

Annual Disparity Study Fiscal Year 2021

Potentially Few or No Opportunity Contracts Analysis

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Submitted to The Office of Economic Opportunity (OEO) in the City of
Philadelphia Commerce Department



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1. Introduction

1.1. Report Purpose

The Office of Economic Opportunity (OEO) in the City of Philadelphia Commerce Department requested this analysis of what it deems “Potentially Few or No Opportunity” (PFONO) contracts, to better understand if and how these contracts can represent economic opportunities for Minority-Owned Business Enterprises (MBEs) and Woman-Owned Business Enterprises (WBEs) (collectively “MWBEs”). Econsult Solutions, Inc. and Milligan Consulting, LLC (collectively “the ESI team”), which completed an Availability Study for the Office of Economic Opportunity (OEO) in September 2021, conducted this analysis for OEO. It also produced a separate companion study that took a closer look at MWBE availability for Public Works (PW) contracts.

1.2. Report Background

In September 2021, the ESI team conducted an Availability Study for OEO. This analysis supports the Annual Disparity Study produced by OEO by taking a closer look at the availability of MWBEs to do business with the City, and at the unique barriers they face in doing business with the City.

The Annual Disparity Study is required of the City each year, per Title 17 of the Philadelphia Code, as amended by Ordinance No. 060855-A. Its purpose is to estimate the utilization of MWBEs in City contracts, relative to their availability. By determining the extent to which there is a disparity between utilization and availability, this analysis is foundational in establishing MWBE utilization goals for the City as a whole as well as for individual contracts.

The framework for this analysis is informed by the seminal US Supreme Court case, *Richmond v. JA Croson Company* (1989), which established that the setting of race- and gender-specific goals required an understanding of how historical utilization levels by a procurer related to the proportion of “ready, willing, and able” firms available to a procurer that are MWBEs. Disparity Studies have since then become recognized tools for procurers to determine whether and where disparity exists, in order to narrowly tailor race- and gender-specific remedies where appropriate.

OEO commissioned the ESI team to conduct an Availability Study as a complement to the Annual Disparity Study it was producing in-house. This Availability Study supported OEO’s work in determining whether and where race- and gender-specific goals are warranted in the following ways:

1. The Annual Disparity Study calculated estimates of the proportion of “ready, willing, and able” firms available to do business with the City on publicly available federal data that, while comprehensive in industry and geographic detail, were based on business surveys conducted several years ago. The ESI team greatly enhanced OEO’s understanding of availability by relying on its own contemporary surveying of businesses, yielding availability estimates that could more properly account for the current business landscape, inclusive of the effects of the COVID pandemic and other economic stressors.

2. The ESI team also did extensive interviews to collect anecdotal evidence of barriers and challenges faced by MWBEs, which is a court-proven form of support to warrant race- and gender-specific remedies.
3. Finally, the ESI team also conducted analyses of business formation rates and capital access distribution, to identify where race- and gender-specific disparities existed that also warranted some form of race- and gender-specific remedy.

In 2022, OEO commissioned two follow-up tasks intended to build on the insights gleaned from the Availability Study:

- The first task, which is the subject of this report, is to take a closer look at contracts that OEO deems “Potentially Few or No Opportunity” to understand how close or far the potential is for MWBEs to become available in these industry categories.
- The second task is to take a closer look at the specific goods and services needs in the City’s PW contracts, and to estimate MWBE availability at those more industry-granular levels.

2. Methodology and Scope

2.1. Report Methodology

Contracts that OEO deems “Potentially Few or No Opportunity” are ones for which there exist few to no MWBEs in its directory to fulfill the good or service being requested. Where ample MWBEs exist for a particular contract, OEO is tasked with helping determine an appropriate MBE and/or WBE goal for that contract. For example, OEO might review a professional services contract and determine that MWBE goals are warranted and set them at 20 percent for MBEs and 10 percent for WBEs, which would mean that prime contractors who are not themselves MWBEs should include MWBEs such that the contract amount dedicated to MBEs is at least 20 percent and the contract amount dedicated to WBEs is at least 10 percent.

Conversely, where few or now MWBEs exist for a particular contract, OEO would determine that specific MWBE goals are not warranted, and instead would indicate that MWBE goal levels are “best faith effort.” Therefore, for this analysis, the ESI team obtained a list containing detailed information for every contract for which the MWBE goal was marked as “best faith effort.”

The ESI team then identified the appropriate industry for each such contract. Specifically, the ESI team assigned the closest North American Industry Classification System (NAICS) industry code to each contract, where possible at the four-digit level or higher.¹

The ESI team then pulled publicly available business data from the US Census Bureau² to understand, within the city of Philadelphia,³ Philadelphia region,⁴ and US, whether there were few MWBEs or conversely if there were many. If there were few MWBEs in this industry category, this suggests that it will be prohibitively difficult for OEO to find or grow such firms to be available, which indicates that a “Potentially Few or No Opportunity” (PFONO) contract should be considered a “Few or No Opportunity” (FONO) contract. Conversely, if there were many MWBEs in this industry category, this suggests that it is possible for OEO to find or grow such firms to be available, in which case such contracts should not be considered to be FONO contracts, and a concerted effort should be undertaken to find or grow MWBEs in that industry category.

This analysis of publicly available federal business census data was augmented in two ways. First, as noted above the ESI team conducted a direct survey of businesses as part of its Availability Study work.

1 NAICS employs a coding system whereby each digit added provides additional detail to the industry classification. Hence, any two-digit NAICS code will have multiple three-digit codes within it representing different sub-categories. Same with a three-digit code having multiple four-digit codes under it, and so on to six-digit codes.

2 The following US Census Bureau data sets were used in this analysis:

1. 2012 Survey of Business Owners
2. 2017 Annual Business Survey
3. 2016 Annual Survey of Entrepreneurs

In all cases, the data category used was “Firms with Employees,” as opposed to either “Firms,” “Revenues,” or “Revenues of Firms with Employees.”

3 Throughout the report, “City of Philadelphia” refers to the government while “city of Philadelphia” refers to the geography.

4 Defined as the 11-county Philadelphia-Camden-Wilmington, PA-NJ-DE-MD Metropolitan Statistical Area, and hereafter referred to as “Philadelphia MSA.”

These survey results were referenced when considering whether PFONO contract categories should be deemed FONO or not. Second, the ESI team reached out to industry contacts and business advocacy groups to vet a preliminary set of results it produced on FONO status, to allow for independent verification of findings.⁵

2.2. FY21 PFONO Contracts

The ESI team obtained a list of 140 PFONO contracts from OEO. These contracts represented the full list of contracts from Fiscal Year (FY) 2021 for which no specific MWBE goal was provided, but rather the MWBE goal was listed as “best faith effort.” This list of PFONO contracts sums to \$65.2 million (see Figure 2.1 and Figure 2.2 below).⁶

Figure 2.1 – FY21 Potentially Few or No Opportunity Contracts by Contract Type⁷

FY21	# Contracts in FY21	\$ Contracts in FY21 (\$M)	FY16	# Contracts in FY16	\$ Contracts in FY16 (\$M)
PW	27	\$16.8	PW	0	\$0.0
PPS	61	\$47.1	PPS	60	\$159.7
SSE	6	\$1.2	SSE	46	\$51.5
Total	94	\$65.2	Total	106	\$211.2

Source: OEO Annual Participation Report (FY16, FY21), Econsult Solutions, Inc. (2017, 2022)

Figure 2.2 – FY21 Potentially Few or No Opportunity Contracts by City Department⁸

Dept	# Contracts in FY21	\$ Contracts in FY21 (\$M)
OIT	62	\$41.2
Police	23	\$1.7
Revenue	2	\$0.2
Water	27	\$16.8
Aviation	13	\$0.5
Human Services	11	\$4.3
Library	1	\$0.9
Total	140	\$65.6

Source: OEO Annual Participation Report (FY16, FY21), Econsult Solutions, Inc. (2017, 2022)

⁵ See Appendix X for a full list of interviewees.

⁶ See also Appendix X for a full list of PFONO contracts.

⁷ City contracts sort into three types: Public Works (PW) contracts (i.e. construction), Personal and Professional Services (PPS) contracts, and Supplies, Services, and Equipment (SSE) contracts (i.e. commodity goods and services).

⁸ This figure includes all PW, PPS, and SSE contracts displayed in figure 2.1 with the addition of all SOP contracts purchased by the City. This figure also includes contract spend from the City’s Behavioral Health Department in which there is insufficient data to categorize the departments spend.

3. PFONO PW Contracts

3.1. Overview

Out of the two NAICS codes representing PFONO PW contracts, both were deemed likely FONO for MBEs and slightly less likely FONO for WBEs (see Figure 3.1). OEO will need to determine whether it considers it a priority to devote resources and attention to growing or attracting MBEs and WBEs in these industry categories.

Figure 3.1 – FONO Status of FY21 PFONO PW Contracts by Unique NAICS Code

NAICS #	Description	# Contracts in FY21	\$ Contracts in FY21 (\$M)	FONO?
23822	Plumbing, heating, and air-conditioning contractors	11	\$3.5	Yes
237110	Water and sewer line and related structures	16	\$13.3	Yes

Source: OEO Annual Participation Report (FY21), Econsult Solutions, Inc. (2022)

3.2. NAICS Code 23822

The description for NAICS Code 23822 is: “Plumbing, Heating, and Air-Conditioning Contractors: This industry comprises establishments primarily engaged in installing and servicing plumbing, heating, and air-conditioning equipment. Contractors in this industry may provide both parts and labor when performing work. The work performed may include new work, additions, alterations, maintenance, and repairs.” In FY21, 11 PW contracts fell under this industry category, representing an aggregate \$3.5 million in City spending.

There are only six total firms in the OEO directory for this NAICS code, five of which are Black owned. Looking at counts at the state level, counts similarly appear low. But, looking at counts at the national level, there are more firms in the category. Therefore, the data are mixed as to whether there exist sufficient MBE/WBE firms to find and recruit, or alternatively that such an effort will be prohibitively difficult and yield relatively little progress. Hence, for now the assumption is that this industry category is in fact FONO, although more study may yield a different conclusion.

Figure 3.2 – Count of MWBEs for NAICS Code 23822

NAICS 23822	# Firms	# Asian	# Black	# Hispanic	# Women
FY 2021 Spend (\$M)	\$3.5				
OEO Directory ⁹	6	0	5	0	1
PA	28,786	29	28	2	392
US	731,009	1,480	1,083	4,905	7,415

Source: US Census Bureau (2012), OEO Annual Participation Report (FY21), Econsult Solutions, Inc. (2022)

3.3. NAICS Code 237110

The description for NAICS Code 237110 is: “Construction of water and sewer lines, mains, pumping stations, treatment plants, and storage tanks: The work performed may include new work, reconstruction, rehabilitation, and repairs. Specialty trade contractors are included in this industry if they are engaged in activities primarily related to water, sewer line, and related structures construction. All structures (including buildings) that are integral parts of water and sewer networks (e.g., storage tanks, pumping stations, water treatment plants, and sewage treatment plants) are included in this industry.” In FY21, 16 contracts fell under this industry category, representing an aggregate \$13.3 million in City spending.

There is a total of 77 firms in the OEO directory of this NAICS code, six of which are Asian-owned, 25 of which are Black-owned, 13 of which are Hispanic-owned, and 46 of which are women-owned. This suggests that are MBEs/WBEs available for the City to use. Conversely, availability at the state and national level is very low, which suggests there is some specialization surrounding firms under this particular NAICS code. The default interpretation from these seemingly contradictory data points is that this spending category is highly specialized, such that while there exist firms in the OEO directory that are associated with this NAICS code, they are in fact not available for this specific need. And, since there are not many MBEs/WBEs in the state and nation for this NAICS, it further suggests great difficulty in finding and recruiting new MBEs/WBEs who can fulfill this need. This suggests that this industry category is in fact FONO.

Figure 3.3 – Count of MWBEs for NAICS Code 237110

NAICS 237110	# Firms	# Asian	# Black	# Hispanic	# Women
FY 2021 Spend (\$M)	\$13.3				
OEO Directory ¹⁰	77	6	25	13	46
PA	2,604	0	0	0	11
US	89,237	22	71	331	1,235

Source: US Census Bureau (2012), OEO Annual Participation Report (FY21), Econsult Solutions, Inc. (2022)

⁹ See Appendix X for additional information related to firms within the OEO directory

¹⁰ See Appendix X for additional information related to firms within the OEO directory

4. PFONO PPS Contracts

4.1. Overview

Out of 13 NAICS codes representing PFONO PPS contracts, 10 were deemed FONO and conversely the remaining three were deemed not FONO (see Figure 4.1). The latter group should be prioritized by OEO in identifying in those industry categories existing MWBEs with capacity to do business with the City and/or building them up so that they have sufficient capacity to do business with the City.

Figure 4.1 – FONO Status of FY21 PFONO PPS Contracts by Unique NAICS Code

NAICS	Description	# Contracts in FY21	\$ Contracts in FY21 (\$M)	FONO?
541511	Custom computer programming services	32	\$21.3	No
541512	Computer systems design services	2	\$2.9	No
517919	All other telecommunications, Administrative, management, and general	2	\$4.7	Yes
541611	Management consulting services	2	\$0.9	No
511210	Software publishers	2	\$0.1	Yes
541519	Other computer related services	2	\$10.8	Yes
541380	Testing laboratories	4	\$1.2	Yes
561621	Security systems services	1	\$0.01	Yes
811310	Commercial and industrial machinery and equipment repair and maintenance	1	\$0.2	Yes
611420	Computer training	1	\$0.1	Yes
623990	Other residential care facilities	5	\$3.2	Yes
623210	Residential intellectual and developmental disability facilities	6	\$1.1	Yes
517112	Wireless telecommunications carriers	1	\$0.9	Yes

Source: OEO Annual Participation Report (FY21), Econsult Solutions, Inc. (2022)

4.2. NAICS Code 541511

The description for NAICS code 541511 is: “Custom Computer Programming Services: this US industry comprises establishments primarily engaged in writing, modifying, testing, and supporting software to meet the needs of a particular customer.” In FY21, 32 PPS contracts fell under this industry category, representing an aggregate \$21.3 million in City spending.

There is a total of 207 firms under this NAICS code within the OEO directory, including 161 MBEs and 93 WBEs. Similarly, there is a healthy number of firms within this industry present at the state and national level. This suggests that OEO is already aware of many MBEs/WBEs that are available for this need, and that it may be possible for OEO to find and recruit additional firms that are not currently in the OEO directory. Therefore, this industry is likely not FONO.

Figure 4.2 – Count of MWBEs for NAICS Code 541511

NAICS 541511	# Firms	# Asian	# Black	# Hispanic	# Women
FY 2021 Spend (\$M)	\$21.3				
OEO Directory ¹¹	207	90	55	16	93
PA	17,722	400	60	15	283
US	500,708	12,496	997	1,695	9,149

Source: US Census Bureau (2012), OEO Annual Participation Report (FY21), Econsult Solutions, Inc. (2022)

4.3. NAICS Code 541512

The description for NAICS code 541512 is: “Computer Systems Design Services: This US Industry comprises establishments primarily engaged in planning and designing computer systems that integrate computer hardware, software, and communication technologies. The hardware and software components of the system may be provided by this establishment or company as part of integrated services or may be provided by third parties or vendors. These establishments often install the system and train and support users of the system.” In FY21, two PPS contracts fell under this industry category, representing an aggregate \$2.9 million in City spending.

There is a total of 207 firms under this NAICS code within the OEO directory, including 160 MBEs and 92 WBEs. Similarly, there is a healthy number of firms within this industry present at the state and national level. This suggests that OEO is already aware of many MBEs/WBEs that are available for this need, and that it may be possible for OEO to find and recruit additional firms that are not currently in the OEO directory. Therefore, this industry is likely not FONO.

Figure 4.3 – Count of MWBEs for NAICS Code 541512

NAICS 541512	# Firms	# Asian	# Black	# Hispanic	# Women
FY 2021 Spend (\$M)	\$2.9				
OEO Directory ¹²	207	85	61	14	92
PA	10,442	138	29	45	218
US	293,332	7,522	928	1,534	5,654

Source: US Census Bureau (2012), OEO Annual Participation Report (FY21), Econsult Solutions, Inc. (2022)

4.4. NAICS Code 517919

The description for NAICS code 517919 is: “All Other Telecommunications: This US industry comprises establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities

¹¹ See Appendix X for additional information related to firms within the OEO directory

¹² See Appendix X for additional information related to firms within the OEO directory

connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems. Establishments providing Internet services or Voice over internet protocol (VoIP) services via client supplied telecommunications connections are also included in this industry.” In FY21, two PPS contracts fell under this industry category, representing an aggregate \$4.7 million in City spending.

There is a total of eight firms within the OEO directory that fall under this industry code, of which two are Asian-owned businesses, one is Black-owned, one is Hispanic-owned, and three are women-owned. Further looking at availability at the national and state level suggests that this is a highly specialized industry since there are relatively few MBE/WBE firms available. Thus, it will likely be difficult for OEO to locate these types of firms and foster the growth of firms under this industry. Therefore, this industry is likely FONO.

Figure 4.4 – Count of MWBEs for NAICS Code 517919

NAICS 517919	# Firms	# Asian	# Black	# Hispanic	# Women
FY 2021 Spend (\$M)	4.7				
OEO Directory ¹³	8	2	1	1	3
PA	262	2	0	0	1
US	14,796	115	46	91	190

Source: US Census Bureau (2012), OEO Annual Participation Report (FY21), Econsult Solutions, Inc. (2022)

4.5. NAICS Code 541611

The definition of NAICS code 541611 is: “Administrative Management and General Management Consulting Services: This US industry comprises establishments primarily engaged in providing operating advice and assistance to businesses and other organizations on administrative management issues, such as financial planning and budgeting, equity and asset management, records management, office planning, strategic and organizational planning, site selection, new business start-up, and business process improvement.” In FY21, two PPS contracts fell under this category, representing an aggregate \$0.9 million in City spending.

