Service Center

FY 2011 – 2020

TEN-YEAR SITE PLAN (TYSP)

March 2010

Doug Ash

3/15/10

Doug Ash – Acting Associate Director,
Office of Federal Services

Date

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NNSA Service Center

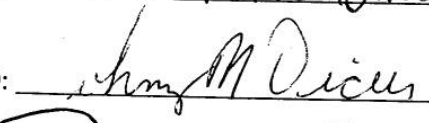
Date

Tenant Concurrence

Ronald Baca, NA-10:  Date: 3·12·10

Jeffrey Harrell, NA-15 OST:  Date: 3-12-10

Patricia "Patty" Garcia, NA-42 ERM:  Date: 3/15/10

John Dicus, DOE-IM60:  Date: 3-15-10

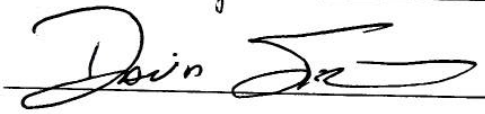
David Sedillo, OIG:  Date: 3/15/10

Table of Contents

Acronyms

CAS	Condition Assessment Survey
DOE	Department of Energy
EITS	Energy Information Technology Services
ESCW	Enterprise Service Center West
ES&H	Environmental Safety and Health
FCI	Facility Condition Index
FY	Fiscal Year
HQ	Headquarters
HVAC	Heating, Ventilation and Air Conditioning
IT	Information Technology
MSSC	Maintenance Support Service `Contractor
NNSA	National Nuclear Security Administration
SC	Service Center
TYSP	Ten Year Site Plan

EXECUTIVE SUMMARY

This Ten Year Site Plan (TYSP) defines the condition of the Service Center's (SC) facilities, identifies required infrastructure projects, and prioritizes site projects. The utilization of the facilities' space and infrastructure is nearing capacity of about 1200 employees. The complex currently houses 737 federal employees and 366 contractor employees, for a total of 1103.

The basis for this plan is the Complex Support Department's (CSD) 2004 Infrastructure Condition Assessment Survey (CAS). Included in this survey is a condition rating of the SC buildings according to the Facility Condition Index (FCI), which is a comparative indicator of the condition of facilities expressed as a ratio of the cost of correcting maintenance deficiencies (listed in the deferred maintenance backlog) to the current replacement value. Of the thirty-one buildings included in this plan, five are categorized as ***Good,*** five are categorized as ***Fair***, and twenty-one are categorized as ***Poor***.

The five multi-story buildings (20381, 20382, 20383, 20384, and 20385) and the temporary buildings house approximately 745 or 67.5 percent of the work force population at the SC. The multi-story buildings are 59 years old and were originally designed as military barracks. Lead paint and asbestos are present in these buildings. All known asbestos containing materials and lead-based paint areas are maintained under our building operations and maintenance plan, where we minimize disturbance of these materials. As maintenance, construction, or building renovations occur, these materials must be removed by a licensed abatement contractor. Such abatement activities will continually and dramatically increase project costs at the Service Center.

A seismic study (Holt and Associates, 1997) identified building 20390 and each of the multi-story buildings as seismically non-compliant with building codes. The study showed that building columns are susceptible to brittle shear failure; and beams, columns and their joints are not detailed to provide ductile behavior for reversing loads during a seismic event. The engineering analysis concluded that during a moderate seismic event, catastrophic structural failure in and around the buildings could occur resulting in extreme danger to the occupants and probable loss of life. A moderate earthquake is defined as a quake measured between 5.0 – 5.9 on the Richter Magnitude Scale, or one measured at approximately VI/VII on the Modified Mercalli Scale. These parameters fall well within recent documented seismic activity in the Rio Grande Valley. The results of this seismic analysis were independently validated during the 2004 Infrastructure Condition Assessment Survey (CAS).

Various cost analysis have been conducted to determine how the SC should pursue its on-going facility issues. Should Service Center buildings and supporting infrastructure undergo renovations to bring facilities up to current codes, standards, and energy utilizations, total renovation costs are estimated at approximately $219,000,000. The estimated time to gut and renovate one of the multi-story buildings is approximately two years. Therefore, it will take ten years to renovate the five buildings while concurrently performing necessary upgrades to the newer buildings. In comparison, the estimated cost for a line-item project is $277,000, 000 which would provide a single building constructed to meet organizational needs and LEED Gold Standard.

The SC, in conjunction with its tenant organizations (NA-10, NA-15, NA-42, DOE-IM60, OIG), are currently pursuing line-item funding for the project, and preparation of the CD-0 package is underway. The SC's strategy is to limit its facility costs over the next few years in anticipation of moving into a new building that will house all SC and tenant employees. With the exception of safety and security issues, the SC has intentionally decreased the maintenance and will run the older facilities' (20381-20385 and 20390) systems to failure. These older facilities would be demolished in FY 2017 as part of the line item funding.

Summary: Due to ongoing operational costs, plus needed upgrades and renovations, constructing a new building will be a definite savings over historical maintenance and construction costs. Given that Service Center and tenant personnel reside in substandard buildings vulnerable to seismic activities anticipated to occur in the area, seismic retrofit or relocation to new buildings should be considered a safety priority.

