

Best Practices on Project Implementation



the port of
WILMINGTON
Delaware

ADVANTECH



Diamond State Port Corporation

PROJECT: Maritime Domain Awareness Enhancement

LOCATION: The Port of Wilmington

Reliable Solutions

Dependable Products

Professional/Personal Service

presented by...



Creating Safe, Secure Environments

- * **FEMA Auditor stated that “this was the only project that met all grant requirements, and timelines”**
- * \$2.6 Million
- * Developed and created custom graphical user interface for command and control – interface links pacs, max pro vms, pids, and other subsystems into 1 common interface.
- * Installed over 7,000’ of security fencing
- * Installed over 5,000’ of perimeter fence detection (pids)
- * Installed 7 – 50’ & 4-25’ light pole on 20’ concrete footers – 100 yards from the Delaware River
- * Installed (4) new gate operators and provided electrical services to each
- * Installed 7 new Ethernet wireless links to further expand the existing dedicated site security network and extended existing fiber optic infrastructure
- * Installed over 200 new IP cameras
- * Installed numerous Thermal Imaging video analytics cameras
- * Install new handheld TWIC readers and enrollment devices
- * Installed new head end to include video servers, pacs server, archive server, network infrastructure, & secure VPN
- * Installed new command and control center & new mobile command and control center



Port of Wilmington

LANE 1

LANE 2

LANE 3

LANE 4

LANE 5

LANE 6

FRONT PLATE

REAR PLATE

HIGH

LOW

MAIN GATE TRAFFIC

ENERGY BARRIERS

port of WILMINGTON Delaware

TECH A T E D

Activation TL... Message

Acknowledge All Find Bypass Fence Alarms

PREVIOUS PANEL NEXT PANEL ENLARGE/REDUCE PANEL TOGGLE FULL SCREEN

Press To Show FFOR Close Buttons

FIRST POINT OF REST WEST GATE FIRST POINT OF REST EAST GATE

STATUS: OPEN STATUS: OPEN

OPEN OPEN

Press To Show Non Toxic Close Buttons

NON TOXIC LOT NORTH GATE NON TOXIC LOT SOUTH GATE

STATUS: OPEN STATUS: OPEN

OPEN OPEN

Warehouses Dole First Point of Rest

Admin AutoBerth Road Alarm History

Show Camera Names 02/13/2014 2:23:33 PM

Site Map Back

Admin Road History

Show Camera Names 02/13/2014 2:22:18 PM

- * Consultant and/or Trusted Security Integrator
- * Owners Involvement is Critical – stay engaged throughout the process
- * Define Objectives, Alignment with Grant Investment Justification
 - * Compliance Requirements: Coast Guard, Grant, Regulatory, Environmental
 - * Security Improvements, Operational Efficiencies, Loss Control, Safety
- * Document Existing Systems/Equipment and Site Infrastructure
- * Prepare Multiple Design Scenario's
 - * Evaluate different technologies and manufacturers
 - * Evaluate equipment migration plan – keep and incorporate existing or replace all
 - * Bleeding edge technology vs. cutting edge
- * Alignment with Budget – Evaluate long term cost of ownership
- * Alignment with Organizational Structure / End Users – Who? – Where?
- * Detailed Drawings, Product Specifications, Detailed Sequence of Operation / Scope of Work



- * Selection Process
 - * Pre-Qualify Vendor Pool – Statement of Qualifications & References
- * Issue Project Requirements
 - * Bid / RFP Package
 - * Include Investment Justification & Budget Narrative
- * Vendor Interviews & Presentations
 - * Require attendance by Organization's Project Manager and Technical Lead that will be assigned to the project
 - * Require attendance of key Manufacturer's Representatives
- * Check Organization's References
- * Check Vendor's Manufacturer/Product Certifications & quantity of certified technicians



- * Team Approach (Owner, Consultant/Engineer, Integrator, Fiduciary Agent)
 - * High Expectations Clearly Defined
 - * Work together to assure all stake holders objectives are met
- * Shop Drawings / Submittal **Review** & Acceptance
 - * Require Detailed System Drawings and Riser Diagrams
 - * Define project Phasing & Milestones – Schedule of Values
 - * Pay promptly for performance
 - * Define final Audit Requirements and assure compliance throughout (wage rates, certified payroll, multi-bids, material invoices, product identification)
 - * Define structured project communication to include:
 - * Meetings – frequency, attendee’s, & deliverables
 - * Problem Resolution – RFI response timelines



Design Build Process:

ID	Task Name	Start	Finish	Duration	Q4 11		Q1 12			Q2 12			Q3 12			Q4 12			Q1 13			Q2 13
					Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
1	Finalize Fence Design	10/21/2011	10/27/2011	1w	█																	
2	Finalize Lighting Design	10/21/2011	10/27/2011	1w	█																	
3	Finalize Camera Fields of View / Locations	10/27/2011	12/7/2011	6w	█	█																
4	Finalize Power and Data Infrastructure	12/7/2011	12/20/2011	2w		█																
5	Finalize Command & Control Location and Configuration	12/20/2011	1/2/2012	2w		█																
6	Finalize & Layout Data Center / Head End	1/2/2012	1/13/2012	2w		█																
7	Fence Phase 1 (Auto Bert & 1st Point of Rest)	1/13/2012	3/12/2012	8.4w			█	█														
8	1st Point of Rest Lights	3/12/2012	4/11/2012	4.6w				█	█													
9	Fence Phase 2 Admin Area	4/11/2012	5/14/2012	4.8w					█	█												
10	1st Point of Rest Security (Gates/Access/Video)	4/11/2012	5/15/2012	5w					█	█												
11	Stage 1 & 2 Fencing	5/15/2012	5/28/2012	2w						█												
12	Stage 1 & 2 Gates/ Access/Video)	5/28/2012	6/15/2012	3w							█											
13	Head End Equipment Installation & Config	5/10/2012	5/23/2012	2w						█												
14	Command Center Installation	5/23/2012	6/5/2012	2w							█											
15	Install & Configure Video Phase 1	6/5/2012	7/2/2012	4w							█	█										
16	Install & Configure Video Phase 2	7/2/2012	7/27/2012	4w								█	█									
17	Install & Configure Video Phase 3	7/30/2012	8/24/2012	4w									█	█								
18	Install & Configure Video Phase 4	8/24/2012	9/20/2012	4w										█	█							
19	Install & Configure Video Phase 5	9/20/2012	10/17/2012	4w											█	█						
20	Configure & Deploy new Handhelds	9/3/2012	10/12/2012	6w												█	█					
21	Acceptance Testing – Project Closeouts	1/31/2013	4/30/2013	12.8w																	█	█

Key Design Finalizations:

- Fence Layout / Plan
- 1st Pt. of Rest Lighting
- Video Placement/Field of View
- Video Analytics
- Communications / Electrical Infrastructure
- Command & Control Location
- Head End Equipment Layout / Design
- Clearly Define Owner and Contractor Responsibilities
- Owner Sign Off



- * Acceptance Tests
 - * Sign Offs – all stakeholders
 - * Training & Cheat Sheets
 - * Video tape if possible – keep simple
 - * Fiduciary Agent Acceptance – Extremely Important
 - * Audit – This is a compilation of the entire project
 - * Software & Technical Support
 - * Include number of years included in the contract
 - * Maintenance Schedule
 - * Include spare inventory if possible

