FAIRFAX COUNTY PLANNING COMMISSION
FORT BELVOIR/BASE REALIGNMENT AND CLOSURE (BRAC) COMMITTEE
WEDNESDAY, FEBRUARY 4, 2009

COMMITTEE MEMBERS PRESENT:
Earl L. Flanagan, Mount Vernon District
Rodney L. Lusk, Lee District
Peter F. Murphy, Jr., Springfield District
Timothy J. Sargeant, At-Large

OTHER COMMISSIONER PRESENT:
Walter L. Alcorn, At-Large

STAFF PRESENT:
Marianne Gardner, Chief, Policy and Plan Development Branch, Planning Division (PD), Department of Planning and Zoning (DPZ)
Lindsay Mason, BRAC Senior Planner, PD, DPZ
Jennifer Lai, BRAC Planner, PD, DPZ
Kim Rybold, PD, DPZ
Suzanne Lin, Zoning Evaluation Division, DPZ
Barbara J. Lippa, Executive Director, Planning Commission Office
Kara A. DeArrastia, Deputy Clerk to the Planning Commission

OTHERS PRESENT:
Michael Chipley, BRAC Coordinator, Alexandria Economic Development Partnership, Inc.
Colonel Mark Moffatt, Deputy Garrison Commander for Transformation and BRAC, U.S. Army, Fort Belvoir
Lynne Strobel, Esquire, Walsh, Colucci, Lubeley, Emrich & Walsh, PC
Sara Mariska, Esquire, Walsh, Colucci, Lubeley, Emrich & Walsh, PC
David Gill, Esquire, McGuire Woods LLP
Keith Martin, Esquire, Sack, Harris & Martin, PC
Lynne Goldberg, Opus Corporation
Robert Makheja, AKR Properties LP
Josh Olsen, Monument Realty
Ken Simmons, Boston Properties, Inc.
Ken Zecca, Hewlett-Packard
Bruce Smith, citizen

ATTACHMENTS:
(1) BRAC Alexandria PowerPoint Presentation
(2) Executive Order 13423 – Strengthening Federal Environmental, Energy, and Transportation Management, dated January 26, 2007
(3) General Services Administration Interagency Security Committee Standards
(4) Department of Defense Unified Facility Criteria Assessment
(5) Federal Friendly Zones™

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Chairman Peter F. Murphy, Jr., called the meeting to order at 7:05 p.m. in the Board of Supervisors' Conference Room, 12000 Government Center Parkway, Fairfax, Virginia 22035. He noted that the first order of business was approval of minutes.

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Commissioner Flanagan MOVED THAT THE MINUTES OF SEPTEMBER 25, 2008 BE APPROVED.

Commissioner Sargeant seconded the motion which carried unanimously.

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Chairman Murphy introduced Michael Chipley, BRAC Coordinator, Alexandria Economic Development Partnership, Inc., who would be the guest speaker at this meeting. He noted that Dr. Chipley had developed the Federal Friendly Zones™ concept for the City of Alexandria, Virginia, and provided consulting services for BRAC, federal security analysis, Leadership in Energy and Environmental Design (LEED), ENERGY STAR, and all hazards risk analysis for government and commercial buildings.

Presentation by Dr. Chipley

Dr. Chipley narrated a PowerPoint presentation on the technical, policy, and legislative drivers involved with the BRAC decisions, as shown in Attachment (1). The slides covered the following topics:

- General Services Administration (GSA) Federal Marker Drivers
  - Federal Bureau of Investigation (FBI) Solicitation For Offer (SFO)
- Department of Defense (DOD) Federal Market Drivers
  - BRAC133 – DOD Washington Headquarters Service Request For Proposal
- Legislation and Other Drivers
  - Renewable Fuels, Consumer Protection, and Energy Efficiency Act of 2007
  - Improving America's Security Act of 2007
  - Environmental Protection Agency (EPA) Federal Leadership in High-Performance and Sustainable Buildings Memorandum of Understanding 2006
  - LEED Adopted by Federal and Local Government
- LEED New Construction v2.2
- Building Information Modeling (BIM)
- International Code Council (ICC) SMARTCodes

Dr. Chipley recommended that Fairfax County be used as a beta site for the ICC SMARTCodes project.

Continuing his presentation, Dr. Chipley reviewed the following slides:

- Major Changes to ICC's International Building Code
  - Progressive collapse
  - Fire resistant materials
  - Larger Stairwells
  - Emergency and exit path markings
  - Safe haven/shelter
- Executive Orders, Acts, and Strategies
  - Homeland Security Strategy and Legislation
- Presidential Directives (Attachment (2) contains Executive Order 13423 – Strengthening Federal Environmental, Energy, and Transportation Management, dated January 26, 2007.)
  - National Initiatives
- DOD Strategy for Homeland Defense and Civil Support
- National Infrastructure Sectors defined in the National Infrastructure Protection Plan
- National Response Framework 2008
- National Incident Management System (NIMS)
- All-Hazards Taxonomy of National Preparedness Tasks
  - Prevent
  - Protect
  - Respond
  - Recover
- Definition of Risk
- Risk Methodologies
- All Hazards Building Assessments
  - Asset
  - Hazard/Threat
  - Vulnerability
  - Risk
- Terrorism Threat
  - Design Basis Threat
  - Levels of Protection
  - Layers of Defense
  - Chemical, Biological, Radiological, Nuclear, Explosive (CBRNE)
  - Weapons of Mass Destruction (WMD)
  - Weapons of Mass Effectiveness (WME)

Dr. Chipley showed video footage of a blast caused by a bomb, containing approximately 3,700 pounds of TNT equivalent, detonated by the Provisional Irish Republican Army in the city centre of Manchester, England on June 15, 1996. He described the impact of the blast on the nearby buildings.

Continuing his presentation, Dr. Chipley narrated the following slides:

- Blast Standoff Distance
  - GSA Interagency Security Committee (ISC) Design Basis Threat
- Blast Range to Effects
- Bombing at Murrah Federal Building in Oklahoma City, Oklahoma
- Comparison of Impacts of the Bombings at the Murrah Federal Building and the Khobar Towers in Khobar, Saudi Arabia
- Federal Security Standards
- GSA Facilities Standards for the Public Buildings Service (P100)
- National Capital Planning Commission Plans
- GSA Action Plan and Site Security Design Guide
- GSA ISC Security Standards (currently in rewrite)
  - Security Design Criteria for New Federal Office Buildings and Major Modernization Projects
  - Security Plan for Leased Space

Dr. Chipley noted that he had distributed a document outlining key GSA ISC sections and standards, as shown in Attachment (3).

Continuing his presentation, Dr. Chipley reviewed the following slides:

- ISC Standards Addendums (2006)
- ISC New Federal Office Standards
- ISC Lease Security Standards (Category Levels I – V)
- ISC Security Risk Assessment
- GSA ISC Risk Assessment
  - FBI Facility SFO
- Virginia Crime Prevention Association (VCPA) Crime Prevention through Environmental Design (CPTED) Guide
- ISC Blast Protection Levels
- ISC Chemical/Biological/Radiation (CBR) Protection Levels
- DOD Unified Facility Criteria (UFC) (Attachment (4) outlines the key DOD UFC sections and standards.)
- UFC 4-010-01 Standards
- DOD Levels of Protection
- Commercial Building All Hazards Guides/Standards/Codes
- Federal Emergency Management Agency (FEMA) 426/National Fire Protection Association (NFPA) 1600 Risk Assessment
- Risk Reduction
  - Risk Management Choices
- Measures to Reduce Risk
  - Hazard/Threat
  - Assets
  - Vulnerabilities
- Layers of Defense - Protection Cost versus Risk

Concluding his presentation, Dr. Chipley noted that he had distributed a handout on Federal Friendly Zones™ (FFZ), as shown in Attachment (5). He explained that the concept of FFZ was to identify areas and sites that could support federal facility requirements, transit-oriented development (TOD) workforce reduction goals, and energy efficiency goals and encourage an appropriate mix of retail, residential, and commercial uses with the particular federal agency.

Chairman Murphy thanked Dr. Chipley for his informative presentation.

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In response to a question from Marianne Gardner, Chief, Policy and Plan Development Branch, Planning Division, Department of Planning and Zoning, Dr. Chipley explained that the DOD required minimum 82-foot standoff distance was measured horizontally from the nearest point a vehicle could access the building.

Answering a question from Dr. Chipley, Colonel Mark Moffatt, Deputy Garrison Commander for Transformation and BRAC, U.S. Army, Fort Belvoir, said there was no current proposal to reduce DOD standoff distance requirement.

In reply to questions from Commissioner Sargeant, Dr. Chipley explained that buildings in proximity to more hardened federal buildings were more susceptible to damage caused by an explosive blast because they were located within a collateral damage zone. He suggested that funds be invested in response and recovery functions instead of facility protection because those functions were vital in the event of a bombing and no amount of protection was sufficient against all types of bombs. He said residential housing for BRAC contractors and military and defense personnel was not required to meet DOD guidelines as long as it was not located on a military installation or leased privatized housing.

Robert Makheja, with AKR Properties LP and nominator of BRAC Area Plans Review item 08-IV-4S, asked if the National Geospatial Intelligence Agency (NGA) buildings being constructed on the Engineering Proving Ground (EPG) would be located at least 1,000 feet away from civilian properties. Dr. Chipley replied that this was correct and requested that Colonel Moffatt comment on the security of the site. Colonel Moffatt explained that a fence would enclose the perimeter of the NGA development although on the north end of the EPG it was a little less than 1,000 feet from the adjacent communities, gates would enclose the entire perimeter of the EPG, and internal security would be provided for the facility itself.

Responding to a question from Commissioner Sargeant, Ms. Gardner stated that existing County policy called for proposed developments to incorporate green building practices or meet LEED standards. She said staff often recommended LEED certification at the silver level for office buildings. She explained that if an application proposed a large setback to accommodate a DOD tenant, during the rezoning process staff would consider what type of activities could occur within the setback to support pedestrian connectivity.

In response to questions from Commissioner Alcorn, Dr. Chipley noted that sidewalks and additional public space could be located within GSA's required 20-foot minimum setback. He said that since the perimeter of a DOD building was required to be fixed with anti-ram vehicle capability, no activities could occur within the 82-foot setback. He pointed out, however, that alternative uses for the security setback should be considered on a case by case basis to maintain public space and pedestrian connectivity. Dr. Chipley stated that energy consumption data now showed that LEED v2.2 certified buildings were more energy efficient than non-LEED certified buildings. He explained that federal agencies aimed to achieve LEED Gold certification for new construction in order to meet a zero net energy goal by 2030. Dr. Chipley then described the new LEED v3.0 system. He said TOD and redevelopment sites would be encouraged to incorporate energy efficiency and green building techniques.

Answering a question from Commissioner Flanagan, Dr. Chipley noted that a building that leased at least 25 percent of the total square footage to DOD tenants was required to comply with DOD security standards. He explained that a trend in the commercial real estate marketplace was to build an office campus that adhered to security standards so that it would be attractive to DOD tenants.

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The meeting was adjourned at 8:07 p.m.
Peter F. Murphy, Jr., Chairman

An audio recording of this meeting is available in the Planning Commission Office, 12000 Government Center Parkway, Suite 330, Fairfax, Virginia 22035.

Minutes by: Kara A. DeArrastia

Administratively Approved on: February 4, 2011

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Kara A. DeArrastia, Clerk
Fairfax County Planning Commission

BRAC Alexandria

Fairfax County
Planning Commission
Ft Belvoir BRAC Committee

Feb 4, 2009

BRAC Alexandria

- Market Driver's
- Executive Orders and Acts
- Building Security Design Criteria
- GSA ISC Standards
- DoD BRAC and UFCs Standards
- Commercial/NFPA Standards
- Future?

BRAC Alexandria

GSA Federal Market Drivers

FBI Facility Solicitation For Offer

1.3 PROJECT SCOPE AND COMPLEXITY

This will be a dedicated campus facility for the Federal Bureau of Investigation (FBI). The campus will consist of an office building, a visitor screening facility (VSF), a guard booth and a secured parking garage. All occupied structures, with the exception of the VSF and guard booth, will be located inside the 100-foot setback. The site is divided into three zones: a public zone, a restricted zone, and a security buffer zone.

The building shall be constructed to meet **Interagency Security Committee Design Criteria (ISC) for lease construction – Level 4.**

The building(s) must meet the requirements of **LEED®-NC** (Leadership in Energy and Environmental Design for New Construction) Silver level (minimum).

The use of **Building Information Modeling** (BIM) software may be required of offerors advancing to Phase II of this solicitation. Additional information may be provided to offerors advancing to Phase II of this solicitation.

GSA

SOLICITATION FOR OFFERS

&

PHASE I

FEDERAL BUREAU OF INVESTIGATION
Metropolitan Washington, DC

DEVELOPER PROVIDED SITES

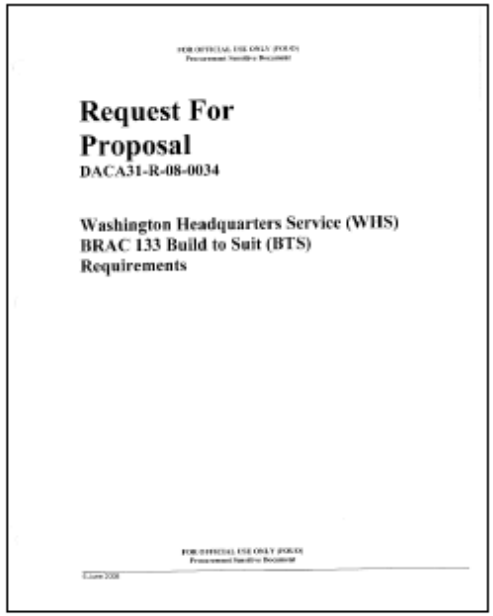
BRAC Alexandria

DoD Federal Market Drivers

BRAC133 – DoD Washington Headquarters Service Request For Proposal

RFP released 6 June 2008, Build to Suit Campus

1. Meet the BRAC statutory deadline of Sep 15, 2011
2. 6,409 person at single site, minimum of 6,200 person
3. Satisfy UFC 4-020-02FA for threats and Level of Protection and use **Crime Prevention Through Environmental Design** (CPTED)
4. Easy and clear authorized person access
5. Establish a strong "campus-like" atmosphere by protecting and enhancing natural environment and common open spaces
6. Incorporate sustainable design, **LEED Silver**
7. Flexible design for future changes
8. Will be done using **Building Information Modeling** (BIM)
9. Submissions due 30 July 2008



Request For Proposal
DACA31-R-08-0034

Washington Headquarters Service (WHS)
BRAC 133 Build to Suit (BTS)
Requirements

BRAC Alexandria

Legislation and Other Drivers

Renewable Fuels, Consumer Protection, and Energy Efficiency Act of 2007

- Subtitle C High-Performance Green Buildings
- *Sec. 266. Federal Building Energy Efficiency Performance Standards*
- *Sec. 268. Energy Efficient Commercial Buildings Initiative*

Improving America's Security Act of 2007

- *Title Viii--Private Sector Preparedness*

EPA Federal Leadership in High-Performance and Sustainable Buildings MOU 2006

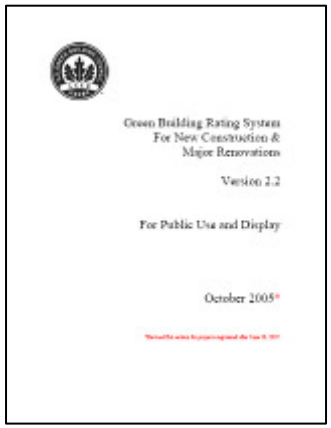
PURPOSE: With this Memorandum of Understanding (MOU), signatory agencies commit to federal leadership in the design, construction, and operation of High-Performance and Sustainable Buildings. A major element of this strategy is the implementation of common strategies for planning, acquiring, siting, designing, building, operating, and maintaining High Performance and Sustainable Buildings. The signatory agencies will also coordinate with complementary efforts in the private and public sectors.

LEED Adopted by federal and local government

- Silver as minimum
- Gold expected to be the new standard

BRAC Alexandria

LEED New Construction v2.2

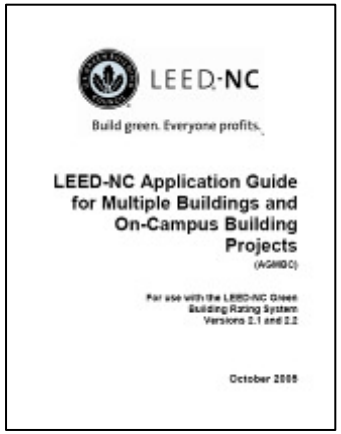


Green Building Rating System
For New Construction &
Major Renovations

Version 2.2

For Public Use and Display

October 2005*



LEED-NC

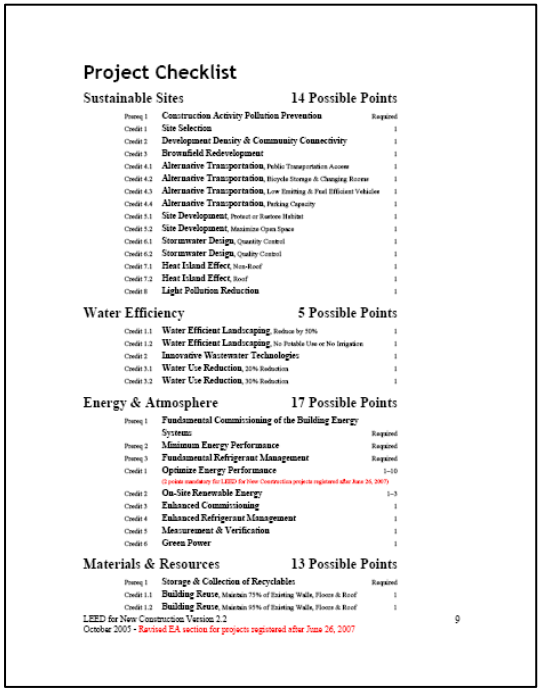
Build green. Everyone profits.