There is a total of 314 firms that fall under this industry within the OEO directory, of which 38 are Asian-owned businesses, 154 are Black-owned businesses, 20 are Hispanic-owned businesses, and 181 are women-owned businesses. Similarly, there is a healthy number of firms within this industry present at the state and national level. This suggests that OEO is already aware of many MBEs/WBEs that are available for this need, and that it may be possible for OEO to find and recruit additional firms that are not currently in the OEO directory. Therefore, this industry is likely not FONO.

¹³ See Appendix X for additional information related to firms within the OEO directory

Figure 4.5 – Count of MWBEs for NAICS Code 541611

NAICS 541611	# Firms	# Asian	# Black	# Hispanic	# Women
FY 2021 Spend (\$M)	\$0.9				
OEO Directory ¹⁴	314	38	154	20	181
PA	16,160	87	29	26	525
US	525,894	4,391	1,796	2,302	16,205

Source: US Census Bureau (2012), OEO Annual Participation Report (FY21), Econsult Solutions, Inc. (2022)

4.6. NAICS Code 511210

The definition of NAICS code 511210 is: “Software Publishers: This industry comprises establishments primarily engaged in computer software publishing or publishing and reproduction. Establishments in this industry carry out operations necessary for producing and distributing computer software, such as designing, providing documentation, assisting in installation, and providing support services to software purchasers. These establishments may design, develop, and publish, or publish only.” In FY21, two PPS contracts fell under this category, representing an aggregate \$0.1 million in City spending.

There are a total of 11 firms under this industry code within the OEO directory, of which seven are Asian-owned businesses, two are Black-owned businesses, and four are women-owned businesses. Further looking at availability at the national and state level suggests that this is a highly specialized industry since there are relatively few MBE/WBE firms available. Thus, it will likely be difficult for OEO to locate these types of firms and foster the growth of firms under this industry. Therefore, this industry is likely FONO.

Figure 4.6 – Count of MWBEs for NAICS Code 511210

NAICS 511210	# Firms	# Asian	# Black	# Hispanic	# Women
FY 2021 Spend (\$M)	\$0.1				
OEO Directory ¹⁵	11	7	2	0	4
PA	1,858	3	1	0	4
US	43,195	383	32	85	476

Source: US Census Bureau (2012), OEO Annual Participation Report (FY21), Econsult Solutions, Inc. (2022)

4.7. NAICS Code 541519

The description for NAICS code 541519 is: “Other Computer Related Services: This US industry comprises establishments primarily engaged in providing computer related services. Establishments providing computer disaster recovery services or software installation services are included in this industry.” In

¹⁴ See Appendix X for additional information related to firms within the OEO directory

¹⁵ See Appendix X for additional information related to firms within the OEO directory

FY21, two PPS contracts fell under this category, representing an aggregate \$10.8 million in City spending.

There are 132 firms that fall under this industry category within the OEO directory, of which 49 are Asian-owned businesses, 37 are Black-owned businesses, 11 are Hispanic-owned businesses, and 82 are women-owned businesses. However, Availability at the national and state level appears to be relatively low. This may be explained by the fact that despite the OEO directory containing a lot of MBEs/WBEs, those firms actually do not work in this more specialized space and therefore should not be considered available. Therefore, this industry is likely FONO.

Figure 4.7 – Count of MWBEs for NAICS Code 541519

NAICS 541519	# Firms	# Asian	# Black	# Hispanic	# Women
FY 2021 Spend (\$M)	\$10.8				
OEO Directory ¹⁶	132	49	37	11	60
PA	1,506	11	0	12	60
US	74,545	1,775	207	377	1,645

Source: US Census Bureau (2012), OEO Annual Participation Report (FY21), Econsult Solutions, Inc. (2022)

4.8. NAICS Code 541380

The description for NAICS code 541380 is: “Testing Laboratories: This industry comprises establishments primarily engaged in performing physical, chemical, and other analytical testing services, such as acoustics or vibration testing, assaying, biological testing (except medical and veterinary), calibration testing, electrical and electronic testing, geotechnical testing, mechanical testing, nondestructive testing, or thermal testing.” In FY21, four PPS contracts fell under this category, representing \$1.2 million in City spending.

There are 44 firms under this industry code within the OEO directory, of which 18 are Asian-owned businesses, eight are Black-owned businesses, one is Hispanic-owned, and 24 are women-owned businesses. Similarly, availability at the state and national level appears to be relatively low. That suggests a relatively heavy lift to identify and grow MBEs/WBEs in this space. Therefore, this industry is in fact FONO.

Figure 4.8 – Count of MWBEs for NAICS Code 541380

NAICS 541380	# Firms	# Asian	# Black	# Hispanic	# Women
FY 2021 Spend (\$M)	\$1.2				
OEO Directory ¹⁷	44	18	8	1	24
PA	1,649	5	1	0	22

¹⁶ See Appendix X for additional information related to firms within the OEO directory

¹⁷ See Appendix X for additional information related to firms within the OEO directory

US 39,099 190 33 147 854

Source: US Census Bureau (2012), OEO Annual Participation Report (FY21), Econsult Solutions, Inc. (2022)

4.9. NAICS Code 561621

The description for NAICS code 561621 is: “Security Systems Services: This US industry comprises establishments primarily engaged in (1) selling security alarm systems, such as burglar and fire alarms, along with installation, repair, or monitoring services or (2) remote monitoring of electronic security alarm systems.” In FY21, one PPS contract fell under this category, representing an aggregate \$0.01 million in city spending.

There are 18 firms that fall under this NAICS code within the OEO directory, of which three are Asian-owned businesses, eight are Black-owned businesses, two are Hispanic-owned businesses, and eight are women-owned businesses. Similarly, availability at the state and national level appears to be relatively low. That suggests a relatively heavy lift to identify and grow MBEs/WBEs in this space. Therefore, this industry is in fact FONO.

Figure 4.9 – Count of MWBEs for NAICS Code 561621

NAICS 561621	# Firms	# Asian	# Black	# Hispanic	# Women
FY 2021 Spend (\$M)	\$0.01				
OEO Directory ¹⁸	18	3	8	2	8
PA	1,637	1	1	0	4
US	42,263	210	131	229	641

Source: US Census Bureau (2012), OEO Annual Participation Report (FY21), Econsult Solutions, Inc. (2022)

4.10. NAICS Code 811310

The description for NAICS code 811310 is: “Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance: This industry comprises establishments primarily engaged in the repair and maintenance of commercial and industrial machinery and equipment. Establishments in this industry either sharpen/install commercial and industrial machinery blades and saws or provide welding (e.g., automotive, general) repair services; or repair agricultural and other heavy and industrial machinery and equipment.” In FY21, one PPS contract fell under this category, representing an aggregate \$0.2 million in City spending.

There are a total of five firms with this industry classification in the OEO directory, of which one is Black-owned, one is Hispanic-owned, and four are women-owned businesses. Similarly, availability at the state and national level appears to be relatively low. That suggests a relatively heavy lift to identify and grow MBEs/WBEs in this space. Therefore, this industry is in fact FONO.

¹⁸ See Appendix X for additional information related to firms within the OEO directory

Figure 4.10 – Count of MWBEs for NAICS Code 811310

NAICS 811310	# Firms	# Asian	# Black	# Hispanic	# Women
FY 2021 Spend (\$M)	\$0.2				
OEO Directory ¹⁹	5	0	1	1	4
PA	7,364	26	5	9	42
US	151,795	347	238	859	1,602

Source: US Census Bureau (2012), OEO Annual Participation Report (FY21), Econsult Solutions, Inc. (2022)

4.11. NAICS Code 611420

The description for NAICS code 611420 is: “Computer Training: This industry comprises establishments primarily engaged in conducting computer training (except computer repair), such as computer programming, software packages, computerized business systems, computer electronics technology, computer operations, and local area network management.” In FY21, one PPS contract fell under this category, representing an aggregate \$0.1 million in City spending.

There are a total of 37 firms with this industry classification in the OEO directory, of which seven are Asian-owned businesses, 15 are Black-owned businesses, two are Hispanic-owned businesses, and 21 are women-owned businesses. However, Availability at the national and state level appears to be relatively low. This may be explained by the fact that despite the OEO directory containing a lot of MBEs/WBEs, those firms actually do not work in this more specialized space and therefore should not be considered available. Therefore, this industry is likely FONO.

Figure 4.11 – Count of MWBEs for NAICS Code 611420

NAICS 611420	# Firms	# Asian	# Black	# Hispanic	# Women
FY 2021 Spend (\$M)	\$0.1				
OEO Directory ²⁰	37	7	15	2	21
PA	590	1	0	0	17
US	12,402	117	45	40	560

Source: US Census Bureau (2012), OEO Annual Participation Report (FY21), Econsult Solutions, Inc. (2022)

4.12. NAICS Code 623990

The description for NAICS code 623990 is: “Other Residential Care Facilities: This industry comprises establishments primarily engaged in providing residential care (except residential intellectual and developmental disability facilities, residential mental health and substance abuse facilities, continuing

¹⁹ See Appendix X for additional information related to firms within the OEO directory

²⁰ See Appendix X for additional information related to firms within the OEO directory

care retirement communities, and assisted living facilities for the elderly).” In FY21, five PPS contracts fell under this category, representing an aggregate \$3.2 million in City spending.

There is only one firm with this industry classification in the OEO directory, which is women-owned. Similarly, availability at the state and national level appears to be relatively low. That suggests a relatively heavy lift to identify and grow MBEs/WBEs in this space. Therefore, this industry is in fact FONO.

Figure 4.12 – Count of MWBEs for NAICS Code 623990

NAICS 623990	# Firms	# Asian	# Black	# Hispanic	# Women
FY 2021 Spend (\$M)	\$3.2				
OEO Directory ²¹	1	0	0	0	1
PA	464	0	2	0	0
US	16,897	123	246	27	491

Source: US Census Bureau (2012), OEO Annual Participation Report (FY21), Econsult Solutions, Inc. (2022)

4.13. NAICS Code 623210

The description for NAICS Code 623210 is: “Residential Intellectual and Developmental Disability Facilities: This industry comprises establishments (e.g., group homes, hospitals, intermediate care facilities) primarily engaged in providing residential care services for persons diagnosed with intellectual and developmental disabilities. These facilities may provide some health care, though the focus is room, board, protective supervision, and counseling. In FY21, six PPS contracts fell under this category, representing an aggregate \$1.1 million in City spending.

There is one firm present within the OEO directory that falls under this industry, accounting for one MWBE. Availability at the national and state level indicate that there is a relative lack of firms in this particular industry throughout both regions. In which, there is little-to-no participation from MBE’s or WBE’s. this suggests that it will likely be difficult for OEO to find and recruit, and grow and support these types of firms. Therefore, this industry is in fact FONO.

Figure 4.13 – Count of MWBEs for NAICS Code 623210

NAICS 623210	# Firms	# Asian	# Black	# Hispanic	# Women
FY 2021 Spend (\$M)	\$1.1				
OEO Directory ²²	1	0	1	0	1
PA	1,060	0	7	0	22
US	39,036	552	698	150	1,676

²¹ See Appendix X for additional information related to firms within the OEO directory

²² See Appendix X for additional information related to firms within the OEO directory

Source: US Census Bureau (2012), OEO Annual Participation Report (FY21), Econsult Solutions, Inc. (2022)

4.14. NAICS Code 517210

The description of NAICS code 517210 is: “Wireless telecommunications Carriers (except Satellite): This US industry comprises establishments primarily engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular phone services, paging services, wireless internet access, and wireless video services.” In FY21, one PPS contract fell under this category, representing an aggregate \$0.9 million in City spending.

There are no firms with this industry classification in the OEO directory. Similarly, availability at the state and national level appears to be relatively low. That suggests a relatively heavy lift to identify and grow MBEs/WBEs in this space. Therefore, this industry is in fact FONO.

Figure 4.14 – Count of MWBEs for NAICS Code 517210

NAICS 517112	# Firms	# Asian	# Black	# Hispanic	# Women
FY 2021 Spend (\$M)	\$0.9				
OEO Directory ²³	0	0	0	0	0
PA	243	2	0	0	1
US	8,974	132	23	116	175

Source: US Census Bureau (2012), OEO Annual Participation Report (FY21), Econsult Solutions, Inc. (2022)

²³ See Appendix X for additional information related to firms within the OEO directory

5. PFONO SSE Contracts

5.1. Overview

Out of six NAICS codes representing PFONO SSE contracts, five were deemed FONO and conversely the remaining one was deemed not FONO (see Figure X.X). The latter group should be prioritized by OEO in identifying in those industry categories existing MWBEs with capacity to do business with the City and/or building them up so that they have sufficient capacity to do business with the City.

Figure 5.1 – FONO Status of FY21 PFONO SSE Contracts by Unique NAICS Code

NAICS #	Description	# Contracts in FY21	\$ Contracts in FY21 (\$Thousands)	FONO?
511210	Software publishing or publishing and reproduction	1	\$617.0	Yes
334516	Manufacturing instruments and instrumentation systems for laboratory analysis	1	\$225.5	Yes
333318	Other Commercial and Service Industry Machinery Manufacturing	1	\$59.7	Yes
334512	Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use	1	\$73.3	Yes
336412	Aircraft Engine and Engine Parts Manufacturing	1	\$114.3	Yes
237310	Highway, Street, and Bridge Construction	1	\$114.3	No

5.2. NAICS Code 511210

The description for NAICS Code 511210 is: “software publishing or publishing and reproduction: Establishments in this industry carry out operations necessary for producing and distributing computer software, such as designing, providing documentation, assisting in installation, and providing support services to software purchasers. These establishments may design, develop, and publish, or publish only. These establishments may publish and distribute software remotely through subscriptions and downloads.” In FY21, one SSE contract fell under this industry category, representing an aggregate \$617.0 thousand in City spending.

There are 11 firms under this industry code present in the OEO directory, of which seven are Asian-owned businesses, two are Black-owned businesses, and four are women-owned businesses. Similarly, availability at the state and national level appears to be relatively low. That suggests a relatively heavy lift to identify and grow MBEs/WBEs in this space. Therefore, this industry is in fact FONO.

Figure 5.2 – Count of MWBEs for NAICS Code 511210

NAICS 511210	# Firms	# Asian	# Black	# Hispanic	# Women
FY 2021 Spend (\$M)	\$617,045				
OEO Directory ²⁴	11	7	2	0	4
PA	1,858	3	1	0	4
US	43,195	383	32	85	476

Source: US Census Bureau (2012), OEO Annual Participation Report (FY21), Econsult Solutions, Inc. (2022)

5.3. NAICS Code 334516

The description of NAICS Code 334516 is: “manufacturing instruments and instrumentation systems for laboratory analysis of the chemical or physical composition or concentration of samples of solid, fluid, gaseous, or composite material.” In FY21, one SSE contract fell under this industry category, representing an aggregate \$225.5 thousand in City spending.

There are no firms with this industry classification in the OEO directory. Similarly, availability at the state and national level appears to be relatively low. That suggests a relatively heavy lift to identify and grow MBEs/WBEs in this space. Therefore, this industry is in fact FONO.

Figure 5.3 – Count of MWBEs for NAICS Code 334516

NAICS 334516	# Firms	# Asian	# Black	# Hispanic	# Women
FY 2021 Spend (\$M)	\$225,550				
OEO Directory ²⁵	0	0	0	0	0
PA	264	0	0	0	0
US	4,228	38	0	18	66

Source: US Census Bureau (2012), OEO Annual Participation Report (FY21), Econsult Solutions, Inc. (2022)

5.4. NAICS Code 333318

The description of NAICS code 333318 is: “Other Commercial and Service Industry Machinery Manufacturing: This U.S. industry comprises establishments primarily engaged in manufacturing commercial and service industry equipment (except optical instruments and lenses, and photographic and photocopying equipment).” In FY21, one SSE Contract fell under this industry category, representing an aggregate \$59.7 thousand in City spending.

There are three firms under this industry code present in the OEO directory. Similarly, availability at the state and national level appears to be relatively low. That suggests a relatively heavy lift to identify and grow MBEs/WBEs in this space. Therefore, this industry is in fact FONO.

²⁴ See Appendix X for additional information related to firms within the OEO directory

²⁵ See Appendix X for additional information related to firms within the OEO directory

Figure 5.4 – Count of MWBEs for NAICS Code 333318

NAICS 333318	# Firms	# Asian	# Black	# Hispanic	# Women
FY 2021 Spend (\$M)	\$59,709				
OEO Directory ²⁶	3	0	0	0	1
PA	1,074	1	0	0	2
US	10,889	41	22	50	144

Source: US Census Bureau (2012), OEO Annual Participation Report (FY21), Econsult Solutions, Inc. (2022)

5.5. NAICS Code 334512

The description of NAICS code 334512 is: “Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use: This U.S. industry comprises establishments primarily engaged in manufacturing automatic controls and regulators for applications, such as heating, air-conditioning, refrigeration and appliances.” In FY21, one contract fell under this industry category, representing an aggregate \$73.3 thousand in City spending.

There are two firms under this industry code present in the OEO directory, of which two are Black-owned businesses and one is a women-owned business. Similarly, availability at the state and national level appears to be relatively low. That suggests a relatively heavy lift to identify and grow MBEs/WBEs in this space. Therefore, this industry is in fact FONO.

Figure 5.5 – Count of MWBEs for NAICS Code 334512

NAICS 334512	# Firms	# Asian	# Black	# Hispanic	# Women
FY 2021 Spend (\$M)	\$73,336				
OEO Directory ²⁷	2	0	2	0	1
PA	260	0	0	0	0
US	2,403	10	8	2	32

Source: US Census Bureau (2012), OEO Annual Participation Report (FY21), Econsult Solutions, Inc. (2022)

5.6. NAICS Code 336412

The description of NAICS code 336412 is: “Aircraft Engine and Engine Parts Manufacturing: This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing aircraft engines and engine parts; (2) developing and making prototypes of aircraft engines and engine parts; (3) aircraft propulsion system conversion (i.e., major modifications to systems); and (4) aircraft propulsion systems overhaul and rebuilding (i.e., periodic restoration of aircraft propulsion system to

²⁶ See Appendix X for additional information related to firms within the OEO directory

²⁷ See Appendix X for additional information related to firms within the OEO directory

original design specifications).” In FY21, one SSE contract fell under this industry category, representing an aggregate \$131.5 thousand in City spending.

