

ANNUAL REPORT BY THE DESIGN BUILD EXECUTIVE COMMITTEE REGARDING THE STATUS OF THE CITY OF BALTIMORE'S DESIGN BUILD PROJECTS

As mandated by the Design Build Project Delivery Procedures approved by the Board of Estimates on November 2, 2011, the Design Build Executive Committee (“DBEC”) is required to annually report on the description, status and participation by minority and women owned businesses on all pending Design Build projects. In addition, the DBEC makes recommendations regarding policy changes or implementation measures. The DBEC submits this Annual Report for 2019 covering the three projects currently under contract and approved by the DBEC and Board of Estimates.

I. DEPARTMENT OF TRANSPORTATION CENTRAL AVENUE PROJECT, TR 12317 2019

The Central Avenue Design-Build (DB) Project (“Project”) is Baltimore City’s Department of Transportation’s (“DOT”) first design-build project. It was advertised on September 2, 2015 and Notice to Proceed (NTP) was issued on June 15, 2016. The Project primarily consists of the reconstruction of Central Avenue between Lancaster Street and Baltimore Street into an urban boulevard. A key element of the Project is the extension of Central Avenue with a new Harbor Point Connector Bridge over the tidal inlet waters to the Harbor Point development site. The length of the Harbor Point Connector Bridge is approximately 260 feet. The total length of the roadway reconstruction on Central Avenue is approximately 3,200 linear feet (8 blocks). The scope of roadwork includes full-depth pavement reconstruction, concrete curb/gutter and sidewalk reconstruction, construction of ADA-compliant pedestrian ramps and driveway entrances within the Project limits, roadway drainage system improvements, new street and pedestrian lighting, new pavement marking and signing, upgrades to water, sewer, and conduit utilities, and new traffic and pedestrian signals.

A. Project Status as of July 2019

The Central Avenue Project was awarded to Allan Myers MD, Inc., (“Myers”) on March 30, 2016. The Contract amount was \$46,777,777.00. There are three Extra Work Orders totaling \$3,0474,400.00. The current Contract amount is \$49,852,177.00. The Project utilizes multiple funding sources including Federal Aid, Transportation Improvement Funds (TIF), and City Capital Improvement Funds.

• Schedule

- Notice to Proceed (NTP) was issued for June 15, 2016 and the original completion was to be June 2021, which is NTP plus 5 years.
- Myers’ originally proposed to complete the work by approximately early 2020. However, construction challenges and site conditions required schedule adjustments. Currently, the schedule has reverted to approximately the June 2021 time period.

- The Harbor Point Connector Bridge, which was part of Phase 1, was partially opened to traffic and pedestrians on July 2, 2018. Presently only the east sidewalk remains closed to pedestrians.
 - The contractor has completed Phase 1 construction of Central Avenue between Lancaster Street and Aliceanna Street except for construction of the Aliceanna Street Bridge. Phase 1 is approximately 95% complete. On-going Phase 1 work includes the north portion of the Aliceanna Street Bridge, final surface paving and traffic markings.
 - Phase 2, extending from beyond Aliceanna Street to just south of Baltimore Street, including coordination, submittals, approvals, and construction, is ongoing. Phases 1 and 2 include many elements of pedestrian amenities and streetscape elements. Phase 2 construction started in the Fall of 2018 and continues.
- Bozzuto Construction Inc., (“Bozzuto”) on behalf of Harbor East Development Group (Harbor East), is constructing a new 26 story Liberty East high-rise building which includes the new Whole Foods Market, luxury condominiums, and high-end apartments is located between Lancaster Street and Aliceanna Street (south to north) and Central Avenue and Eden Street (west to east). Liberty East is approaching completion with early occupancy in the summer of 2019. Rigorous coordination and cooperation have been necessary amongst all contractors. Work has progressed satisfactorily on both projects.
- **Scope Changes and Change Orders**
 - There have been several scope changes on the project under Phase 1 and 2. These have included: additional aesthetic treatments on the bridge, installation of more energy efficient lighting, a delay in positioning of the north crane near Ouzo Bay, structural concrete restoration to two sections of the Central Avenue culvert top slab (located between Lancaster and Fleet Streets), and relocation and addition of utility infrastructure to accommodate present and future City needs.
 - Change orders have included limiting staging areas, interactions with adjacent developers and property owners, time between bidding and awarding, various investigations for potential changes such as DPW’s backflow preventer or DOT’s realignment of the Lancaster Street intersection, prohibition of the staging of the south crane on a barge instead of on Harbor Point, unexpected field conditions, accommodation of businesses, and various necessary conduit design revisions. The change order requests originating from Myers are being actively addressed and resolved by the City. A limited few of the potential change orders may require resolution through the contract mandated City claims process.
- **Logistics (Ongoing Progress)**
 - The Fleet Street Bridge design is approved and utility work in this area has begun.
 - Design submittals are essentially complete for Phase 2 work.
 - The Phase 2 Streetscape design review is complete.
 - Construction submittals such as RFIs, materials selection, shop drawings, redline revisions continue to be submitted, reviewed and processed timely.
 - The City is coordinating with all stakeholders, property developers, contractors, City design and City construction management sections as needed.