LEED-NC Application Guide for Multiple Buildings and On-Campus Building Projects

(AGMBOC)

For use with the LEED-NC Green Building Rating System Versions 2.1 and 2.2

October 2005



Project Checklist

Sustainable Sites — 14 Possible Points

Prereq 1	Construction Activity Pollution Prevention	Required
Credit 1	Site Selection	1
Credit 2	Development Density & Community Connectivity	1
Credit 3	Brownfield Redevelopment	1
Credit 4.1	Alternative Transportation, Public Transportation Access	1
Credit 4.2	Alternative Transportation, Bicycle Storage & Changing Rooms	1
Credit 4.3	Alternative Transportation, Low Emitting & Fuel Efficient Vehicles	1
Credit 4.4	Alternative Transportation, Parking Capacity	1
Credit 5.1	Site Development, Protect or Restore Habitat	1
Credit 5.2	Site Development, Maximize Open Space	1
Credit 6.1	Stormwater Design, Quantity Control	1
Credit 6.2	Stormwater Design, Quality Control	1
Credit 7.1	Heat Island Effect, Non-Roof	1
Credit 7.2	Heat Island Effect, Roof	1
Credit 8	Light Pollution Reduction	1

Water Efficiency — 5 Possible Points

Credit 1.1	Water Efficient Landscaping, Reduce by 50%	1
Credit 1.2	Water Efficient Landscaping, No Potable Use or No Irrigation	1
Credit 2	Innovative Wastewater Technologies	1
Credit 3.1	Water Use Reduction, 20% Reduction	1
Credit 3.2	Water Use Reduction, 30% Reduction	1

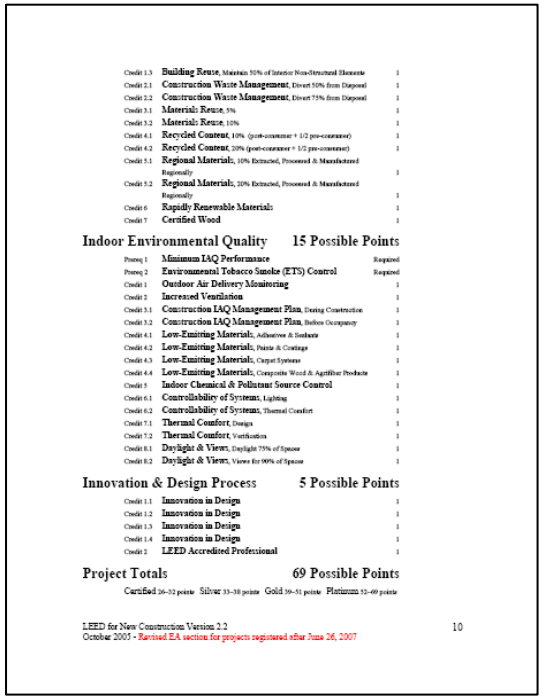
Energy & Atmosphere — 17 Possible Points

Prereq 1	Fundamental Commissioning of the Building Energy Systems	Required
Prereq 2	Minimum Energy Performance	Required
Prereq 3	Fundamental Refrigerant Management	Required
Credit 1	Optimize Energy Performance (2 points mandatory for LEED for New Construction projects registered after June 26, 2007)	1–10
Credit 2	On-Site Renewable Energy	1–3
Credit 3	Enhanced Commissioning	1
Credit 4	Enhanced Refrigerant Management	1
Credit 5	Measurement & Verification	1
Credit 6	Green Power	1

Materials & Resources — 13 Possible Points

Prereq 1	Storage & Collection of Recyclables	Required
Credit 1.1	Building Reuse, Maintain 75% of Existing Walls, Floors & Roof	1
Credit 1.2	Building Reuse, Maintain 95% of Existing Walls, Floors & Roof	1

LEED for New Construction Version 2.2
October 2005 - Revised EA section for projects registered after June 26, 2007 9



Credit 1.3	Building Reuse, Maintain 50% of Interior Non-Structural Elements	1
Credit 2.1	Construction Waste Management, Divert 50% from Disposal	1
Credit 2.2	Construction Waste Management, Divert 75% from Disposal	1
Credit 3.1	Materials Reuse, 5%	1
Credit 3.2	Materials Reuse, 10%	1
Credit 4.1	Recycled Content, 10% (post-consumer + 1/2 pre-consumer)	1
Credit 4.2	Recycled Content, 20% (post-consumer + 1/2 pre-consumer)	1
Credit 5.1	Regional Materials, 10% Extracted, Processed & Manufactured Regionally	1
Credit 5.2	Regional Materials, 20% Extracted, Processed & Manufactured Regionally	1
Credit 6	Rapidly Renewable Materials	1
Credit 7	Certified Wood	1

Indoor Environmental Quality — 15 Possible Points

Prereq 1	Minimum IAQ Performance	Required
Prereq 2	Environmental Tobacco Smoke (ETS) Control	Required
Credit 1	Outdoor Air Delivery Monitoring	1
Credit 2	Increased Ventilation	1
Credit 3.1	Construction IAQ Management Plan, During Construction	1
Credit 3.2	Construction IAQ Management Plan, Before Occupancy	1
Credit 4.1	Low-Emitting Materials, Adhesives & Sealants	1
Credit 4.2	Low-Emitting Materials, Paints & Coatings	1
Credit 4.3	Low-Emitting Materials, Carpet Systems	1
Credit 4.4	Low-Emitting Materials, Composite Wood & Agrifiber Products	1
Credit 5	Indoor Chemical & Pollutant Source Control	1
Credit 6.1	Controllability of Systems, Lighting	1
Credit 6.2	Controllability of Systems, Thermal Comfort	1
Credit 7.1	Thermal Comfort, Design	1
Credit 7.2	Thermal Comfort, Verification	1
Credit 8.1	Daylight & Views, Daylight 75% of Spaces	1
Credit 8.2	Daylight & Views, Views for 90% of Spaces	1

Innovation & Design Process — 5 Possible Points

Credit 1.1	Innovation in Design	1
Credit 1.2	Innovation in Design	1
Credit 1.3	Innovation in Design	1
Credit 1.4	Innovation in Design	1
Credit 2	LEED Accredited Professional	1

Project Totals — 69 Possible Points

Certified 26-32 points Silver 33-38 points Gold 39-51 points Platinum 52-69 points

LEED for New Construction Version 2.2
October 2005 - Revised EA section for projects registered after June 26, 2007 10

BRAC Alexandria

Building Information Modeling

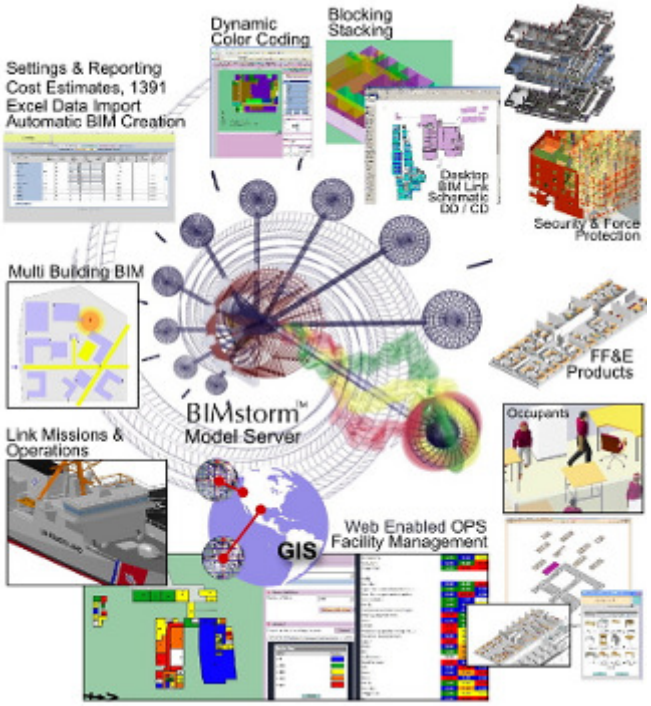
GSA

PBS OCA 3D-4D-BIM Program

For all prospectus projects receiving design funding in ***FY2007 and beyond****,*

a ***spatial program*** *Building Information Model will be the* ***minimum requirement*** *for all new and modernization projects*

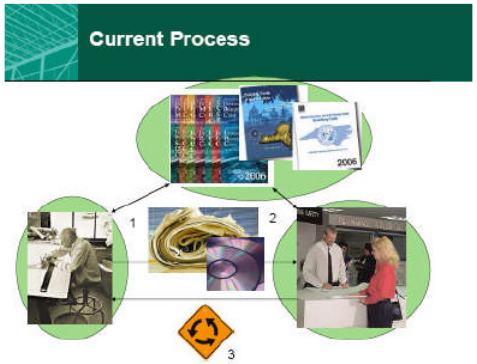
that will be submitted to Commissioner of the Public Buildings Service for ***Final Concept approvals****.*



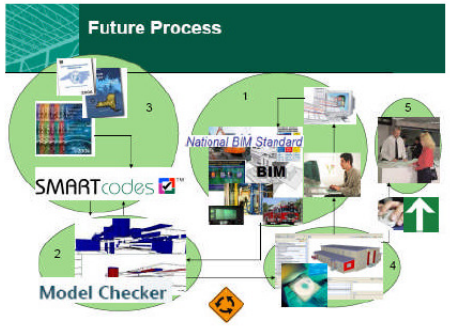
GSA requires BIM GIS as minimum starting with FY 08 projects

BRAC Alexandria

BIM and ICC SMARTCodes



1. Architect/designer consults code books while designing and preparing plans
2. Then submits the plans to the building department, who checks for compliance and returns the plans for inclusion of missing information and revision to address code compliance
3. This process continues back and forth until compliance has been achieved, and a permit to construct can be issued



1. Architect/designer uses BIM authoring software to document and present their design
2. The architect/designer inputs the BIM into the model checking software (MCS), which can present any number of views or outputs of the building as represented by the BIM
3. ICC SMARTcodes™ are used as a rule set by the MCS; the MCS applies the rule set from the SMARTcodes™ to the BIM
4. MCS returns a compliance report and visual ID of non-compliance to the architect/designer, who then revises the design, checking until compliance has been achieved
5. Architect/designer then submits the BIM to the building department as part of their permit application

BRAC Alexandria

Major Code Changes

FACILITIES MANAGEMENT NEWS

Building code changes adopted based on NIST's WTC investigation

July 18, 2007—Safer buildings—especially tall structures—that are more resistant to fire and more easily evacuated in emergencies are the goal of the first comprehensive set of building code changes recently approved by the International Code Council (ICC) based on recommendations from the Commerce Department's National Institute of Standards and Technology (NIST). The recommendations were based on the findings of NIST's three-year investigation of the collapses of New York City's World Trade Center (WTC) towers on September 11, 2001.

The changes will be incorporated into the 2007 supplement to the ICC's International Building Code (IBC), a model code used as the basis for building regulations promulgated and enforced by US state and local jurisdictions. Those jurisdictions have the option of incorporating some or all of the code's provisions, but generally adopt most provisions, notes NIST.

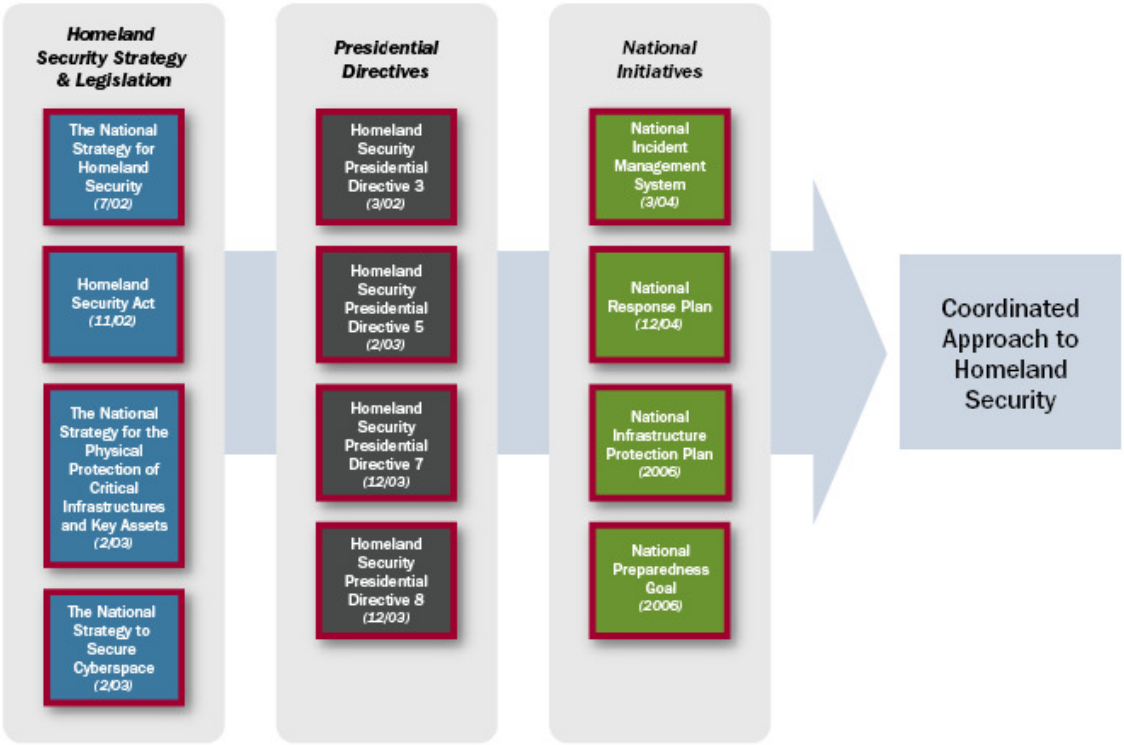
The changes address areas such as:

- Increased resistance to building collapse from fire and other incidents,
- Use of sprayed fire-resistive materials (commonly known as "fireproofing"),
- Performance and redundancy of fire protection systems (i.e., automatic sprinklers),
- Fuel oil storage/piping,
- Elevators for use by first responders and evacuating occupants,
- Number and location of stairwells, and
- Exit path markings.

BRAC Alexandria

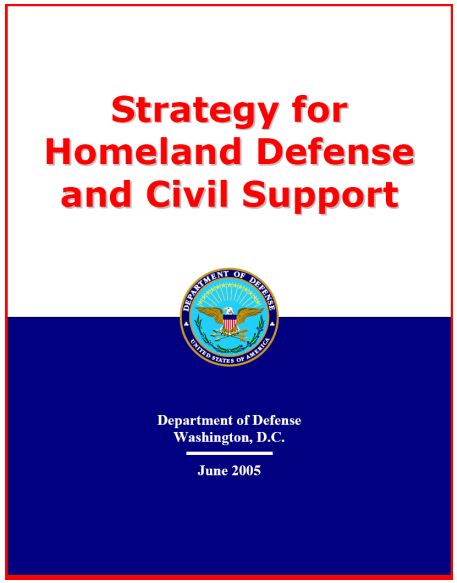
Executive Orders, Acts and Strategies

Figure 5-1: National Framework for Homeland Security



BRAC Alexandria

DoD Strategy for Homeland Defense



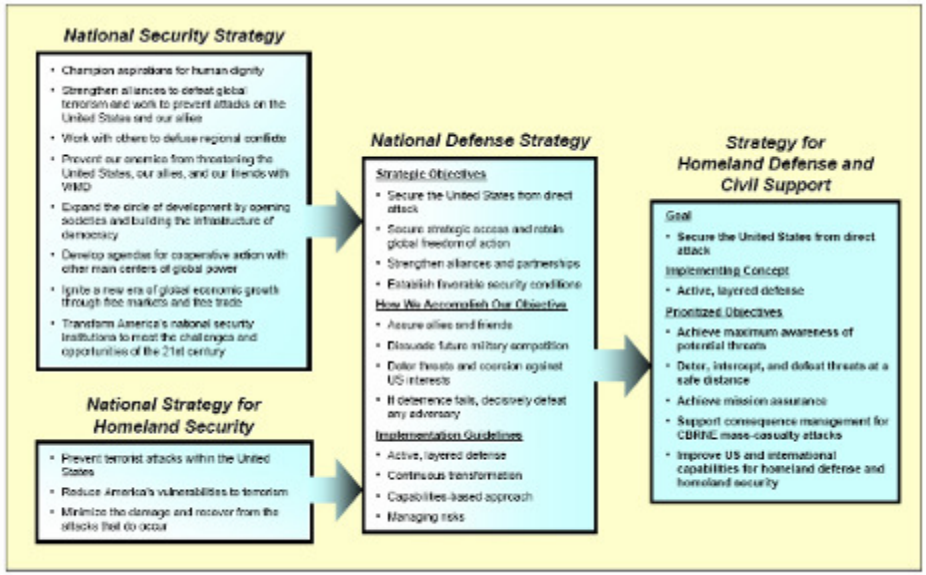
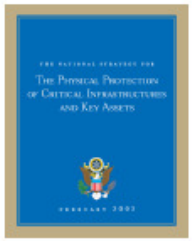


Figure 1: Strategic Underpinnings of the Homeland Defense and Civil Support Strategy

Homeland defense is the protection of US sovereignty, territory, domestic population, and critical defense infrastructure against external threats and aggression, or other threats as directed by the President. The Department of Defense is responsible for homeland defense.