There are no firms with this industry classification in the OEO directory. Similarly, availability at the state and national level appears to be relatively low. That suggests a relatively heavy lift to identify and grow MBEs/WBEs in this space. Therefore, this industry is in fact FONO.

Figure 5.6 – Count of MWBEs for NAICS Code 334512

NAICS 334512	# Firms	# Asian	# Black	# Hispanic	# Women
FY 2021 Spend (\$M)	\$131,528				
OEO Directory ²⁸	0	0	0	0	0
PA	123	0	0	0	0
US	2,274	15	0	9	35

Source: US Census Bureau (2012), OEO Annual Participation Report (FY21), Econsult Solutions, Inc. (2022)

5.7. NAICS Code 237310

The description of NAICS code 237310 is: “Highway, Street, and Bridge Construction: This industry comprises establishments primarily engaged in the construction of highways (including elevated), streets, roads, airport runways, public sidewalks, or bridges. The work performed may include new work, reconstruction, rehabilitation, and repairs. Specialty trade contractors are included in this industry if they are engaged in activities primarily related to highway, street, and bridge construction (e.g., installing guardrails on highways).” In FY21, one SSE contract fell under this industry category, representing an aggregate \$114.3 thousand in City spending.

There are 112 firms under this industry present within the OEO directory, of which 20 are Asian-owned businesses, 43 are Black-owned businesses, nine are Hispanic-owned businesses, and 75 are women-owned businesses. Counts at the state level are relatively low, but counts at the national level are relatively high. Therefore, the data are mixed as to whether there exist sufficient MBE/WBE firms to find and recruit, or alternatively that such an effort will be prohibitively difficult and yield relatively little progress. Hence, for now the assumption is that this industry category is not FONO, so that further effort can be expended to verify this and provide appropriate support services.

²⁸ See Appendix X for additional information related to firms within the OEO directory

Figure 5.7 – Count of MWBEs for NAICS Code 237310

NAICS 334512	# Firms	# Asian	# Black	# Hispanic	# Women
FY 2021 Spend (\$M)	\$114,292				
OEO Directory ²⁹	112	20	43	9	75
PA	3,554	0	25	4	77
US	75,039	62	198	457	1,313

Source: US Census Bureau (2012), OEO Annual Participation Report (FY21), Econsult Solutions, Inc. (2022)

²⁹ See Appendix X for additional information related to firms within the OEO directory

6. Conclusion

This report has taken a closer look at the industry categories represented by the 140 contracts designated by OEO as “Potentially Few or No Opportunity” (PFONO) due to lack of MBE/WBE firms in its directory in those industry categories. Verifying whether an industry category should be truly considered “Few or No Opportunity” (FONO), thus validating the “best faith effort” goal guidance used by OEO for contracts falling within that industry category, has entailed determining the closest 6-digit NAICS code for that spend, reviewing publicly available information on the availability of minority- and woman-owned firms in that industry code, and testing those preliminary findings through interviews with industry experts and business advocates.

Not surprisingly, the vast majority of these industry categories – 17 out of 21 – have very little minority- and woman-owned business representation, thus justifying PFONO status and informing OEO’s approach to advising departments on utilization opportunities for this spend. The table below provides a summary of the industry categories analyzed in this report.

Figure 6.1 – Summary of Assessment of PFONO Contract Categories

Contract Type	NAICS (Description)	Description	FONO?	Prospect to Further Attract or Grow?
PW	23822	Plumbing, heating, and air-conditioning contractors	Yes	Uncertain
PW	237110	Water and sewer line and related structures	Yes	Probably not
PPS	541511	Custom computer programming services	No	Yes
PPS	541512	Computer systems design services	No	Yes
PPS	517919	All other telecommunications	Yes	Probably not
Contract Type	NAICS (Description)	Description	FONO?	Prospect to Further Attract or Grow?
PPS	541611	Administrative Management and General Management Consulting Services	No	Yes
PPS	511210	Software publishers	Yes	Probably not

PPS	541519	Other computer related services	Yes	Probably not
PPS	541380	Testing laboratories	Yes	Probably not
PPS	561621	Security systems services	Yes	Probably not
PPS	811310	Commercial and industrial machinery and equipment repair and maintenance	Yes	Probably not
PPS	611420	Computer training	Yes	Probably not
PPS	623990	Other residential care facilities	Yes	Probably not
PPS	623210	Residential intellectual and developmental disability facilities	Yes	Probably not
PPS	517112	Wireless telecommunications carriers	Yes	Probably not
SSE	334516	Manufacturing instruments and instrumentation systems for laboratory analysis	Yes	Probably not
SSE	333318	Other Commercial and Service Industry Machinery	Yes	Probably not
SSE	334512	Manufacturing Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use	Yes	Probably not
SSE	336412	Aircraft Engine and Engine Parts Manufacturing	Yes	Probably not
				Prospect to Further Attract or Grow?
Contract Type	NAICS (Description)	Description	FONO?	
SSE	237310	Highway, Street, and Bridge Construction	No	Yes

Appendix A – Full List of “Potentially Few or No Opportunity” Contracts from FY21

Dept	Contract #	Category	Spend	Closest Naics	Naics Description	# of firms in OEO Directory
OIT	2020291-01	Computer and Information Svcs	\$10,734,319*	541519	Other Computer Related Services	132
OIT	2020035-02	Computer and Information Svcs	\$183,330	541511	Custom Computer Programming Services	207
OIT	1420298-10	Computer and Information Svcs	\$219,717	541511	Custom Computer Programming Services	207
OIT	1520468-10	Computer and Information Svcs	\$118,694	541511	Custom Computer Programming Services	207
OIT	2020376-01	Computer and Information Svcs	\$103,015	541511	Custom Computer Programming Services	207
OIT	2120034	Computer and Information Svcs	\$10,600,021*	541511	Custom Computer Programming Services	207
OIT	1520467-11	Computer and Information Svcs	\$92,889	541511	Custom Computer Programming Services	207
OIT	1520549-08	Computer and Information Svcs	\$38,590	541511	Custom Computer Programming Services	207
OIT	1620155-10	Computer and Information Svcs	\$117,462*	541519	Other Computer Related Services	132
OIT	1620405-05	Computer and Information Svcs	\$107,688	541511	Custom Computer Programming Services	207
OIT	1820313-05	Computer and Information Svcs	\$85,000	541511	Custom Computer Programming Services	207
OIT	1920056-02	Computer and Information Svcs	\$2,750,000*	541512	Custom Computer Programming Services	207
OIT	2020190-01	Computer and Information Svcs	\$135,575	541511	Custom Computer Programming Services	207

Dept	Contract #	Category	Spend	Closest Naics	Naics Description	# of firms in OEO Directory
OIT	2020602	Computer and Information Svcs	\$4,625,241*	517919	All Other Telecommunications	8
OIT	1520467-12	Computer and Information Svcs	\$92,889	541511	Custom Computer Programming Services	207
OIT	1320659-05	Computer and Information Svcs	\$587,664	541611	Administrative Management and General Management Consulting Services	314
OIT	1520549-09	Computer and Information Svcs	\$38,590	541511	Custom Computer Programming Services	207
OIT	1920394-02	Computer and Information Svcs	\$200,000	541511	Custom Computer Programming Services	207
OIT	1920483-02	Computer and Information Svcs	\$405,000	541511	Custom Computer Programming Services	207
OIT	2020420-01	Computer and Information Svcs	\$35,327	541511	Custom Computer Programming Services	207
OIT	2120367	Computer and Information Svcs	\$950,000	541511	Custom Computer Programming Services	207
OIT	1620405-06	Computer and Information Svcs	\$53,844	541511	Custom Computer Programming Services	207
OIT	1920558-02	Computer and Information Svcs	\$185,000	541511	Custom Computer Programming Services	207
OIT	1920572-02	Computer and Information Svcs	\$520,000	541511	Custom Computer Programming Services	207
OIT	1620341-05	Computer and Information Svcs	\$113,368	541511	Custom Computer Programming Services	207
OIT	2020422-01	Computer and Information Svcs	\$9,500	511210	Software Publishers	11
OIT	2020435-01	Computer and Information Svcs	\$65,052	541511	Custom Computer Programming Services	207

OIT	2020465-01	Computer and Information Svcs	\$160,000	541511	Custom Computer Programming Services	207
Dept	Contract #	Category	Spend	Closest Naics	Naics Description	# of firms in OEO Directory
OIT	2120367	Computer and Information Svcs	\$950,000	541511	Custom Computer Programming Services	207
OIT	1320681-06	Computer and Information Svcs	\$1,182,539*	541511	Custom Computer Programming Services	207
OIT	2020035-03	Computer and Information Svcs	\$230,218	541510	Custom Computer Programming Services	0
OIT	1720800-04	Computer and Information Svcs	\$299,800	541611	Administrative Management and General Management Consulting Services	314
OIT	2020376-02	Computer and Information Svcs	\$109,601	541511	Custom Computer Programming Services	207
OIT	2020490-01	Computer and Information Svcs	\$45,908	541519	Other Computer Related Services	132
OIT	1720727-04	Computer and Information Svcs	\$938,781	541511	Custom Computer Programming Services	207
OIT	1920552-02	Computer and Information Svcs	\$115,000	541511	Custom Computer Programming Services	207
OIT	1820437-03	Computer and Information Svcs	\$860,080	541511	Custom Computer Programming Services	207
OIT	1620161-05	Computer and Information Svcs	\$63,811	511210	Software Publishers	11
OIT	1520549-10	Computer and Information Svcs	\$78,141	541511	Custom Computer Programming Services	207
OIT	2020376-02	Computer and Information Svcs	\$109,601	541511	Custom Computer Programming Services	207
OIT	1620343-05	Computer and Information Svcs	\$347,000	541511	Custom Computer Programming Services	207

OIT	1820437-03	Computer and Information Svcs	\$860,080	541511	Custom Computer Programming Services	207
OIT	2020902-01	Computer and Information Svcs	\$23,136	517919	All Other Telecommunications	8
Dept	Contract #	Category	Spend	Closest Naics	Naics Description	# of firms in OEO Directory
OIT	216344	Maintenance and Support for Software and Products	\$617,045	511210	Software Publishers	11
OIT	POXX21100939	MAINT/SUPPORT-COMPUTR HARDWARE/SOFT	\$5,975	511210	Software Publishers	11
OIT	POXX21103257	MAINT/SUPPORT-COMPUTR HARDWARE/SOFT	\$15,505	541511	Custom Computer Programming Services	207
OIT	POXX21103397	MAINT/SUPPORT-COMPUTR HARDWARE/SOFT	\$10,300	511210	Software Publishers	11
OIT	POXX21103938	COMMERCIAL OFF-SHELF COMP SOFTWARE	\$17,909	511210	Software Publishers	11
OIT	POXX21104263	MAINT/SUPPORT-COMPUTR HARDWARE/SOFT	\$2,448	541511	Custom Computer Programming Services	207
OIT	POXX21105432	MAINT/SUPPORT-COMPUTR HARDWARE/SOFT	\$2,858	511210	Software Publishers	11
OIT	POXX21105437	MAINT/SUPPORT-COMPUTR HARDWARE/SOFT	\$2,215	541511	Custom Computer Programming Services	207

OIT	POXX211070 82	COMMERCIAL OFF-SHELF COMP SOFTWARE	\$850	511210	Software Publishers	11
OIT	POXX211073 17	COMPUTER EQUIPMENT & PERIPHERALS	\$16,935	511210	Software Publishers	11
Dept	Contract #	Category	Spend	Closest Naics	Naics Description	# of firms in OEO Directory
OIT	POXX211073 32	COMMERCIAL OFF-SHELF COMP SOFTWARE	\$4,500	511210	Software Publishers	11
OIT	POXX211074 16	COMMERCIAL OFF-SHELF COMP SOFTWARE	\$7,590	511210	Software Publishers	11
OIT	POXX211081 63	MAINT/SUPPORT- COMPUTR HARDWARE/SOFT	\$9,041	541511	Custom Computer Programming Services	207
OIT	POXX211087 08	COMMERCIAL OFF-SHELF COMP SOFTWARE	\$2,250	541511	Custom Computer Programming Services	207
OIT	POXX211088 64	MAINT/SUPPORT- COMPUTR HARDWARE/SOFT	\$3,800	541511	Custom Computer Programming Services	207
OIT	POXX211107 99	COMMERCIAL OFF-SHELF COMP SOFTWARE	\$9,493	511210	Software Publishers	11
OIT	POXX211108 89	COMMERCIAL OFF-SHELF COMP SOFTWARE	\$1,756	511210	Software Publishers	11
OIT	POXX211111 48	COMMERCIAL OFF-SHELF COMP SOFTWARE	\$2,900	511210	Software Publishers	11

OIT	POXX211147 23	Computer and Information Svcs	\$1,080	511210	Software Publishers	11
OIT	POXX211160 30	Computer and Information Svcs	\$6,372	511210	Software Publishers	11
OIT	POXX211185 02	Computer and Information Svcs	\$11,940	511210	Software Publishers	11

Dept	Contract #	Category	Spend	Closest Naics	Naics Description	# of firms in OEO Directory
Police	215570	Scanning electron microscope for GSR	\$225,550	334516	manufacturing instruments and instrumentation systems for laboratory analysis	0
Police	1920237-02	Computer and Information Svcs	\$120,121	541512	Custom Computer Programming Services	207
Police	1920121-02	General Consultant Services	\$200,000	541380	performing physical, chemical, and other analytical testing services occur in a laboratory or on-site.	44
Police	2020066-01	General Consultant Services	\$40,000	541380	performing physical, chemical, and other analytical testing services	44
Police	1820393-03	General Consultant Services	\$800,000	541380	performing physical, chemical, and other analytical testing services	44
Police	1920565-01	General Consultant Services	\$130,000	541380	performing physical, chemical, and other analytical testing services	44
Police	214928	Maint touch time kiosks	\$17,638	334118	manufacturing computer terminals and other computer peripheral equipment	2
Police	214942	Maintenance Contract	\$13,234	334516	manufacturing instruments for laboratory analysis	0

Dept	Contract #	Category	Spend	Closest Naics	Naics Description	# of firms in OEO Directory
Police	214979	IA PRO SOFTWARE MAINT	\$29,183	541512	Custom Computer Programming Services	207
Police	214984	Annual Service Contract	\$4,910	561410	transcription, and other secretarial services.	17
Police	214989	Annual Maintenance for EZ1 Advanced XL	\$15,836	621511	providing analytic or diagnostic services, including body fluid analysis,	4
Police	214928	Maint touch time kiosks	\$17,638	334118	manufacturing computer terminals and other computer peripheral equipment	2
Police	214942	Maintenance Contract	\$13,234	334516	manufacturing instruments and instrumentation systems for laboratory analysis	0
Police	214979	IA PRO SOFTWARE MAINT	\$29,183	541512	Custom Computer Programming Services	207
Police	214984	Annual Service Contract	\$4,910	561410	transcription, and other secretarial services.	17
Police	214989	Annual Maintenance for EZ1 Advanced XL	\$15,836	621511	providing analytic or diagnostic services	4
Police	215079	Annual Maintenance & Repair Service	\$25,116	561621	selling security alarm systems	18

Police	215080	Annual Air Time Service	\$6,372	517112	facilities to provide communications via the airwaves.	0
Dept	Contract #	Category	Spend	Closest Naics	Naics Description	# of firms in OEO Directory
Police	215123	Bode Buccal Collectors EQUIP	\$4,300	621511	providing analytic or diagnostic services	4
Police	215179	MANAGEMENT SOFTWARE	\$30,385	541519	Other Computer Related Services	132
Police	215187	Neopost Meter	\$2,144	423420	Distribution of office machines and related equipment	11
Police	215202	Maintenance Contract	\$9,465	333310	manufacturing commercial and service industry machinery	0
Police	215312	Microfilm and Microfilm Service	\$5,914	423420	Distribution of office machines and related equipment	11
Police	215459	Calibration & Preventive Maint	\$854	811210	Weighing equipment repair and maintenance services	0
Police	215409	Preventive Maintenance Contract	\$8,947	811310	Repair and maintenance of commercial and industrial machinery and equipment.	5
Police	217309	upgrade to security access system	\$6,129	561621	selling security alarm systems	18
Police	216168	Driftcon Acquisitions Maint.	\$3,150	334513	Manufacturing instruments and related	1

Police	217463	Parsystem Score & Test	\$10,077	611710	devices for industrial process variables. services to educational processes or systems.	23
Dept	Contract #	Category	Spend	Closest Naics	Naics Description	# of firms in OEO Directory
Revenue	216261	Maintenance for Bell & Howell Mailing System	\$188,450	811300	Commercial and Industrial Machinery and Equipment Repair and Maintenance. Other Commercial and Service Industry Machinery	0
Revenue	183785	Mailing Equipment	\$59,706	333318	Manufacturing installing and servicing plumbing, heating, and air-conditioning equipment.	3
Water	215951	Emergency Abatement Repair Program	\$375,000	23822	installing and servicing plumbing, heating, and air-conditioning equipment.	6
Water	215952	Emergency Abatement Repair Program	\$300,000	23822	installing and servicing plumbing, heating, and air-conditioning equipment.	6
Water	215953	Emergency Abatement Repair Program	\$375,000	23822	installing and servicing plumbing, heating, and air-conditioning equipment.	6
Water	215954	Emergency Abatement Repair Program	\$300,000	23822	installing and servicing plumbing, heating, and air-conditioning equipment.	6
Water	215955	Emergency Abatement Repair Program	\$300,000	23822	installing and servicing plumbing, heating, and	6