- **Special Considerations**

- The Liberty East /Whole Foods high-rise has begun leasing apartment units.
- There have been work zone and construction overlaps between Bozzuto and Myers with several of them requiring changes to the Bozzuto schedule or construction and/or the Myers schedule and construction.
- Utility relocations and approvals are challenging, time consuming , and complicated. This is due in part to the involvement of 3rd party lessees as well as the abundance of active existing utilities in the corridor.
- The City has continued to conduct meetings and facilitate full communication within DOT and DPW, Myers and multiple stakeholders. The most recent public outreach meeting was conducted on March 26th, 2019.
- Traffic detours and congestion are ongoing challenges.
- In addition to being the City’s first DB project and one of DOT’s largest construction projects, this project is also technically very complex and located in a highly developed and growing portion of the City. Once the construction moves north of Aliceanna Street, we anticipate the work will progress smoothly toward completion by mid-2021.

B. Minority and Women Owned Business Participation

The Project is federally funded, and state Disadvantaged Business Enterprise standards apply, not the City’s MBE/WBE. Myers is meeting the established 30% overall DBE goal, 28% construction and 2% design goals as shown below. The breakouts below reflect the commitments that Myers had received at the time of bidding. Myers continues to make adjustments as the design becomes more complete, in order to meet the participation goals:

Design Phase DBE participation

		<u>Total Paid to Date</u>	
		<u>July 2019</u>	
Athavale, Lystad & Associates	\$428,500.00	\$453,466.72	105.83%
Floura Teeter Landscape Architects, Inc.	\$62,000.00	\$102,942.36	166.04%
J.K. Datta Consultants, Inc.*	\$206,500.00	\$0.00	0.00%
Findling, Inc.	\$299,500.00	\$293,121.45	97.87%
Synterra Ltd.	\$82,900.00	\$92,900.00	112.06%
Albrecht Engineering, Inc.	\$62,000.00	\$54,978.85	88.68%
Remline Corporation	\$82,900.00	\$88,428.52	106.67%
TOTAL DESIGN DBE PARTICIPATION		\$1,224,300.00 (2.46%)	
TOTAL DESIGN DBE PARTICIPATION THRU JULY 2019		\$1,085,837.90 (88.69%)	

