

# MEETING MINUTES

1633 – MN

City of Raleigh  
Critical Public Safety Facilities Project  
Raleigh, North Carolina



June 11, 2012

A meeting was held regarding the above referenced project on June 11, 2012. Those who attended included:

Name	Representing	Email	Phone
Clymer Cease	PBC+L Architecture	ClymerC@pbclarchitecture.com	919-836-9751
Glenn Ervin	City of Raleigh – CM	Glenn.Ervin@raleighnc.gov	919-996-5586
Steve Loomis	AECOM	Steve.Loomis@aecom.com	757-306-6730
Barry Furey	RWECC	Barry.Furey@RaleighNC.gov	919-996-5015
Walt Fuller	RWECC	Walt.Fuller@RaleighNC.gov	919-996-5012
Derrick Remer	City of Raleigh - EM	Derrick.Remer@RaleighNC.gov	919-996-4657
Jay Lund	City of Raleigh- CM	Jay.Lund@RaleighNC.gov	919-996-5587
Jonathan Minter	City of Raleigh IT	Jonathan.Minter@RaleighNC.gov	919-996-5462
Belinda Redd	AECOM	Belinda.Redd@Aecom.com	757-306-6745
Jonathan Farrar	AECOM	Jonathan.Farrar@Aecom.com	434-582-5522
Mark Hannah	AECOM	Mark.Hannah@Aecom.com	454-239-9200

The group met to review and discuss the scope of services for the CPSF project. The following items were discussed:

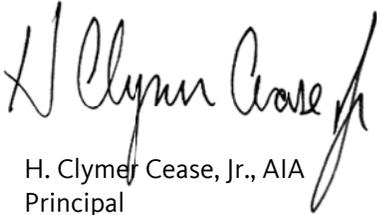
1. The project will potentially contain six primary functions
  - a. 911/Emergency Communications Center
  - b. Emergency Operations Center
  - c. Primary Data Center and Information Technology support (staff support of four with an NOC for this facility only)
  - d. Facilities and Operations facility support functions
  - e. Traffic Control Center
  - f. Northeast District Police Station (phase 2)
2. The potential for the project be the prime site for the County's radio system has been offered and discussed. The tower should be planned for this site. Currently, the County has a P-16 Motorola System. The County is seeking a P-25 upgrade. This upgrade may come after the construction of our facility, which places limitations on the type and number of radio consoles that can be connected to it by ECC. Regardless of the decisions the County system makes relative to this site, the ECC needs the following:
  - Reliable console connectivity into the 800 MHz for daily operations
  - Secondary RF access to the 800 MHz system for backup systems (consolettes or other devices)
  - Citywide VHF alerting for Raleigh Fire
  - Citywide UHF coverage for Public Works, Parks/Rec, Solid Waste, etc.
  - In-building access to 800 MHz and wireless networks from hand held devices
3. Data Center components may be tier level 3-4. A network operations center (NOC) is desired. Jay Lund will forward previous Tier design comments for design team review.

4. Fundamentally, there are three information technology networks:
  - a. General use City IT network
  - b. Public Safety network for police, fire services, and 911 ECC
  - c. Shared network
5. An open question is whether the shared police and fire network will have its IT equipment and staff at this site.
6. The ECC critical systems will be monitored in the supervisor's office. Some ECC data may be monitored in the NOC.
7. Currently, a joint EOC with the County is not anticipated.
8. The City desires staffing and spec needs projection for the 15 and 30 year time periods.
9. Other than a visit to the State of North Carolina Emergency Operations Center, no other site visits are viewed as necessary.
10. As much as possible, identification of participants for each meeting and the anticipated outcome of the meetings should be included in the proposal.
11. The city prefers to have the preliminary Geotechnical services as part of the design contract.
12. Process for the validation of systems will need to be explored and defined as the project moves forward. Some validation will be done internally and some externally.
13. Burns and McDonnell will prepare the Threat and Security Analysis. The design team will coordinate with the B&M team and provide information and input as required.
14. An interim and final presentation to the City Council will be included in the proposal for Phase 1.
15. The City anticipates advertising for a CM after Council approval and prior to the start of Design Development. They will also advertise for a commissioning agent for enhanced commissioning, materials testing, special inspections, and third party inspections.
16. The project shall achieve a minimum LEED silver certification. The Life Cycle Cost Analysis will be used to evaluate and determine which credits will be pursued.
17. Based on the discussions in this meeting, the workshop topics and durations will be modified to include representatives of the departments identified and the issues relevant to those groups.
18. Whatever material can be provided prior to each workshop to allow participants to prepare for the discussion should be provided. This will include an agenda along with supporting information.
19. Data Center and 911 work stations may be provided with installation managed directly by the City through vendors. Design of these areas as well as design and procurement of fixtures, furniture, and equipment (FFE) for the rest of the project will be included in the design proposal.