Water	215956	Emergency Abatement Repair Program	\$375,000	23822	air-conditioning equipment. installing and servicing plumbing, heating, and air-conditioning equipment.	6
Dept	Contract #	Category	Spend	Closest Naics	Naics Description	# of firms in OEO Directory
Water	215957	Emergency Abatement Repair Program	\$375,000	23822	installing and servicing plumbing, heating, and air-conditioning equipment.	6
Water	215958	Emergency Abatement Repair Program	\$300,000	23822	installing and servicing plumbing, heating, and air-conditioning equipment.	6
Water	215959	Emergency Abatement Repair Program	\$300,000	23822	installing and servicing plumbing, heating, and air-conditioning equipment.	6
Water	215960	Emergency Abatement Repair Program	\$250,000	23822	installing and servicing plumbing, heating, and air-conditioning equipment.	6
Water	215961	Emergency Abatement Repair Program	\$250,000	23822	installing and servicing plumbing, heating, and air-conditioning equipment.	6
Water	203393	Natrona/Napa/Huntingdon	\$1,250,223	237110	Distribution line, sewer and water, construction	77
Water	203395	Water Relay Sewer Recon	\$2,304,080	237110	Distribution line, sewer and water, construction	77

Water	203421	Water Relay	\$835,628	237110	Distribution line, sewer and water, construction	77
Water	203683	Water Relay	\$1,292,132	237110	Distribution line, sewer and water, construction	77
Water	204821	Water Relay	\$854,635	237110	Distribution line, sewer and water, construction	77
Water	204847	Water Relay and Sewer Recon	\$1,357,800	237110	Distribution line, sewer and water, construction	77
Dept	Contract #	Category	Spend	Closest Naics	Naics Description	# of firms in OEO Directory
Water	209303	GSI	\$220,700	237110	Distribution line, sewer and water, construction	77
Water	214816	Water relay	\$580,980	237110	Distribution line, sewer and water, construction	77
Water	214818	Water relay	\$567,960	237110	Distribution line, sewer and water, construction	77
Water	214850	Water relay	\$893,040	237110	Distribution line, sewer and water, construction	77
Water	214852	Water Relay, GSI New Construction SEWER	\$820,522	237110	Distribution line, sewer and water, construction	77
Water	215006	RECONSTRUCTION & RELAY of WATER MAINS	\$367,740	237110	Distribution line, sewer and water, construction	77
Water	215467	GSI New Construction, GSI Sewer Green	\$214,960	237110	Distribution line, sewer and water, construction	77
Water	215415	Stormwater Infrastructure	\$247,968	237110	Distribution line, sewer and water, construction	77
Water	215779	Water Relay, Sewer Reconstruction	\$1,284,816	237110	Distribution line, sewer and water, construction	77

Water	215911	GSI and ROW Connections	\$246,300	237110	Distribution line, sewer and water, construction	77
Aviation	215729	MAINTENANCE, REPAIR BESAM- AUTOMATED ENTRANCE	\$73,336	334512		2
Aviation	215970	Air Handler Repair Parts	\$131,528	336412		0
Dept	Contract #	Category	Spend	Closest Naics	Naics Description	# of firms in OEO Directory
Aviation	216403	Maintenance for Interactive Employee Training System	\$55,400	611420		37
Aviation	216597	Runway Silica Sand	\$114,292	237310		112
Aviation	POXX211054 23	COMMERCIAL OFF-SHELF COMP SOFTWARE 0216	\$6,000	513210	carry out operations necessary for producing and distributing computer software	0
Aviation	POXX211065 89	FURNITURE AND FURNISHINGS 0430	\$27,300	423210		19
Aviation	POXX211085 85	ADVERTISING 02 40	\$1,118	541870		10
Aviation	POXX211124 59	COTS - SOFTWARE 0216	\$14,477	423430		30
Aviation	POXX211130 13	PROFESSIONAL SERVICES 0250	\$1,830	423430		30
Aviation	POXX211138 01	COTS - SOFTWARE 0216	\$19,700	423430		30
Aviation	POXX211137 99	COTS - SOFTWARE 0216	\$8,000	423430		30

Aviation	POXX211138 00	COTS - SOFTWARE 0216	\$8,750	423430		30
Aviation	POXX211162 08	SUITEREQ SOFTWARE	\$3,000	423430		30
Human Services	2120307	Delinquent Placement	\$895,000	623990	Other Residential Care Facilities	1
Dept	Contract #	Category	Spend	Closest Naics	Naics Description	# of firms in OEO Directory
Human Services	1920646-04	Placement Agency- Dependent Placement	\$1,012,234	623990	Other Residential Care Facilities	1
Human Services	1820195-04	Placement Agency-Specialty Group Home	\$93,780	623210	Residential Intellectual and Developmental Disability Facilities	1
Human Services	1820145-05	Placement Agency-Specialty Medical Necessity	\$103,135	623210	Residential Intellectual and Developmental Disability Facilities	1
Human Services	1820144-05	Placement Agency-Specialty Medical Necessity	\$303,230	623210	Residential Intellectual and Developmental Disability Facilities	1
Human Services	1820143-08	Placement Agency-Specialty Medical Necessity	\$253,116	623210	Residential Intellectual and Developmental Disability Facilities	1
Human Services	1820143-09	Placement Agency-Specialty Medical Necessity	\$250,000	623210	Residential Intellectual and Developmental Disability Facilities	1
Human Services	1820142-05	Placement Agency-Specialty Medical Necessity	\$117,661	623210	Residential Intellectual and Developmental Disability Facilities	1

Human Services	1720236-06	Placement Agency-Delinquent Placement	\$766,653	623990	Other Residential Care Facilities	1
Human Services	1720212-07	Placement Agency-Delinquent Placement	\$220,000	623990	Other Residential Care Facilities	1
Human Services	1720212-06	Delinquent Placement	\$280,000	623990	Other Residential Care Facilities	1
Dept	Contract #	Category	Spend	Closest Naics	Naics Description	# of firms in OEO Directory
Library	1820043-03	Computer and Information Svcs	\$860,938	517312	Wireless Telecommunications Carriers (except Satellite)	0

Appendix B – Additional Detail on MWBE Availability for PW PFONO Contracts

Figure B.1 – Counts of Firms with Employees for NAICS Code 237110

	PA	US
Minority	0	528
Black	0	71
Hispanic	0	331
Asian	0	22
Women	11	1,235
Minority + Women	11	1,763
All Firms	2,604	89,237

Figure B.2 – Counts of Firms with Employees for NAICS Code 23822

	PA	US
Minority	59	8,121
Black	28	1,083
Hispanic	2	4,905
Asian	29	1,480
Women	392	7,415
Minority + Women	451	15,536
All Firms	28,786	731,009

Appendix C – Additional Detail on MWBE Availability for PPS PFONO Contracts

Figure C.1 – Counts of Firms with Employees for NAICS Code 511210

	PA	US
Minority	4	516
Black	1	32
Hispanic	0	85
Asian	3	383
Women	4	476
Minority + Women	8	992
All Firms	1,858	43,195

Figure C.2 – Counts of Firms with Employees for NAICS Code 517210

	PA	US
Minority	2	278
Black	0	23
Hispanic	0	116
Asian	2	132
Women	1	175
Minority + Women	3	453
All Firms	243	8,974

Figure C.3 – Counts of Firms with Employees for NAICS Code 517919

	PA	US
Minority	2	272
Black	0	46
Hispanic	0	91
Asian	2	115
Women	1	190
Minority + Women	3	462
All Firms	262	14,796

Figure C.4 – Counts of Firms with Employees for NAICS Code 541380

	PA	US
Minority	6	421
Black	1	33
Hispanic	0	147
Asian	5	190
Women	22	854
Minority + Women	28	1,275
All Firms	1,649	39,099

Figure C.5 – Counts of Firms with Employees for NAICS Code 541511

	PA	US
Minority	483	15,608
Black	60	997
Hispanic	15	1,695
Asian	400	12,496
Women	283	9,149
Minority + Women	766	24,757
All Firms	17,722	500,708

Figure C.6 – Counts of Firms with Employees for NAICS Code 541512

	PA	US
Minority	240	10,365
Black	29	928
Hispanic	45	1,534
Asian	138	7,522
Women	218	5,654
Minority + Women	458	16,019
All Firms	10,442	293,332

Figure C.7 – Counts of Firms with Employees for NAICS Code 541519

	PA	US
Minority	23	2,424
Black	0	207
Hispanic	12	377
Asian	11	1,775
Women	60	1,645
Minority + Women	83	4,069
All Firms	1,506	74,545

Figure C.8 – Counts of Firms with Employees for NAICS Code 541611

	PA	US
Minority	139	8,807
Black	29	1,796
Hispanic	26	2,302
Asian	87	4,391
Women	525	16,205
Minority + Women	664	25,012
All Firms	16,160	525,894

Figure C.9 – Counts of Firms with Employees for NAICS Code 561621

	PA	US
Minority	2	601
Black	1	131
Hispanic	0	229
Asian	1	210
Women	4	641
Minority + Women	6	1,242
All Firms	1,637	42,263

Figure C.10 – Counts of Firms with Employees for NAICS Code 611420

	PA	US
Minority	1	204
Black	0	45
Hispanic	0	40
Asian	1	117
Women	17	560
Minority + Women	18	764
All Firms	590	12,402

Figure C.11 – Counts of Firms with Employees for NAICS Code 623210

	PA	US
Minority	8	1,402
Black	7	698
Hispanic	0	150
Asian	0	552
Women	22	1,676
Minority + Women	30	3,078
All Firms	1,060	39,036

Figure C.12 – Counts of Firms with Employees for NAICS Code 623990

	PA	US
Minority	2	421
Black	2	246
Hispanic	0	27
Asian	0	123
Women	0	491
Minority + Women	2	912
All Firms	464	16,897

Figure C.13 – Counts of Firms with Employees for NAICS Code 811310

	PA	US
Minority	40	1,569
Black	5	238
Hispanic	9	859
Asian	26	347
Women	42	1,602
Minority + Women	82	3,171
All Firms	7,364	151,795

Appendix D – Additional Detail on MWBE Availability for SSE PFONO Contracts

Figure D.1 – Counts of Firms with Employees for NAICS Code 237310

	PA	US
Minority	30	821
Black	25	198
Hispanic	4	457
Asian	0	62
Women	77	1,313
Minority + Women	107	2,134
All Firms	3,554	75,039

Figure D.2 – Counts of Firms with Employees for NAICS Code 33318

	PA	US
Minority	2	115
Black	0	22
Hispanic	0	50
Asian	1	41
Women	2	144
Minority + Women	4	259
All Firms	1,074	10,899

Figure D.3 – Counts of Firms with Employees for NAICS Code 334512

	PA	US
Minority	0	22
Black	0	8
Hispanic	0	2
Asian	0	10
Women	0	32
Minority + Women	0	54
All Firms	260	2,403

Figure D.4 – Counts of Firms with Employees for NAICS Code 334516

	PA	US
Minority	0	58
Black	0	0
Hispanic	0	18
Asian	0	38
Women	0	66
Minority + Women	0	124
All Firms	264	4,228

Figure D.5 – Counts of Firms with Employees for NAICS Code 336412

	PA	US
Minority	0	33
Black	0	0
Hispanic	0	9
Asian	0	15
Women	0	35
Minority + Women	0	68
All Firms	123	2,274

Figure D.6 – Counts of Firms with Employees for NAICS Code 511210

	PA	US
Minority	4	516
Black	1	32
Hispanic	0	85
Asian	3	383
Women	4	476
Minority + Women	8	992
All Firms	1,858	43,195

Appendix E – Additional Information Related to Firms within the OEO Directory

Figure E.1 –Information for those OEO Directory firms under NAICS Code 23822

Firm Name	City, State	Certification
ENELL MCINTOSH MECHANICAL, LLC	Southampton, PA	MBE
The Genesio Company	Warminster, PA	WBE
Gregory Moore	Philadelphia, PA	MBE
DeWitt Heating & Air Condition	Philadelphia, PA	MBE
Daniels Inc., MECHA	Wyncote, PA	MBE
C & C Bros Construction, LLC	Elkins Park, PA	MBE

Figure E.2 –Information for those OEO Directory firms under NAICS Code 237110

Firm Name	City, State	Certification
Jersey Boring & Drilling Co., Inc.	Fairfield, NJ	WBE
En-Tech Corp	Closter, NJ	WBE
INTEGRUM WORKPLACE SOLUTIONS INC	Marlton, NJ	MBE
Lake Glenn Enterprises, Inc.	Penns Grove, NJ	MBE
Lucky Mechanical, LLC	Thorofare, NJ	WBE
CLEAN EARTH MATTERS LLC	Trenton, NJ	WBE
ARORA and ASSOCIATES, P.C.	Lawrence Township, NJ	MBE
Ferreira Construction Co.,Inc.	Somerville, NJ	MBE
MACAN DEVE ENGINEERS DPC	Yorktown Heights, NY	WBE
Hanover Land Services, Inc.	Hanover, PA	WBE
Resolve Trenchless Solutions, Inc.	New Hope, PA	WBE
Mobile Dredging & Video Pipe, Inc.	Chester, PA	WBE

C. Amodei Co Inc	Bensalem, PA	WBE
Firm Name	City, State	Certification
Vera-CCS, LLC	Philadelphia, PA	MBE
Cromedy Construction Corporation	Philadelphia, PA	MBE
Rodriguez Consulting, LLC	Philadelphia, PA	MBE
StormWater Solutions	Philadelphia, PA	WBE
Athena Contracting, Inc	Philadelphia, PA	WBE
Locating Utility Infrastructure Services, LLC	Philadelphia, PA	MBE
Brandywine Stormwater, LLC	West Chester, PA	WBE
Fast Pipe Lining East, Inc.	Newark, DE	WBE
CGC Geoservices, LLC	Newark, DE	WBE
Dimurian LLC	Wilmington, DE	MWBE
Mountain Consulting, Inc.	Dover, DE	MWBE
Reviera Enterprises, Inc.	District Heights, MD	MBE
Environ-Civil Engineering, Ltd	Columbia, MD	MBE
A-Plus Contracting, LLC	Joppa, MD	MWBE
PHOENIX ENGINEERING, INC.	Parkton, MD	MWBE
Stormwater Maintenance, LLC	Sparks Glencoe, MD	WBE
K & K Adams, Inc.	Baltimore, MD	MBE
R2O Consulting LLC	Cleveland, OH	WBE
Cosmos Technologies, Inc.	Cleveland, OH	MBE
Luthers Supply, LLC	Saint Louis, MO	MBE
ONCORE Group, LLC	Lincoln, NE	WBE
Briones Consulting & Engineering, Ltd.	Houston, TX	MBE
Advantage Manhole & Concrete Services, Inc.	Houston, TX	WBE
KEVILLE ENTERPRISES, INC.	Marshfield, MA	WBE
PMOK Consulting, LLC	Elizabeth, NJ	MBE
Renova Environmental Company	Asbury Park, NJ	MBE

NORTHEAST REMSCO CONSTRUCTION INC	Neptune, NJ	MBE
Firm Name	City, State	Certification
Winzinger, Inc.	Hainesport, NJ	WBE
MIDLANTIC SUPPLY LLC	Marlton, NJ	WBE
Hatch Associates Consultants, Inc	Pittsburgh, PA	MBE
Berner Construction, Inc.	Gap, PA	WBE
Applesack Trucking Inc	Langhorne, PA	WBE
General Sewer Service, Inc.	Sharon Hill, PA	WBE
The Temple Group, Inc.	Philadelphia, PA	MWBE
Pipe Services Corporation	West Chester, PA	WBE
Cedarville Engineering Group, LLC	Pottstown, PA	WBE
R & R Contracting Utilities, Inc.	Olney, MD	WBE
G. Stephens, Inc.	Akron, OH	MBE
David Mason + Associates	Saint Louis, MO	MBE
United Storm Water Inc.	La Puente, CA	MBE
KS Engineers, P.C.	Newark, NJ	MBE
R Baker & Son All Industrial Services Inc of NJ	Marlboro, NJ	DSBE
Project Management Technologies, Inc. D/B/A Promatech, Inc.	Mount Laurel, NJ	WBE
ABC Construction Company, Inc.	Bensalem, PA	WBE
Wells Building Maintenance Consulting Services, Inc.	Lansdowne, PA	MBE
Base Architecture Planning & Engineering, Inc.	Philadelphia, PA	MBE
Tiger Contractors LLC	Philadelphia, PA	MBE
Ramos & Associates, Inc.	Philadelphia, PA	MBE
US Construction Group	Philadelphia, PA	MBE
PRIDE ENTERPRISES, INC.	Norristown, PA	MBE
Linda McCormick	Wilmington, DE	MWBE
Quantum Builders LLC	Wilmington, DE	MBE

EBA Engineering, Inc.	Laurel, MD	MBE
Albrecht Engineering, Inc.	Baltimore, MD	WBE
Firm Name	City, State	Certification
R2T, Inc.	Roswell, GA	MWBE
Fresh Coast Capital, LLC	Chicago, IL	WBE
Preferred Construction Management Co., Inc.	Ringwood, NJ	WBE
The Vann Organization, Inc.	Cherry Hill, NJ	MBE
Adcon Consultants, Inc.	Philadelphia, PA	MBE
L. Cruz Development, LLC	Philadelphia, PA	MBE
Delon Hampton & Associates, Chartered	Washington, DC	MBE
The McKissack Group, Inc.	New York, NY	MWBE
Midatlantic Construction & Design, Inc.	Trenton, NJ	MBE
Armand Corporation	New York, NY	MWBE

Figure E.3–Information for those OEO Directory firms under NAICS Code 237310

Firm Name	City, State	Certification
Enovate Engineering, LLC	Cranford, NJ	WBE
LS Engineering Associates Corporation	Montville, NJ	MBE
M. L. RUBERTON CONSTRUCTION COMPANY, INC.	Hammonton, NJ	WBE
Walker Diving Underwater Construction LLC	Hammonton, NJ	DSBE
S J A Construction, Inc.	Marlton, NJ	WBE
Atlantic Concrete Cutting Inc.	Mount Holly, NJ	WBE
Envision Consultants, LTD	Mullica Hill, NJ	WBE
Thesing Power Sweeping, Inc.	Sewell, NJ	WBE
Holmes Hauling And Dumping Ilc	Woodbury, NJ	MBE
Work Zone Contractors	Woodbury, NJ	WBE