Construction Phase DBE Participation

J&M Sweeping	\$250,000.00	\$32,369.85	12.95%
Barbie's Recycling & Hauling, Inc.	\$1,200,000.00	\$96,494.00	8.04%
Load Runner Trucking	\$1,200,000.00	\$317,635.25	26.47%
Quarry Products Unlimited, Inc.	\$155,000.00	\$0.00	0.00%
Machado Construction Co. Inc.	\$4,400,000.00	\$933,722.96	21.22%
Priceless Industries, Inc.	\$145,000.00	\$19,545.68	13.48%
Native Terrain Restoration Services	\$290,000.00	\$0.00	0.00%
Traffic Systems, Inc.	\$2,650,000.00	\$659,808.80	24.90%
Road Safety, LLC.	\$200,000.00	\$76,401.34	38.20%
Nasir and Associates, LLC.	\$2,500,000.00	\$2,490,140.83	99.61%
Mohawk Bridge & Iron Inc.	\$700,000.00	\$430,600.61	61.51%
Wilton Corporation	\$200,000.00	\$149,521.33	74.76%
Doughboy Hauling	\$15,694.97	\$15,694.97	100.00%
GE Frisco	\$165,181.12	\$160,684.11	97.28%
Hirshmugl Heine & Assoc.	\$4,680.00	\$4,680.00	100.00%
TNM Trucking	\$106,539.00	\$102,935.00	96.62%
Traffic Engineering Services	\$71,462.96	\$71,462.96	100.00%
Utility Imaging	\$13,937.50	\$13,937.50	100.00%
Handon Services	\$95,760.47	\$95,760.47	100.00%
Aaron's Concrete Pumping Inc.	\$14,100.14	\$14,100.14	100.00%
Ackerman & Baynes, LLC	\$182,835.87	\$182,835.87	100.00%
DACO Construction	\$49,804.91	\$49,804.91	100.00%
Rowen Concrete	\$2,146.58	\$2,146.58	100.00%
Sunrise Safety Services	\$18,479.52	\$18,479.52	100.00%
Keys Materials & Utilities	\$25,302.62	\$25,302.62	100.00%
CC's Industries, LLC	\$16,070.32	\$16,070.32	100.00%
Patrick Thomas Trucking	\$8,806.00	\$8,806.00	100.00%
M Luis Products	\$3,319.97	\$3,319.97	100.00%

TOTAL CONST. DBE PARTICIPATION **\$14,684,121.95 (29.45%)**

TOTAL CONST. DBE PARTICIPATION THRU JULY 2019 **\$5,992,261.59 (40.81%)**

TOTAL DBE PARTICIPATION **\$15,908,421.90 (31.91%)**

TOTAL DBE PARTICIPATION THRU JULY 2019 **\$7,078,099.49 (44.49%)**

C. Implementation and Policy Challenges with Recommendation

The Project is at approximately the mid-point stage - post procurement. The DOT is developing specific and detailed recommendations to submit to the DBEC regarding implementation

or policy challenges to enhance future DB procurements. The specific and detailed recommendations, upon completion, will be reviewed internally and submitted for the DBEC's consideration.

II. DEPARTMENT OF TRANSPORTATION COMPREHENSIVE CONDUIT FACILITY DESIGN, MANAGEMENT, AND CONSTRUCTION SERVICES PROJECT (PMAR) TR 16020

The Comprehensive Conduit Facility Design, Management, and Construction Services Project ("Project") is one of the Department of Transportation's ("DOT") and the City's first Program Manager at Risk projects. DOT approached the DBEC about the possibility of structuring the Project using a *Program Manager at Risk* ("PMAR") approach.

The PMAR delivery method is essentially a hybrid of the Design Build method. The DBEC concluded that given the similarity between this PMAR project and traditional design build projects that the Project should comply, to the greatest extent possible, with the Design Build Resolution of the BOE and be overseen by the DBEC. Suitability of the project for the PMAR approach was determined by several factors. During development of the Request for Proposals, DOT and the Conduit Section determined that an expedited schedule was required because untimely project execution would result in loss of available funding. Additionally, it was determined that the nature of the work is not conducive to Design-Bid-Build; inspection, design, construction, and database population must occur concurrently lending itself to Program/Asset Management. For maintaining the conduit infrastructure, design work does not necessarily dictate construction. Instead inspection reveals the need for design and then construction commences. The BOE agreed with the approach selected by DOT and DBEC and awarded the contract in August 2016.