BRAC Alexandria

National Infrastructure Sectors



CRITICAL INFRASTRUCTURE SECTORS

- Agriculture
- Food
- Water
- Public Health
- Emergency Services
- Government
- Defense Industrial Base
- Information and Telecommunications
- Energy
- Transportation
- Banking and Finance
- Chemical Industry and Hazardous Materials
- Postal and Shipping

Exhibit 1: Sector-Specific Agencies and Assigned Sectors

Department of Agriculture — Agriculture, food (meat, poultry, egg products)

Department of Health and Human Services — Public health and healthcare; Food (other than meat, poultry, egg products)

Environmental Protection Agency — Drinking water and wastewater treatment systems

Department of Energy — Energy, including the production, refining, storage, and distribution of oil and gas, and electric power (except for commercial nuclear power facilities)

Department of the Treasury — Banking and finance

Department of the Interior — National monuments and icons

Department of Defense — Defense industrial base

Department of Homeland Security[5] —

- Information technology
- Telecommunications
- Chemical
- Transportation systems[6]
- Emergency services
- Postal and shipping
- Dams
- Government facilities
- Commercial facilities
- Nuclear reactors, materials, and waste[7]

BRAC Alexandria

National Response Framework 2008

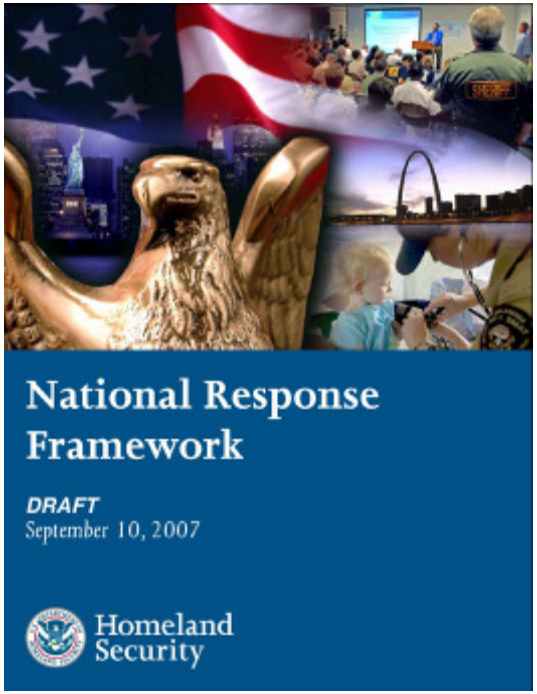
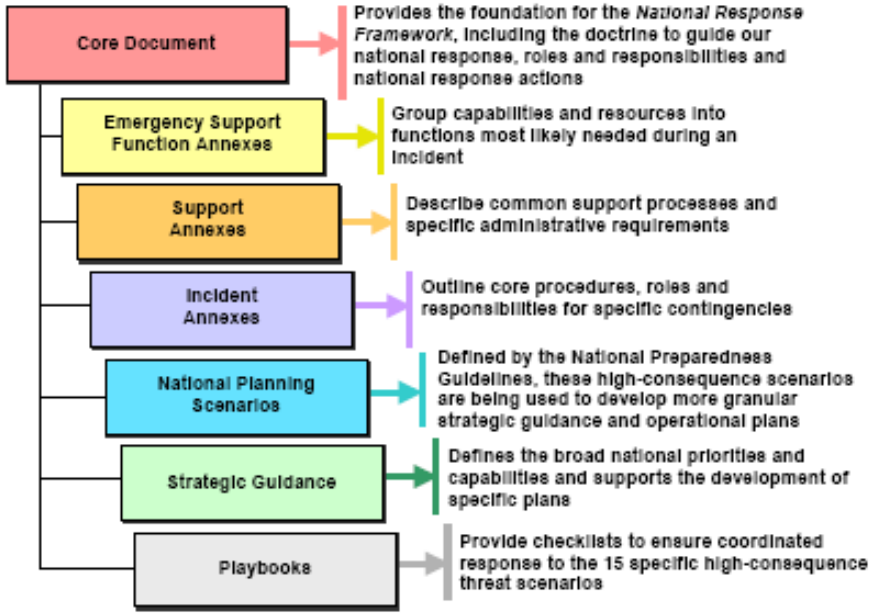
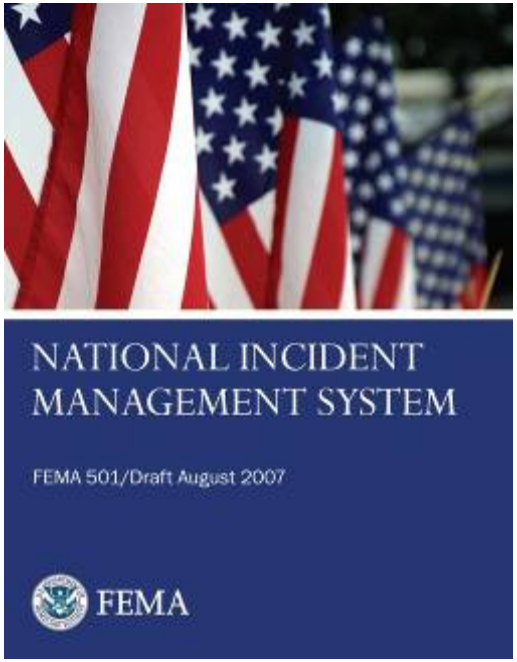


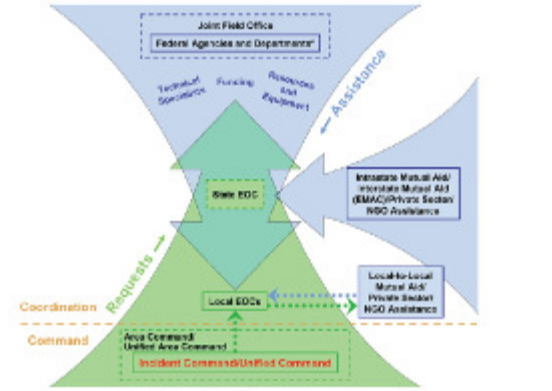
Figure 1. Organization of the *Framework*



BRAC Alexandria

National Incident Management System





*Some Federal agencies (U.S. Coast Guard, Environmental Protection Agency, etc.) have statutory responsibility for response and may coordinate and/or integrate directly with affected jurisdictions.

Figure 2—Flow of Requests and Assistance During Large-Scale Incidents

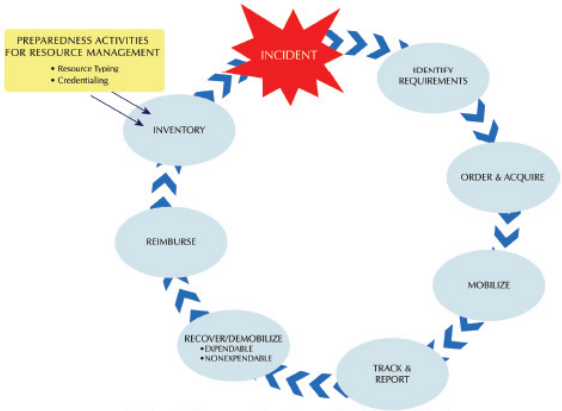


Figure 1—Resource Management During an Incident

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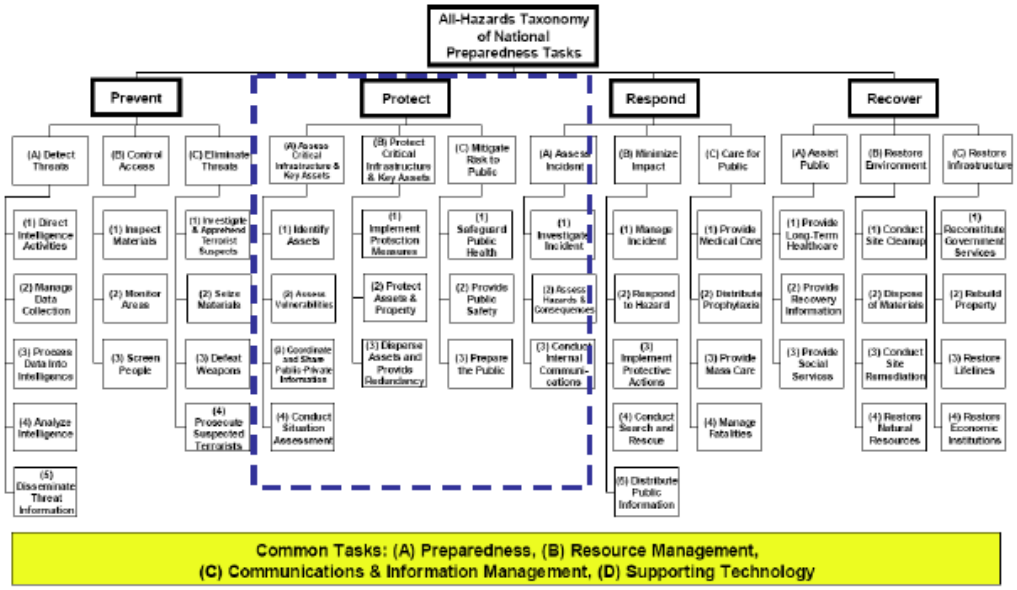
All-Hazards Taxonomy



As required by HSPD 8, DHS developed the National Preparedness Goal (the Interim National Preparedness Goal was released on March 31, 2005). The vision for the goal is:

To engage Federal, State, local, and tribal entities, their private and nongovernmental partners, and the general public to achieve and sustain risk-based target levels of capability to prevent, protect against, respond to, and recover from major events in order to minimize the impact on lives, property, and the economy.

Definition of Risk

Risk is a combination of:

- The probability that an event will occur, and
- The consequences of its occurrence

Risk for natural hazards is based on statistical probability with large data sets (known event history, known frequency of occurrence and size, accurate damage and loss estimation)

Risk for manmade threat is in its infancy for probabilistic analysis (frequency of low probability but high consequence events, materials damage models, economic cost, loss of life and injury, etc)

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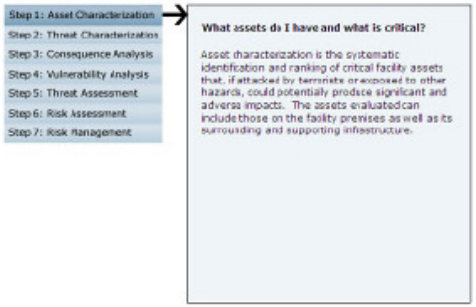
Risk Methodologies

FAA Aviation Security
VSAT Water
Sandia RAM
ARM
DHS ASME RAMCAP
Coast Guard
DoD JAT, BSA and JSIVA
FEMA
SARBOX
ISO
NIST
EPA
CARVER

To name just a few…….



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All Hazards Building Assessments

- **Asset**: Something of value to be protected – People, property, business operations/continuity, reputation
- **Hazard/Threat:** To expose to harm or danger
- **Vulnerability**: Exposures resulting from a threat targeting an asset.
- **Risk**: Quantification of vulnerability based on the likelihood or probability of an adverse event, and the potential consequences should it occur.

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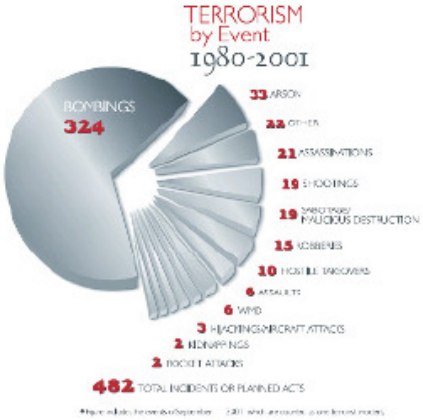
Terrorism Threat

- **Design Basis Threat** – The man made threat against which a site or building is designed to withstand, recover, and operate.
- **Levels of Protection** – The desired site or building protection that defines how many casualties will occur and the extent of damage to the building.
- **Layers of Defense** – Increasing more difficult layers of security to be penetrated for a successful attack to occur
- **CBRNE** – Chemical, Biological, Radiological, Nuclear, Explosive
- **WMD** – Weapons of Mass Destruction
- **WME** – Weapons of Mass Effectiveness

Explosive blast is the still a primary threat of concern



Manchester blast 1996 (approx 3700 lbs TNT equivalent)

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Blast Stand Off Distance

DoD Design Basis Threat – 220lb TNT equivalent

- 82 feet semi-hardened and other mitigations
- 148 feet conventional construction

GSA ISC Design Basis Threat – 200 lb TNT equivalent

- 20 feet minimum
- 50 feet desired
- 100 feet for high risk

Bollard, full perimeter protection, road closures must be part of a holistic risk minimization strategy

- Consider detect, delay, response
- Resiliency, redundancy, preparedness

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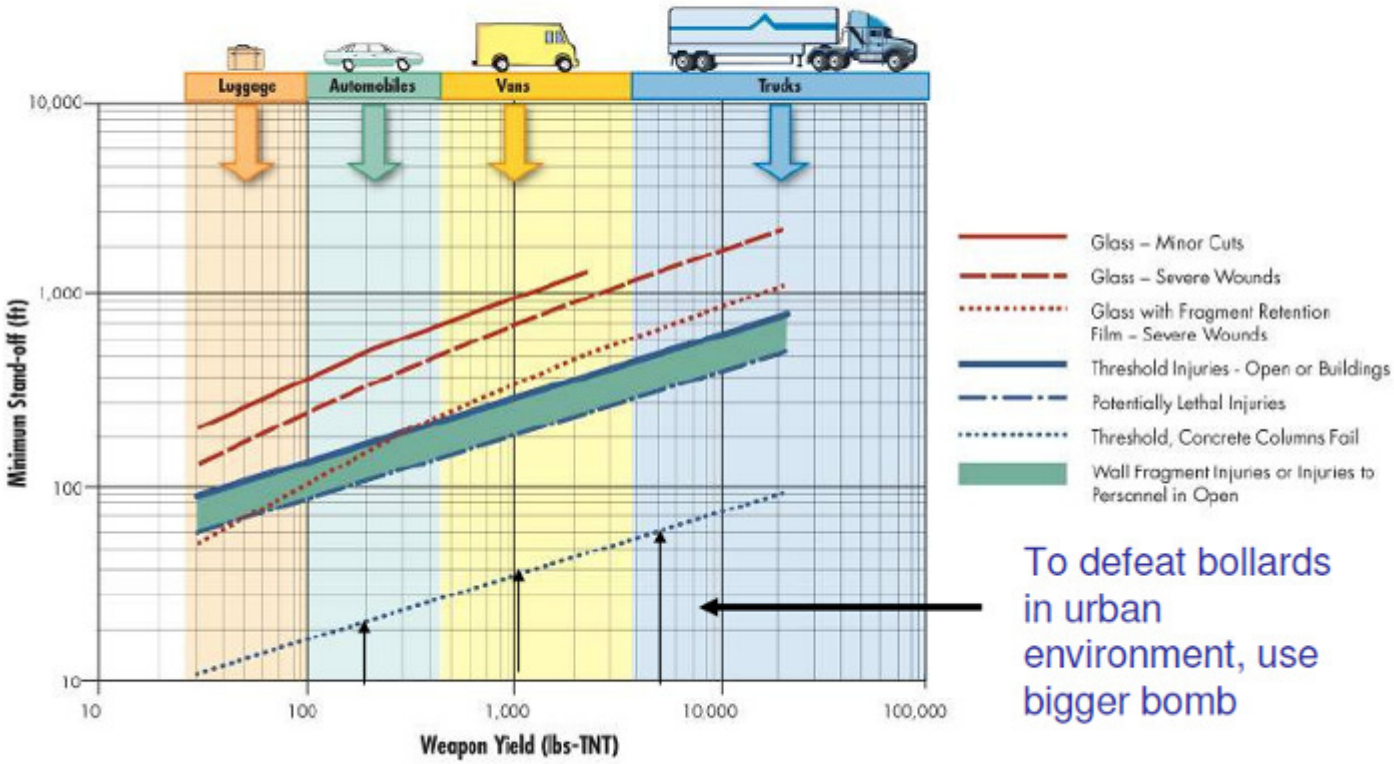
Blast Range to Effects



To defeat bollards in urban environment, use bigger bomb

Defense in depth requires perimeter protection ***and*** other mitigations

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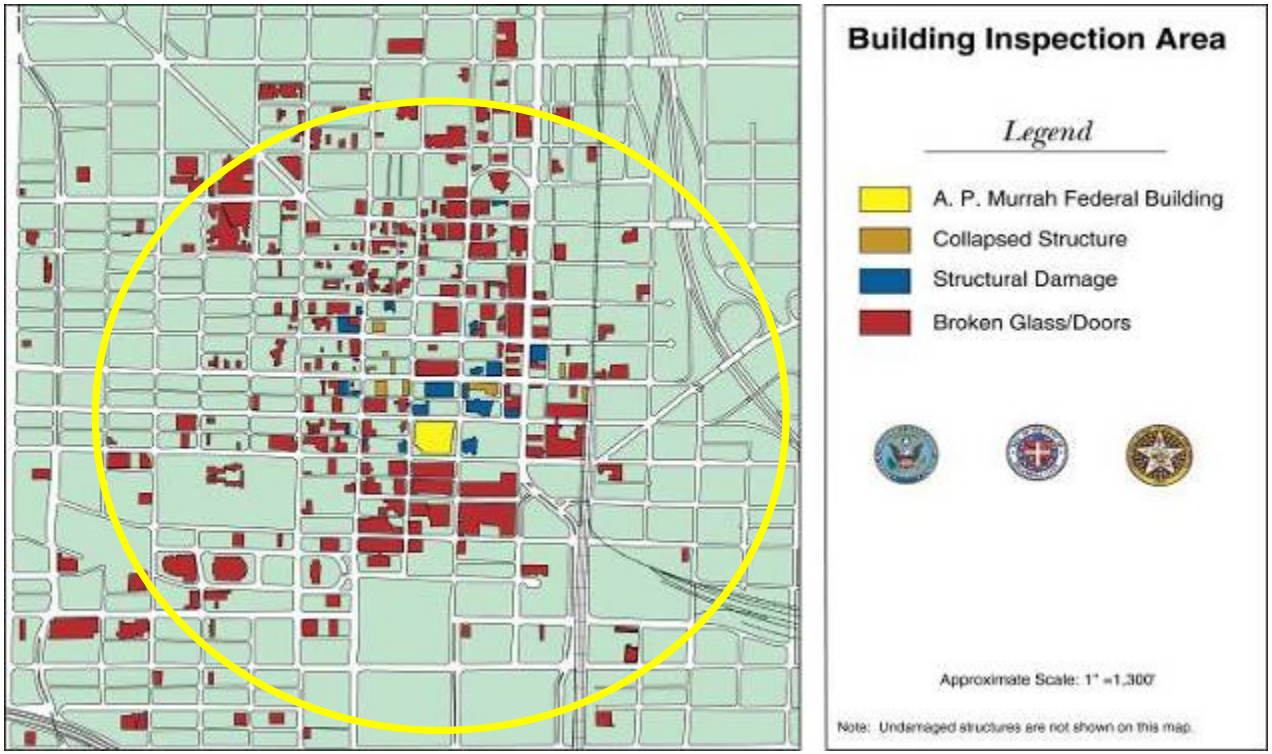
Murrah Federal Building, Oklahoma City