INTRODUCTION

General

The Service Center (SC) Complex currently occupies approximately 339,000 gross square feet of building space (refer to Table 1). It is comprised primarily of office, administrative, security, maintenance, and storage space and conference rooms. The buildings are located in two general areas: the Main Complex and the South Campus that includes six modular building (SC-1-6), a warehouse and the newly renovated office space Building 20401, formally an on-site child care facility (refer to Figure 1).

The SC, in conjunction with the Office of Secure Transportation, is currently pursuing line-item funding for this project and the preparation of the CD-0 package is underway. The SC's strategy is to limit its facility costs over the next few years in anticipation of moving into a new building that will house all SC and tenant employees. With the exception of safety and security issues, over the next 5-7 years, the SC will intentionally decrease the maintenance and run the older facilities' (20381-20385 and 20390) systems to failure. These older facilities are scheduled for demolition in FY 2017 (refer to Attachment A and B). Due to ongoing operational costs, plus needed upgrades and renovations, constructing a new building will be a definite savings over historical maintenance and construction costs.

The five multi-story buildings (20381, 20382, 20383, 20384, and 20385) and the temporary building house approximately 745 or 67.5 percent of the work force population at the SC. The multi-story buildings are 59 years old and were originally designed as military barracks. In 1997, they were identified as non-compliant in a seismic study (Holt and Associates, 1997) under the current seismic classification for the Albuquerque area. Those results were reiterated in the 2004 Infrastructure Condition Assessment Survey (CAS). The engineering analysis concluded that during a moderate seismic event, catastrophic structural failure in and around the buildings could occur resulting in extreme danger to the occupants. Building columns are susceptible to brittle shear failure; beams, columns and their joints are not detailed to provide ductile behavior for reversing loads during a seismic event. Although seismic upgrade projects have been identified for the five buildings, there are no plans to complete these projects in anticipation of the new building. However, if the line-item project does not become funded, the SC will be required to initiate major renovation projects on each of the five multi-story buildings, the site infrastructure, and constructing a replacement building for the temporary building.

Also located on the main complex are several newer buildings (20387, 20388, 20391, 20392, 20393, 20397, 20401) ranging in age from 14 to 23 years old. These buildings are in good condition. Building 20401 is our newest building and was formerly an on-site child care facility; however, it was recently renovated converting it into office space.

The modular temporary structures (South Campus and Main Complex) were installed in the early to mid 1980s and are in poor condition. Some improvements to the indoor air quality conditions have been made and will continue to be addressed as needed. These modular buildings require

greater effort to maintain their heating, ventilating and air conditioning (HVAC) systems, repair leaking roofs and deteriorating walkways and offices. Due to the ongoing in-door air quality issues the SC is working towards removing and disposing of Mods 1-4, 17, and 18 in FY2012.

Construction projects over the last eight years have focused mainly on safety and health concerns associated with the site's infrastructure. A few minor renovations have been completed to improve employee work areas, including the renovations to accommodate employees relocated to the SC from Department of Energy's (DOE) Oakland, Nevada and Headquarters (HQ) sites. Other minor renovations include portions of buildings 20381, 20382, 20383, 20384, 20385, Modular 12, and 20401.

Table 1: 2010 TYSP Building Data

Building	Use	Gross Square Footage	Building Footprint	Construction Type	Age of Building (yrs.)	Facility Condition Index (%)	FCI Categorization
20380	Administration	2,634	2,634	Steel/CMU	23	10	Good
20381	General Office	34,508	16,308	Concrete/CMU	59	21	Poor
20381A	General Office	14,284	8,340	Steel/Metal	18	11	Fair
20382	General Office	34,874	14,436	Concrete/CMU	59	30	Poor
20383	General Office	36,351	15,810	Concrete/CMU	59	20	Poor
20384	General Office	33,270	12,999	Concrete/CMU	59	17	Poor
20385	General Office	40,525	16,916	Concrete/CMU	59	17	Poor
20386	Administration	6,119	6,119	Steel/Metal	30	15	Fair
20387	Security	9,954	9,954	Steel/CMU	23	15	Fair
20388	General Office	16,093	16,093	Steel/CMU	22	6	Good
20389	General Office	9,380	6,900	Steel/Metal	59	21	Poor
20390	Maintenance	5,513	5,513	Steel/CMU	43	22	Poor
20391	General Office	14,939	14,939	Steel/Metal	23	11	Fair
20392	General Office	17,286	17,286	Steel/CMU	21	9	Good
20393	General Office	12,209	12,209	Steel/Metal	20	7	Good
20397	Storage	8,690	8,690	CMU/CMU	18	11	Fair
20398	Administration	287	287	Steel/CMU	18	30	Poor
20401	General Office	8,537	8,537	Steel/EIFS	14	7	Good
Mods 1-4, 12,17,18	General Office	13,809	6,119	Steel/Metal	26	22	Poor
SC1-SC6	General Office	20,197	20,197	Wood/Wood	25	22	Poor
Total (31)	**Total**	**339,009**					