The Project primarily consists of inspection of conduit manholes (i.e. the structural condition, duct occupancy, cable owner identification, etc.), installation of an asset security mechanism retrofitted to secure/monitor entry of conduit manholes and cable racks as needed; design, construction, excavation, modification, repair of manhole chimney top slab, manhole replacement, and conduit duct bank; construction management; data input into a GIS database; financial tracking and reporting; safety retrofits and program compliance system-wide.

A. Project Status as of June 2019

- Project Awarded to KCI-CG Tri-Venture ("KCI/CG") on August 10, 2016. Contract Amount \$26,108,286.00 (Professional Services - \$5,841,986.00 Construction - \$20,266,300.00) per year for five (5) years.
- Schedule Related
 - Notice to Proceed was issued for February 22, 2017.
 - The Contract expires February 20, 2022 with the option of two (2) one-year extensions.
- Scope Changes and Change Orders – no change orders have been executed to date, however, KCI/CG has requested the approval of several new items that were not included in the

original Contract. Conduit Division is currently negotiating pricing of these items with KCI/CG. At the completion of discussion, Conduit Division will generate the necessary paperwork for Administration's approval.

To date, multiple professional and construction services tasks have been completed. Professional services generally consist of manhole and tracing inspections, design of manholes, asset management support services, to mention a few.

Construction services generally consist of clearing obstructions in conduits, repairing/rehabilitating electric manholes. Tasks issued include construction of supplemental ducts for various BGE 4kV upgrades, construction of a parallel duct bank system along the North Avenue corridor, from Bentalou St to Milton Avenue, construction of conduit improvements along Greenmount Avenue from 29th St to East 43rd St.

Below is a summary of the various tasks executed under this Contract within the past year.

Professional Services		
Task	Scope	Status
Camden St Inspections	Cable tracing inspections	Completed
North Charles at Upnor Road Inspections	Cable tracing inspections	Completed
BGE Request Manhole Repair Inspections	Cable tracing inspections	Completed
Eutaw St, Howard St, and Hopkins Plaza/Park Ave Inspections	Cable tracing inspections	On-going
Port Covington Inspections	Cable tracing inspections	Completed
Stockholm St and Warner St Inspections	Cable tracing inspections	Completed
Edmondson Avenue Bridge Inspections	Cable tracing inspections	On-going
Madison St Pedestrian Bridge Inspections	Cable tracing inspections	On-going
Lovegrove Alley Inspections	Cable tracing inspections	On-going
E Mount Royal Ave and St Paul St	Design of MH	Completed
220 N Liberty Road	Design of MH	Completed
Lombard St and Hopkins Plaza	Design of MH	Completed
231 E Redwood St	Design of MH	Completed

Construction Services		
Task	Scope	Status
MH at E. Mount Royal Ave and St. Paul St	MH Reconstruction	Completed
MH at Whitelock-Newington Alley	MH Reconstruction	Completed
MH at E Baltimore St and N Eden St	MH Reconstruction	Completed
MH at North Ave and Bentalou St	MH Reconstruction	Completed
MH at N Charles St and W Fayette Ave	MH Reconstruction	Completed
MH at 220 N Liberty Street	MH Reconstruction	On-going
MH at 231 E Redwood St	MH Reconstruction	On-going
North Avenue Parallel Ductbank	Corridor Improvements	On-going
Greenmount Ave	Corridor Improvements	On-going
Park Heights Split Ducts	Corridor Improvements	Completed
Various BGE 4 kV Upgrades	Supplemental Ductbanks	Completed

- Logistics

Within this Contract, an allowance has been made for unanticipated reactive maintenance work. Reactive maintenance work consists of activities generated as a result of service requests received from the Conduit Maintenance Yard. These service requests typically consist of manhole frame and cover replacements, duct obstruction clearing, split ducting, etc. On the other hand, this Contract has also developed a proactive maintenance approach that focuses on identifying and attacking problem corridors before they result in service requests by the Conduit lessees.

Conducting proactive maintenance work requires developing criteria to rank and prioritize projects. The prioritization has been developed in a manner that optimizes existing and future Conduit Division resources. Capital drivers included in the ranking system include, but are not limited to: the condition of the asset, criticality of the damage to the asset, asset location in proximity to other projects/repairs, sociopolitical factors, estimated repair cost and availability of resources to repair the asset.