Damage diameter approximately 1 mile, structure typical of most commercial properties

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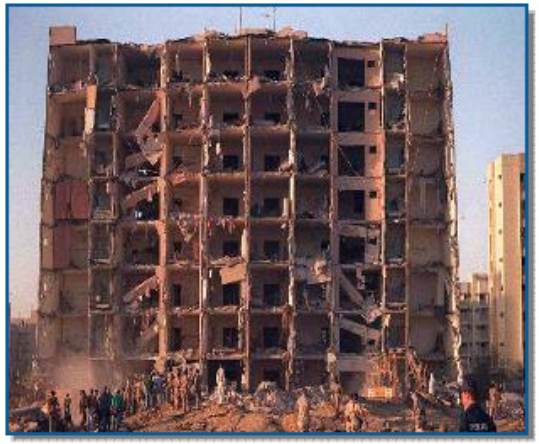
Comparison of Stand-off

Murrah Federal Building

YIELD (≈TNT Equiv.)	4,000 lb.
Reflected PRESSURE	9,600 psi.
Stand-off	15 feet

166 killed – Not Designed for Progressive Collapse and Total Loss



Khobar Towers

YIELD (≈TNT Equiv.)	20,000 lb.
Reflected PRESSURE	800 psi.
Stand-off	80 feet

19 killed – Designed for Progressive Collapse, lost façade and repaired

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Federal Security Standards

GSA and DoD developed separate building security standards and apply them differently; both standards have tremendous impacts on public space, transit, communities, and best use of land.

They may have significant conflict with other design objectives (LEED, code, etc.)

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GSA PBS 100 Nov 07

The Facilities Standards for the Public Buildings Service

The P100 is a mandatory standard. It is not a guideline, textbook, handbook, training manual, nor substitute for technical competence.

The standards represent the current state of practice in designing facilities to meet GSA's commitments, maximize the efficiency of business processes, and comply with the requirements of law.

The Facilities Standards must be used in conjunction with the building program for each project.

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Guiding Philosophy & Major Revisions

- P-100 is a cornerstone document for PBS.
- ***Incorporate new legal requirements for energy conservation and sustainability.***
- Clarify what is required as opposed to what is recommended.
- Simplify the document by not repeating what is detailed elsewhere.
- Break Chapter 1 into an Introduction and General Requirements
- Site Design as a part of Architecture
- Reformat the chapters to clarify what is required v what is recommended
- ***Incorporated new energy requirements***
- ***Integrate security requirements***
- Put secondary information in an Appendix
- Incorporate new lessons learned - UFAD

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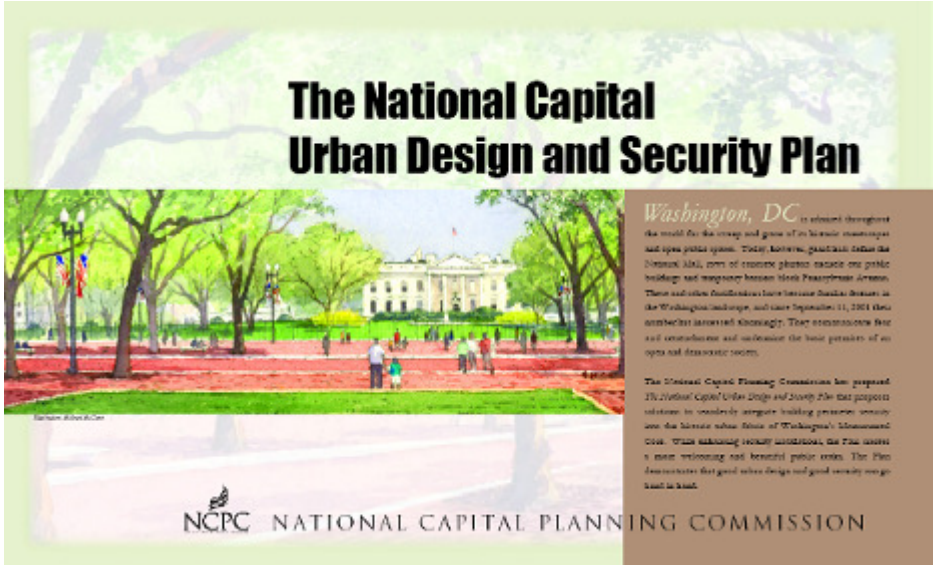
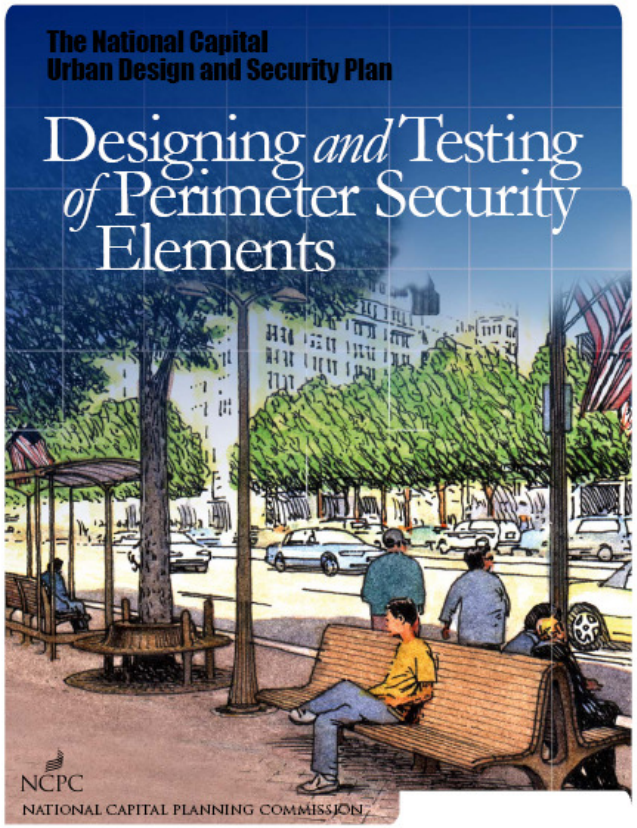
NCPC Plans





http://www.ncpc.gov/publication/pg.asp?p=ncudsp

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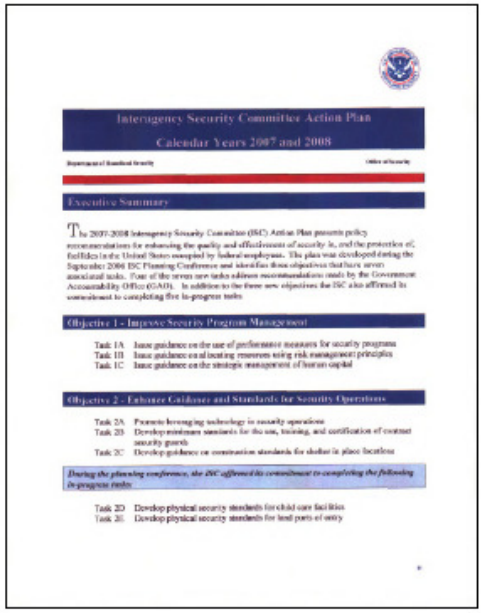
GSA Action Plan & Site Security Guide



Interagency Security Committee Action Plan

Calendar Years 2007 and 2008

Executive Summary

Objective 1 - Improve Security Program Management

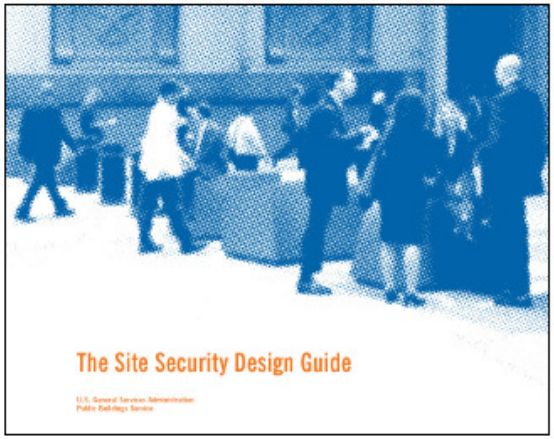
Task 1A Issue guidance on the use of performance measures for security programs
Task 1B Issue guidance on allocating resources using risk management principles
Task 1C Issue guidance on the strategic management of human capital

Objective 2 - Enhance Guidance and Standards for Security Operations

Task 2A Promote leveraging technology in security operations
Task 2B Develop minimum standards for the use, training, and certification of contract security guards
Task 2C Develop guidance on construction standards for shelter in place facilities

During the planning conference, the ISC affirmed its commitment to completing the following in-progress tasks

Task 2D Develop physical security standards for child care facilities
Task 2E Develop physical security standards for land ports of entry



- Vision and Hallmarks
- Elements and Innovations
- Site Security Design Process
- Test Cases

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GSA Interagency Security Committee
(Currently in rewrite)

New buildings and Modernization

Leased Space

0.0 Introduction

0.1 Purpose

The Interagency Security Committee (ISC) developed this document to ensure that security becomes an integral part of the planning, design, and construction of all new Federal Courthouses, new Federal office buildings and major modernization projects. The criteria consider security in all building systems and elements.

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ISC Standards Addendums (2006)

Addendum #1 – Instructions for Lease Acquisitions

- i – Itemized Costs of Security Upgrades
- j – Itemized Costs Build-to-Suit
- k – Client-Specific Requirements for Security

Addendum #2 – Security Paragraphs

Addendum #3 – Attachment 1 to GSA Form 3626 Minimum Lease Security Standards

Addendum #4 – Pre-Lease Building Security Plan

PRE-LEASE BUILDING SECURITY PLAN

OFFEROR'S PRE-LEASE BUILDING SECURITY PLAN
EVALUATION FOR UNOFFICIAL BUILDING

The Offeror must complete a report based on a walk through of the building, parking areas, and structure's perimeter that includes the review of windows or window systems, facade protection level, and perimeter evaluation.

The Offeror states, as part of this offer, that the proposed space/building is as described below and contains the identified features and devices. Should this exhibit not provide sufficient space to respond adequately to any question, additional pages should be attached.

BUILDING ADDRESS
BUILDING NAME
BUILDING ADDRESS
City
State
Year Built Year Last Renovated

SIZE AND LAYOUT
The following information applies to (check one):
____ an existing building
____ a building planned for lease construction

Space offered to Government (By Floor)

Approximate gross area of typical floor (identify atypical floors individually)
Building Height (in Feet)
Number of Stories Above Grade
Number of Stories Below Grade

OTHER OCCUPANCIES IN BUILDING (Check All That Apply)
Restaurants ____
Laboratories ____
Storage ____
Retail ____
Day-Care Center ____
Other, list: _____

Pre-lease Exhibit Security Evaluation 1
Lessor ____ Gov't ____

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ISC New Federal Office Standards

Risk based – flexible Levels Of Protection and mitigation

ISC Security Design Criteria Sep 2004 For New Federal Office Buildings and Major Modernization Projects	
1.0	Planning and Cost
2.0	Site Planning and Landscape Design
3.0	Architecture and Interior Design
4.0	Structural Engineering
5.0	Mechanical Engineering
6.0	Electrical Engineering
7.0	Fire Protection Engineering
8.0	Electronic Security
9.0	Parking Security

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ISC Standards

Level**	Typical Location	Examples of Tenant Agencies***	Security Measures (based on evaluation)
I	10 Employees (Federal) 2,500 Square Feet Low Volume Public Contact Small "Store Front" Type Operation	Local Office District Office Visitor Center USDA Office Ranger Station Commercial Facilities Industrial/Manufacturing Health Care	High Security Locks Intercom Peep Hole (Wide View) Lighting w/Emergency Backup Power Controlled Utility Access Annual Employee Security Training
II	11 - 150 Employees (Federal) 2,500 - 80,000 Square Feet Moderate Volume Public Contact Routine Operations Similar to Private Sector and/or Facility Shared with Private Sector	Public Officials Park Headquarters Regional/State Offices Commercial Facilities Industrial Manufacturing Health Care	Entry Control Package w/Closed Circuit Television (CCTV) Visitor Control/Screening Shipping/Receiving Procedures Guard/Patrol Assessment Intrusion Detection w/Central Monitoring CCTV Surveillance (Pan-Tilt, Zoom System) Duress Alarm w/Central Monitoring
III	151 - 450 Employees (Federal) Multi-Story Facility 80,100 - 150,000 Square Feet Moderate/High Volume Public Contact Agency Mix: Law Enforcement Operations Court Functions Government Records	Inspectors General Criminal Investigations Regional/State Offices GSA Field Office Local Schools Commercial Facilities Industrial Manufacturing Health Care	Guard Patrol on Site Visitor Control/Screening Shipping/Receiving Procedures Intrusion Detection w/Central Monitoring CCTV Surveillance (Pan-Tilt/Zoom System) Duress Alarm w/Central Monitoring
IV	>450 Employees (Federal) Multi-Story Facility >150,000 Square Feet High Volume Public Contact High-Risk Law Enforcement/Intelligence Agencies District Court	Significant Buildings and Some Headquarters Federal Law Enforcement Agencies Local Schools, Universities Commercial Facilities Health Care	Extend Perimeter (Concrete/Steel Barriers) 24-Hour Guard Patrol Adjacent Parking Control Backup Power System Hardened Parking Barriers
V	Level IV Profile and Agency/Mission Critical to National Security	Principal Department Headquarters	Agency-Specific

Table 2 - ISC Category IV Buildings (over 450 federal employees)

Area	Number	Standard
Perimeter	1a	Security control (Right to Inspect in Public Space)
	1b	Security Control Method (operating agreement, lessor-furnished, government-furnished)
	1c	Garage Control (Vehicle Pass/ID System)
	1d	Adequate Exterior Lighting (With Backup power)
	1e	24 hour CCTV (Lobbies and Parking)
	1f	Shatter-resistant film (Government space exterior windows)
Entry Security	2a	Security Guards (armed at public entrances)
	2b	Magnetometers and Armed Guards (Public Entrances)
	2c	Mail Screening (X-Ray and Visual) and Armed Guards
	2d	Intrusion Detection System with Central Monitoring (Building Perimeter)
	2e	Exterior High Security Locks
	2f	Government Rules Posted
Interior Security	3a	Government Photo ID (For All Building Occupants)
	3b	Visitor Control/Screening System
	3c	Secure Utility Areas
	3d	Emergency Power To Critical Systems
	3e1	Fresh Air Intakes (Secured)
	3e2	Access to Mechanical Areas (Controlled)
	3e3	Dedicated HVAC (Lobbies, Mailrooms, Loading Docks)
	3e4	CBR procedures for HVAC Shutdown
	3e5	Secure Return-Air Grilles
	3e6	Access to building information
	3e7	Mass Notification System
Administrative Procedures	4a	Government Occupant Emergency Plan
	4b	Background Security Checks for Service Personnel
	4c	Government Temporary Upgrade Security

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ISC Security Risk Assessment

0.3 Risk Basis

The application of the Security Design Criteria is based on a project-specific risk assessment that looks at threat, vulnerability, consequences, and probability, the most important components of risk.

- Threat is the actual or perceived source of jeopardy. The primary threat addressed by this document is a person or persons using various tactics (weapons, tools, methods) to cause harm. Other threats to buildings, such as earthquakes or hazardous materials stored inside the facility, are beyond the criteria's scope; however, mitigation of these threats may be beneficial in the application of these criteria;
- Vulnerability is the degree to which a facility is susceptible to a threat;
- Consequences are the negative effects of an event;
- Probability is the likelihood that an event will take place.

The government will give the designer a list of project-specific tactics to design to. A multidisciplinary team will select security criteria to meet the facility's needs (see 0.5).

1.1.3 Crime Prevention Through Environmental Design (CPTED)

Use CPTED techniques to create a built environment that discourages crime and acts of terrorism. CPTED is the strategy of employing "natural" (i.e., related to the normal use of the site and facility) access control and natural surveillance to increase safety and reduce the need for some costly engineering and security personnel measures.

1.3.3 Risk Assessment Methodology

A security risk assessment for each new or major alteration is essential, first because it channels limited budgets to best minimize risk, and second because it optimizes the performance of a building during a criminal or terrorist event.

The risk assessment is a major element in determining which security criteria apply to a facility. Since many building features, including structure and mechanical and electrical systems, are difficult and costly to change, risk must be carefully and thoughtfully evaluated in all its complexity. Risk assessors should have intelligence on past, current, and future threats. Projections must be made over the life of the facility – as difficult as that may be to do – because of the inflexibility of most building systems, some of which may be designed to last 30-100 years.