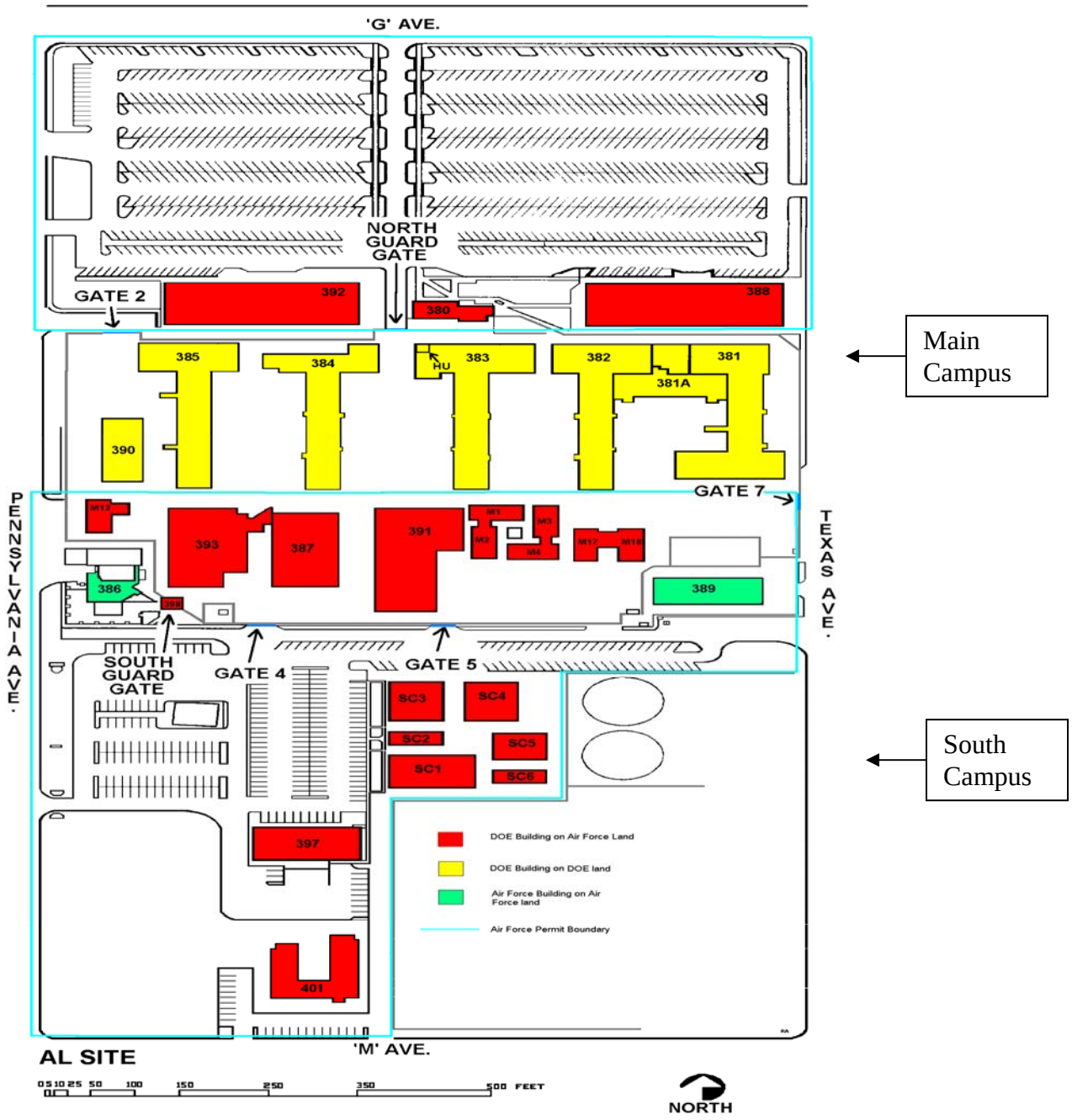


Figure 1: Service Center Site Map

Energy Management System

In FY 2002, the SC began addressing energy inefficiencies and high maintenance costs resulting from current HVAC systems by installing Building Automation and Control Network (BACNET™) based energy management systems in buildings portions of buildings 20381, 20381A, 20383, 20385, 20388, 20391, 20392 and 20393. BACNET™ is a data communication protocol for building automation and control networks. The SC is planning on completing an HVAC upgrade to building 388, 391, 392, and 393 in FY-2011 in order in improve energy savings.

The largest contributor to energy losses are windows. Four of the five multi-story facilities (20381, 20382, 20383, and 20384) have single-pane windows that are poorly sealed and greatly reduce the energy efficiency of those buildings. Although there are no plans to replace these windows with more efficient ones, the SC is planning on having a reoccurring project to replace any cracked or broken windows every two years. Replacement of these windows are problematic due to the asbestos contained in the window putty.

Environmental Management System

In FY2010, SC Management approved a proposal for the implementation of an Environmental Management System (EMS) at the SC. This is being undertaken as a voluntary action, however the SC will follow requirements of DOE Order 450.1A and ISO 14001, "Environmental Management Systems - Requirements With Guidance For Use", in establishing the EMS. The EMS will help ensure compliance with all applicable environmental requirements, and will provide a framework to continually review and reduce site environmental impacts. As initial actions in FY2010, the SC will: 1) modify the ES&H Policy Statement to incorporate required elements of ISO 14001; 2) determine the most significant environmental aspects of SC activities; 3) determine baseline data for the consumption of energy, materials, fuel, water, and recyclable materials; and 4) develop an Environmental Program Plan which documents the EMS components and procedures. As part of the EMS, specific goals, objectives, and targets will be developed that focus on the significant aspects. The five most significant aspects have initially been determined to be consumption of energy, consumption of fuel, consumption of materials, generation of recyclable materials, and consumption of water. The objectives and targets will be reviewed and modified each fiscal year. Since there is no funding provided specifically for EMS activities, objectives and targets must be selected that can be managed by existing staff and that result in no net increase in costs, or are related to existing planned infrastructure projects.