Conduit Program logistics for strategic planning and prioritization to rehabilitate segments of the system is determined by a multitude of factors. DOT's program inspection, records research, and asset management allows for determination of the following factors:

- Duct Obstruction/Duct Availability
- Alternative Duct Route
- Benefit to planned Duct Lease Work in the area
- Impacts of Cable Owners Service Outage
- Duct Material, Age, and Service life
- Adjacent Utility Impacts on Conduit
- Opportunity for Economic Development/Sociopolitical Priority
- Other planned/ongoing projects
- Structural Assessment
- External influences

A ranking system has been established which assigns points for the aforementioned criteria. This process will inform our Capital Planning strategy to prioritize many of the forecasted capital projects.

B. Minority and Women Owned Business Participation

The Project is not federally funded and as such, the City's MBE/WBE standards apply, not the State Disadvantaged Business Enterprise standards. KCI-CG is fully committed to meeting the established 27% MBE and 10% WBE goal for professional services and 27% MBE and 7% goal for construction. The breakouts below reflect MBE/WBE participation from Contract award through the end of FY19:

PARTICIPATION CHART CONTINUES ON FOLLOWING PAGE

Professional Services				
Consultant	Proposed Fee, Professional Services for Contract FY 19	Percentage of Professional Services Contract	Invoiced Thru FY 19 (Invoice 1 to 25)	Percentage of Professional Services Contract (Invoiced to Date)
AB Consultants, Inc.	\$ 140,095.68	2%	\$ 160,811.12	1%
Baker Engineering	\$ 186,340.02	3%	\$ 961,300.87	8%
Constellation Design	\$ 80,191.15	1%	\$ 5,968.48	0%
CST Engineering, Inc.	\$ 288,261.05	5%	\$ 930,875.26	8%
iCivil, Inc.	\$ 70,047.79	1%	\$ 100,349.31	1%
Infrastructure Technologies, LLC	\$ 70,047.79	1%	\$ 27,468.77	0%
Itenology Corporation	\$ 200,000.00	3%	\$ 98,783.44	1%
Ross Technical Services, Inc.	\$ 224,152.92	4%	\$ 436,204.30	4%
SAMMS Engineering	\$ 560,382.31	10%	\$ 1,156,298.52	10%
Sabra Wang	\$ 272,121.26	5%	\$ 225,839.48	2%
Sue Ann's Office Supply	\$ 303,994.50	5%	\$ -	0%
Total Professional Services M/WBE	\$ 2,395,634.47	41%	\$ 4,103,899.55	35%

Construction Services				
Consultant	Proposed Fee, Construction Services for Contract FY 19	Percentage of Construction Services Contract	Invoiced Thru FY 19 (Invoice 1 to 25)	Percentage of Construction Services Contract (Invoiced to Date)
Couser Supply	\$ 1,367,975.25	6.75%	\$ 374,987.95	1.00%
Cuddy and Associates, LLC	\$ 1,215,978.00	6.00%	\$ 4,809,785.57	18.00%
Machado Concrete Co., Inc.	\$ 810,652.00	4.00%	\$ 901,164.35	3.00%
Priceless Industries, Inc.	\$ 202,663.00	1.00%	\$ -	0.00%
R.E. Harrington Plumbing & Heating	\$ 1,621,304.00	8.00%	\$ -	0.00%
Baker Engineering Services, Inc.	\$ 303,994.50	1.50%	\$ 343,521.36	1.00%
Sunrise Safety Services, Inc.	\$ 202,663.00	1.00%	\$ 217,253.21	1.00%
Paniagua Ent., Inc.	\$ 709,320.50	3.50%	\$ 245,416.00	1.00%
Priority Construction Corp.	\$ 425,592.30	2.10%	\$ 302,523.92	1.00%
Bryant Concrete Construction	\$ 283,728.20	1.40%	\$ 173,725.80	1.00%
WSI, Inc.*	\$(1,418,641.00)	0.00%	\$ -	0.00%
Total Construction Services M/WBE	\$ 5,725,229.75	28.25%	\$ 7,368,378.16	27.92%