BYRD DOG PAVING LLC Egg Harbor Township, NJ MBE

Firm Name	City, State	Certification
Garden State Highway Products, Inc.	Millville, NJ	WBE
InVision Engineers, P.C.	Pennington, NJ	MWBE
W. R. Burnett, Inc.	Monmouth Junction, NJ	MBE
W. ALLEN ENGINEERING PLLC	New York, NY	MBE
PRUDENT ENGINEERING LLP	East Syracuse, NY	MBE
RIG CONSULTING INC	Pittsburgh, PA	WBE
VE Engineering, Inc.	New Cumberland, PA	WBE
Daniel B. Krieg, Inc.	Harrisburg, PA	WBE
22 Group, LLC	Bethlehem, PA	WBE
G. M. Taggart & Associates	Bethlehem, PA	WBE
Bridg-it Fabricators, Inc.	Zionsville, PA	WBE
Axtell's, Inc.	Jermyn, PA	WBE
L. C. Costa Contractors, Inc.	Warminster, PA	MBE
Niche Consultants, Inc.	Bryn Mawr, PA	MBE
People's & Sons, LLC	Chester, PA	MBE
Frانيا Inc.	Aston, PA	WBE
MOSSI CONSTRUCTION INC	Bensalem, PA	WBE
Tierra Construction Services, LLC	Bensalem, PA	MBE
GESSLER CONSTRUCTION CO INC	Media, PA	WBE
Sumsar Construction LLC	Oreland, PA	MBE
Sci-Tek Consultants, Inc.	Philadelphia, PA	MBE
Ultimate Concrete, LLC	Philadelphia, PA	MBE
GRACIE PAINTING, LLC	Philadelphia, PA	MWBE
Blasco Contractors, Inc.	Philadelphia, PA	MBE
J.K.T. CONTRACTORS AND DEVELOPMENT COMPANY, INC.	Philadelphia, PA	MBE
Medveczky Associates, Ltd.	Exton, PA	WBE

TRAFFIC & SAFETY SIGNS, INC.	Kennett Square, PA	WBE
Richard Fox Contractors, Inc.	King Of Prussia, PA	WBE
American Engineers Group, LLC	Phoenixville, PA	MBE
Firm Name	City, State	Certification
SP Engineering, Inc.	Plymouth Meeting, PA	MWBE
ROCK SOLID CONTRACTING	Wilmington, DE	MBE
Legion Design/Campbell & Associates	Washington, DC	MBE
S & J SERVICE, INC.	Washington, DC	MBE
Century Fence Construction, LLC	Upper Marlboro, MD	WBE
AED Inc.	Hyattsville, MD	MBE
PRIME ENGINEERING, INC.	Catonsville, MD	MBE
BREE & Associates, Inc.	Durham, NC	MBE
RDM International, Inc.	Columbus, OH	MBE
AZTEC WFR INC	Indianapolis, IN	MBE
T & G Construction	#N/A	MWBE
Robinson Aerial Surveys, Inc.	Hackettstown, NJ	MBE
Lake Glenn Enterprises, Inc.	Penns Grove, NJ	MBE
NAIK CONSULTING GROUP PC	Edison, NJ	MBE
Hanover Land Services, Inc.	Hanover, PA	WBE
C. Amodei Co Inc	Bensalem, PA	WBE
COCCO CONTRACTING CORP.	Crum Lynne, PA	WBE
Cromedy Construction Corporation	Philadelphia, PA	MBE
Athena Contracting, Inc	Philadelphia, PA	WBE
WINFORT MANAGMENT LLC	Harleysville, PA	MBE
Mallik Engineering , Inc.	Lansdale, PA	MBE
Mountain Consulting, Inc.	Dover, DE	MWBE
MIMAR ARCHITECTS & ENGINEERS, INC.	Columbia, MD	MBE
PHOENIX ENGINEERING, INC.	Parkton, MD	MWBE
K & K Adams, Inc.	Baltimore, MD	MBE

L.M.C.C. Specialty Contractors	Orlando, FL	MWBE
Connico, Inc.	Mount Juliet, TN	WBE
Marine Solutions, Inc.	Nicholasville, KY	WBE
Cosmos Technologies, Inc.	Cleveland, OH	MBE

Firm Name	City, State	Certification
Milhouse Engineering and Construction, Inc.	Chicago, IL	MBE
Graylee Construction and Demolition LLC	Ward, AR	DSBE
Leothacue Enterprises, Inc.	Ontario, CA	MWBE
NORTHEAST REMSCO CONSTRUCTION INC	Neptune, NJ	MBE
Winzinger, Inc.	Hainesport, NJ	WBE
Macon Pace Inc.	Millstone Township, NJ	MBE
JCMS, Inc.	Trenton, NJ	MBE
ARORA and ASSOCIATES, P.C.	Lawrence Township, NJ	MBE
11 Enviro Group, LLC	Brooklyn, NY	WBE
Berner Construction, Inc.	Gap, PA	WBE
The Temple Group, Inc.	Philadelphia, PA	MWBE
Yardman Building Solutions	Philadelphia, PA	MBE
Pipe Services Corporation	West Chester, PA	WBE
Aviman Management, LLC	Wilmington, DE	MBE
Eastcon Group LLC	Wilmington, DE	MWBE
G. Stephens, Inc.	Akron, OH	MBE
David Mason + Associates	Saint Louis, MO	MBE
KEVILLE ENTERPRISES, INC.	Marshfield, MA	WBE
KS Engineers, P.C.	Newark, NJ	MBE
Project Management Technologies, Inc. D/B/A Promatech, Inc.	Mount Laurel, NJ	WBE
Ferreira Construction Co., Inc.	Somerville, NJ	MBE
ABC Construction Company, Inc.	Bensalem, PA	WBE

Base Architecture Planning & Engineering, Inc.	Philadelphia, PA	MBE
Tiger Contractors LLC	Philadelphia, PA	MBE
PRIDE ENTERPRISES, INC.	Norristown, PA	MBE
JADE KNOLL MANAGEMENT, LLC	Pottstown, PA	WBE
Linda McCormick	Wilmington, DE	MWBE
Firm Name	City, State	Certification
DRM International, Inc.	Washington, DC	MBE
EBA Engineering, Inc.	Laurel, MD	MBE
Albrecht Engineering, Inc.	Baltimore, MD	WBE
CMTS Construction Management Services, LLC	Atlanta, GA	MBE
PMOK Consulting, LLC	Elizabeth, NJ	MBE
LSN CM&E, LLC	Plymouth Meeting, PA	MBE
Delon Hampton & Associates, Chartered	Washington, DC	MBE
ROHADFOX CONSTRUCTION CONTROL SERVICES CORPORATION	Atlanta, GA	MWBE
Preferred Construction Management Co., Inc.	Ringwood, NJ	WBE
The Vann Organization, Inc.	Cherry Hill, NJ	MBE
The McKissack Group, Inc.	New York, NY	MWBE
Ramos & Associates, Inc.	Philadelphia, PA	MBE
Adcon Consultants, Inc.	Philadelphia, PA	MBE
Armand Corporation	New York, NY	MWBE
L. Cruz Development, LLC	Philadelphia, PA	MBE
DLG Development Corporation	Philadelphia, PA	MBE

Figure E.4–Information for those OEO Directory firms under NAICS Code 333318

Firm Name	City, State	Certification
Election Works Inc	Geneva, IL	WBE

Huneke Associates, Inc.	Merchantville, NJ	WBE
Diversified Chemical And Supply, Inc.	Houston, TX	WBE

Figure E.5–Information for those OEO Directory firms under NAICS Code 334512

Firm Name	City, State	Certification
Stone Ridge Building Solutions LLC	Norristown, PA	MBE
Emergent Energy Solutions. LLC	Devault, PA	MWBE

Figure E.6 –Information for those OEO Directory firms under NAICS Code 511210

Firm Name	City, State	Certification
Boreal Insurance Brokerage, LLC	Matawan, NJ	MWBE
Avenues International Inc.	Princeton Junction, NJ	MBE
Koryak Consulting, Inc.	Pittsburgh, PA	MBE
Adept Consulting Services, Inc.	Lansdale, PA	MBE
Razavi Application Developers, Inc.	Centreville, VA	WBE
Optimum Technology, Inc.	Powell, OH	MBE
Brite Systems Inc	Indianapolis, IN	MWBE
The Sartell Group, Inc	Minneapolis, MN	WBE
Aurigo Software Technologies Inc	Austin, TX	MBE
Jayson & Williams Technologies Inc	Monroe Township, NJ	MBE
Global Data Management Systems, LLC	Lansdale, PA	MBE

Figure F.7 –Information for those OEO Directory firms under NAICS Code 517919

Firm Name	City, State	Certification
STELLAR SERVICES, INC.	New York, NY	MBE
MAC Group Solution Services, LLC	Marlton, NJ	WBE
G5 Tek Solutions LLC	Suwanee, GA	WBE
Aloha Communications Contractors Inc.	Cherry Hill, NJ	MBE

AMERICA VEN LLC	Bethlehem, PA	MBE
Firm Name	City, State	Certification
Eastern Telephone & Telecommunications, Inc.	Bethlehem, PA	WBE
OhmComm, Inc.	Philadelphia, PA	MBE
East Hill Video Production Company	Lansdale, PA	MBE

Figure E.8 –Information for those OEO Directory firms under NAICS Code 541380

Firm Name	City, State	Certification
HAMPTON-CLARKE INC	Fairfield, NJ	WBE
CHEMTECH CONSULTING GROUP INC	Mountainside, NJ	WBE
TerraSense, LLC	Totowa, NJ	WBE
Schnabel Conservation L.L.C.	Trenton, NJ	WBE
Environmental Data Validation Inc.	Pittsburgh, PA	MWBE
Red Planet Substance Abuse Testing, Inc.	Bethlehem, PA	WBE
GAI Construction Monitoring Services, Inc.	Conshohocken, PA	WBE
BG Laboratory, Inc	Dover, DE	MWBE
Schneider Laboratories, Inc.	Richmond, VA	WBE
Lampu International Trading LLC	Collingswood, NJ	MBE
Universe Resources LLC	Monmouth Junction, NJ	MWBE
American Geotechnical & Environmental Services, Inc.	Canonsburg, PA	MBE
American Geotechnical & Environmental Services, Inc.	Canonsburg, PA	MBE
Metropolitan Acoustics, LLC	Philadelphia, PA	WBE
MJ Reider Associates, Inc.	Reading, PA	WBE
CGC Consulting, LLC	Wilmington, DE	WBE
Aspen of DC, Inc. dba ADC Management Solutions	Washington, DC	MWBE

Ahera Consultants, Inc.	Absecon, NJ	WBE
Firm Name	City, State	Certification
HILL ENVIRONMENTAL GROUP INC	Bordentown, NJ	WBE
Arecon Ltd.	Trenton, NJ	MBE
Dawn Underground Engineering, Inc.	Flemington, NJ	WBE
JPC Logistics, LLC.	Hillsborough, NJ	MWBE
HOLDER INC T/A DONOVAN ELECTRIC	Philadelphia, PA	MBE
Mid-Atlantic Environmental Laboratories, Inc.	New Castle, DE	MBE
The Robert B. Balter Company	Owings Mills, MD	WBE
E2CR, INC.	Halethorpe, MD	MBE
Enovate Engineering, LLC	Cranford, NJ	WBE
Distinct Engineering Solutions, Inc.	North Brunswick, NJ	MBE
G & C Environmental Services, Inc.	Newtown Square, PA	MWBE
Batta Environmental Associates, Inc	Newark, DE	MBE
Sci-Tek Consultants, Inc.	Philadelphia, PA	MBE
KAKS & COMPANY, LLC	Harleysville, PA	MWBE
Soil And Land Use Technology, Inc.	Beltsville, MD	MBE
RDM International, Inc.	Columbus, OH	MBE
Cosmos Technologies, Inc.	Cleveland, OH	MBE
ATANE Engineers, Architects and Land Surveyors, D.P.C.	New York, NY	MBE
Navarro & Wright Consulting Engineers, Inc.	New Cumberland, PA	MBE
Dawood Engineering, Inc.	Harrisburg, PA	MBE
PRIME ENGINEERING, INC.	Catonsville, MD	MBE
DLZ National, Inc.	Columbus, OH	MBE

Total Energy Solutions Company, LLC	Indianapolis, IN	WBE
American Engineers Group, LLC	Phoenixville, PA	MBE
Firm Name	City, State	Certification
EBA Engineering, Inc.	Laurel, MD	MBE
AMERICAN GEOTECH, INC.,	Reading, PA	MBE

Figure E.9 –Information for those OEO Directory firms under NAICS Code 541511

Firm Name	City, State	Certification
Grinnell Appreciative Consulting, LLC	Portsmouth, RI	WBE
Montage Software Systems, Inc.	Wilton, CT	MBE
Spruce Technology, Inc.	Clifton, NJ	MBE
Afstar Associates, LLC	Roselle, NJ	MWBE
ROKITT Inc.	Jersey City, NJ	WBE
TNT Staffing, LLC	Emerson, NJ	MWBE
Fourth Technologies, Inc	Cherry Hill, NJ	MBE
Integrated Technology Strategies, Inc.	Cherry Hill, NJ	MBE
Crystal Data LLC	Marlton, NJ	MWBE
Information Logistics, Inc	Merchantville, NJ	WBE
V GROUP INC	Cranbury, NJ	MWBE
Contemporary Software Concepts of New Jersey, Inc.	Pennington, NJ	WBE
PamTen, Inc.	Princeton, NJ	MWBE
Real Soft, Inc. dba Diversity Direct	Princeton, NJ	MBE
RV Global Solutions Inc	Trenton, NJ	MBE
Xybion Technology Solutions, Inc	Lawrence Township, NJ	MBE
Tetrus Corp.	East Brunswick, NJ	MBE
ZENOSYS,LLC	Kendall Park, NJ	MWBE
SOFTEK INTERNATIONAL INC	Piscataway, NJ	MBE
APPLIEDINFO PARTNERS, INC.	Somerset, NJ	MWBE

Nat Soft Corporation	Somerset, NJ	MBE
GlobalPoint Inc	North Brunswick, NJ	MWBE
Innovée Consulting LLC	New York, NY	MBE
Firm Name	City, State	Certification
Sigma Resources LLC	Pittsburgh, PA	MWBE
Info-Matrix Corporation	Camp Hill, PA	WBE
DSERVE SOLUTIONS LLC	Enola, PA	MWBE
THE AKANKSHA, LLC	Mechanicsburg, PA	MWBE
Leverage Technologies, Inc	Mechanicsburg, PA	MWBE
SHINETECK INC	Mechanicsburg, PA	MBE
ProRec Resource Solutions, LLC	Harrisburg, PA	WBE
COLLABRIUM SYSTEMS LLC	Harrisburg, PA	MWBE
CREDO Technology Solutions Inc.	Harrisburg, PA	MBE
BT Consulting, LLC	Lititz, PA	MBE
REYNA INFORMATION TECHNOLOGY SERVICES, LLC	Lancaster, PA	MWBE
Eastern Business Software, Inc.	Broomall, PA	MBE
Hanabi Network Systems, LLC	Wayne, PA	MBE
Achara Consulting, Inc.	Willow Grove, PA	MWBE
Pace Data Systems, Inc.	Willow Grove, PA	MBE
MFR Consultants, Inc.	Philadelphia, PA	MWBE
M Davis and Company Inc	Philadelphia, PA	MBE
GSI Health, LLC	Philadelphia, PA	MBE
JCW Computer Consulting, LLC	Philadelphia, PA	MBE
SwitchLane Inc.	Chadds Ford, PA	MWBE
Full Circle Group	Exton, PA	MWBE
CEREBRA CONSULTING INC	Malvern, PA	MBE
NTCom International, Inc.	Malvern, PA	MWBE
SoftSages LLC	Malvern, PA	MBE
Saturn Infotech Inc.	North Wales, PA	MBE
DEW Softech, Inc	Newark, DE	MWBE
IMPLIFY, INC.	Newark, DE	MWBE

Alpha Technologies Inc USA	Wilmington, DE	MBE
Frontier Technologies, Inc.	Wilmington, DE	MWBE
THE TRIAGE GROUP, LLC	Washington, DC	WBE
Firm Name	City, State	Certification
CGH Technologies, Inc.	Washington, DC	WBE
Parsetek Inc	Chantilly, VA	MWBE
Triforce	Reston, VA	MBE
EXPEDITEINFOTECH, INC	Rockville, MD	MBE
MS TECHNOLOGIES CORPORATION	Rockville, MD	MWBE
Client Software Services, LLC	Gaithersburg, MD	MWBE
SONA Networks LLC	Brooklandville, MD	MBE
RES TECH SYSTEMS, LLC	Owings Mills, MD	MBE
PRIMETRICS TECHNOLOGIES LLC	Towson, MD	MBE
Omni Systems, Incorporated	Mc Lean, VA	MBE
ilynx inc	Merry Point, VA	MBE
Miitek Inc	Fletcher, NC	WBE
Five23 Group, Inc.	Alpharetta, GA	WBE
ResiliEnt Business Solutions LLC	Alpharetta, GA	WBE
CSF Technologies, Inc.	Orlando, FL	MBE
Greywood Consulting Corp.	West Palm Beach, FL	MWBE
ZProCis Solutions, Inc.	Naples, FL	MBE
SmartIT Staffing, Inc.	Indianapolis, IN	MWBE
Bucher and Christian Consulting, Inc., d/b/a BCforward	Indianapolis, IN	MBE
BRILJENT, LLC.	Fort Wayne, IN	WBE
Ciber Global, LLC	Troy, MI	MBE
The Joxel Group, LLC	Mequon, WI	MBE
Chandra Technologies Inc	Madison, WI	MBE
Diversified Technology, Inc.	Chicago, IL	MBE