Environmental, Safety and Health (ES&H)

Historically, projects and maintenance activities at the SC have not required an Environmental Assessment or Environmental Impact Statement. Maintenance, construction, and custodial services are covered by an Umbrella Environmental Checklist (ECL) that is updated every two years. Activities not covered by the ECL require a separate National Environmental Protection Act (NEPA) review. There have been no such projects undertaken in the last several years that required additional NEPA review nor are there any anticipated.

Health concerns within the secure perimeter of the SC area are attributed to abatement and/or encapsulation of asbestos and the disturbance of lead based paint during construction and maintenance projects. Asbestos containing materials are still present in the older SC facilities and are located on mechanical, structural, and architectural systems. A limited asbestos survey was part of the CAS for buildings 20381, 20382, 20383, 20384, and 20385. Where records are incomplete, or the potential for asbestos or lead containing materials exists, sampling of the areas in question is conducted, followed by appropriate abatement of materials. Several buildings have had extensive abatement work completed, and abatement continues on a project-by-project basis.

Health concerns regarding indoor air quality have been and will continue to be addressed. Only Phase 1 of Buildings 20381, 20381A and all three phases of 20385 of the upgraded HVAC systems, have been completed. In anticipation of the new building, similar designs are no longer being considered for buildings 20382, 20383, 20384, and remaining Phases for 20381 and 20381A.

PLANNING AND FACILITY CONDITION

Planning Process

In November 2005, the final version of the CAS was completed which utilized Uniformat II (ASTM 31557-97) for building element classification. RS Means™ data and methods were used for all project costing. Replacement values were calculated based on an estimating method in which building functionality, standard overhead, and location in a secure compound were all considered. Included in the CAS is a condition rating of the buildings according to the FCI. An FCI of 10 percent or less is categorized as Good, 11-15 percent is Fair, and values greater than 15 percent are Poor. The building's FCI information, along with other general information, is located in Building Data (refer to Table 1). The CAS identified two discrete sets of data: 1) infrastructure deficiencies/observations and 2) system, structures, and components life-cycle baseline scenarios. The items identified are consolidated and projects prioritized. However, if the line-item project is not funded, the SC will be required to initiate major renovation projects on each of the five multi-story buildings and the site infrastructure, complete deferred maintenance, and construct replacement facilities for the temporary building.

Facilities and Infrastructure Overview

As mentioned above, the CAS included a condition rating of the buildings according to the FCI. The FCI summary information, along with other general information, is located in the Building Data (refer to Table 1).

Utilization

The utilization of the facilities space and infrastructure is nearing capacity. The SC Complex has 737 federal employees and 366 contractor employees as reported in the NNSA SC "Who's Where" Database. These numbers show that the site is close to reaching its capacity of approximately 1200 employees. The age and physical condition of the older multi-story buildings makes space utilization significantly inefficient and interior renovations complex and costly.

Maintenance

Although significant funds could be spent on the maintenance of the older facilities (20381-20385 and 20390) that are scheduled to be demolished starting in FY 2017, the SC will only initiate safety and security projects due to the new SC building. All other buildings (20380, 20386-20389, and 20391-20401) will be appropriately maintained over the next seven years (please refer to Attachment A).

Utilities

Utilities that service the complex are capable of meeting the existing facilities' needs; however, there is little or no capability for future expansion of these systems. Additional requirements and the aging facilities will test the capacity of these systems in the years to come. The greatest concern with the current distribution is the age of the systems and their potential for future problems. Once again, if the line-item project does not become funded, the SC will be required to initiate major renovation projects on each of the five multi-story buildings, the site infrastructure, and building replacement for the temporary building.

Water Distribution System

Although many of the water lines are over 50 years old, the current capacity is expected to meet future requirements; however, it is anticipated that portions of the main water system will need to be replaced as failures occur.

The current water pressure was increased from 65 to 100 psi by Kirtland Air Force Base in 2002. The increase has caused strain on the site's lines and valves. As a result of increased water pressure, various pressure pipelines, regulators, flush-meters, and backflow prevention devices have been replaced.

Sewer System

The existing sewer system is adequate and meets projected needs. Many of the sewer lines are over 50 years old and will need to be updated as failures occur. Repairs to several indoor sanitary sewer branches were completed within the past fifteen years and recently inspected lines are sound; however, it is anticipated that portions of the sewer lines will need to be replaced as failures occur.

Gas Distribution System

New gas meters were installed in FY 2002 to serve the complex. The major gas distribution lines have had issues with leaks occurring. The buried branch lines feeding buildings off the main gas line are in fair condition. Several of these branch lines were added during the installation of the new gas-fired hot water boilers in FY 1998; however, it is anticipated that portions of the gas lines will need to be replaced as failures occur.

Electrical System

The electrical distribution system is at capacity and there are no plans to expand it.

In FY 2002, electrical meters were installed throughout the site in order to monitor consumption and verify monthly electric statements. Recent renovation and replacement have provided some needed upgrades.