Risk assessors also need to consider the separate characteristics as well as the inter-relatedness of building systems. Each element and system – architectural, mechanical, electrical, structural, etc. – should receive its own protection level rating. Throughout the security design process, professionals from many disciplines need to consider how threats and mitigating measures applied to one element affect the rest of the facility.

Currently, there is no government-wide risk assessment system, and this document does not provide such a system.

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GSA ISC Risk Assessment

FBI Facility SFO

MINIMUM SITE REQUIREMENTS (OCT 2007)
The following site characteristics are go-no go factors. An offer will be technically unacceptable if the site in the offer fails to meet any one of these factors.

A. The offered site must be located within the delineated area and meet the requirements of the Location: Inside or Outside City Center paragraph in the solicitation.

B. The offered site must provide or have the ability to provide two means of ingress and egress from the site.

C. No easements encroach on the secure portion of the site.

D. Any improvements to the offered site necessary for the Government's mission must lie outside a 100-year flood plain.

E. The offered site must provide sufficient area to accommodate all requirements of the SFO.

F. The **Government's security risk assessment** must indicate the site is or can be made acceptable through mitigating efforts. The Government will perform a security risk assessment on offered sites that meet the above requirements. A site is technically unacceptable if there are risks that cannot be mitigated to an acceptable level.

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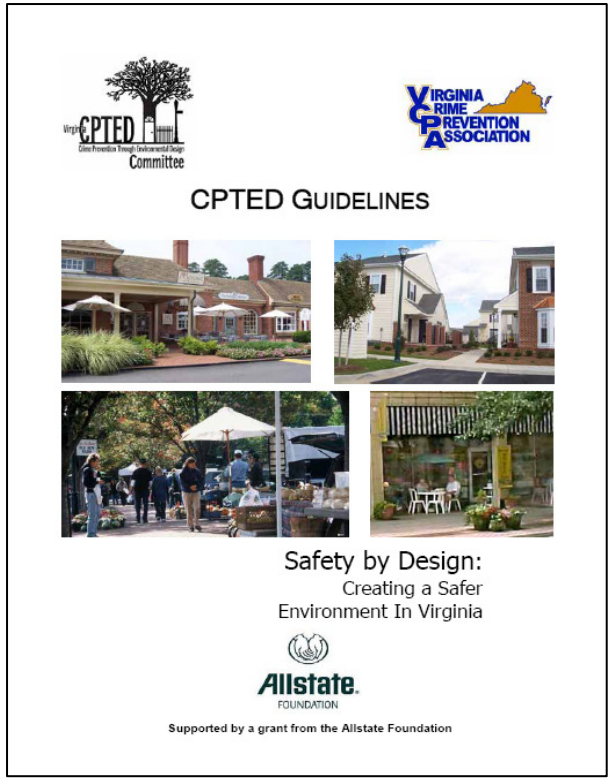
VCPA CPTED Guide



Virginia CPTED Committee

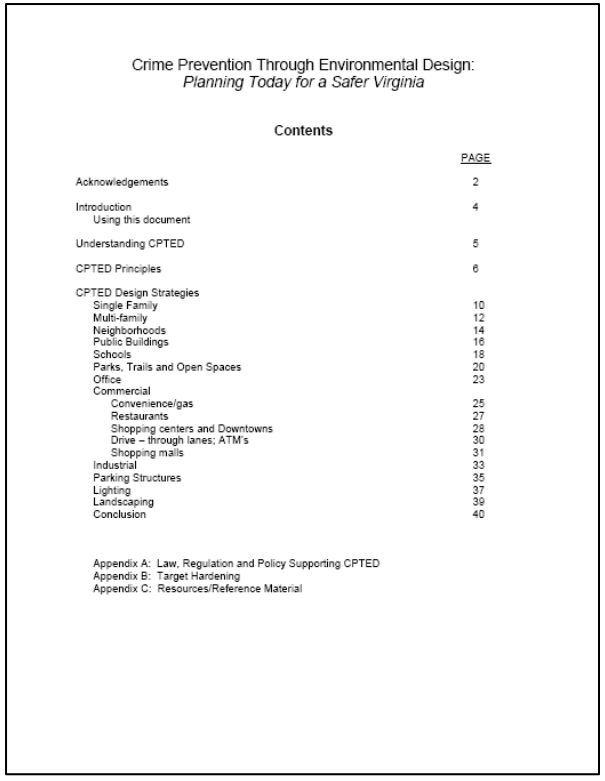
Virginia Crime Prevention Association

CPTED GUIDELINES

Safety by Design:
Creating a Safer
Environment In Virginia

Allstate Foundation

Supported by a grant from the Allstate Foundation



Crime Prevention Through Environmental Design:
Planning Today for a Safer Virginia

Contents

	PAGE
Acknowledgements	2
Introduction	4
Using this document	
Understanding CPTED	5
CPTED Principles	6
CPTED Design Strategies	
Single Family	10
Multi-family	12
Neighborhoods	14
Public Buildings	16
Schools	18
Parks, Trails and Open Spaces	20
Office	23
Commercial	
Convenience/gas	25
Restaurants	27
Shopping centers and Downtowns	28
Drive – through lanes; ATM's	30
Shopping malls	31
Industrial	33
Parking Structures	35
Lighting	37
Landscaping	39
Conclusion	40

Appendix A: Law, Regulation and Policy Supporting CPTED
Appendix B: Target Hardening
Appendix C: Resources/Reference Material

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ISC Blast Protection Levels

Level of Protection	Potential Structural Damage	Potential Glazing Hazards
Minimum and Low	The facility or protected space will sustain a high level of damage without progressive collapse. Casualties will occur and assets will be damaged. Building components, including structural members, will require replacement, or the facility may be completely unrepairable, requiring demolition and replacement.	For Minimum Protection, there are no restrictions on the type of glazing used. For Low Protection, there is no requirement to design windows for specific blast pressure loads. However, you are encouraged to use glazing materials and designs that minimize the risks. Glazing cracks and window system fails catastrophically. Fragments enter space, impacting a vertical witness panel at a distance of no more than 3 m (10 ft) from the window at a height greater than 0.6 m (2 ft) above the floor.
Medium	Moderate damage, repairable. The facility or protected space will sustain a significant degree of damage, but the structure will be reusable. Some casualties may occur and assets may be damaged. Building elements other than major structural members may require replacement.	For Medium and High Protection, design up to the specified load as directed by your risk assessment. Window systems design (glazing, frames, anchorage to supporting walls, etc.) on the exterior façade should be balanced to mitigate the hazardous effects of flying glazing following an explosive event. The walls, anchorage, and window framing should fully develop the capacity of the glazing material selected. Glazing cracks. Fragments enter space and land on floor and impact a vertical witness panel at a distance of no more than 3 m (10 ft) from the window at a height greater than 0.6 m (2 ft) above the floor.
High	Minor damage, repairable. The facility or protected space may globally sustain minor damage with local significant damage possible. Occupants may incur some injury, and assets receive minor damage.	For Medium and High Protection, design up to the specified load as directed by your risk assessment. Window systems design (glazing, frames, anchorage to supporting walls, etc.) on the exterior façade should be balanced to mitigate the hazardous effects of flying glazing following an explosive event. The walls, anchorage, and window framing should fully develop the capacity of the glazing material selected. Glazing cracks. Fragments enter space and land on floor no further than 3 m (10 ft.) from the window.

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ISC CBR Protection Levels

Level of Protection	For Biological and Radiological Contaminants	For Chemical and Radiological Contaminants	Additional Considerations	Class
Low	Use minimum efficiency reporting value (MERV) 13 filter or functional equivalent.	None	None	3
Medium	Use high-efficiency particulate air (HEPA) filter or functional equivalent.	Use gas absorber for outside air.	Design for future detection technology Stairway pressurization system should maintain positive pressure in stairways for occupant refuge, safe evacuation, and access by firefighters. The entry of smoke and hazardous gases into stairways must be minimized. Locate utility systems at least 15 m (50 ft) from loading docks, front entrances, and parking areas.	2
High	Use HEPA filter or functional equivalent.	Use gas absorber for outside air and return air.	Design for future detection technology Stairway pressurization system should maintain positive pressure in stairways for occupant refuge, safe evacuation, and access by firefighters. The entry of smoke and hazardous gases into stairways must be minimized. Locate utility systems at least 15 m (50 ft) from loading docks, front entrances, and parking areas.	1, 2

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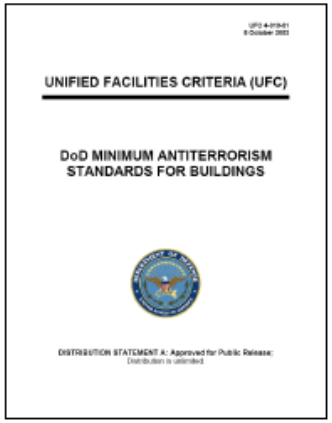
DoD Unified Facility Criteria

1-1 **GENERAL.** This document represents a significant commitment by DoD to seek effective ways to minimize the likelihood of mass casualties from terrorist attacks against DoD personnel in the buildings in which they work and live.

1-1.2 **Responsibility.** Protecting people on a DoD installation or site must start with an ***understanding of the risk*** of a terrorist attack.


UNIFIED FACILITIES CRITERIA (UFC)

DoD MINIMUM ANTITERRORISM STANDARDS FOR BUILDINGS

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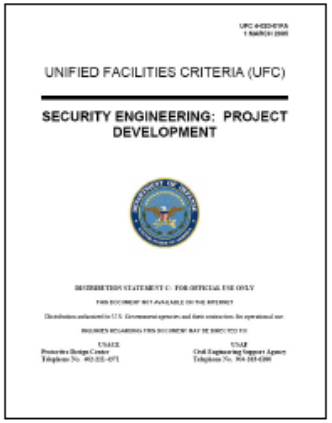
UNIFIED FACILITIES CRITERIA (UFC)

SECURITY ENGINEERING: PROJECT DEVELOPMENT

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DoD Unified Facility Criteria

1-1.1 **Dynamic Threat Environment.** Terrorism is real, evolving, and continues to increase in frequency and lethality throughout the world. The unyielding, tenacious, and patient nature of the terrorists targeting DoD interests forces us to closely examine existing policies and practices for deterring, disrupting, and mitigating potential attacks. Today, terrorist attacks can impact anyone, at any time, at any location, and can take many forms. Deterrence against terrorist attacks begins with properly trained and equipped DoD personnel employing effective procedures. While terrorists have many tactics available to them, they frequently use explosive devices when they target large numbers of DoD personnel. Most existing DoD buildings offer little protection from terrorist attacks. By applying the Minimum Antiterrorism Standards for Buildings described in this document, we become a lesser target of opportunity for terrorists.

1-4 **INTENT.** The intent of these standards is to minimize the possibility of mass casualties in buildings or portions of buildings owned, leased, privatized, or otherwise occupied, managed, or controlled by or for DoD. These standards provide appropriate, implementable, and enforceable measures to establish a level of protection against terrorist attacks for all inhabited DoD buildings where no known threat of terrorist activity currently exists. While complete protection against all potential threats for every inhabited building is cost prohibitive, the intent of these standards can be achieved through prudent master planning, real estate acquisition, and design and construction practices. Where the minimum standoff distances detailed in these standards are met, most conventional construction techniques can be used with only marginal impact on the total construction or renovation cost. The financial impact of these standards will be significantly less than the economic and intangible costs of a mass casualty event.

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DoD Unified Facility Criteria

1-5 **LEVELS OF PROTECTION.** The levels of protection provided by these standards meet the intent described above and establish a foundation for the rapid application of additional protective measures in a higher threat environment. These standards may be supplemented where specific terrorist threats are identified, where more stringent local standards apply, or where local commanders dictate additional measures.

1-6.2.1 **Major Investments.** Implementation of these standards to bring an entire building into compliance is mandatory for all DoD building renovations, modifications, repairs, and restorations where those costs exceed 50% of the replacement cost of the building except as otherwise stated in these standards.

1-6.4 **Leased Buildings.** DoD personnel occupying leased buildings deserve the same level of protection as those in DoD-owned buildings. Implementation of these standards is therefore mandatory for all facilities leased for DoD use and for those buildings in which DoD receives a space assignment from another government agency except as established below. This requirement is intended to cover all situations, including General Services Administration space, privatized buildings, and host-nation and other foreign government buildings. This requirement is applicable for all new leases executed on or after 1 October 2005 and to renewal or extension of any existing lease on or after 1 October 2009. Leases executed prior to the above fiscal years will comply with these standards where possible.

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UFC 4-010-01 Standards

UFC 4-010-01 APPENDIX B DoD MINIMUM AT STANDARDS FOR NEW AND EXISTING BUILDINGS	
Standard 1	Minimum Stand-off Distances
Standard 2	Unobstructed Space
Standard 3	Drive-Up/Drop-Off Areas
Standard 4	Access Roads
Standard 5	Parking Beneath Buildings or on Rooftops
Standard 6	Progressive Collapse Avoidance
Standard 7	Structural Isolation
Standard 8	Building Overhangs
Standard 9	Exterior Masonry Walls
Standard 10	Windows, Skylights, and Glazed Doors
Standard 11	Building Entrance Layout
Standard 12	Exterior Doors

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UFC 4-010-01 Standards

UFC 4-010-01 APPENDIX B DoD MINIMUM AT STANDARDS FOR NEW AND EXISTING BUILDINGS	
Standard 13	Mailrooms
Standard 14	Roof Access
Standard 15	Overhead Mounted Architectural Features
Standard 16	Air Intakes
Standard 17	Mailroom Ventilation
Standard 18	Emergency Air Distribution Shutoff
Standard 19	Utility Distribution and Installation
Standard 20	Equipment Bracing
Standard 21	Under Building Access
Standard 22	Mass Notification

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DOD AT Level Of Protection

Level of Protection	Potential Structural Damage	Potential Door and Glazing Hazards	Potential Injury
Below AT standards	Severely damaged. Frame collapse/ massive destruction. Little left standing.	Doors and windows fail and result in lethal hazards	Majority of personnel suffer fatalities.
Very Low	Heavily damaged - onset of structural collapse. Major deformation of primary and secondary structural members, but progressive collapse is unlikely. Collapse of non-structural elements.	Glazing will break and is likely to be propelled into the building, resulting in serious glazing fragment injuries, but fragments will be reduced. Doors may be propelled into rooms, presenting serious hazards.	Majority of personnel suffer serious injuries. There are likely to be a limited number (10 percent to 25 percent) of fatalities.
Low	Damaged – unrepairable. Major deformation of non-structural elements and secondary structural members, and minor deformation of primary structural members, but progressive collapse is unlikely.	Glazing will break, but fall within 1 meter of the wall or otherwise not present a significant fragment hazard. Doors may fail, but they will rebound out of their frames, presenting minimal hazards.	Majority of personnel suffer significant injuries. There may be a few (<10 percent) fatalities.
Medium	Damaged – repairable. Minor deformations of non-structural elements and secondary structural members and no permanent deformation in primary structural members.	Glazing will break, but will remain in the window frame. Doors will stay in frames, but will not be reusable.	Some minor injuries, but fatalities are unlikely.
High	Superficially damaged. No permanent deformation of primary and secondary structural members or non-structural elements.	Glazing will not break. Doors will be reusable.	Only superficial injuries are likely.