Pinnacle Technical Resources, Inc.	Dallas, TX	MWBE
Precision Task Group, Inc	Houston, TX	MBE
B&A Laboratories Inc	Stafford, TX	MBE
Eclat Integrated Software Solutions, Inc	Stafford, TX	MBE

Firm Name	City, State	Certification
Bit Link Solutions LLC	Springville, UT	MBE
Luitporia Software Consultancy Inc.	Ivins, UT	MWBE
Creative Enterprise Solutions LLC	Scottsdale, AZ	MWBE
Xeenius LLC	Las Vegas, NV	MWBE
Accurate Computer Technology Inc. dba Act Inc.	Irvine, CA	MBE
D.R. McNatty & Associates, Inc.	Mission Viejo, CA	WBE
Droisys Inc	Fremont, CA	MBE
Cityspan Technologies Inc	Berkeley, CA	MBE
ACA Computer Integrator Inc.	Framingham, MA	MBE
Storm Petrel, LLC	West Halifax, VT	WBE
InGroup Networking, Inc. d/b/a InGroup, Inc.	Newark, NJ	WBE
Cyber Security Consulting Ops	Mount Laurel, NJ	MBE
TRN Systems INC	Mount Laurel, NJ	MBE
VENTURES UNLIMITED INC	Mount Laurel, NJ	MBE
Avenues International Inc.	Princeton Junction, NJ	MBE
FCC Consulting Services LLC	Trenton, NJ	MBE
SHI International Corp	Somerset, NJ	MWBE
DUCAT MEDIA LLC	New York, NY	WBE
Quality And Assurance Technology	Ridge, NY	MBE
Abator Information Services Inc	Pittsburgh, PA	WBE
Koryak Consulting, Inc.	Pittsburgh, PA	MBE

E&E TECHNICAL CONSULTANTS, LLC	Mechanicsburg, PA	MBE
Innovative Business Concepts, Inc.	New Cumberland, PA	WBE
THE UNITED SOLUTIONS GROUP INC.	Allentown, PA	MBE
Universal Printing Company LLC	Scranton, PA	WBE
TechSense Solutions, Inc.	Media, PA	WBE

Firm Name	City, State	Certification
TreCom Systems Group, Inc.	Havertown, PA	MBE
PC Network Inc.	Wayne, PA	WBE
UAO Enterprises, Inc.	Philadelphia, PA	MWBE
Maskar Design Inc	Philadelphia, PA	WBE
Connexus Technology	Philadelphia, PA	MBE
Datatracktion LLC	Philadelphia, PA	MBE
YIKES, Inc.	Philadelphia, PA	WBE
East West Systems, Inc.	Philadelphia, PA	MBE
M.A.P. Consulting Services, Inc.	Philadelphia, PA	WBE
Genzeon Corporation	Exton, PA	MBE
Suisse Associates	Exton, PA	MBE
Acutedge, Inc.	Malvern, PA	MBE
ALLIANCETEK INC	Malvern, PA	MBE
Precept Technologies, Inc.	Malvern, PA	MBE
Adept Consulting Services, Inc.	Lansdale, PA	MBE
Tri-Force Consulting Services, Inc.	Lansdale, PA	MBE
Dragonfli Group, LLC	Washington, DC	DSBE
Telecommunications Development Corp.	Washington, DC	MBE
Elegant Enterprise-Wide Solutions, Inc.	Chantilly, VA	MBE
ALLWYN CORPORATION	Herndon, VA	MWBE
WINTRIO, LLC	Leesburg, VA	MBE

Infojini, Inc.	Columbia, MD	MBE
ITnova, LLC	Severna Park, MD	MWBE
BITHGROUP Technologies Inc.	Baltimore, MD	MBE
TVCOFA Corporation	Baltimore, MD	MWBE
APPLIED TECHNOLOGY SERVICES	Middle River, MD	WBE
Cirdan Group, Inc.	Sykesville, MD	WBE
Networking Technologies and Support, Inc.	Midlothian, VA	MBE

Firm Name	City, State	Certification
Faith Group, LLC	Nashville, TN	WBE
Optimum Technology, Inc.	Powell, OH	MBE
Brite Systems Inc	Indianapolis, IN	MWBE
The Consultants Consortium, Inc.	Indianapolis, IN	MBE
Quinn David & Associates, LLC	Milwaukee, WI	MBE
The Sartell Group, Inc	Minneapolis, MN	WBE
Clarity Partners, LLC	Chicago, IL	MBE
ECCO Select Corporation	Kansas City, MO	MWBE
Verge Information Technologies, Inc.	Plano, TX	MBE
HIRE Technologies, Inc.	Austin, TX	WBE
Aurigo Software Technologies Inc	Austin, TX	MBE
DECCAN INTERNATIONAL	San Diego, CA	MWBE
Intueor Consulting, Inc.	Irvine, CA	MBE
Kayla Creative, LLC	Burlington, NJ	MWBE
HelpForce, LLC	Mount Laurel, NJ	MWBE
Peterson Service Company, Inc.	Medford, NJ	WBE
Envision Consultants, LTD	Mullica Hill, NJ	WBE
W&K Systems, Inc.	Princeton, NJ	MBE
Jayson & Williams Technologies Inc	Monroe Township, NJ	MBE

Universe Resources LLC	Monmouth Junction, NJ	MWBE
STELLAR SERVICES, INC.	New York, NY	MBE
Island Computer Products, Inc.	Staten Island, NY	WBE
RAISE TECH SOLUTIONS LLC	Pittsburgh, PA	MBE
4x3, LLC	Bryn Mawr, PA	WBE
Maria Erades	Wallingford, PA	MWBE
The JPI Group LLC	Philadelphia, PA	MWBE
Miracle Cleaning Services LLC	Philadelphia, PA	MWBE
Veris Associates, Inc.	Lansdale, PA	WBE
VLSIT CONSULTING INC	Newark, DE	MWBE
Firm Name	City, State	Certification
WALTON & GREEN CONSULTANTS, LLP	Washington, DC	MWBE
Angarai International, Inc.	College Park, MD	MBE
DK Consulting, LLC	Columbia, MD	WBE
Innovate!, Inc.	Alexandria, VA	MWBE
Quest Corporation Of America, Inc.	#N/A	WBE
Ardent Technologies Inc.	Dayton, OH	MBE
TAJ Technologies Inc.	Minneapolis, MN	MBE
GNC Consulting , Inc	Frankfort, IL	MBE
Urban GIS, Inc.	Chicago, IL	MBE
Onyx Spectrum Technology, Inc.	Roxbury Crossing, MA	MWBE
Stokes Creative Group, Inc.	Vincentown, NJ	WBE
BANC3 Engineering, Inc.	Princeton, NJ	MBE
RCI Technologies, Inc.	Iselin, NJ	MWBE
Xyple, LLC	New York, NY	MBE
DiRAD Technologies	Clifton Park, NY	WBE
Ram Tech Systems, Inc.	Middletown, DE	MBE
Peak Technology Solutions, Inc.	Washington, DC	MBE
Razavi Application Developers, Inc.	Centreville, VA	WBE

WatsonRice LLP	Lanham, MD	MBE
Mansai Corporation	Greenbelt, MD	MWBE
AED Inc.	Hyattsville, MD	MBE
The Resource Network, LLC	Mc Lean, VA	DSBE
Armedia, LLC	Vienna, VA	MBE
Chesapeake Environmental Communications	Richmond, VA	WBE
Boreal Insurance Brokerage, LLC	Matawan, NJ	MWBE
Acuta Digital, Inc.	Pittsburgh, PA	MBE
AMERICA VEN LLC	Bethlehem, PA	MBE
Mondre Energy, Inc.	Philadelphia, PA	WBE
Side Technology, Inc.	Philadelphia, PA	MBE
Firm Name	City, State	Certification
Global Data Management Systems, LLC	Lansdale, PA	MBE
Mallik Engineering , Inc.	Lansdale, PA	MBE
Bazilio Cobb Associates, PC	Lanham, MD	MBE
Procom Corporation	Jessup, MD	MBE
BizDataSoft SOLUTIONS, LLC	Ellicott City, MD	MBE
OhmComm, Inc.	Philadelphia, PA	MBE
Digidoc Inc DBA Document Managers	Washington, DC	MBE
Graphics Solutions	Sewell, NJ	MBE
WC3 INTERNATIONAL	Philadelphia, PA	MBE
Brown's Enterprises Inc.	Hunt Valley, MD	MBE
HiTECH SERVICES INCORPORATED	Upper Darby, PA	MBE
Albrecht Engineering, Inc.	Baltimore, MD	WBE
PMOK Consulting, LLC	Elizabeth, NJ	MBE
EBA Engineering, Inc.	Laurel, MD	MBE

Figure F.10 –Information for those OEO Directory firms under NAICS Code 541512

Firm Name	City, State	Certification
Continental Resources Inc	Bedford, MA	WBE
Gibson Technology Solutions Corporation	West Orange, NJ	MBE
Marine Tiger Technologies Corp.	Teaneck, NJ	WBE
Watson, Deana R	Clementon, NJ	MWBE
SynCore Technology, LLC	Cherry Hill, NJ	MBE
Expect Moore Consulting	Sicklerville, NJ	MWBE
AMDECS Inc.	Cranbury, NJ	MBE
Sango Technologies, Inc.	Hightstown, NJ	WBE
BETTER LOCAL BUSINESS AGENCY LLC	Bronx, NY	MBE
Aeon Nexus Corporation	Albany, NY	MBE
Momentum, Inc.	Camp Hill, PA	WBE

Firm Name	City, State	Certification
Evolve Advisors I	Bala Cynwyd, PA	MWBE
Cyrinic Inc.	Aston, PA	MBE
Ohm Systems, Inc.	Horsham, PA	MBE
U-COMBINATION TECHNOLOGY USA INC	Wayne, PA	MBE
DecisivEdge LLC	Newark, DE	MBE
Jenair Vision, LLC	Newark, DE	MBE
Nexlevel Consulting Services, LLC	Washington, DC	MWBE
TRAILBLAZER CONSULTING, LLC	Olney, MD	WBE
VPJ Consulting	Rockville, MD	MWBE
TechGlobal, Inc.	Derwood, MD	MWBE
Charles E. Day and Associates, LLC	Alexandria, VA	MBE
LeGrande Technical and Social Services, LLC	Alexandria, VA	MBE
TRINITY CONSULTING, LLC	Atlanta, GA	WBE

Transformacon, Inc.	Merritt Island, FL	WBE
Catalyst Consulting Group, Inc.	Chicago, IL	MBE
VOXAI SOLUTIONS INC	Coppell, TX	MBE
BLC Partners, LLC	San Antonio, TX	WBE
Spruce Technology, Inc.	Clifton, NJ	MBE
TNT Staffing, LLC	Emerson, NJ	MWBE
Crystal Data LLC	Marlton, NJ	MWBE
Information Logistics, Inc	Merchantville, NJ	WBE
V GROUP INC	Cranbury, NJ	MWBE
Contemporary Software Concepts of New Jersey, Inc.	Pennington, NJ	WBE
PamTen, Inc.	Princeton, NJ	MWBE
Real Soft, Inc. dba Diversity Direct	Princeton, NJ	MBE
RV Global Solutions Inc	Trenton, NJ	MBE
Firm Name	City, State	Certification
Xybion Technology Solutions, Inc	Lawrence Township, NJ	MBE
Sigma Resources LLC	Pittsburgh, PA	MWBE
Info-Matrix Corporation	Camp Hill, PA	WBE
THE AKANKSHA, LLC	Mechanicsburg, PA	MWBE
Leverage Technologies, Inc	Mechanicsburg, PA	MWBE
ProRec Resource Solutions, LLC	Harrisburg, PA	WBE
Probitas Technology, Inc	Harrisburg, PA	MBE
COLLABRIUM SYSTEMS LLC	Harrisburg, PA	MWBE
CREDO Technology Solutions Inc.	Harrisburg, PA	MBE
BT Consulting, LLC	Lititz, PA	MBE
REYNA INFORMATION TECHNOLOGY SERVICES, LLC	Lancaster, PA	MWBE
Eastern Business Software, Inc.	Broomall, PA	MBE
Han Pak Consulting Group	Newtown Square, PA	MBE
Hanabi Network Systems, LLC	Wayne, PA	MBE

Pace Data Systems, Inc.	Willow Grove, PA	MBE
Saperde LLC	Philadelphia, PA	MBE
MFR Consultants, Inc.	Philadelphia, PA	MWBE
GSI Health, LLC	Philadelphia, PA	MBE
SwitchLane Inc.	Chadds Ford, PA	MWBE
Full Circle Group	Exton, PA	MWBE
NTCom International, Inc.	Malvern, PA	MWBE
SoftSages LLC	Malvern, PA	MBE
INNOVATIVE DEVELOPMENT, LLC	Harleysville, PA	WBE
Saturn Infotech Inc.	North Wales, PA	MBE
DEW Softech, Inc	Newark, DE	MWBE
Alpha Technologies Inc USA	Wilmington, DE	MBE
Frontier Technologies, Inc.	Wilmington, DE	MWBE
THE TRIAGE GROUP, LLC	Washington, DC	WBE
Triforce	Reston, VA	MBE

Firm Name	City, State	Certification
AU & Associates, Inc.	District Heights, MD	MWBE
EXPEDITEINFOTECH, INC	Rockville, MD	MBE
MS TECHNOLOGIES CORPORATION	Rockville, MD	MWBE
Client Software Services, LLC	Gaithersburg, MD	MWBE
Counter Technology, Inc.	Gaithersburg, MD	MWBE
PRIMETRICS TECHNOLOGIES LLC	Towson, MD	MBE
Omni Systems, Incorporated	Mc Lean, VA	MBE
ilynx inc	Merry Point, VA	MBE
Miitek Inc	Fletcher, NC	WBE
Five23 Group, Inc.	Alpharetta, GA	WBE
ZProCis Solutions, Inc.	Naples, FL	MBE
Stoney Brook Solutions, LLC	Winter Garden, FL	MBE
SmartIT Staffing, Inc.	Indianapolis, IN	MWBE

Bucher and Christian Consulting, Inc., d/b/a BCforward	Indianapolis, IN	MBE
The Joxel Group, LLC	Mequon, WI	MBE
TKK Electronics, LLC	Milwaukee, WI	MBE
Chandra Technologies Inc	Madison, WI	MBE
Martinez Geospatial, Inc.	Saint Paul, MN	MBE
Diversified Technology, Inc.	Chicago, IL	MBE
Pinnacle Technical Resources, Inc.	Dallas, TX	MWBE
Eclat Integrated Software Solutions, Inc	Stafford, TX	MBE
FLOWatch	Littleton, CO	MBE
Luitporia Software Consultancy Inc.	Ivins, UT	MWBE
Creative Enterprise Solutions LLC	Scottsdale, AZ	MWBE
Xeenius LLC	Las Vegas, NV	MWBE
Accurate Computer Technology Inc. dba Act Inc.	Irvine, CA	MBE

Firm Name	City, State	Certification
D.R. McNatty & Associates, Inc.	Mission Viejo, CA	WBE
Droisys Inc	Fremont, CA	MBE
ACA Computer Integrator Inc.	Framingham, MA	MBE
Storm Petrel, LLC	West Halifax, VT	WBE
Source IT Technologies, LLC	New Canaan, CT	WBE
Cyber Security Consulting Ops	Mount Laurel, NJ	MBE
TRN Systems INC	Mount Laurel, NJ	MBE
VENTURES UNLIMITED INC	Mount Laurel, NJ	MBE
Avenues International Inc.	Princeton Junction, NJ	MBE
FCC Consulting Services LLC	Trenton, NJ	MBE
TCGI	Somerset, NJ	MWBE
Quality And Assurance Technology	Ridge, NY	MBE

Abator Information Services Inc	Pittsburgh, PA	WBE
Koryak Consulting, Inc.	Pittsburgh, PA	MBE
E&E TECHNICAL CONSULTANTS, LLC	Mechanicsburg, PA	MBE
THE UNITED SOLUTIONS GROUP INC.	Allentown, PA	MBE
TechSense Solutions, Inc.	Media, PA	WBE
PC Network Inc.	Wayne, PA	WBE
The Meridian Group, Ltd.	Philadelphia, PA	MBE
Connexus Technology	Philadelphia, PA	MBE
Datatracktion LLC	Philadelphia, PA	MBE
East West Systems, Inc.	Philadelphia, PA	MBE
M.A.P. Consulting Services, Inc.	Philadelphia, PA	WBE
Genzeon Corporation	Exton, PA	MBE
Acutedge, Inc.	Malvern, PA	MBE
Drive Engineering Corp.	Blue Bell, PA	MBE
Adept Consulting Services, Inc.	Lansdale, PA	MBE
Tri-Force Consulting Services, Inc.	Lansdale, PA	MBE
Dragonfli Group, LLC	Washington, DC	DSBE

Firm Name	City, State	Certification
Telecommunications Development Corp.	Washington, DC	MBE
Elegant Enterprise-Wide Solutions, Inc.	Chantilly, VA	MBE
ALLWYN CORPORATION	Herndon, VA	MWBE
WINTRIO, LLC	Leesburg, VA	MBE
WORLDGATE LLC	Reston, VA	WBE
Global Engineering Solutions, Inc.	Bethesda, MD	MWBE
Shah & Associates, Inc.	Gaithersburg, MD	MBE
Jupiter, LLC	Silver Spring, MD	MBE
Infojini, Inc.	Columbia, MD	MBE