A site-wide electrical analysis was performed by Gamblin-Rodgers in 2005. Every site electrical panel was examined to identify and catalog electrical hazards. The deficiencies were addressed during FY 2006 through FY 2008. As new electrical hazards are identified, they will be addressed either through facility maintenance or construction project.

The FY07 Arc Flash Analysis Project was conducted in order to identify, catalog, analyze, label and provide information for all electrical distribution panels and equipment throughout the SC. The project has enhanced all safety aspects of conducting maintenance and repairs on all electrical equipment and components.

Over the last two years Energy Information Technology Services/Enterprise Service Center West (EITS/ESCW) has expanded “IT” services and equipment requirements to meet the ever increasing mission / customer demands. Consequently, “IT” equipment upgrades and additional infrastructure have placed significant power requirements on a severely limited electrical distribution system. Currently EITS/SC have expansion plans for “IT” services and equipment that exceed current UPS and power infrastructure capabilities. Due to the increased IT infrastructure additional upgrades in electrical and HVAC systems will be required.

Industry trends forecast a continued growth over the next ten years. Due to the government mandate for centralization “IT” datacenters, EITS/ESCW will continue to provide “housing and hosting” (consolidation) of DOE and other agency equipment and services. Therefore, power requirements for ESCW/SC “IT” infrastructures will continue to increase over the next ten year period and should be addressed at the earliest opportunity.

Telephone System

A recently upgraded secondary telephone switch is located in the basement of Bld. 381. The system has a relay to SNL’s main switch via multiple T1 lines. There is still room for expansion

to the system. A new air dryer system was installed to maintain our legacy phone cabling system. A fiber ring for VOIP and high speed digital service is available to the SC complex for future growth. Current copper lines that support the desktop phone service are deteriorating and will need to be replaced. Some areas have been converted to digital phone service. A recently upgraded Video Teleconferencing service is available throughout the complex, but additional lines are available for future growth.

Local Area Network System

There are currently three LANs at the Service Center. They are managed by local SC contractors. Only 75% of the facility within the limited area can support 100 mbps speeds. The remaining areas will require an upgrade to the desktop cabling system to support today's requirements. All inter-building connectivity can support gigabyte speeds. The Central Computer Facility is in need of a power upgrade to support current computing requirements. The classified LAN can accommodate future growth both locally and remote. All NNSA site offices and DOE HQ entities have access to the SC unclassified LAN.

REFERENCES

1. Lopez Engineering Inc. (2004) Infrastructure *Condition Assessment Survey and Analysis*. NNSA Service Center and Energy Training Center.

2. *Who's Where Database*. Spreadsheets and Drawings. NNSA Service Center

3. Randy Holt and Associates Inc. (1997) *Seismic Building Analysis*. NNSA Service Center.

4. Gamblin-Rodgers Electrical Contractors Inc. (2005) *Electrical System Analysis*. NNSA Service Center.

5. FY 2011-2020 TYSP Guidance

APPENDIX

Figure A-1: Example of Typical Damaged Parapet

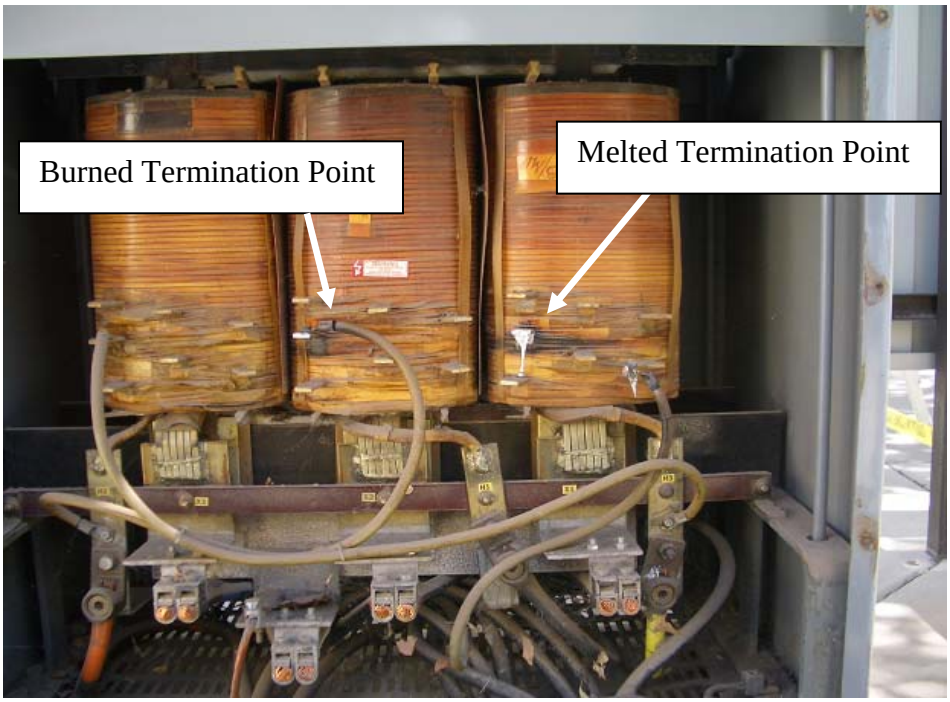


Figure A-1: Example of a Step Down Transformer Fault (Single Point Failure)

Figures A-3, A-4: Typical Examples of Structural Cracking on Multi-Story Building

Table A-1: Facilities and Infrastructure Cost Projection

See Attached Spreadsheet – Table A-1 Worksheet

Table A-1: Facilities and Infrastructure Cost Projection (Cont.)