UFC 4-010-01
8 October 2003

Figure B-1 Standoff Distances and Building Separation – Controlled Perimeter

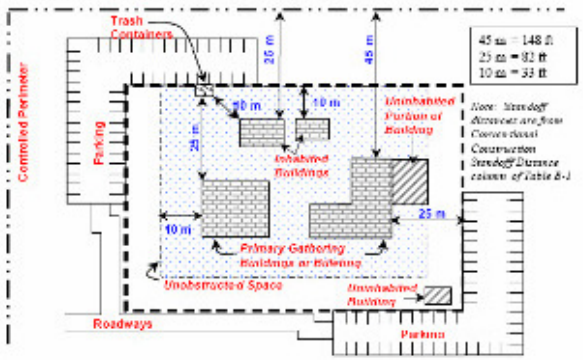
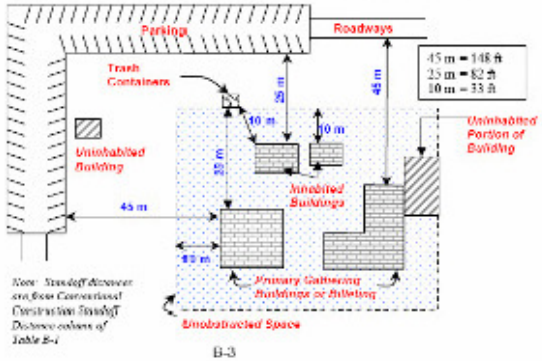


Figure B-2 Standoff Distances and Building Separation – No Controlled Perimeter



B-3

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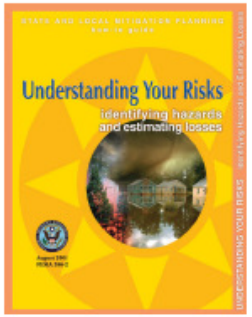
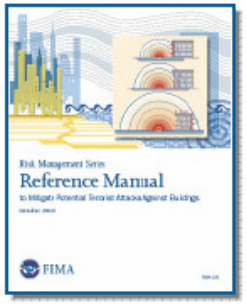
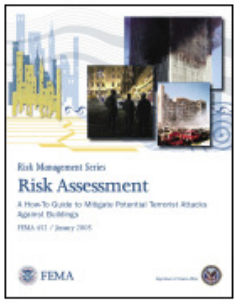
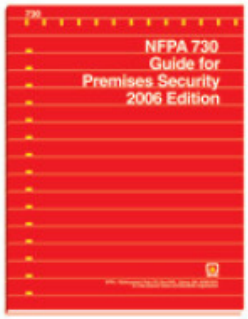
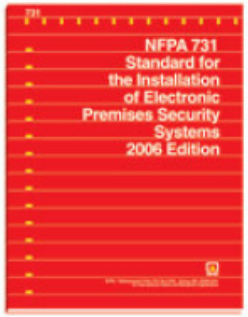
Commercial Building All Hazards Guides/Standards/Codes











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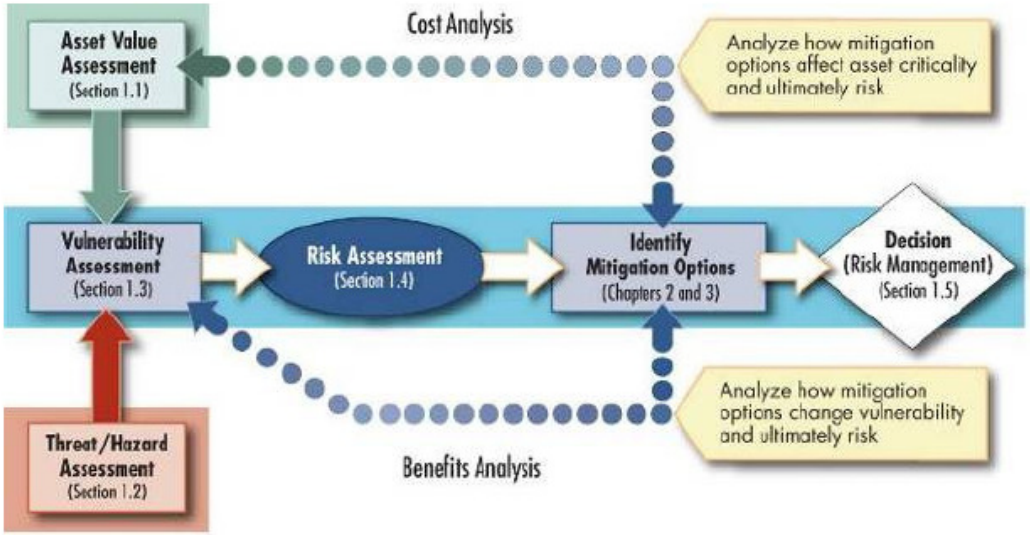
FEMA 426/NFPA 1600 Risk Assessment



NFPA 1600 A.5.3 A comprehensive risk assessment identifies the range of possible hazards, threats, or perils that have or might impact the entity, surrounding area, or critical infrastructure supporting the entity. The potential impact of each hazard, threat, or peril is determined by the severity of each and the vulnerability of people, property, operations, the environment, and the entity to each threat, hazard, or peril. The risk assessment should categorize threats, hazards, or perils by both their relative frequency and severity, keeping in mind that there might be many possible combinations of frequency and severity for each. The entity should attempt to mitigate, prepare for, plan to respond to, and recover from those threats, hazards, or perils that are able to significantly impact people, property, operations, the environment, or the entity itself.

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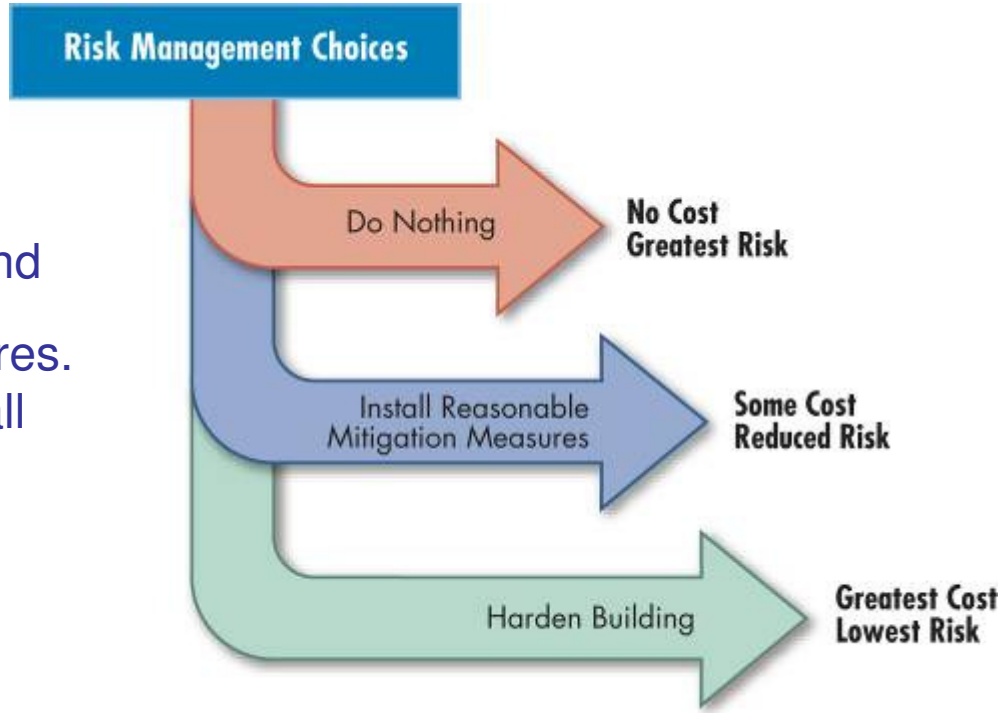
Risk Reduction

Three Options:

- Do nothing and accept the risk.
- Perform a risk assessment and manage the risk by installing reasonable mitigation measures.
- Harden the building against all threats to achieve the least amount of risk.



Risk management is a quantitative process that collects, evaluates, and responds to immense amounts of data that must be mined for knowledge.

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Measures to Reduce Risk

HAZARD/THREAT

- Deter
- Detect
- Deny
- Devalue

Affect the hazard/threat

ASSETS

- Relocate
- Reduce assets
- Plan for recovery
- Insure

Reduce the impact on the assets

VULNERABILITIES

- Conceal
- Reduce
- Eliminate

Affect the degree of vulnerability

Building security objective is to achieve a balanced approach that combines aesthetics, enhanced security, and use of non-structural measures.

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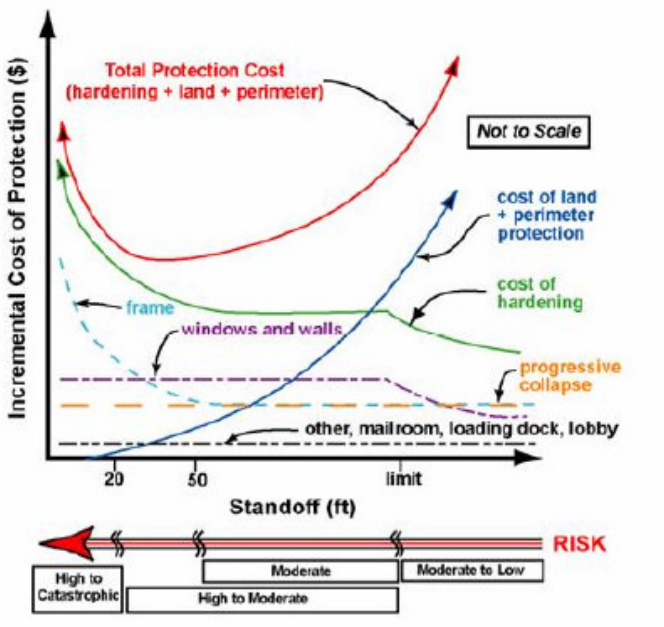
Layers of Defense - Protection Cost versus Risk



The strategy of Layers of Defense uses the elements and Levels of protection to develop mitigation options to counter or defeat the tactics, weapons, and effects of an attack defined by the Design Basis Threat.

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Federal Register

Friday,
January 26, 2007

Part II

The President

Executive Order 13423—Strengthening Federal Environmental, Energy, and Transportation Management

Federal Register
Vol. 72, No. 17
Friday, January 26, 2007

Presidential Documents

Title 3—

The President

Executive Order 13423 of January 24, 2007

Strengthening Federal Environmental, Energy, and Transportation Management

By the authority vested in me as President by the Constitution and the laws of the United States of America, and to strengthen the environmental, energy, and transportation management of Federal agencies, it is hereby ordered as follows:

Section 1. *Policy*. It is the policy of the United States that Federal agencies conduct their environmental, transportation, and energy-related activities under the law in support of their respective missions in an environmentally, economically and fiscally sound, integrated, continuously improving, efficient, and sustainable manner.

Sec. 2. *Goals for Agencies*. In implementing the policy set forth in section 1 of this order, the head of each agency shall:

(a) improve energy efficiency and reduce greenhouse gas emissions of the agency, through reduction of energy intensity by (i) 3 percent annually through the end of fiscal year 2015, or (ii) 30 percent by the end of fiscal year 2015, relative to the baseline of the agency's energy use in fiscal year 2003;

(b) ensure that (i) at least half of the statutorily required renewable energy consumed by the agency in a fiscal year comes from new renewable sources, and (ii) to the extent feasible, the agency implements renewable energy generation projects on agency property for agency use;

(c) beginning in FY 2008, reduce water consumption intensity, relative to the baseline of the agency's water consumption in fiscal year 2007, through life-cycle cost-effective measures by 2 percent annually through the end of fiscal year 2015 or 16 percent by the end of fiscal year 2015;

(d) require in agency acquisitions of goods and services (i) use of sustainable environmental practices, including acquisition of biobased, environmentally preferable, energy-efficient, water-efficient, and recycled-content products, and (ii) use of paper of at least 30 percent post-consumer fiber content;

(e) ensure that the agency (i) reduces the quantity of toxic and hazardous chemicals and materials acquired, used, or disposed of by the agency, (ii) increases diversion of solid waste as appropriate, and (iii) maintains cost-effective waste prevention and recycling programs in its facilities;

(f) ensure that (i) new construction and major renovation of agency buildings comply with the *Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings set forth in the Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding (2006)*, and (ii) 15 percent of the existing Federal capital asset building inventory of the agency as of the end of fiscal year 2015 incorporates the sustainable practices in the Guiding Principles;

(g) ensure that, if the agency operates a fleet of at least 20 motor vehicles, the agency, relative to agency baselines for fiscal year 2005, (i) reduces the fleet's total consumption of petroleum products by 2 percent annually through the end of fiscal year 2015, (ii) increases the total fuel consumption that is non-petroleum-based by 10 percent annually, and (iii) uses plug-in hybrid (PIH) vehicles when PIH vehicles are commercially available at

a cost reasonably comparable, on the basis of life-cycle cost, to non-PIH vehicles; and

(h) ensure that the agency (i) when acquiring an electronic product to meet its requirements, meets at least 95 percent of those requirements with an Electronic Product Environmental Assessment Tool (EPEAT)-registered electronic product, unless there is no EPEAT standard for such product, (ii) enables the Energy Star feature on agency computers and monitors, (iii) establishes and implements policies to extend the useful life of agency electronic equipment, and (iv) uses environmentally sound practices with respect to disposition of agency electronic equipment that has reached the end of its useful life.

Sec. 3. *Duties of Heads of Agencies*. In implementing the policy set forth in section 1 of this order, the head of each agency shall:

(a) implement within the agency sustainable practices for (i) energy efficiency, greenhouse gas emissions avoidance or reduction, and petroleum products use reduction, (ii) renewable energy, including bioenergy, (iii) water conservation, (iv) acquisition, (v) pollution and waste prevention and recycling, (vi) reduction or elimination of acquisition and use of toxic or hazardous chemicals, (vii) high performance construction, lease, operation, and maintenance of buildings, (viii) vehicle fleet management, and (ix) electronic equipment management;

(b) implement within the agency environmental management systems (EMS) at all appropriate organizational levels to ensure (i) use of EMS as the primary management approach for addressing environmental aspects of internal agency operations and activities, including environmental aspects of energy and transportation functions, (ii) establishment of agency objectives and targets to ensure implementation of this order, and (iii) collection, analysis, and reporting of information to measure performance in the implementation of this order;

(c) establish within the agency programs for (i) environmental management training, (ii) environmental compliance review and audit, and (iii) leadership awards to recognize outstanding environmental, energy, or transportation management performance in the agency;

(d) within 30 days after the date of this order (i) designate a senior civilian officer of the United States, compensated annually in an amount at or above the amount payable at level IV of the Executive Schedule, to be responsible for implementation of this order within the agency, (ii) report such designation to the Director of the Office of Management and Budget and the Chairman of the Council on Environmental Quality, and (iii) assign the designated official the authority and duty to (A) monitor and report to the head of the agency on agency activities to carry out subsections (a) and (b) of this section, and (B) perform such other duties relating to the implementation of this order within the agency as the head of the agency deems appropriate;

(e) ensure that contracts entered into after the date of this order for contractor operation of government-owned facilities or vehicles require the contractor to comply with the provisions of this order with respect to such facilities or vehicles to the same extent as the agency would be required to comply if the agency operated the facilities or vehicles;

(f) ensure that agreements, permits, leases, licenses, or other legally-binding obligations between the agency and a tenant or concessionaire entered into after the date of this order require, to the extent the head of the agency determines appropriate, that the tenant or concessionaire take actions relating to matters within the scope of the contract that facilitate the agency's compliance with this order;

(g) provide reports on agency implementation of this order to the Chairman of the Council on such schedule and in such format as the Chairman of the Council may require; and

(h) provide information and assistance to the Director of the Office of Management and Budget, the Chairman of the Council, and the Federal Environmental Executive.

Sec. 4. *Additional Duties of the Chairman of the Council on Environmental Quality*. In implementing the policy set forth in section 1 of this order, the Chairman of the Council on Environmental Quality:

(a) (i) shall establish a Steering Committee on Strengthening Federal Environmental, Energy, and Transportation Management to advise the Director of the Office of Management and Budget and the Chairman of the Council on the performance of their functions under this order that shall consist exclusively of (A) the Federal Environmental Executive, who shall chair, convene and preside at meetings of, determine the agenda of, and direct the work of, the Steering Committee, and (B) the senior officials designated under section 3(d)(i) of this order, and (ii) may establish subcommittees of the Steering Committee, to assist the Steering Committee in developing the advice of the Steering Committee on particular subjects;

(b) may, after consultation with the Director of the Office of Management and Budget and the Steering Committee, issue instructions to implement this order, other than instructions within the authority of the Director to issue under section 5 of this order; and

(c) shall administer a presidential leadership award program to recognize exceptional and outstanding environmental, energy, or transportation management performance and excellence in agency efforts to implement this order.

Sec. 5. *Duties of the Director of the Office of Management and Budget*. In implementing the policy set forth in section 1 of this order, the Director of the Office of Management and Budget shall, after consultation with the Chairman of the Council and the Steering Committee, issue instructions to the heads of agencies concerning:

(a) periodic evaluation of agency implementation of this order;

(b) budget and appropriations matters relating to implementation of this order;

(c) implementation of section 2(d) of this order; and

(d) amendments of the Federal Acquisition Regulation as necessary to implement this order.

Sec. 6. *Duties of the Federal Environmental Executive*. A Federal Environmental Executive designated by the President shall head the Office of the Federal Environmental Executive, which shall be maintained in the Environmental Protection Agency for funding and administrative purposes. In implementing the policy set forth in section 1 of this order, the Federal Environmental Executive shall:

(a) monitor, and advise the Chairman of the Council on, performance by agencies of functions assigned by sections 2 and 3 of this order;

(b) submit a report to the President, through the Chairman of the Council, not less often than once every 2 years, on the activities of agencies to implement this order; and

(c) advise the Chairman of the Council on the Chairman's exercise of authority granted by subsection 4(c) of this order.

Sec. 7. *Limitations*. (a) This order shall apply to an agency with respect to the activities, personnel, resources, and facilities of the agency that are located within the United States. The head of an agency may provide that this order shall apply in whole or in part with respect to the activities, personnel, resources, and facilities of the agency that are not located within the United States, if the head of the agency determines that such application is in the interest of the United States.

(b) The head of an agency shall manage activities, personnel, resources, and facilities of the agency that are not located within the United States, and with respect to which the head of the agency has not made a determination under subsection (a) of this section, in a manner consistent with the policy set forth in section 1 of this order to the extent the head of the agency determines practicable.

Sec. 8. *Exemption Authority.* (a) The Director of National Intelligence may exempt an intelligence activity of the United States, and related personnel, resources, and facilities, from the provisions of this order, other than this subsection and section 10, to the extent the Director determines necessary to protect intelligence sources and methods from unauthorized disclosure.

(b) The head of an agency may exempt law enforcement activities of that agency, and related personnel, resources, and facilities, from the provisions of this order, other than this subsection and section 10, to the extent the head of an agency determines necessary to protect undercover operations from unauthorized disclosure.

(c) (i) The head of an agency may exempt law enforcement, protective, emergency response, or military tactical vehicle fleets of that agency from the provisions of this order, other than this subsection and section 10.

(ii) Heads of agencies shall manage fleets to which paragraph (i) of this subsection refers in a manner consistent with the policy set forth in section 1 of this order to the extent they determine practicable.

(d) The head of an agency may submit to the President, through the Chairman of the Council, a request for an exemption of an agency activity, and related personnel, resources, and facilities, from this order.