20. Other comments relative to the draft scope documents have been provided to the design team for incorporation into the proposal. Any questions relative to the comments will be directed through Jay Lund to the relevant person.

*The above represents the author's understanding of the content of discussion held during the meeting. Any corrections or additions are to be forwarded to PBC+L within seven (7) days of receipt. If no written objections are received within this period the above will become the official record of decisions made in this meeting.*

Submitted by:  
**PBC+L Architecture**



H. Clymer Cease, Jr., AIA  
Principal

cc: File

# MEETING MINUTES

1633 – MN

City of Raleigh  
Critical Public Safety Facilities Project  
Raleigh, North Carolina



July 23, 2012

A meeting was held regarding the above referenced project on July 23, 2012. Those who attended included:

Name	Representing	Email	Phone
Clymer Cease	PBC+L Architecture	ClymerC@pbclarchitecture.com	919-836-9751
Steve Loomis	AECOM	Steve.Loomis@aecom.com	757-306-6730
Barry Furey	RWECC	Barry.Furey@RaleighNC.gov	919-996-5015
Walt Fuller	RWECC	Walt.Fuller@RaleighNC.gov	919-996-5012
Derrick Remer	City of Raleigh - EM	Derrick.Remer@RaleighNC.gov	919-996-4657
Jay Lund	City of Raleigh- CM	Jay.Lund@RaleighNC.gov	919-996-5587
Russell Allen	City Manager		
Carl Dawson	Public Works Director		
Cassandra Hicks	IT Architecture Manager	Cassandra.Hicks@RaleighNC.gov	919-996-5573
Capt. Kimberly Swinson	RPD	Kimberly.Swinson@RaleighNC.gov	919-996-1233
Capt. Anthony Davis	RPD (Captain – NE District)	Anthony.Davis@RaleighNC.gov	919-996-1307
Maj. Joseph Perry	RPD		
Dee Dee Smith	Facilities Coordinator for RPD	Deedee.Smith@RaleighNC.gov	919-996-3719
Rich Kelly	City of Raleigh – CM	Richard.Kelly@RaleighNC.gov	919-996-5576
Mike Kennon	Public Works – Transportation Operations		

The group met to review and discuss the Pre-design process for the CPSF project. The following items were discussed:

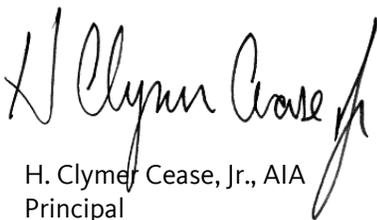
1. City Manager Russell Allen opened the meeting with his perspective on the project and primary objectives for the pre-design process. He stated that the overarching task is to confirm that the site is an appropriate site for the project in terms of the requirements of the programs that will be located there including location, infrastructure availability, capacity, and cost effectiveness. He noted that clear communication among all the stakeholders and with the city council is critical to success of the process.
2. Clymer Cease and Steve Loomis then reviewed the overall process, a preliminary schedule for the project and a preliminary outline of the agendas for the workshops (attached). In general the

process is structured to meet with all the stakeholders in a series of workshops, first as a group to establish a vision and general direction for the project then, individually with each group to define their requirements for the project. As the project requirements are compiled, confirmed, and refined an analysis of the site will be developed and subsequently reviewed in Workshop 4. As the process moves along, the requirements of the project components will be incorporated onto a master plan for the site. The preliminary program and master plan will evolve into three dimensional diagrams that examine blocking and stacking options. In the later workshops the alternatives will be evaluated using massing studies and a preferred option selected and refined.