See Attached Spreadsheet – Table A-1 Worksheet

Table A-2: Facilities Disposition Plan

See Attached Spreadsheet – Table A-2 Worksheet

Table A-3: NNSA Total Deferred Maintenance& Projected DM Reduction

See Attached Spreadsheet – Table A-3 Worksheet

Attachment A-2

Facilities and Infrastructure Cost Projection Spreadsheet
Proposed Line Item Projects for the NNSA Service Center
($000s)

Priority (1)	Project Name (2)	Project Number (3)	Mission Dependency (4)	Mission Dependency Program (4a)	Deferred Maintenance Reduction (5)	GSF Added or Eliminated (6)	Funding Type (7)	Total (8)	Prior Years' Funding (9)	FY 2011 FYNSP (10)	FY 2012 FYNSP (11)	FY 2013 FYNSP (12)	FY 2014 FYNSP (13)	FY 2015 FYNSP (14)	FY 2016 (15)	FY 2017 (16)	FY 2018 (17)	FY 2019 (18)	FY 2020 (19)
NNSA Facilities and Infrastructure Cost Projection Spreadsheet (Program A)																			
1	Line Item-PED	-	NMD	n/a	-	0	*PD-LI	-	-	$5,811									
2	Line Item-OPC	-	NMD	n/a	-	0	*PD-LI	-	-	$9,152									
3	Roof Replacements - 390, 391, 393	-	NMD	n/a	-	0	**PD/DP	-	-	$1,200									
4	Repair North & South Parking Lot Cracks	-	NMD	n/a	-	0	**PD/DP	-	-	$60									
5	Repair and Cap Parapets	-	NMD	n/a	-	0	**PD/DP	-	-	$174									
6	20383 South Basement OIG Vault	-	NMD	n/a	-	0	**PD/DP	-	-	$25									
7	Pigeon Control Project	-	NMD	n/a	-	0	**PD/DP	-	-	$25									
8	Window Repairs and Asbestos Abatement - 381, 382, 383, 384	-	NMD	n/a	-	0	**PD/DP	-	-	$58									
9	Bldg. 20385 Critical Pwr Sys/Pwr Transformer Redundancy	-	MD	n/a	-	0	**PD/DP	-	-	$500									
10	HVAC and VAV Upgrade for Energy Saving in Bldgs. 388, 391, 392, 393	-	NMD	n/a	-	0	**PD/DP	-	-	$350									
11	Line Item PED	-	NMD	n/a	-	0	**PD/DP	-	-		$5,811								
12	Line Item-OPC	-	NMD	n/a	-	0	**PD/DP	-	-		$2,600								
13	Replace Access Control System	-	NMD	n/a	-	1	**PD/DP	-	-		$300		$50	$50	$50				
14	Remove and Dispose of Mods 1-4, 17-18	-	NMD	n/a	-	(11,581.00)	**PD/DP	-	-		$250								
15	Install Water Pressure Regulating Equipment	-	NMD	n/a	-	0	**PD/DP	-	-		$125								
16	Pigeon Control Project	-	NMD	n/a	-	0	**PD/DP	-	-		$25								
17	Carpet Replacement - Site Wide	-	NMD	n/a	-	0	**PD/DP	-	-		$1,000								
18	Line Item-PED	-	NMD	n/a	-	0	*PD-LI	-	-			$13,520							
19	Line Item-Construction	-	NMD	n/a	-	0	*PD-LI	-	-			$24,440							
20	Line Item-OPC	-	NMD	n/a	-	0	*PD-LI	-	-			$2,600							
21	Carpet Replacement - Site Wide	-	NMD	n/a	-	0	**PD/DP	-	-			$1,000							
22	Window Repairs and Asbestos Abatement - 381, 382, 383, 384	-	NMD	n/a	-	0	**PD/DP	-	-			$60							
23	Pigeon Control Project	-	NMD	n/a	-	0	**PD/DP	-	-			$25							
24	Repair Sidewalks Site Wide	-	NMD	n/a	-	0	**PD/DP	-	-			$175							
25	Xeriscape North 20393, 20387, 20391	-	NMD	n/a	-	0	**PD/DP	-	-			$75							
26	Xeriscape 20401	-	NMD	n/a	-	0	**PD/DP	-	-			$150							
27	Repair and Cap Parapets Old Buildings	-	NMD	n/a	-	0	**PD/DP	-	-			$175							
28	Line Item-Construction	-	NMD	n/a	-	0	*PD-LI	-	-				$78,915						
29	Line Item-OPC	-	NMD	n/a	-	0	*PD-LI	-	-				$832						
30	Repair Drainage Issues Around MOD 12	-	NMD	n/a	-	0	**PD/DP	-	-				$250						
31	Line Item-Construction	-	NMD	n/a	-	0	*PD-LI	-	-					$78,915					
32	Line Item-OPC	-	NMD	n/a	-	0	*PD-LI	-	-					$832					
33	Window Repairs and Asbestos Abatement - 381, 382, 383, 384	-	NMD	n/a	-	0	**PD/DP	-	-					$63					
34	Re-Level Pavers West and North Driveways	-	NMD	n/a	-	0	**PD/DP	-	-					$70					