Sec. 9. *Definitions.* As used in this order:

(a) ''agency'' means an executive agency as defined in section 105 of title 5, United States Code, excluding the Government Accountability Office;

(b) ''Chairman of the Council'' means the Chairman of the Council on Environmental Quality, including in the Chairman's capacity as Director of the Office of Environmental Quality;

(c) ''Council'' means the Council on Environmental Quality;

(d) ''environmental'' means environmental aspects of internal agency operations and activities, including those environmental aspects related to energy and transportation functions;

(e) ''greenhouse gases'' means carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride;

(f) ''life-cycle cost-effective'' means the life-cycle costs of a product, project, or measure are estimated to be equal to or less than the base case (i.e., current or standard practice or product);

(g) ''new renewable sources'' means sources of renewable energy placed into service after January 1, 1999;

(h) ''renewable energy'' means energy produced by solar, wind, biomass, landfill gas, ocean (including tidal, wave, current and thermal), geothermal, municipal solid waste, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project;

(i) ''energy intensity'' means energy consumption per square foot of building space, including industrial or laboratory facilities;

(j) ''Steering Committee'' means the Steering Committee on Strengthening Federal Environmental, Energy, and Transportation Management established under subsection 4(b) of this order;

(k) ''sustainable'' means to create and maintain conditions, under which humans and nature can exist in productive harmony, that permit fulfilling

the social, economic, and other requirements of present and future generations of Americans; and

(l) ''United States'' when used in a geographical sense, means the fifty states, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, and the Northern Mariana Islands, and associated territorial waters and airspace.

Sec. 10. *General Provisions.* (a) This order shall be implemented in a manner consistent with applicable law and subject to the availability of appropriations.

(b) Nothing in this order shall be construed to impair or otherwise affect the functions of the Director of the Office of Management and Budget relating to budget, administrative, or legislative proposals.

(c) This order is intended only to improve the internal management of the Federal Government and is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by a party against the United States, its departments, agencies, instrumentalities, entities, officers, employees or agents, or any other person.

Sec. 11. *Revocations; Conforming Provisions.* (a) The following are revoked:

(i) Executive Order 13101 of September 14, 1998;

(ii) Executive Order 13123 of June 3, 1999;

(iii) Executive Order 13134 of August 12, 1999, as amended;

(iv) Executive Order 13148 of April 21, 2000; and

(v) Executive Order 13149 of April 21, 2000.

(b) In light of subsection 317(e) of the National Defense Authorization Act for Fiscal Year 2002 (Public Law 107–107), not later than January 1 of each year through and including 2010, the Secretary of Defense shall submit to the Senate and the House of Representatives a report regarding progress made toward achieving the energy efficiency goals of the Department of Defense.

(c) Section 3(b)(vi) of Executive Order 13327 of February 4, 2004, is amended by striking ''Executive Order 13148 of April 21, 2000'' and inserting in lieu thereof ''other executive orders''.

THE WHITE HOUSE,
January 24, 2007.

[FR Doc. 07–374
Filed 1–25–07; 8:50 am]
Billing code 3195–01–P

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GSA ISC Standards

The federal government adopted the ISC Security Standards in final form in Oct 2005, which applies to all federally owned and leased properties. The key GSA ISC sections and standards are outlined below.

II. Security Plan for Leased Space

It is the recommendation of this Subcommittee that agencies ensure any future lease acquisition contracts contain the Lease Security Standards as outlined in this report, and that they be incorporated as minimum requirements. Their application to existing buildings and lease construction projects is as follows:

A. New Leases in Existing Buildings

The appropriate security level for each lease requirement should be determined by an agency Security Specialist (except in the case of GSA leases, whereby FPS/DHS will make this determination in consultation with the tenant agency), based on a risk assessment as an application of the recommendations set forth in the Department of Justice "*Vulnerability Assessment of Federal Facilities"* (DOJ study), dated June 28, 1995. Where an agency anticipates making a new lease in an existing building (including succeeding lease actions), all of the ISC Lease Security Standards (operating standards) listed for that security level must be met, with the exception of those requirements specifically prescribed under "New Construction – Blast/Setback Standards. The standards will be considered minimum requirements; and it is the intent that offerors unwilling or unable to meet the requirements should be considered non-responsive. A distinction should be drawn between operating standards and new construction standards. Operating standards pertain to the operational and perhaps out-sourceable nature of security, i.e., access control via guard service, CCTV monitoring, magnetometers, x-ray machines and HVAC security, to name a few. While the minimum operating standards must be met, existing buildings are not required to meet the blast/setback standards required for new construction.

An agency, at their expense, may increase (but not decrease) the level of security required in the Lease Security Standards.* As an example, a recommended security Level III for an agency could be raised to a Level IV, at the agency's request; or perhaps only a specific, isolated standard could be added to the Level III requirement.

Addendum #1 – Instructions for Lease Acquisitions

- i – Itemized Costs of Security Upgrades
- j – Itemized Costs Build-to-Suit
- k – Client-Specific Requirements for Security

Addendum #2 – Security Paragraphs

Addendum #3 – Attachment 1 to GSA Form 3626 Minimum Lease Security Standards

Addendum #4 – Pre-Lease Building Security Plan

Each building is grouped into the appropriate ISC Category:

Level IV – A level IV facility has over 450 federal employees. In addition, the facility likely has:

- More than 150,000 square feet;
- High-volume public contact, and
- Tenant agencies that may include high-risk law enforcement and intelligence agencies, courts, judicial offices, and highly sensitive government records.

Level III – A Level III facility has between 151 and 450 federal employees. In addition, the facility likely has:

- From 80,000 to 150,000 square feet;
- A moderate/high volume of public contact; and
- Tenant agencies that may include law enforcement agencies, court/related agencies and functions, and government records and archives.

Level II – A Level II facility has between 11 and 150 federal employees. In addition, the facility likely has:

- From 2,500 to 80,000 square feet;
- A moderate volume of public contact; and
- Federal activities that are routine in nature, similar to commercial activities.

Level I – A Level I facility has 10 or fewer federal employees. In addition, the facility likely has:

- 2,500 or less square feet of office space; and
- A low volume of public contact or contact with only a small segment of the population.

The ISC criteria for each Level do not follow a consistent numbering and requirement scheme. **Table 1** is an abbreviated comparison of the primary areas and requirements**.**

Table 1 – ISC Category Levels Requirements					
ISC	**Description**	**Category IV** (over 450 federal employees)	**Category III** (between 151 and 450 federal employees)	**Category II** (between 11 and 150 federal employees)	**Category I** (10 or fewer federal employees)
Perimeter	Security control (Right to Inspect in Public Space)	X	X	X	X
	Security Control Method (operating agreement, lessor-furnished, government-furnished)	X	X	X	X
	Garage Control (Vehicle Pass/ID System)	X			
	Adequate Exterior Lighting (With Backup power)	X	X	X	X
	24 hour CCTV (Lobbies and Parking)	X	X	X	X
	Shatter-resistant film (Government space exterior windows)	X	X	X	
Entry Security	Security Guards	X	X	X	X
	Magnetometers and Guards (Public Entrances)	X	X	X	
	Mail Screening (X-Ray and Visual) and Armed Guards	X	X	X	
	Intrusion Detection System with Central Monitoring (Building Perimeter)	X	X	X	
	Exterior High Security Locks	X	X	X	X
	Government Rules Posted	X	X	X	X
Interior Security	Government Photo ID (For All Building Occupants)	X	X	X	X
	Visitor Control/Screening System	X	X		
	Secure Utility Areas	X	X	X	X
	Emergency Power To	X	X	X	X

Table 1 – ISC Category Levels Requirements					
ISC	**Description**	**Category IV** (over 450 federal employees)	**Category III** (between 151 and 450 federal employees)	**Category II** (between 11 and 150 federal employees)	**Category I** (10 or fewer federal employees)
	Critical Systems				
	Fresh Air Intakes (Secured)	X	X	X	X
	Access to Mechanical Areas (Controlled)	X	X	X	X
	Dedicated HVAC (Lobbies, Mailrooms, Loading Docks)	X	X		
	CBR procedures for HVAC Shutdown	X	X	X	X
	Secure Return-Air Grilles	X	X	X	X
	Access to building information	X	X	X	X
	Mass Notification System	X	X		
Administrative Procedures	Government Occupant Emergency Plan	X	X	X	X
	Background Security Checks for Service Personnel	X	X	X	X
	Government Temporary Upgrade Security	X	X	X	X

Table 2 is an abbreviated standard for a Level IV analysis.

Table 2 - ISC Category IV Buildings (over 450 federal employees)		
Area	**Number**	**Standard**
Perimeter	1a	Security control (Right to Inspect in Public Space)
	1b	Security Control Method (operating agreement, lessor-furnished, government-furnished)
	1c	Garage Control (Vehicle Pass/ID System)
	1d	Adequate Exterior Lighting (With Backup power)
	1e	24 hour CCTV (Lobbies and Parking)
	1f	Shatter-resistant film (Government space exterior windows)
Entry Security	2a	Security Guards (armed at public entrances)
	2b	Magnetometers and Armed Guards (Public Entrances)
	2c	Mail Screening (X-Ray and Visual) and Armed Guards
	2d	Intrusion Detection System with Central Monitoring (Building Perimeter)
	2e	Exterior High Security Locks
	2f	Government Rules Posted
Interior Security	3a	Government Photo ID (For All Building Occupants)
	3b	Visitor Control/Screening System
	3c	Secure Utility Areas
	3d	Emergency Power To Critical Systems
	3e1	Fresh Air Intakes (Secured)
	3e2	Access to Mechanical Areas (Controlled)
	3e3	Dedicated HVAC (Lobbies, Mailrooms, Loading Docks)
	3e4	CBR procedures for HVAC Shutdown
	3e5	Secure Return-Air Grilles
	3e6	Access to building information
	3e7	Mass Notification System
Administrative Procedures	4a	Government Occupant Emergency Plan
	4b	Background Security Checks for Service Personnel
	4c	Government Temporary Upgrade Security

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DoD Unified Facility Criteria Assessment

The DoD Unified Facility Criteria (UFC) Minimum Antiterrorism Standards were adopted by DoD in final form in October 2003. The key DoD UFC sections and standards are outlined below.

1-1 **GENERAL.** This document represents a significant commitment by DoD to seek effective ways to minimize the likelihood of mass casualties from terrorist attacks against DoD personnel in the buildings in which they work and live.

1-1.1 **Dynamic Threat Environment.** Terrorism is real, evolving, and continues to increase in frequency and lethality throughout the world. The unyielding, tenacious, and patient nature of the terrorists targeting DoD interests forces us to closely examine existing policies and practices for deterring, disrupting, and mitigating potential attacks. Today, terrorist attacks can impact anyone, at any time, at any location, and can take many forms. Deterrence against terrorist attacks begins with properly trained and equipped DoD personnel employing effective procedures. While terrorists have many tactics available to them, they frequently use explosive devices when they target large numbers of DoD personnel. Most existing DoD buildings offer little protection from terrorist attacks. By applying the Minimum Antiterrorism Standards for Buildings described in this document, we become a lesser target of opportunity for terrorists.

1-1.2 **Responsibility.** Protecting people on a DoD installation or site must start with an understanding of the risk of a terrorist attack. Application of the standards herein should be consistent with the perceived or identified.

1-4 **INTENT.** The intent of these standards is to minimize the possibility of mass casualties in buildings or portions of buildings owned, leased, privatized, or otherwise occupied, managed, or controlled by or for DoD. These standards provide appropriate, implementable, and enforceable measures to establish a level of protection against terrorist attacks for all inhabited DoD buildings where no known threat of terrorist activity currently exists. While complete protection against all potential threats for every inhabited building is cost prohibitive, the intent of these standards can be achieved through prudent master planning, real estate acquisition, and design and construction practices. Where the minimum standoff distances detailed in these standards are met, most conventional construction techniques can be used with only marginal impact on the total construction or renovation cost. The financial impact of these standards will be significantly less than the economic and intangible costs of a mass casualty event.

1-5 **LEVELS OF PROTECTION.** The levels of protection provided by these standards meet the intent described above and establish a foundation for the rapid application of additional protective measures in a higher threat environment. These standards may be supplemented where specific terrorist threats are identified, where more stringent local standards apply, or where local commanders dictate additional measures. Detailed descriptions of the levels of protection are provided in Chapter 2 and the DoD Security Engineering Planning Manual.

1-6.4 **Leased Buildings.** DoD personnel occupying leased buildings deserve the same level of protection as those in DoD-owned buildings. Implementation of these standards is therefore mandatory for all facilities leased for DoD use and for those buildings in which DoD receives a space assignment from another government agency except as established below. This requirement is intended to cover all situations, including General Services Administration space, privatized buildings, and host-nation and other foreign government buildings. This requirement is applicable for all new leases executed on or after 1 October 2005 and to renewal or extension of any existing lease on or after 1 October 2009. Leases executed prior to the above fiscal years will comply with these standards where possible.

1-6.4.1 **Partial Occupancy.** These standards only apply where DoD personnel occupy leased or assigned space constituting at least 25% of the net interior useable area or the area as defined in the lease, and they only apply to that portion of the building that is occupied by DoD personnel.

Table 1 is an abbreviated list of the standards.

Table 1 - UFC 4-010-01 Appendix B DoD Minimum AT Standards For New And Existing Buildings	
Standard	**Area**
Standard 1	Minimum Stand-off Distances
Standard 2	Unobstructed Space
Standard 3	Drive-Up/Drop-Off Areas
Standard 4	Access Roads
Standard 5	Parking Beneath Buildings or on Rooftops
Standard 6	Progressive Collapse Avoidance
Standard 7	Structural Isolation
Standard 8	Building Overhangs

Table 1 - UFC 4-010-01 Appendix B DoD Minimum AT Standards For New And Existing Buildings	
Standard	**Area**
Standard 9	Exterior Masonry Walls
Standard 10	Windows, Skylights, and Glazed Doors
Standard 11	Building Entrance Layout
Standard 12	Exterior Doors
Standard 13	Mailrooms
Standard 14	Roof Access
Standard 15	Overhead Mounted Architectural Features
Standard 16	Air Intakes
Standard 17	Mailroom Ventilation
Standard 18	Emergency Air Distribution Shutoff
Standard 19	Utility Distribution and Installation
Standard 20	Equipment Bracing
Standard 21	Under Building Access
Standard 22	Mass Notification

BRAC Alexandria

FEDERAL FRIENDLY ZONES™

The purpose of the **Federal Friendly Zones™** (FFZ) is to designate areas and sites that can support federal facility requirements and that are compatible with Small Area Plans, Coordinated Community Development objectives, Business Enterprise Zones, and other city planning, zoning, code, and sustainability objectives.

The FFZ's are intended to be a mechanism to balance the needs of the federal government security, environmental, and workforce requirements with the cities need to balance the commercial and residential tax base, build and renovate buildings to meet owners objectives, and protect the community health and welfare. The primary FFZ principals are:

- Support commercial and residential tax base rebalancing to achieve a 50/50 split
- Maintain a 15-20% direct federal employment base as a percentage of total employment
- Maintain a 25-30% direct federal lease space as a percentage of total commercial lease space

Within each FFZ, there are three types of federal utilizations:

- Federal campus (multiple buildings and/or commercial office space leases)
- Single federal occupied building (courthouses, commercial office space leases)
- Single commercial office space building with federal agency as a tenant

Key objectives of the FFZ's are to encourage Transit Oriented Development and integrate with the EcoCity initiatives to ensure long-term, environmentally sustainable development. To encourage maximum utilization of land around mass transit nodes, horizontal standoff distances should be kept to an absolute minimum, and federal occupied buildings and campuses should be located at the farthest horizontal distance that meet federal requirements. Use of the vertical stand-off distance and measurement of horizontal stand-off distance to protected interior spaces is highly encouraged.

Commercial business and federal contractor facilities are encouraged to be developed closest to mass transit nodes. Federal contractor facilities standoff distances should be a minimum of 20 feet and a maximum of 50 feet and will be evaluated on case by case basis.

The FFZ's can span Small Area Plans and intersect with Coordinated Community Development, and the Growth Pressures Areas. The city is evaluating the designation of additional Central Business Areas throughout the city. Each proposed federal use building or campus will be evaluated on a "per site" basis to ensure compatibility with city objectives.