* WSI - \$\$ reallocated to Paniagua Ent., Inc., Priority Construction Corp., and Bryant Concrete

In Contract Year 2, significant progress was made in handing off completed Professional services related tasks to the Construction arm of the Contract. Significant progress has also been made in identifying various corridors within the City requiring manhole/cable tracing

inspections. Finally, in the past year, due to emphasis placed on addressing overdue Customer Service Requests (CSRs), KCI/CG has assisted in reducing such backlogs to close to zero.

C. Implementation and Policy Challenges with Recommendation

The Project is in Year 2 post procurement and as such, DOT does not yet have specific or detailed recommendations to make regarding implementation or policy challenges. DOT is compiling a data set of such matters which will be reviewed internally to arrive at detailed recommendations for the DBEC's consideration and inclusion in later DBEC reports.

III. DEPARTMENT OF PUBLIC WORKS
BACK RIVER HEADWORKS PROJECT SC 918H

The Department of Public Works ("DPW"), Back River Headworks Improvements Project ("Headworks Project") primarily entails construction of new headworks facilities, consisting of an influent pumping station, a fine screen facility, and a grit removal facility, and wet weather storage facilities. The City's Wet Weather Program determined that the construction of the Headworks Project is the single, most cost-effective solution to elimination of the City's sanitary sewer overflows and comply with the Wet Weather Consent Decree.

The Headworks Project is being delivered under the Construction Manager-at-Risk (CMAR) delivery method and is the City's first CMAR project. The CMAR delivery method is essentially a hybrid of the Design Build method in that there is a distinct design phase followed by construction. One of the key distinctions between CMAR and DB is that there are two separate contracts; one for design, the other for construction. One procurement is used to advertise both phases and only one firm is selected by the City. Following the design phase, the winning bidder and the City engage in negotiations to agree on a Guaranteed Maximum Price ("GMP"). If the parties agree on GMP then the successful firm contracts with the City for the construction phase. If GMP cannot be agreed, then the City would be free to re-advertise the construction portion of the work.

The Headworks Project was originally advertised as a traditional design-bid-build project with a 100% design having been completed prior to advertising for bids. Two bids were received, the lowest of which was \$90,000,000.00 over the budget for the project. DPW then approached the DBEC about the possibility of structuring the Headworks Project using a modified CMAR method.¹ DPW and the DBEC concluded that a modified CMAR delivery method had the best potential to reduce construction costs. The DBEC concluded that given the similarity between this CMAR project and traditional design build projects that the Headworks project should comply, to the greatest extent possible, with the Design Build Resolution of the Board of Estimates ("BOE") and be overseen by the DBEC. The BOE agreed and accepted the DBEC's recommendation to use the CMAR delivery method on January 27, 2016.

¹ Modified by virtue of the fact that a 100% design existed. The design phase for the Headworks Projects, unlike traditional CMAR projects consists mainly of value engineering and to modify the 100% design to reduce costs.

A. Project Status as of August 9, 2018

Background Pre-Construction:

- Project was advertised on January 29, 2016 after the BOE approved the request for Proposals using the CMAR method.
- Four proposals were received on March 2, 2016
 - All proposals were found to be responsive and were evaluated
- The evaluation process followed the procedures as established in the RFP which included review based on the following criteria
 - Qualifications and approach (65%)
 - Financial capacity and proposed fees (15%)
 - Interview (20%)
- Interviews were conducted on March 15, 2016
- All scoring was reviewed and finalized by the evaluation panelists on March 15, 2016
- March 25, 2016 – Selection of preferred CMAR firm, a joint venture between Clark Construction and Ulliman Schutte, Inc. (“Clark/US”)
- March 29, 2016 – Presentation to DBEC which approved the selection of Clark/US.
- March 30, 2016 – DPW notified Clark/US of DPW’s intent to recommend award by the BOE to Clark/US, subject to reaching agreement on all terms and conditions and completion of all administrative procedures
- May 4, 2016 – The BOE Approved award to Clark/US.
- May 25, 2016 – CMAR firm submitted signed contract documents for processing by DPW.
- July 28, 2017 Notice to Proceed for Pre-Construction was issued.
- GMP Estimates were received:
 - November 2016.
 - January 2017.
- GMP package bids were received:
 - March 2017.
 - April 2017.
- GMP Negotiations progressed from April through May 2017.
- GMP Package and Pricing were submitted to the BOE for processing in May 2017
- GMP cost of \$429,776,789.
- BOE Approval of the GMP Package and Contract for the Headworks Construction was approved on June 28, 2017.