Priority (1)	Project Name (2)	Project Number (3)	Mission Dependency (4)	Mission Dependency Program (4a)	Deferred Maintenance Reduction (5)	GSF Added or Eliminated (6)	Funding Type (7)	Total (8)	Prior Years' Funding (9)	FY 2011 FYNSP (10)	FY 2012 FYNSP (11)	FY 2013 FYNSP (12)	FY 2014 FYNSP (13)	FY 2015 FYNSP (14)	FY 2016 (15)	FY 2017 (16)	FY 2018 (17)	FY 2019 (18)	FY 2020 (19)
35	Evaluate Water Damage and Repair Exterior Windows 20388, 20392, 20393, 20391, 20387	-	NMD	n/a	-	0	**PD/DP	-	-					$250					
36	Line Item-Construction	-	NMD	n/a	-	0	**PD/DP	-	-						$30,805				
37	Line Item-OPC	-	NMD	n/a	-	0	**PD/DP	-	-						$2,494				
38	Emergency Generator - 381 Telephone Switch	-	NMD	n/a	-	0	**PD/DP	-	-						$53				
39	Line Item-Demolition of Old Building	-	NMD	n/a	-	(219,522.00)	*PD-LI	-	-							$20,591			
40	Window Repairs and Asbestos Abatement - 381, 382, 383, 384	-	NMD	n/a	-	0	**PD/DP	-	-							$65			
41	HVAC Upgrades Bldgs. 381, 381A, 382, 383, 384	-	NMD	n/a	-	0	**PD/DP	-	-							$2,000			
42	Repair Drainage Issues in S. Parking Lot (N. of 20397)	-	NMD	n/a	-	0	**PD/DP	-	-							$40			
43	Repave North and South Parking Lots	-	NMD	n/a	-	0	**PD/DP	-	-							$1,500			
44	Install Xeriscaping in Perimeter Plantings North Parking Lot	-	NMD	n/a	-	0	**PD/DP	-	-								$186		
45	Repair Cracks/Paint Exterior - 381, 382, 383, 384, 392, 393	-	NMD	n/a	-	0	**PD/DP	-	-								$190		
46	Window Repairs and Asbestos Abatement - 381, 382, 383, 384	-	NMD	n/a	-	0	**PD/DP	-	-									$68	
47	20384 Boiler Room Fan/Insulation Installation	-	NMD	n/a	-	0	**PD/DP	-	-									$15	
48	20382-20385 Boiler Intake/Exhaust Adjustment	-	NMD	n/a	-	0	**PD/DP	-	-									$75	
49	Evaluate and Upgrade HVAC-20401	-	NMD	n/a	-	0	**PD/DP	-	-									$175	
50	Fall Protection - 381, 382, 383, 384, 389	-	NMD	n/a	-	0	**PD/DP	-	-										$50
51	Replace ADA Auto Chair West Basement Entrance-20385	-	NMD	n/a	-	0	**PD/DP	-	-										$75
52	Roof Replacements - 387	-	MD	n/a	-	0	**PD/DP	-	-										$500
ETC.																			
							TOTAL												
							Program A (facilities & infrastructure reported under this category)	-	-	$17,355	$10,111	$42,220	$80,047	$80,180	$33,402	$24,196	$376	$333	$625

* PD-LI = Program Direction Line Item
**PD/DP= Program Direction Defense Programs

Attachment E-1
Facilities Disposition Plan
(Within FYNSP/Outyear Planning Targets)

Funding Source (1)	Facility Identification Number (FIMS) (2)	Facility Name (3)	Deferred Maintenance Identifier (3a)	Mission Dependency Program (4)	Priority Score (5)	Priority Rank (6)	Legacy Deferred Maintenance Reduction (FY03 & FY04 Baseline) (7)	Non-Legacy Deferred Maintenance Reduction (8)	Gross Square Footage (gsf) (9)	Excess Year (10)	Estimated Disposition Year (11)	TEC to Disposition ($000s) (12)	Yearly S&M Costs ($000s) (13)	Contaminated (Yes or No) (14)	Notes (15)
PD/DP	Mod 1-4, 17, 18	Mods 1-4, 17, 18	-	NMD	-	-	-	-	11,581	2012	2012	$250	$0	No	-
PD-LI	Modular SC 1-6, & Mod. 12	SC 1-6	-	NMD	-	-	-	-	20,197	2016	2017	$1,898	$0	No	-
PD-LI	20381	Bldg 20381	-	MD	-	-	-	-	34,058	2016	2017	$3,201	$0	No	-
PD-LI	20381A	Bldg 20381-Interconnect	-	MD	-	-	-	-	14,284	2016	2017	$1,343	$0	No	-
PD-LI	20382	Bldg 20382	-	NMD	-	-	-	-	34,874	2016	2017	$3,278	$0	No	-
PD-LI	20383	Bldg 20383	-	NMD	-	-	-	-	36,351	2016	2017	$3,417	$0	No	-
PD-LI	20384	Bldg 20384	-	NMD	-	-	-	-	33,270	2016	2017	$3,127	$0	No	-
PD-LI	20385	Bldg 20385	-	NMD	-	-	-	-	40,525	2016	2017	$3,809	$0	No	-
PD-LI	20390	Bldg 20390	-	NMD	-	-	-	-	5,513	2016	2017	$518	$0	No	-
Total									230,653			$ 20,841	0		