ITnova, LLC	Severna Park, MD	MWBE
BITHGROUP Technologies Inc.	Baltimore, MD	MBE
TVCOFA Corporation	Baltimore, MD	MWBE
APPLIED TECHNOLOGY SERVICES	Middle River, MD	WBE
Cirdan Group, Inc.	Sykesville, MD	WBE
B& B Business Services, Inc.	Fort Lauderdale, FL	WBE
Diverse Professional Solutions, LLC	Tampa, FL	MBE
Faith Group, LLC	Nashville, TN	WBE
Optimum Technology, Inc.	Powell, OH	MBE
Brite Systems Inc	Indianapolis, IN	MWBE
The Consultants Consortium, Inc.	Indianapolis, IN	MBE
Mendons Consultancy LLC	Plymouth, MI	MBE
Quinn David & Associates, LLC	Milwaukee, WI	MBE
The Sartell Group, Inc	Minneapolis, MN	WBE
Clarity Partners, LLC	Chicago, IL	MBE
ECCO Select Corporation	Kansas City, MO	MWBE
Verge Information Technologies, Inc.	Plano, TX	MBE
HIRE Technologies, Inc.	Austin, TX	WBE

Firm Name	City, State	Certification
Intueor Consulting, Inc.	Irvine, CA	MBE
Peterson Service Company, Inc.	Medford, NJ	WBE
Envision Consultants, LTD	Mullica Hill, NJ	WBE
W&K Systems, Inc.	Princeton, NJ	MBE
BlackHawk Data LLC	New York, NY	WBE
STELLAR SERVICES, INC.	New York, NY	MBE
Island Computer Products, Inc.	Staten Island, NY	WBE
RAISE TECH SOLUTIONS LLC	Pittsburgh, PA	MBE
Advanced Technology Solutions, Inc.	Lancaster, PA	MBE

The JPI Group LLC	Philadelphia, PA	MWBE
Tactile Design Group, LLC	Philadelphia, PA	MBE
Miracle Cleaning Services LLC	Philadelphia, PA	MWBE
Arora Engineers, Inc.	Chadds Ford, PA	MBE
Veris Associates, Inc.	Lansdale, PA	WBE
VLSIT CONSULTING INC	Newark, DE	MWBE
WALTON & GREEN CONSULTANTS, LLP	Washington, DC	MWBE
DK Consulting, LLC	Columbia, MD	WBE
CrownHills Enterprises, Inc.	Nottingham, MD	MWBE
BizSolutions 360 Inc.	Alexandria, VA	MBE
Innovate!, Inc.	Alexandria, VA	MWBE
A. L. Jackson & Company P.A.	Miami, FL	MBE
TAJ Technologies Inc.	Minneapolis, MN	MBE
Urban GIS, Inc.	Chicago, IL	MBE
Aguirre Project Resources LLC	Irving, TX	MBE
Vic Thompson Company	Arlington, TX	WBE
Gaw Associates, Inc.	Cherry Hill, NJ	WBE
BANC3 Engineering, Inc.	Princeton, NJ	MBE
RCI Technologies, Inc.	Iselin, NJ	MWBE
Xyples, LLC	New York, NY	MBE
DiRAD Technologies	Clifton Park, NY	WBE

Firm Name	City, State	Certification
Pierson Computing Connection, Inc.	Mechanicsburg, PA	WBE
DWC INTERNATIONAL	Philadelphia, PA	MBE
Egronlund Inc.	North Wales, PA	WBE
Peak Technology Solutions, Inc.	Washington, DC	MBE
Razavi Application Developers, Inc.	Centreville, VA	WBE
WatsonRice LLP	Lanham, MD	MBE
Mansai Corporation	Greenbelt, MD	MWBE

AED Inc.	Hyattsville, MD	MBE
The Resource Network, LLC	Mc Lean, VA	DSBE
Armedia, LLC	Vienna, VA	MBE
RADgov, Inc.	Fort Lauderdale, FL	MWBE
MOYE I.T. CONSULTING, LLC	Irving, TX	WBE
Browntown Group LLC	Philadelphia, PA	MBE
Side Technology, Inc.	Philadelphia, PA	MBE
Mallik Engineering , Inc.	Lansdale, PA	MBE
Bazilio Cobb Associates, PC	Lanham, MD	MBE
HELIOS ELECTRIC, LLC	Gaithersburg, MD	MBE
BizDataSoft SOLUTIONS, LLC	Ellicott City, MD	MBE
RDM International, Inc.	Columbus, OH	MBE
Leothacue Enterprises, Inc.	Ontario, CA	MWBE
Urban Harvest Partnership, LLC	Philadelphia, PA	MBE
OhmComm, Inc.	Philadelphia, PA	MBE
WC3 INTERNATIONAL	Philadelphia, PA	MBE
Brown's Enterprises Inc.	Hunt Valley, MD	MBE
PC Specialists, Inc.	San Diego, CA	MBE
PMOK Consulting, LLC	Elizabeth, NJ	MBE
Adcon Consultants, Inc.	Philadelphia, PA	MBE
Cromedy Construction Corporation	Philadelphia, PA	MBE
Tera Consulting Inc.	Hicksville, NY	MWBE

Figure E.11 –Information for those OEO Directory firms under NAICS Code 541519

Firm Name	City, State	Certification
Orken Technologies	Carlisle, PA	MBE
DRANREF	Washington, DC	MBE
Incapsulate, LLC	Washington, DC	MWBE
R/O Resource Solutions	Ellicott City, MD	WBE
MO'MIX SOLUTIONS, INC.	Dripping Springs, TX	WBE
SynCore Technology, LLC	Cherry Hill, NJ	MBE

Beckage PLLC	Buffalo, NY	WBE
Momentum, Inc.	Camp Hill, PA	WBE
Think Tank Technologies, LLC	Harrisburg, PA	MBE
MBI LLC	Dover, DE	MBE
CGH Technologies, Inc.	Washington, DC	WBE
TechGlobal, Inc.	Derwood, MD	MWBE
Charles E. Day and Associates, LLC	Alexandria, VA	MBE
TRIAD TECHNOLOGY PARTNERS LLC	Charlottesville, VA	WBE
CSF Technologies, Inc.	Orlando, FL	MBE
Bronner Group, LLC	Chicago, IL	WBE
Afstar Associates, LLC	Roselle, NJ	MWBE
Crystal Data LLC	Marlton, NJ	MWBE
V GROUP INC	Cranbury, NJ	MWBE
Info-Matrix Corporation	Camp Hill, PA	WBE
Leverage Technologies, Inc	Mechanicsburg, PA	MWBE
Innovative Business Concepts, Inc.	New Cumberland, PA	WBE
ProRec Resource Solutions, LLC	Harrisburg, PA	WBE
Probitas Technology, Inc	Harrisburg, PA	MBE
BT Consulting, LLC	Lititz, PA	MBE
Eastern Business Software, Inc.	Broomall, PA	MBE
Han Pak Consulting Group	Newtown Square, PA	MBE
TreCom Systems Group, Inc.	Havertown, PA	MBE
Firm Name	City, State	Certification
Hanabi Network Systems, LLC	Wayne, PA	MBE
MFR Consultants, Inc.	Philadelphia, PA	MWBE
Fidelitas LLC	Philadelphia, PA	MBE
SwitchLane Inc.	Chadds Ford, PA	MWBE
Full Circle Group	Exton, PA	MWBE
Suisse Associates	Exton, PA	MBE

KP Facility Management, Inc.	Norristown, PA	MWBE
Jenair Vision, LLC	Newark, DE	MBE
THE TRIAGE GROUP, LLC	Washington, DC	WBE
EXPEDITEINFOTECH, INC	Rockville, MD	MBE
MS TECHNOLOGIES CORPORATION	Rockville, MD	MWBE
Networking Technologies and Support, Inc.	Midlothian, VA	MBE
Miitek Inc	Fletcher, NC	WBE
Five23 Group, Inc.	Alpharetta, GA	WBE
Stoney Brook Solutions, LLC	Winter Garden, FL	MBE
SmartIT Staffing, Inc.	Indianapolis, IN	MWBE
The Joxel Group, LLC	Mequon, WI	MBE
TKK Electronics, LLC	Milwaukee, WI	MBE
Xeenius LLC	Las Vegas, NV	MWBE
Accurate Computer Technology Inc. dba Act Inc.	Irvine, CA	MBE
D.R. McNatty & Associates, Inc.	Mission Viejo, CA	WBE
Source IT Technologies, LLC	New Canaan, CT	WBE
Spruce Technology, Inc.	Clifton, NJ	MBE
TNT Staffing, LLC	Emerson, NJ	MWBE
MAC Group Solution Services, LLC	Marlton, NJ	WBE
Avenues International Inc.	Princeton Junction, NJ	MBE
RV Global Solutions Inc	Trenton, NJ	MBE
Datrose, Inc.	Webster, NY	MBE
Abator Information Services Inc	Pittsburgh, PA	WBE
Firm Name	City, State	Certification
CREDO Technology Solutions Inc.	Harrisburg, PA	MBE
REYNA INFORMATION TECHNOLOGY SERVICES, LLC	Lancaster, PA	MWBE
Genzeon Corporation	Exton, PA	MBE

Adept Consulting Services, Inc.	Lansdale, PA	MBE
Alpha Technologies Inc USA	Wilmington, DE	MBE
Frontier Technologies, Inc.	Wilmington, DE	MWBE
Dragonfli Group, LLC	Washington, DC	DSBE
Telecommunications Development Corp.	Washington, DC	MBE
Elegant Enterprise-Wide Solutions, Inc.	Chantilly, VA	MBE
Triforce	Reston, VA	MBE
Jupiter, LLC	Silver Spring, MD	MBE
ITnova, LLC	Severna Park, MD	MWBE
PRIMETRICS TECHNOLOGIES LLC	Towson, MD	MBE
Omni Systems, Incorporated	Mc Lean, VA	MBE
ilynx inc	Merry Point, VA	MBE
Optimum Technology, Inc.	Powell, OH	MBE
Brite Systems Inc	Indianapolis, IN	MWBE
Chandra Technologies Inc	Madison, WI	MBE
GNC Consulting , Inc	Frankfort, IL	MBE
Pinnacle Technical Resources, Inc.	Dallas, TX	MWBE
HIRE Technologies, Inc.	Austin, TX	WBE
Intueor Consulting, Inc.	Irvine, CA	MBE
Droisys Inc	Fremont, CA	MBE
Storm Petrel, LLC	West Halifax, VT	WBE
Cyber Security Consulting Ops	Mount Laurel, NJ	MBE
TRN Systems INC	Mount Laurel, NJ	MBE
Envision Consultants, LTD	Mullica Hill, NJ	WBE
FCC Consulting Services LLC	Trenton, NJ	MBE
Firm Name	City, State	Certification
TCGI	Somerset, NJ	MWBE
Island Computer Products, Inc.	Staten Island, NY	WBE

Quality And Assurance Technology	Ridge, NY	MBE
E&E TECHNICAL CONSULTANTS, LLC	Mechanicsburg, PA	MBE
THE UNITED SOLUTIONS GROUP INC.	Allentown, PA	MBE
PC Network Inc.	Wayne, PA	WBE
Datatracktion LLC	Philadelphia, PA	MBE
East West Systems, Inc.	Philadelphia, PA	MBE
Acutedge, Inc.	Malvern, PA	MBE
Tri-Force Consulting Services, Inc.	Lansdale, PA	MBE
Ram Tech Systems, Inc.	Middletown, DE	MBE
ALLWYN CORPORATION	Herndon, VA	MWBE
WINTRIO, LLC	Leesburg, VA	MBE
WORLDGATE LLC	Reston, VA	WBE
Cirdan Group, Inc.	Sykesville, MD	WBE
Innovate!, Inc.	Alexandria, VA	MWBE
The Consultants Consortium, Inc.	Indianapolis, IN	MBE
The Sartell Group, Inc	Minneapolis, MN	WBE
TAJ Technologies Inc.	Minneapolis, MN	MBE
ECCO Select Corporation	Kansas City, MO	MWBE
Verge Information Technologies, Inc.	Plano, TX	MBE
Gear One Enterprise Inc	Temecula, CA	WBE
Peterson Service Company, Inc.	Medford, NJ	WBE
BANC3 Engineering, Inc.	Princeton, NJ	MBE
RCI Technologies, Inc.	Iselin, NJ	MWBE
BlackHawk Data LLC	New York, NY	WBE
STELLAR SERVICES, INC.	New York, NY	MBE

Firm Name	City, State	Certification
Xyples, LLC	New York, NY	MBE

RAISE TECH SOLUTIONS LLC	Pittsburgh, PA	MBE
Veris Associates, Inc.	Lansdale, PA	WBE
VLSIT CONSULTING INC	Newark, DE	MWBE
Peak Technology Solutions, Inc.	Washington, DC	MBE
Procom Corporation	Jessup, MD	MBE
DK Consulting, LLC	Columbia, MD	WBE
MOYE I.T. CONSULTING, LLC	Irving, TX	WBE
Global Data Management Systems, LLC	Lansdale, PA	MBE
Razavi Application Developers, Inc.	Centreville, VA	WBE
Mansai Corporation	Greenbelt, MD	MWBE
The Resource Network, LLC	Mc Lean, VA	DSBE
Armedia, LLC	Vienna, VA	MBE
RADgov, Inc.	Fort Lauderdale, FL	MWBE
Side Technology, Inc.	Philadelphia, PA	MBE
OhmComm, Inc.	Philadelphia, PA	MBE
BizDataSoft SOLUTIONS, LLC	Ellicott City, MD	MBE
HiTECH SERVICES INCORPORATED	Upper Darby, PA	MBE
WC3 INTERNATIONAL	Philadelphia, PA	MBE
Brown's Enterprises Inc.	Hunt Valley, MD	MBE

Figure E.12—Information for those OEO Directory firms under NAICS Code 541611

Firm Name	City, State	Certification
Harris Miller Miller & Hanson, Inc.	Burlington, MA	WBE
COLLABORATIVE, INC. THE	Boston, MA	MBE
BrianAnsari and Associates Inc.	Newark, NJ	MBE
Armand Resource Group, Inc.	Hackensack, NJ	MBE
TEAM SUPPORT SERVICES INC	Basking Ridge, NJ	WBE
Firm Name	City, State	Certification

TWO TWELVE DEGREES (212), LLC	Voorhees, NJ	MWBE
Acacia Financial Group, Inc.	Mount Laurel, NJ	WBE
Brownfield Redevelopment Solutions Inc.	Medford, NJ	WBE
MMC LIFESTYLE COACHING LLC	Sicklerville, NJ	WBE
EVENTS UNLIMITED INC	Woodbury, NJ	MWBE
New Age Distributors, Inc.	Oaklyn, NJ	WBE
Susan Bailey Consulting, LLC.	Brigantine, NJ	WBE
Elysium Enterprises, Inc.	Bound Brook, NJ	MBE
Advance Talent Solutions Incorporated dba ATS+Partners	New York, NY	MWBE
Public Works Partners LLC	New York, NY	WBE
Spectrum Personal Communications Corp.	New York, NY	MBE
Mohanty Gargiulo LLC	New York, NY	MWBE
LDA Compliance Consulting Inc.	Bronx, NY	WBE
J. C. Estimating, Inc. / JCE Co.	Elmsford, NY	WBE
CAPSTONE STRATEGY GROUP LLC	Mount Vernon, NY	MBE
Contractor Compliance LLC	Yorktown Heights, NY	WBE
Focal Point Project Management LLC	White Plains, NY	WBE
INSPIRE ENTERPRISE INC	Cambria Heights, NY	MWBE
Articulate it Write, LLC	New Kensington, PA	WBE
Numeritics	Pittsburgh, PA	WBE
Cameron Professional Management, LLC	Pittsburgh, PA	MBE
FoxChase Advisors LLC	Pittsburgh, PA	MBE
Strategy Solutions, Inc.	Erie, PA	WBE
Gaito & Associates, LLC	Carlisle, PA	WBE
Regulus Associates LLC	Mechanicsburg, PA	WBE
CLARK RESOURCES, INC.	Harrisburg, PA	MBE
iSpring Associates	Bethlehem, PA	WBE

Firm Name	City, State	Certification
Be Positive Coaching & Consulting LLC	Bethlehem, PA	MBE
LREP II	Chalfont, PA	MBE
SourceOne Innovations, Inc.	Chalfont, PA	DSBE
V. Woods Enterprises, LLC	Aston, PA	MWBE
CMC Energy Services Inc	Fort Washington, PA	WBE
Marilyn Nyman Associates, Inc.	Fort Washington, PA	WBE
TRIZEN LLC	Jenkintown, PA	MBE
MKF Solutions LLC	Media, PA	WBE
The FGX Group, LLC	Wayne, PA	MBE
Simon PR	Philadelphia, PA	WBE
Branch Associates, Inc.	Philadelphia, PA	MWBE
Connect the Dots Insights LLC	Philadelphia, PA	WBE
Lion Advisors for Community and Environment	Philadelphia, PA	MWBE
Mercator Advisors, LLC	Philadelphia, PA	MBE
THE LENSERF GROUP INC	Philadelphia, PA	MWBE
BEHAVIORAL AND CULTURAL DEVELOPMENT SOLUTIONS LLC	Philadelphia, PA	MBE
Mission Partners Group, LLC	Philadelphia, PA	WBE
Chavous Consulting	Philadelphia, PA	MWBE
Highland Strategies, LLC	Philadelphia, PA	WBE
The Education Board, Inc.	Philadelphia, PA	MWBE
Chris Arlene Consulting	Philadelphia, PA	MBE
PMG Enterprises LLC	Philadelphia, PA	MWBE
Say/Do Strategies, LLC	Philadelphia, PA	MWBE
OSAK, LLC	Philadelphia, PA	MBE
Prestige Concepts, LLC	Philadelphia, PA	MWBE
W. Wilson Goode, Jr.	Philadelphia, PA	MBE
Bridging Visions Coaching & Development	Philadelphia, PA	MWBE
WILLOW COMMUNICATION STRATEGIES LLC	Philadelphia, PA	MWBE