Construction Progress to Date:

- Construction Phase Milestones:
 - June 29, 2017 – Construction NTP
 - December 30, 2020 – Technical Compliance Milestone.
 - October 31, 2021 – Substantial Completion.
 - October 31, 2021 – City issue Conditional Acceptance.

- Approximately 58,000 yards of concrete have been placed, which is 75% complete for the overall project concrete. The process mechanical installation is progressing in conjunction with the project concrete.
 - Influent Pump Station – 100% of concrete complete
 - Fine Screen Facility – 100% of concrete complete
 - Grit Facility – 90% of concrete complete
- Steel Structures Percent Complete.
 - Influent Pump Station – 98% of steel complete
 - Fine Screen Facility – 85% of concrete complete
 - Grit Facility – 20% of concrete complete
- Facilities Hydrostatic testing is ongoing.
- Influent Pump Station: 3 out of 8 large pumps have been installed.
- All course screens (4) and fine screens (6) have been installed.
- Support of Excavation installation is ongoing at Grit Effluent Conduits.
- Started Overflow Conduit installation.
- Completed the first half of the Influent Junction Chamber construction.
- Completed the internal lining of Influent Conduit IC-1.
- Shotcrete and cable wrap is ongoing at Equalization Tank No. 1 and cap and slot infill ongoing at Tank No.2.
- Mass backfilling is ongoing.
- Site ductbank installation has commenced at the administration building and main substation.
- Mechanical equipment is being delivered to the site for installation.
- Schedule Progress and proposed logic revision are currently under review.
- Weekly issues, Quality Control/Quality Assurance, schedule, partnering, risk, start-up, Maintenance of Plant Operations, and Initial/ Preparatory meetings are held regularly with all involved parties.
- Overall the Project is trending to meet its Technical and Completion Milestones

B. Minority and Women Owned Business Participation

The Pre-Construction phase of the project was funded by the City and Baltimore County therefore City MBE/WBE Goals of 10% and 3% respectively apply during the pre-construction process.

Pre-Construction Fee	\$3,490,000
Contractual Participation Requirements:	MBE \$349,000 10%
	WBE \$104,700 3%

Pre-Construction Phase MBE/WBE participation (completed 4/30/17):

<u>SUBCONTRACTOR</u>	<u>Amount Reported</u>	<u>Participation Reported</u>
Shah Associates	\$ 183,008	5.24%
Roane's	\$71,444	2.05%
SP Arch	\$34,848	1.0%
Native Sons	\$60,000	1.72%
Horton	\$20,800	0.6%
C. L. McCoy	\$7,000	0.20%
CMC Repro & Assoc.	\$9,310	0.27%
MBE Totals	\$386,410	11.07%
 		
<u>SUBCONTRACTOR</u>	<u>Amount Reported</u>	<u>Participation Reported</u>
Stella May	\$46,812	1.34%
Carroll	\$48,722	1.40%
Keep U Clean Jan Svc	\$4,100	0.12%
WBE Totals	\$99,634	2.85%

Construction Phase MBE/WBE Participation:

The Construction phase of the Headworks Project is being funded by the state's revolving fund therefore the state's Disadvantaged Business Enterprise standards apply and not the City's MBE/WBE standards. The Construction phase of the project has the MBE and WBE State Goals of 18% and 16% respectively.