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There are six areas designated as FFZ's:

Federal Friendly Zone	**Utilization**	**Standoff Distance –Radius from Mass Transit Node**
CW – City Wide	Federal tenant in commercial office space	20' with no radial limits (measured in the horizontal or vertical)
PY- Potomac Yard	Federal occupied commercial office lease space, building, or campus	20' from 0 to 2,500' from node 50' over 2,500' from node (measured in the horizontal or vertical)
BR - Braddock Road	Federal occupied commercial office lease space, building, or campus	20' from 0 to 2,500' from node 50' over 2,500' from node (measured in the horizontal or vertical)
EC - Eisenhower Corridor	Federal occupied commercial office lease space, building, or campus	20' from 0 to 2,500' from node 50' over 2,500' from node 82' minimum, DoD site specific (measured in the horizontal or vertical)
MC - Mark Center	Federal occupied commercial office lease space, building, or campus	82' minimum, DoD site specific (measured in the horizontal or vertical)
LV - Landmark/Van Dorn	Federal occupied commercial office lease space, building, or campus	20' from 0 to 2,500' from node 50' over 2,500' from node 82' minimum, DoD site specific (measured in the horizontal or vertical)

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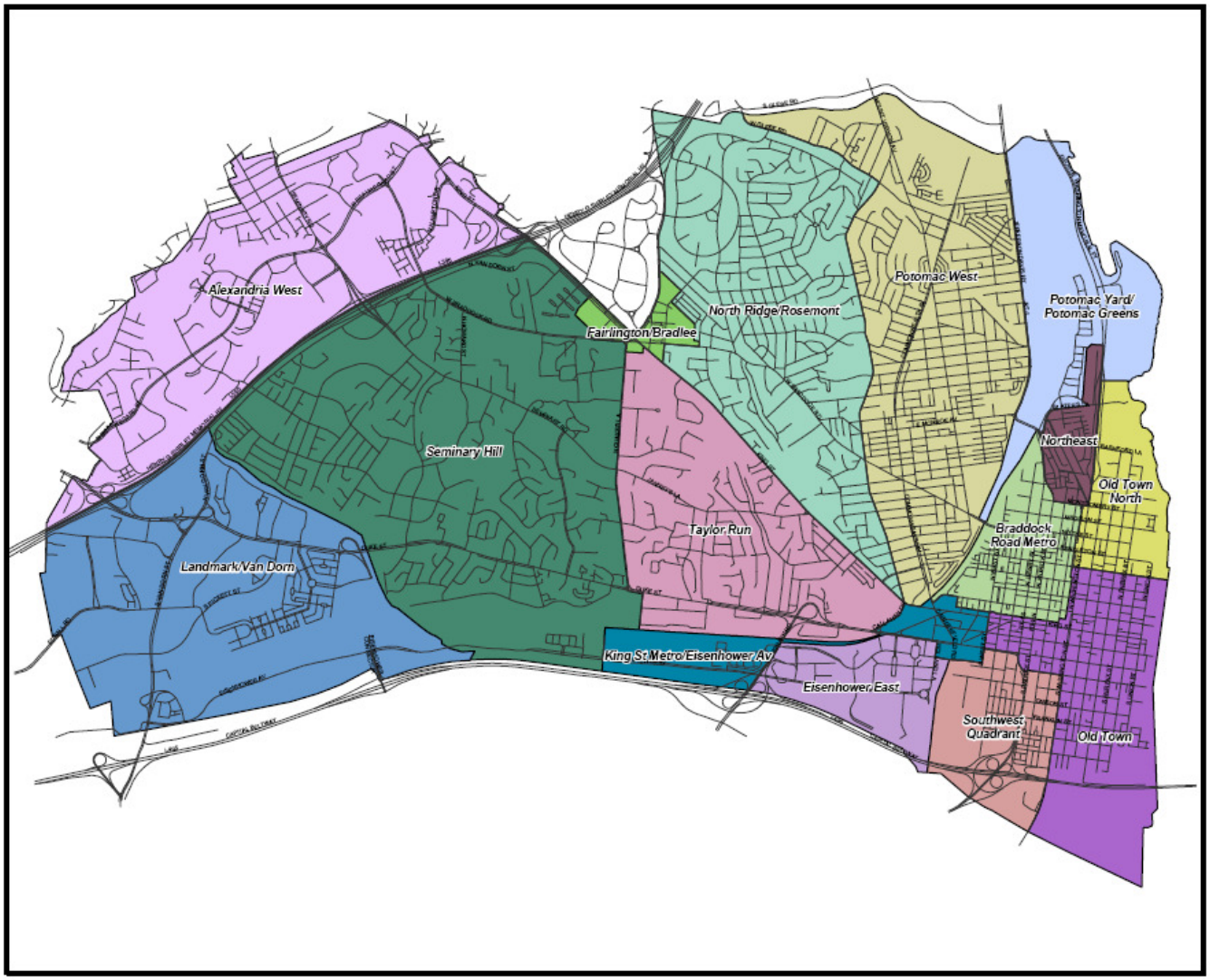

City of Alexandria Small Area Plans

November 2006

Legend

Small Area Plan

Name

- Alexandria West
- Braddock Road Metro
- Eisenhower East
- Fairlington/Bradlee
- King St Metro/Eisenhower Av
- Landmark/Van Dorn
- North Ridge/Rosemont
- Northeast
- Old Town
- Old Town North
- Potomac West
- Potomac Yard/Potomac Greens
- Seminary Hill
- Southwest Quadrant
- Taylor Run

0 2,000 4,000

Feet

1:30,000

N

This map was produced by the GIS Division of the Department of Planning and Zoning, City of Alexandria, Virginia

Mapping Standards
Coordinate System - NAD83 State Plane Virginia North
Projection - Lambert Conformal Conic
Map Units - Feet

The maps provided hereunder are provided "as is" and the City expressly disclaims all warranties, UCC and otherwise, express or implied, including warranties as to accuracy of the maps and merchantability and fitness for a particular purpose, and further expressly disclaims responsibility for all incidental, consequential or special damages arising out of or in connection with the use or performance of the maps.

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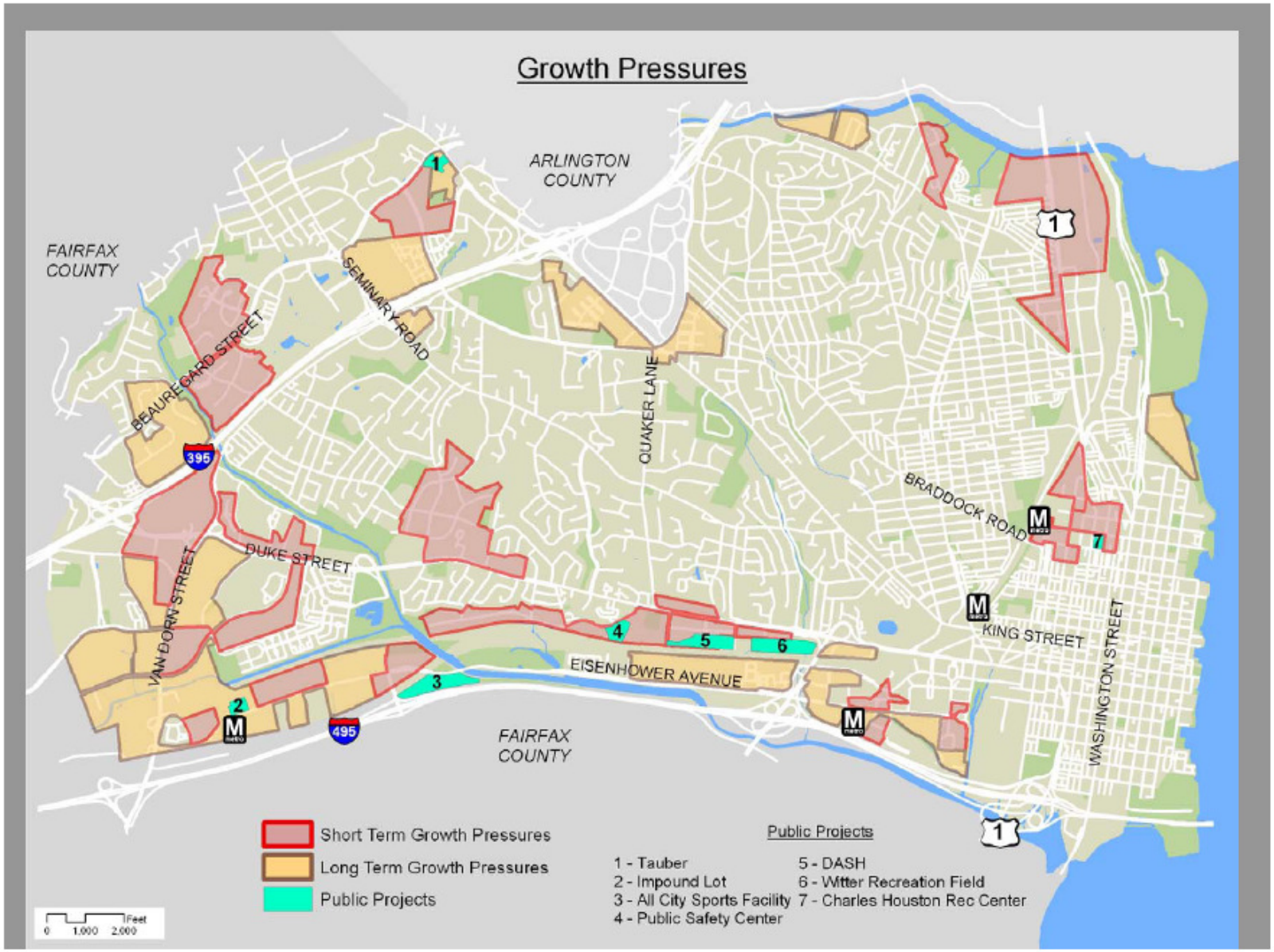
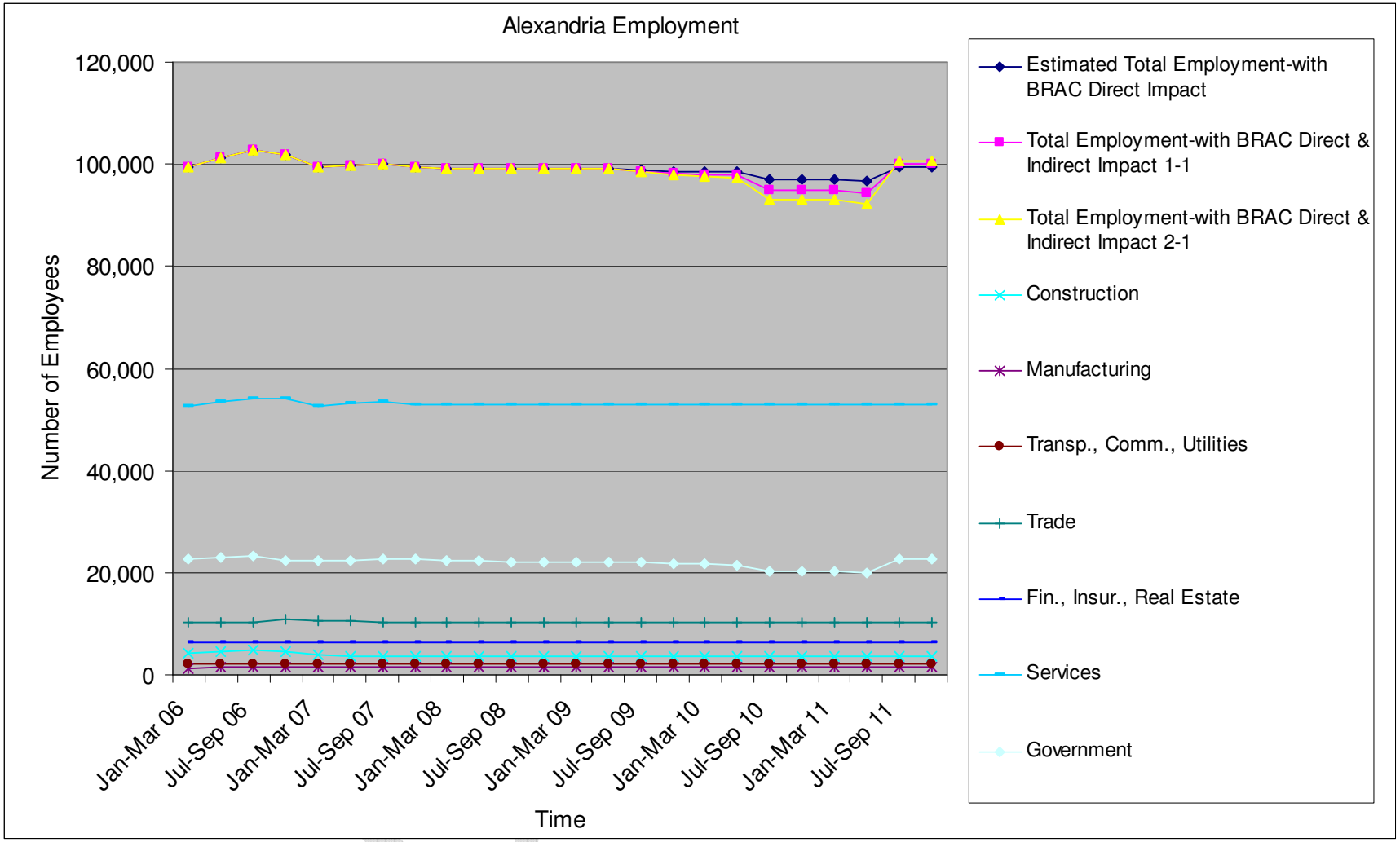
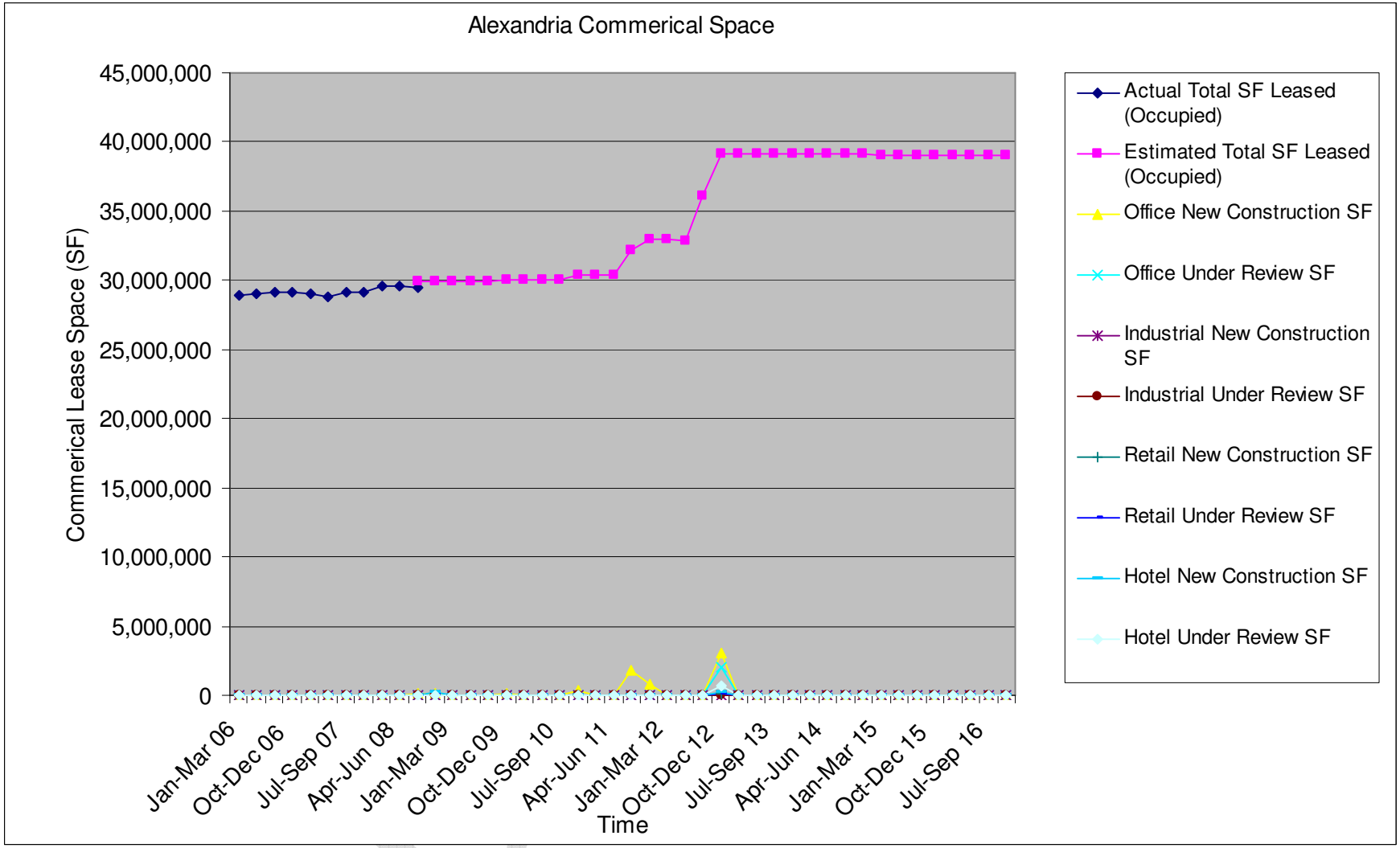
11-03-2006
46-471


Growth Pressures
ARLINGTON COUNTY
FAIRFAX COUNTY
FAIRFAX COUNTY
SEMINARY ROAD
BEAUREGARD STREET
QUAKER LANE
BRADDOCK ROAD
DUKE STREET
VAN DORN STREET
KING STREET
EISENHOWER AVENUE
WASHINGTON STREET
395
495
1
1
1
2
3
4
5
6
7
Short Term Growth Pressures
Long Term Growth Pressures
Public Projects
Public Projects
1 - Tauber
2 - Impound Lot
3 - All City Sports Facility
4 - Public Safety Center
5 - DASH
6 - Witter Recreation Field
7 - Charles Houston Rec Center
Feet
0 1,000 2,000


Alexandria Employment
120,000
100,000
80,000
60,000
40,000
20,000
0
Number of Employees
Jan-Mar 06
Jul-Sep 06
Jan-Mar 07
Jul-Sep 07
Jan-Mar 08
Jul-Sep 08
Jan-Mar 09
Jul-Sep 09
Jan-Mar 10
Jul-Sep 10
Jan-Mar 11
Jul-Sep 11
Time
Estimated Total Employment-with BRAC Direct Impact
Total Employment-with BRAC Direct & Indirect Impact 1-1
Total Employment-with BRAC Direct & Indirect Impact 2-1
Construction
Manufacturing
Transp., Comm., Utilities
Trade
Fin., Insur., Real Estate
Services
Government


Alexandria Commerical Space
Commerical Lease Space (SF)
45,000,000
40,000,000
35,000,000
30,000,000
25,000,000
20,000,000
15,000,000
10,000,000
5,000,000
0
Jan-Mar 06
Oct-Dec 06
Jul-Sep 07
Apr-Jun 08
Jan-Mar 09
Oct-Dec 09
Jul-Sep 10
Apr-Jun 11
Jan-Mar 12
Oct-Dec 12
Jul-Sep 13
Apr-Jun 14
Jan-Mar 15
Oct-Dec 15
Jul-Sep 16
Time
Actual Total SF Leased (Occupied)
Estimated Total SF Leased (Occupied)
Office New Construction SF
Office Under Review SF
Industrial New Construction SF
Industrial Under Review SF
Retail New Construction SF
Retail Under Review SF
Hotel New Construction SF
Hotel Under Review SF