	Kurtz Bros.	Josh Hayden	12/21/2015	Phone & Meeting	1/11/2015	Yes	
LOCAL	Demolition	Lighting Demolition	Catana Deskins	11/30/2015	Phone & Email	1/11/2015	Yes	
LOCAL	Trucking Services	Midland Concrete & Sand	Zach Bergan	12/21/2015	Phone & Meeting	1/11/2015	No	EDGE subcontractor used
LOCAL	Trucking Services	R.L. Cole	Curtis Thompson	1/8/2016	Phone & Email	1/11/2015	No	EDGE subcontractor used
LOCAL	Architectural GCRTA	Robert Madison	Kevin Madison	9/1/2015	Phone & Email		Yes	
LOCAL	Trucking Services	S.B. Morabito	Tony Triafante	12/21/2015	Phone	1/11/2015	No	EDGE subcontractor used

NEW, SMALL, LOCAL & EDGE VENDOR COMMITMENT LIST

NEW

Vendor Name	Function of the Firm	Committed Percentage	Adjustment Factor	Adjusted Committed Percentage
Visibility Marketing, Inc.	Public Relations	0.540%	100%	0.540%
Zscape	Landscaping	0.653%	100%	0.653%
Kone Inc	GCRTA Elevator	0.526%	100%	0.526%
Courtad	GCRTA Metal Roof	0.284%	100%	0.284%
Cosmos Technologies	Roadway Design	0.088%	100%	0.088%
		NEW TOTAL		2.091%

SMALL

Vendor Name	Function of the Firm	Committed Percentage	Adjustment Factor	Adjusted Committed Percentage
Ivy Development Agency	Supply & Install Rebar	1.903%	100%	1.903%
American Roadway Logistics	Maintenance of Traffic	0.114%	100%	0.114%
G&T Associates	MOT/Traff/Landscape/Str	0.090%	100%	0.090%
		SMALL TOTAL		2.107%