Attachment F-2
NNSA Total Deferred Maintenance and Projected Deferred Maintenance Reduction
($000s)

Category of Maintenance	FY 2003 (Baseline)	FY 2004 (Actual)	FY 2005 (Actual)	FY 2006 (Actual)	FY 2007 (Actual)	FY 2008 (Actual)	FY 2009 (Actual)	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
1. ANNUAL REQUIRED MAINTENANCE for F&I					2,633,578	1,488,654												
2. ANNUAL PLANNED MAINTENANCE TOTAL	-	-	-	-	-	-	-	-	5,100	5,202	5,306	5,412	5,520	5,630	5,743	5,857	5,975	6,094
a. Direct																		
b. Indirect																		
3. DEFERRED MAINTENANCE (DM) TOTAL (Excludes Programmatic Real Property or Equipment) = *Inflation Prior Year DM Total + DM New - Prior Year DM Reduction*					13,160,251	14,299,971	14,871,970	15,214,025	15,548,734	15,890,806	16,240,404	16,597,693	16,962,842	17,336,024	17,717,417	18,107,200	18,505,558	18,912,681
i. Backlog Inflation Rate (%)						2.6%	2.5%	2.3%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%
ii. DM Inflation						342,167	357,499	342,055	334,709	342,072	349,598	357,289	365,149	373,183	381,393	389,783	398,358	407,122
iii. DM NEW		n/a	n/a	n/a	n/a													
A. DM, Mission-Critical F&I ONLY				n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B. DM, Mission-Dependent, Not Critical F&I ONLY				n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
C. DM, Not Mission-Dependent F&I ONLY				n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
4. DEFERRED MAINTENANCE (DM) REDUCTION TOTAL				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
i. Reduction Total attributed to FIRP ONLY				-	-	-	-	-	-	-	-							
A. Reduction in DM for Mission-Critical F&I																		
1. Reduction attributed to FIRP ONLY																		
B. Reduction in DM for Mission-Dependent, Not Critical F&I																		
1. Reduction attributed to FIRP ONLY																		
C. Reduction in DM for Not Mission-Dependent F&I																		
1. Reduction attributed to FIRP ONLY																		
5. REPLACEMENT PLANT VALUE (RPV) for Facilities and Infrastructure (F&I) = *Inflation of PY RPV + Increase or Decrease due to other causes*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A. RPV for Mission-Critical F&I ONLY				-														
B. RPV for Mission-Dependent, Not Critical F&I																		
C. RPV for Not Mission-Dependent F&I																		
D. RPV Increase from prior year attributed to inflation						-	-	-	-	-	-	-	-	-	-	-	-	-

Category of Maintenance	FY 2003 (Baseline)	FY 2004 (Actual)	FY 2005 (Actual)	FY 2006 (Actual)	FY 2007 (Actual)	FY 2008 (Actual)	FY 2009 (Actual)	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
E. RPV Increase / decrease attributed to causes other than inflation (provide separate supporting narrative behind F-2 exhibit)																		

Facility Condition Index (FCI)	FY 2003 (Baseline)	FY 2004 (Actual)	FY 2005 (Actual)	FY 2006 (Actual)	FY 2007 (Actual)	FY 2008 (Actual)	FY 2009 (Actual)	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
FCI TOTAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FCI Mission Critical				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FCI Mission Dependent, Not Critical				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FCI Not Mission Dependent				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Asset Condition Index (ACI)	**FY 2003 (Baseline)**	**FY 2004 (Actual)**	**FY 2005 (Actual)**	**FY 2006 (Actual)**	**FY 2007 (Actual)**	**FY 2008 (Actual)**	**FY 2009 (Actual)**	**FY 2010**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**
ACI TOTAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ACI Mission Critical				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ACI Mission Dependent, Not Critical				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ACI Not Mission Dependent				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTE: Cells highlighted in light orange have automatic formulas. Sites may override as appropriate. The color tone may be removed for final printing.

Optional cells below are provided for assistance in calculating DM escalation and the resulting DM subtotal for each mission dependency category for 3A, 3B and 3C above. THESE CELLS SHOULD NOT BE PRINTED.

3A. DM, Mission-Critical F&I ONLY						-	-	-	-	-	-	-	-	-	-	-	-	-
i. Backlog Inflation Rate (%)						2.6%	2.5%	2.3%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%			2.2%
ii. DM Inflation						-	-	-	-	-	-	-	-	-	-	-	-	-
iii. DM NEW																		
4A. Reduction in DM for Mission-Critical F&I																		
3B. DM, Mission-Dependent, Not Critical F&I ONLY						-	-	-	-	-	-	-	-	-	-	-	-	-
i. Backlog Inflation Rate (%)						2.6%	2.5%	2.3%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	102.2%	202.2%	2.2%
ii. DM Inflation						-	-	-	-	-	-	-	-	-	-	-	-	-
iii. DM NEW																		
4B. Reduction in DM for Mission-Dependent, Not Critical F&I																		
3C. DM, Not Mission-Dependent F&I ONLY				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
i. Backlog Inflation Rate (%)						2.6%	2.5%	2.3%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	102.2%	202.2%	2.2%
ii. DM Inflation						-	-	-	-	-	-	-	-	-	-	-	-	-
iii. DM NEW																		
4C. Reduction in DM for Not Mission-Dependent F&I																		