Firm Name	City, State	Certification
Equilibria Leadership Consulting, LLC	Philadelphia, PA	WBE
Innovate Corporation	Philadelphia, PA	MBE
Sage Project Management LLC	Philadelphia, PA	WBE
Next Step Associates, LLC	Philadelphia, PA	MWBE
Statera Coaching and Leadership Consulting	Philadelphia, PA	MBE
JoyMark Associates, LLC.	Glen Mills, PA	WBE
Company Voice, LLC	Blue Bell, PA	WBE
Lonie and Associates, LLC	Blue Bell, PA	WBE
Ironclad Safety Associates	Bear, DE	MBE
Kash Srinivasan Group LLC	Wilmington, DE	MBE
ProRank Business Solutions, LLC	Wilmington, DE	MBE
Center for Urban and Racial Equity	Washington, DC	MWBE
T.H. Easter Consulting LLC	Washington, DC	WBE
The Melanin Collective	Washington, DC	MWBE
Diversifi Consulting Group, LLC	Middleburg, VA	WBE
JUGGERNAUT CONSULTING LLC	Laurel, MD	MBE
PREMIERE Consulting Group	Fort Washington, MD	MBE
Vision Planning & Consulting, LLC	Fulton, MD	MWBE
AVER ANALYTICS, LLC	Potomac, MD	MBE
Penn Sey LLC	Germantown, MD	MWBE
CENTER FOR THE SUPPORT OF FAMILIES, INC.	Silver Spring, MD	WBE
The Donne Group LLC	Baltimore, MD	MWBE
SCB Management Solutions, Inc.	Baltimore, MD	MWBE
New Hope Strategic Solutions Group, Inc.	Catonsville, MD	MBE
Management and Financial Services Group, LLC	Annapolis, MD	WBE
Offspring Solutions LLC	Fairfax, VA	MBE

Firm Name	City, State	Certification
BUSINESS MANAGEMENT ASSOCIATES, INC.	Alexandria, VA	MWBE
GovRates, Inc.	Casselberry, FL	MWBE
Inward Coaching & Logistics, LLC	Orlando, FL	MWBE
Armor Correctional Health Services, Inc.	Miami, FL	MBE
GARTH SOLUTIONS, INC.	Miami, FL	MWBE
MathforUS LLC	Fort Lauderdale, FL	MBE
Chrysalis Consulting, LLC	Carmel, IN	WBE
Sycamore Advisors, LLC	Indianapolis, IN	WBE
SCHUMAKER AND COMPANY. INC.	Ann Arbor, MI	WBE
Airmac, LLC	Spring Grove, IL	WBE
Ricondo Associates, Inc.	Chicago, IL	MBE
Charbonnet & Associates, Planners and Consultants, Inc.	New Orleans, LA	MBE
Susan Buse Enterprises, LLC	Dallas, TX	WBE
Bridgewater Consulting Group, Inc.	San Antonio, TX	MBE
LEE L. DAVIS & ASSOCIATES	Palmdale, CA	MBE
AVK CONSULTING, INC.	Carmel Valley, CA	MWBE
PMT SOLUTIONS LLC	Bellevue, WA	MWBE
K Bealer Consulting	#N/A	MWBE
Star Hill Financial LLC	Southport, CT	WBE
Marine Tiger Technologies Corp.	Teaneck, NJ	WBE
PMSource, LLC	Marlton, NJ	MBE
Alpha 3 Consulting, LLC	Mount Laurel, NJ	WBE
Expect Moore Consulting	Sicklerville, NJ	MWBE
The Carlin Collaborative	Williamstown, NJ	MWBE
Butterfly Consulting LLC	Jackson, NJ	WBE
Alternative Micrographics, Inc.	Forked River, NJ	WBE
Karp Strategies, LLC	New York, NY	MWBE

Firm Name	City, State	Certification
Claire Weisz Architects, LLP	New York, NY	WBE
National Disaster Recovery Technical Assistance Consultants, Inc.	Binghamton, NY	MBE
Environmental Data Validation Inc.	Pittsburgh, PA	MWBE
FINANCIAL BUSINESS SOLUTIONS LLC	Doylestown, PA	MWBE
EmaCon, LLC	Richboro, PA	MWBE
Capone & Nicastro Construction, LLC	Ambler, PA	WBE
KMJ Consulting, Inc.	Ardmore, PA	WBE
Evolve Advisors I	Bala Cynwyd, PA	MWBE
Maven, Inc.	Bala Cynwyd, PA	MWBE
Niche Consultants, Inc.	Bryn Mawr, PA	MBE
Cyrinic Inc.	Aston, PA	MBE
KVS Group, LLC	Lansdowne, PA	WBE
Mcknight International	Prospect Park, PA	MBE
Disaster, Planning & Recovery, LLC	Havertown, PA	MWBE
NexLyte, Inc.	Wayne, PA	MBE
LeJeune and Associates, LLC	Philadelphia, PA	MBE
TML Communications LLC	Philadelphia, PA	MWBE
Phoenix Capital Partners, LLP	Philadelphia, PA	MBE
Portfolio Associates, Inc.	Philadelphia, PA	MWBE
Stone Sherick Consulting Group, LLC	Philadelphia, PA	WBE
M Davis and Company Inc	Philadelphia, PA	MBE
Concepts for Success, LLC	Philadelphia, PA	MWBE
Urbane Development Group LTD	Philadelphia, PA	MBE
Cardell Blue and Associates, Inc.	Philadelphia, PA	MBE
Ruiz Associates, LLC	Exton, PA	MWBE

Firm Name	City, State	Certification
BLUESTONE ENVIRONMENTAL GROUP, INC.	Malvern, PA	WBE
Accord Mechanical & Management Services, Inc.	Norristown, PA	MBE
DRANREF	Washington, DC	MBE
Foursquare Integrated Transportation Planning, Inc.	Washington, DC	WBE
PEER Consultants, P.C.	Washington, DC	MWBE
INTEGRATED LOGISTICS SERVICES, LLC	Greenbelt, MD	MBE
TRAILBLAZER CONSULTING, LLC	Olney, MD	WBE
R/O Resource Solutions	Ellicott City, MD	WBE
SB & Company, LLC	Owings Mills, MD	MBE
Yu Consulting, LLC	White Marsh, MD	MWBE
DK Consultants, LLC	Vienna, VA	WBE
LeGrande Technical and Social Services, LLC	Alexandria, VA	MBE
Managed Care Innovations LLC	Richmond, VA	WBE
O.R. Colan Associates, LLC	Charlotte, NC	WBE
Ken Weeden & Associates, Inc.	Wilmington, NC	MBE
Knight Capital, LLC	Atlanta, GA	MBE
Transglobal Concessions, LLC	Orlando, FL	MBE
America Business & Management Services LLC	Miami, FL	MWBE
Greywood Consulting Corp.	West Palm Beach, FL	MWBE
EPPS PUBLIC STRATEGIES, LLC	La Vergne, TN	MBE
BRILJENT, LLC.	Fort Wayne, IN	WBE
TransSolutions, LLC	Fort Worth, TX	WBE
The Act-1 Group, Inc. DBA Agile-1, AppleOne, Act-1, AllSTEM, ATIMS	Torrance, CA	MWBE
Fitzgerald & Halliday, Inc.	Hartford, CT	WBE
Hyperion Advisory, LLC	South Orange, NJ	MBE
Watson, Deana R	Clementon, NJ	MWBE

Firm Name	City, State	Certification
Cameron Professional Services Group, LLC	Pittsburgh, PA	MWBE
Think Tank Technologies, LLC	Harrisburg, PA	MBE
Carol A. Schreckengaust, CPA	Harrisburg, PA	WBE
YVONNE ERRIDGE	Lewisberry, PA	WBE
KARLA SCHWEITZER FARRELL AND ASSOCIATES LLC	York, PA	WBE
LRW Solutions Group, Inc.	Horsham, PA	MBE
Achara Consulting, Inc.	Willow Grove, PA	MWBE
CHPlanning, Ltd.	Philadelphia, PA	MWBE
Oval Project Management	Philadelphia, PA	MBE
Walker Nell Partners, Inc.	Philadelphia, PA	MBE
Liberty Street Development Group, LLC	Philadelphia, PA	MBE
Saperde LLC	Philadelphia, PA	MBE
FIFTEEN A+D, LLC.	Philadelphia, PA	WBE
SALVEO MANAGEMENT SERVICES, INC	Philadelphia, PA	MBE
EDDIE R. BATTLE ASSOCIATES, INC.	Philadelphia, PA	MBE
Heritage Consulting, Inc	Philadelphia, PA	WBE
JCW Computer Consulting, LLC	Philadelphia, PA	MBE
INNOVATIVE DEVELOPMENT, LLC	Harleysville, PA	WBE
Manage Your Business LLC	Plymouth Meeting, PA	MWBE
Etinoff Consulting	Newark, DE	MWBE
SRB Communications, LLC	Washington, DC	MWBE
IBS Management & Consultancy Services, LLC	Washington, DC	MBE
Aspen of DC, Inc. dba ADC Management Solutions	Washington, DC	MWBE
J29, INC.	Millersville, MD	WBE
S O A, LLC	Baltimore, MD	MBE

Firm Name	City, State	Certification
Park Structural Design and Consulting LLC	Great Falls, VA	MBE
Jones Worley Design, Inc.	Atlanta, GA	MWBE
Jacobsen/Daniels Associates, LLC.	Atlanta, GA	MBE
ZProCis Solutions, Inc.	Naples, FL	MBE
Unison Consulting, Inc.	Chicago, IL	MWBE
Bronner Group, LLC	Chicago, IL	WBE
Primera Engineers Ltd	Chicago, IL	WBE
Mary A. Lynch	Arlington, TX	WBE
Centurion Planning & Design, LLC	San Angelo, TX	WBE
Black IPO, Inc.	Denver, CO	MBE
Afstar Associates, LLC	Roselle, NJ	MWBE
HelpForce, LLC	Mount Laurel, NJ	MWBE
VENTURES UNLIMITED INC	Mount Laurel, NJ	MBE
V GROUP INC	Cranbury, NJ	MWBE
Ellana, Inc.	New York, NY	WBE
Mitchell & Titus, LLP	New York, NY	MBE
Innovative Business Concepts, Inc.	New Cumberland, PA	WBE
Han Pak Consulting Group	Newtown Square, PA	MBE
UAO Enterprises, Inc.	Philadelphia, PA	MWBE
ASAP Creative Management LLC	Philadelphia, PA	MWBE
Quality Litigation Services	Philadelphia, PA	MBE
SITIO, LLC	Philadelphia, PA	MBE
MFR Consultants, Inc.	Philadelphia, PA	MWBE
Talson Solutions LLC	Philadelphia, PA	MBE
Thomson Consulting	Philadelphia, PA	WBE
Fidelitas LLC	Philadelphia, PA	MBE
Tangent Construction Management Corp	Philadelphia, PA	MWBE
Trio Solutions Services LLC	Philadelphia, PA	MBE

Firm Name	City, State	Certification
Full Circle Group	Exton, PA	MWBE
JUPITER ASSOCIATES, LLC	Malvern, PA	MBE
THE TRIAGE GROUP, LLC	Washington, DC	WBE
Forella Group, LLC	Chantilly, VA	MBE
Angarai International, Inc.	College Park, MD	MBE
EXPEDITEINFOTECH, INC	Rockville, MD	MBE
RIFE International, LLC	Rockville, MD	MBE
Infojini, Inc.	Columbia, MD	MBE
AGD ASSOCIATES, LLC	Alexandria, VA	MBE
Five23 Group, Inc.	Alpharetta, GA	WBE
B& B Business Services, Inc.	Fort Lauderdale, FL	WBE
Diverse Professional Solutions, LLC	Tampa, FL	MBE
Stoney Brook Solutions, LLC	Winter Garden, FL	MBE
Connico, Inc.	Mount Juliet, TN	WBE
The Joxel Group, LLC	Mequon, WI	MBE
Quinn David & Associates, LLC	Milwaukee, WI	MBE
Fresh Coast Capital, LLC	Chicago, IL	WBE
Xeenius LLC	Las Vegas, NV	MWBE
D.R. McNatty & Associates, Inc.	Mission Viejo, CA	WBE
Onyx Spectrum Technology, Inc.	Roxbury Crossing, MA	MWBE
Enovate Engineering, LLC	Cranford, NJ	WBE
RV Global Solutions Inc	Trenton, NJ	MBE
Toscano Clements Taylor, LLC	Huntington, NY	WBE
Datrose, Inc.	Webster, NY	MBE
evolve, LLC	Pittsburgh, PA	WBE
Abator Information Services Inc	Pittsburgh, PA	WBE
Koryak Consulting, Inc.	Pittsburgh, PA	MBE
Weatherspoon & Williams LLC	Houston, PA	MBE
Momentum, Inc.	Camp Hill, PA	WBE
CREDO Technology Solutions Inc.	Harrisburg, PA	MBE

Firm Name	City, State	Certification
REYNA INFORMATION TECHNOLOGY SERVICES, LLC	Lancaster, PA	MWBE
Boukenna Consulting Group, LLC	Philadelphia, PA	MWBE
Community Property Management, Inc.	Philadelphia, PA	MBE
CG GLOBAL MANAGEMENT SOLUTIONS LLC	Philadelphia, PA	MBE
JADE KNOLL MANAGEMENT, LLC	Pottstown, PA	WBE
Dragonfli Group, LLC	Washington, DC	DSBE
WALTON & GREEN CONSULTANTS, LLP	Washington, DC	MWBE
FINANCIAL & REALTY SERVICE LLC	Beltsville, MD	MBE
BITHGROUP Technologies Inc.	Baltimore, MD	MBE
MARYLAND ENERGY ADVISORS, LLC	Baltimore, MD	MBE
PRIMETRICS TECHNOLOGIES LLC	Towson, MD	MBE
CrownHills Enterprises, Inc.	Nottingham, MD	MWBE
Omni Systems, Incorporated	Mc Lean, VA	MBE
BizSolutions 360 Inc.	Alexandria, VA	MBE
ilynx inc	Merry Point, VA	MBE
CommDEX LLC	Smyrna, GA	MBE
A. L. Jackson & Company P.A.	Miami, FL	MBE
Aguirre Project Resources LLC	Irving, TX	MBE
The RSI Group	#N/A	MWBE
HIRE Technologies, Inc.	Austin, TX	WBE
Leilani Lacusong	San Pedro, CA	MWBE
Intueor Consulting, Inc.	Irvine, CA	MBE
TRN Systems INC	Mount Laurel, NJ	MBE
Envision Consultants, LTD	Mullica Hill, NJ	WBE
JI Consulting Group LLC	New Lisbon, NJ	MBE
Macon Pace Inc.	Millstone Township, NJ	MBE

Firm Name	City, State	Certification
FCC Consulting Services LLC	Trenton, NJ	MBE
Tactix Real Estate Advisors WOB LLC	Narberth, PA	WBE
JT Goldstein LLC	Philadelphia, PA	MBE
Milligan and Company, LLC	Philadelphia, PA	MBE
Mondre Energy, Inc.	Philadelphia, PA	WBE
Acutedge, Inc.	Malvern, PA	MBE
Riegel Resources, LLC	West Chester, PA	WBE
ALLWYN CORPORATION	Herndon, VA	MWBE
WINTRIO, LLC	Leesburg, VA	MBE
WORLDGATE LLC	Reston, VA	WBE
Cirdan Group, Inc.	Sykesville, MD	WBE
ECCO Select Corporation	Kansas City, MO	MWBE
Project Management Technologies, Inc. D/B/A Promatech, Inc.	Mount Laurel, NJ	WBE
Xyple, LLC	New York, NY	MBE
RAISE TECH SOLUTIONS LLC	Pittsburgh, PA	MBE
Browntown Group LLC	Philadelphia, PA	MBE
VLSIT CONSULTING INC	Newark, DE	MWBE
DK Consulting, LLC	Columbia, MD	WBE
AIRWARE TRANSPORTATION AND LOGISTICS, LLC	New Orleans, LA	MBE
MOYE I.T. CONSULTING, LLC	Irving, TX	WBE
Leothacue Enterprises, Inc.	Ontario, CA	MWBE
Anchor Consultants, LLC	Chadds Ford, PA	MBE
Veris Associates, Inc.	Lansdale, PA	WBE
Razavi Application Developers, Inc.	Centreville, VA	WBE
Bazilio Cobb Associates, PC	Lanham, MD	MBE
Mansai Corporation	Greenbelt, MD	MWBE
PRIME ENGINEERING, INC.	Catonsville, MD	MBE
The Resource Network, LLC	Mc Lean, VA	DSBE

Firm Name	City, State	Certification
Armedia, LLC	Vienna, VA	MBE
Alexander Perry, Inc.	Philadelphia, PA	MWBE
Side Technology, Inc.	Philadelphia, PA	MBE
Nesmith & Co., Inc.	Philadelphia, PA	MBE
DRM International, Inc.	Washington, DC	MBE
R2T, Inc.	Roswell, GA	MWBE
CSA Central, Inc.	Miami, FL	MBE
Olivieri & Associates, Inc.	Philadelphia, PA	WBE
ROHADFOX CONSTRUCTION CONTROL SERVICES CORPORATION	Atlanta, GA	MWBE
PMOK Consulting, LLC	Elizabeth, NJ	MBE
Base Architecture Planning & Engineering, Inc.	Philadelphia, PA	MBE
Rodriguez Consulting, LLC	Philadelphia, PA	MBE
DCM ARCHITECTURE & ENGINEERING LLC	Camden, NJ	MBE

Appendix F – About the Project Team

Econsult Solutions, Inc.

This report was produced by Econsult Solutions, Inc. (“ESI”). ESI is a Philadelphia-based economic consulting firm that provides businesses and public policy makers with economic consulting services in urban economics, real estate economics, transportation, public infrastructure, development, public policy and finance, community and neighborhood development, planning, as well as expert witness services for litigation support. Its principals are nationally recognized experts in urban development, real estate, government and public policy, planning, transportation, non-profit management, business strategy and administration, as well as litigation and commercial damages. Staff members have outstanding professional and academic credentials, including active positions at the university level, wide experience at the highest levels of the public policy process and extensive consulting experience.

Milligan Consulting

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