3. The Threat and Vulnerability Assessment being done by Burns and McDonnell will be developed in parallel with the PBC+L/AECOM Pre-design work. A joint work session is anticipated and preliminarily scheduled as the afternoon session of day 2 of workshop 3. The information from that meeting and follow up communication will be used in the evaluation of the project requirements and establishing solution options.
4. As the general elements of the project are brought into focus there will be more specific discussion regarding hardening strategies, sustainability opportunities, mission critical systems and equipment, and technology. This information will be compiled in the pre-design report and used as the project moves into design.
5. Once the project definition is in place, a preliminary cost model will be developed using general costs from comparable facilities. Because there will only be general blocks of space on a site master plan, the costs will be order of magnitude using assumptions about systems and project components.
6. As shown on the attached preliminary project schedule, goal is to be in a position to make a presentation to the city council at their December 4, 2012 meeting.

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Submitted by:  
PBC+L/AECOM



H. Clymer Cease, Jr., AIA  
Principal

cc: File

# MEETING ATTENDEES

1633-MN

**City of Raleigh**  
**Critical Public Safety Facilities Project**  
**Session: Workshop 1 Visioning and Goal Setting**

PBC+L/AECOM



DATE: August 21, 2012

A meeting was held on August 21, 2012 at the Convention Center.  
Attendees included the following:

Name:	Company	Email Address	Phone
Jeffrey Lee	PBC+L	JeffreyL@pbclarchitecture.com	919-836-9751
David Francis	PBC+L	DavidF@pbclarchitecture.com	919-836-9751
Clymer Cease	PBC+L	ClymerC@pbclarchitecture.com	919-836-9751
Shann Rushing	PBC+L	ShannR@pbclarchitecture.com	919-836-9751
Mark Hannah	AECOM	Mark.Hannah@aecom.com	571-242-2315
Kristian Zebrosky	AECOM	Kristian.Zebrosky@aecom.com	571-216-3862
Brian Super	AECOM	Brian.Super@aecom.com	757-306-6749
Belinda Redd	AECOM	Belinda.redd@aecom.com	757-366-6745
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Bill Jenkins	AECOM	bill.jenkins@aecom.com	919-854-6228
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Suzanne Walker	City of Raleigh	suzanne.walker@raleighnc.gov	919-996-2983
William R. Jackson	City of Raleigh	billy.jackson@raleighnc.gov	919-996-2984
Cassandra Hicks	City of Raleigh	Cassandra.hicks@raleighnc.gov	919-996-5513
Derrick Remer	City of Raleigh	derrick.remer@raleighnc.gov	919-996-4657
Jay Lund	City of Raleigh	jay.lund@raleighnc.gov	919-996-5587
Richard Kelly	City of Raleigh	Richard.Kelly@raleighnc.gov	919-996-5576
Dee Dee Smith	Raleigh PD	deedee.smith@raleighnc.gov	919-996-
Anthony Davis	Raleigh PD	Anthony.Davis@raleighnc.gov	919-996-1307
Craig Haines	Raleigh PD	Craig.Haines@raleighnc.gov	919-996-1224
Adam Perry	Raleigh Fire	Adam.Perry@Ralieghnc.gov	919-996-5955
Tim Henshaw	Raleigh Fire	Timothy.Henshaw@raleigh.gov	919-996-5973
Ben Canada	Raleigh Budget	Benjamin.canada@raleighnc.gov	919-996-4274
Jonathan C. Edwards	Com Serv Raleigh	Jonathan.Edwards@raleighnc.gov	919-996-5712
RJ Hope	BMCD	rjhope@burnsmed.com	816-349-6754
Walt Fuller	RWECC	Walt.Fuller@raleighnc.gov	919-996-5012
Barry Furey	RWECC	Barry.Furey@raleighnc.gov	919-996-5015

The following items were discussed:

## Workshop Goals and Guiding Principles

1. Workshop goals and guiding principals were reviewed:
  - a. Be Courteous with electronic devices
  - b. Refrain from side-bar conversations
  - c. Schedules will be followed