Clark/US's estimates for the MBE/WBE participation are 12.82% and 5.80% respectively at this time. The level of efforts expended on contacting regional and local DBE businesses has been documented and will continue to be recorded in accordance with MDE guidelines for reporting purposes.

The estimated percentages translate into the following dollar amounts to be spent with the MBE/WBE subcontractors, based on the Contract amount of \$429,776,789:

- MBE 12.82% \$55,092,484.33
- WBE 5.45% \$23,426,947.00

At this time, Clark/US has invoiced for \$235,163,197.62, which is approximately 55% of the contract amount. The following MBE/WBE participation has been reported:

<u>SUBCONTRACTOR</u>	<u>MBE CONTRACT</u>		<u>Participation Reported</u>	
MBE Companies	Amount	% of total contract	Amount	% of invoiced amount
A&S Refuse LLC	\$551,000	0.13%	\$43,959.51	8%
Capital Development Design, Inc.	\$1,870,402	0.44%	\$1,202,155.79	64%
EMC2, Inc.	\$75,200	0.02%	\$293,610.98	390%
Horton	\$12,500,000	2.91%	\$2,668,925.51	21%
Inново Construction LLC	\$1,990,000	0.46%	\$124,913.00	6%
JD Belfield	\$60,000	0.01%	-	-
Keep U Clean Janitorial Svc.	\$121,816	0.03%	\$45,297	37%
LCCI	\$330,000	0.08%	\$5,950.00	2%
NSL/Freestate	\$16,636,200	3.87%	\$5,182,903.36	31%
Weathespoon & Williams	\$592,190.00	0.14%	-	-
Allan Myers - lower tier: Mohawk Bridge & Iron, Doughboy Hauling	\$4,333,333	1.01%	\$2,308,799.88	53%
Baseline	\$388,000	0.09%	\$562,713	145%
Cagley & Associates	\$18,300	0.00%	\$10,125.00	55%
Ruff Nex	\$1,698,106	0.40%	\$1,172,068.53	69%
Bulldog Construction	\$173,417	0.04%	\$1,185,998.26	684%
Ulliman Schutte - lower tier: Ideal, GE Frisco, TBD	\$13,754,520.00	3.20%	-	-
MBE Totals	\$55,092,484	12.82%	\$14,807,419.82	26.88%
<u>SUBCONTRACTOR</u>	<u>WBE CONTRACT</u>		<u>Participation Reported</u>	
WBE Companies	Amount	% of contract amount	Amount	% of invoiced amount
Baltimore Waterproofing	\$232,200		-	-
Regional Contracting Services LLC	\$2,853,580		\$728,421.97	26%
Stella May Contracting	\$4,030,627		\$4,030,627	100%
TMI Striping	\$12,279		\$12,279	100%
Regional Drywall & Acoustic Panel	\$75,325		-	-

Rowen Concrete	\$2,166,667		\$558,525.60	26%
DN Tanks - lower tier: Jernigan's, Acorn Supply & Distributing	\$350,919		\$45,067.22	13%
Eisenhart Steel	\$1,479,110		\$322,207	22%
Ulliman Schutte - lower tier: J&S Valves, Robnet, Acorn Supply & Distributing, Roane's Rigging & Transfer	\$12,226,240		\$1,770,048.86	14%
WBE Totals	\$23,426,947.00	5.45%	\$7,467,176.65	32%

C. Implementation and Policy Challenges with Recommendation

From the first two years of construction, DPW has the following recommendations for DBEC's consideration:

- Engage and award the project to the CMAR prior to 30% design documents to maximize their input
- Place monetary provisions to enforce timely baseline schedule development
- This contract used the Army Corps of Engineers specification regarding Quality Assurance/Quality Controls. The DBEC should consider modifying this specification so that it is more applicable to the Construction Industry
- Include more details on definitions of the different funds' categories i.e., Owner Allowances, Constructions Contingency... and the intended use of the funds to eliminate any disagreements over which category covers what work.