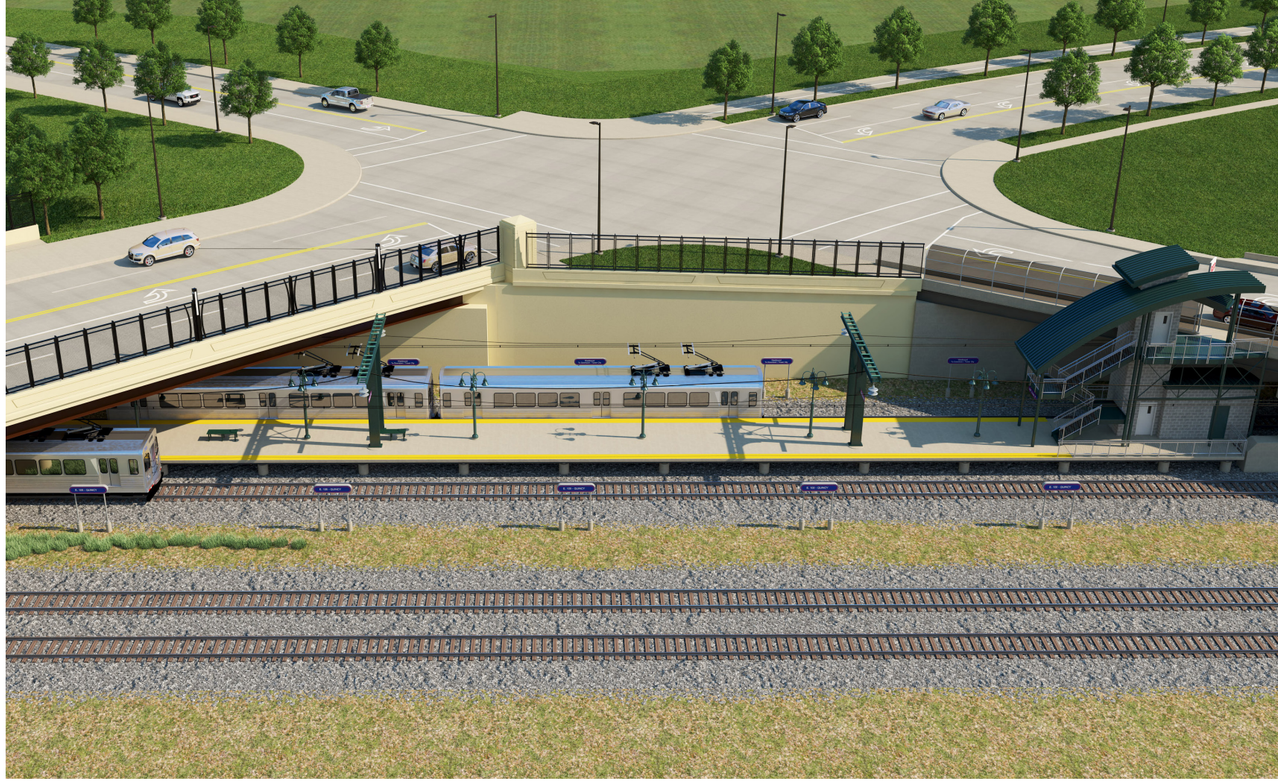
LOCAL

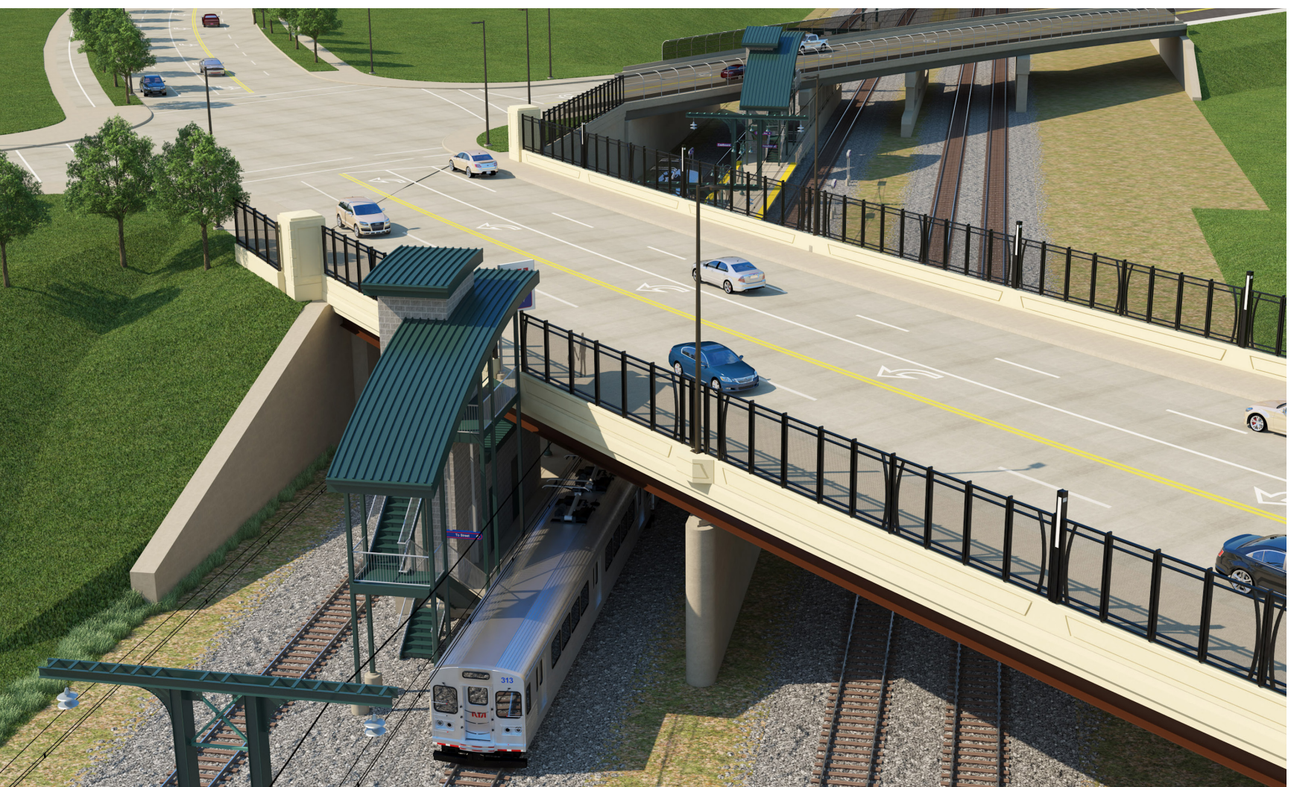
Vendor Name	Function of the Firm	Committed Percentage	Adjustment Factor	Adjusted Committed Percentage
B&B Wrecking & Excavating	Industrial Demo	3.324%	100%	3.324%
Lightning Demolition & Excavating	Residential Demo	2.656%	100%	2.656%
TranSystems Corporation of Ohio	GCRTA Track Design	0.332%	100%	0.332%
Coleman Development, Inc	Asbestos Abatement	1.378%	100%	1.378%
Integral Management	Workforce Devel.	0.426%	100%	0.426%
Suburban Maintenance & Constructio	Caissons	0.284%	100%	0.284%
		LOCAL TOTAL		8.400%

EDGE

Vendor Name	Function of the Firm	Committed Percentage	Adjustment Factor	Adjusted Committed Percentage
RAR Contracting	Producer-Concrete	4.247%	100%	4.247%
Chieftain Trucking & Excavating	Waterline	1.847%	100%	1.847%
Chieftain Trucking & Excavating	Storm Sewer	1.918%	100%	1.918%
Chieftain Trucking & Excavating	Sanitary Sewer	1.278%	100%	1.278%
Ballast Fence	Temporary Fence	0.313%	100%	0.313%
Cook Paving & Construction	Asphalt Paving	0.923%	100%	0.923%
Cook Paving & Construction	CPP Duct	1.563%	100%	1.563%
Denise's Flagging & Construction	RTA Flagging	0.474%	100%	0.474%
Consulting Engineering, Inc.	Storm/Water/Survey Design	0.142%	100%	0.142%
DHDC Engineering Consulting Servic	SUE/Geotechnical Design	0.185%	100%	0.185%
The CADD Dept.	Drafting	0.028%	100%	0.028%
Interstate Safety & Service, Inc.	Trucking	2.720%	100%	2.720%
Key Cable & Supply	Electrical Material Supply	2.841%	60%	1.705%
RWJ Wiring	GCRTA Electrical	1.491%	100%	1.491%
Advanced Engineering Consultants (	Lighting/Utility/Mechanical/Electrical Design	0.259%	100%	0.259%
Cuyahoga Fence, LLC	Permanent Fence	0.795%	100%	0.795%
		EDGE TOTAL		19.887%


313
RTA




313
RTA


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RTA