## PBC+L Architecture

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- d. No Hidden Agendas – To impede progress
- e. Defer issues to the “parking lot” as necessary
- f. Respect confidentiality of discussions
- g. Every idea and comment is valid
- h. Identify a facilitator for all large meetings
- i. All communication flows through PM’s
- j. Identify preferred methods of communication
- k. Acknowledge messages within 24 hours
- l. It’s okay to have FUN
- m. No killer statements
- n. Be flexible and open to options

### Overview of Each Agency

1. The City of Raleigh’s ECC goals were summarized:
  - a. The ECC is a combined consolidated center. There are 3 other PSAPS in the County that include Fire and EMS. The City ECC provides call taking for most of the County. Calls are over a million combined inbound/outbound. There are approximately 460,000 dispatches. The ECC is located in the basement of the municipal building. The center is landlocked and has 20 consoles that are not in prime operational arrangement. There are low ceiling spaces with bad acoustics. The server room does not meet NFPA 1221 and has no fire suppression in it. The new facility needs to address human needs – staff work 12 hour shifts. The operations staff has to deal with the overlay of an additional area code for the current 919 area code that resulted in misdials to 911 which adds over 100, 000 calls per year alone. With normal 25 year growth projection, the number of call is projected to have a 60% increase in volume.
  - b. The City is looking for space that is purpose designed. Looking for resiliency, redundancy, energy efficiency and a facility that will help retain staff.
  - c. Look forward on the building design for the coming years.
  - d. Staff areas were emphasized – break rooms, conference areas, etc.
  - e. Need space for parallel systems during change out – change out space.
  - f. The design should be technology driven for 911 systems and infrastructure.
  - g. Need space for academy training for 911. Could be shared space.
2. The City of Raleigh EOC goals were summarized:
  - a. The existing City EOC is basically a conference room with 2 monitors.
  - b. Will also be used to manage city non-emergency events. Looking to increase use over current.
  - c. Will have many different players that will input their agency needs.
  - d. Need to have access to other groups information and Technology
  - e. Need access to 911 information/technology and traffic.
  - f. Need to have interoperability capabilities (Radio, Phone, etc.)
  - g. Need central briefing room with several breakout rooms.
  - h. Need a space for a non-emergency call center with VoIP phones to take calls. This call center is an outlet for citizens to voice their concerns.
  - i. Make sure do not have wasted space. Space used during disaster should be used for other purposes such as training during non-event times.
  - j. Space needs to be flexible. Need flexible storage.
  - k. Wake County does the reverse 911. Wake County has a nuclear power plant. Potentially share space and facilities.
  - l. 311 was initially part of the Lighter Study, but was dropped.

- m. Need media staging area. Provide dedicated area for media. Provide pre wired or piped access for media to their trucks. Provide area where EOC and/or ECC may be viewed.
  - n. Could have flexible space that other agencies could operate out of.
3. City of Raleigh IT Data Center goals:
- a. Existing data center is located in a building not designed for one.
  - b. The center will have areas that need to be secure.
  - c. Need staging for equipment.
  - d. Need operational space for people that monitor center.
  - e. The center will become the primary data center for the City.
  - f. Need equipment space configured for redundancies and change outs. Configure electrical system accordingly.
  - g. Data Center utilities will be monitored to server level to do a load analysis.
  - h. Design and build for growth.
  - i. Need mechanical systems to support data center – chilled aisles. Need to track efficiencies.
  - j. Data center should have power and cable overhead dropping into racks. Need clean and neat cabling with color configurations.
  - k. Have City fiber optic project going on now and need to connect to this system.
  - l. Need cages for segregation of equipment for security.
  - m. Need flexibility to bring equipment in and out.
  - n. Support spaces including storage and areas for unpacking outside of the clean room are hugely important.
  - o. Look at potential loading dock areas.
  - p. Lightner project had under floor air distribution. Do not initially have this criterion. Determine the best cooling solution for this center.
  - q. Operational space is considered a Network Operations Center (NOC). Need space for application personnel. Have approximately ten employees.
  - r. Have payroll through this system as well as email, work orders, and other business operations etc. Consider all systems that serve the city.
  - s. Have backup data center at MCNC.
  - t. The City Business telephone systems also would be housed at the new facility.
4. City of Raleigh Traffic Control Center goals:
- a. The center has a Signal Operation System currently controlling 613 signals by copper and fiber.
  - b. Will be converting to fiber network. About half converted now.
  - c. CCTV system has connection from state and City cameras.
  - d. Have 40 City cameras and 150 NCDOT cameras that can be monitored.
  - e. The current center is located in the basement and is shoehorned in. All spaces are occupied.
  - f. Have a wall covered with individual monitors connected to video switcher. No video wall controller in current configuration. Will require one for the new center.
  - g. The Traffic Control Center runs a separate network and different computer system than the City. Some WAN connectivity is provided by the city.
  - h. Office space is important.
  - i. Need quick access to their equipment for the Signal System.
  - j. The Signal System is standalone system and needs its own separate fiber.
  - k. Need separate secure equipment room for the Traffic Control Center. NCDOT will sometimes come over to make connections and changes to their cameras.
  - l. Equipment room could be adjacent to the ECC equipment room but needs to be immediately adjacent to TMC operations.
  - m. The center will need separate storage and planning room for review of projects.
  - n. Video equipment is in separate room from the equipment room.

- o. Could share video data with the ECC.
  - p. During emergencies the center will activate to 12-hour shifts.
  - q. The Traffic Management Center may share cameras with ECC.
  - r. The goal is to have all information that comes in available to all agencies in building, but also have security.
  - s. Monitoring cameras at intersections and messaging signs are potentially in the future.
  - t. Currently have some wireless cameras.
  - u. Field Operations is not included in their space.
  - v. This Center is not going to be associated with the turnpike project.
5. The City of Raleigh Facilities and Operations goals:
- a. Manage day to day operations for buildings and support services. Also maintain security systems. Have integrated a number of buildings into building automation management system, BAS.
  - b. Three levels deep - generator for ECC and EOC, paralleling of generators and UPS.
  - c. Current UPS is in a parallel configuration.
  - d. Security is a major issue. Look carefully at security levels.
  - e. News media - review how and where they stage up.
  - f. Configuration is critical for equipment so can access and prevent issues.
  - g. Are currently positioned in close proximity to ECC.
  - h. Have 65 facilities on the City BAS system. BAS system includes lighting, security HVAC, generator, UPS.
  - i. Will have a NOC that monitors City BAS out of this facility. Expect to have 95 buildings on BAS in the future. All alarms will come back to the NOC. Will dispatch from NOC.
  - j. Responsible for access control – fobs, etc.
  - k. Facilities staff and security will respond to an incident.
  - l. Central badging will not be done in this facility.
  - m. Will have 4 key staff in this facility for generator, HVAC and general maintenance.
  - n. Staff needs to be located near UPS and generator systems and transfer switches.
  - o. Space needs to be flexible. Need conference room to deploy all staff.
  - p. Building security camera systems should roll up into the security system for police access.
  - q. How fuel deliveries are made and backup fuel storage is important. 72 hours – 10 days?
  - r. Vendor access to the critical agencies in the building needs to be looked at.
  - s. Priority of sequence of shut down and drop out of equipment is important.
6. City of Raleigh Northeast Police goals:
- a. The Northeast Police district covers 36 square miles. District is continually growing and is not landlocked.
  - b. Currently leasing shopping center space that is not in NE district.
  - c. The facility need to be full service for officers, but not 24 hours for public.
  - d. Need briefing/roll call room, locker rooms, report filing and storage for equipment.
  - e. Currently have 69 sworn officers working out of this district over 2 - 12 hour shifts.
  - f. Three civilians are part of the Northeast District Police.
  - g. Need a community room for community watch meetings.
  - h. Currently have high visibility but security is a huge issue.
  - i. Need parking for patrol vehicles. Current parking is not secure. Have 44 police vehicles now plus personal vehicles. Will need public parking as well.
  - j. Special Ops tactical units will need space to park.
  - k. Need quick access in and out of site for patrol cars.
  - l. Prisoners will go to downtown district and will not be brought to this facility.
  - m. Need decontamination room for officers.

## Typical Design Issues for ECCs and EOCs

1. Public Interface. The typical Critical Public Safety Facility is not a public building. Consider reception, visitor orientation, press room , touring, awards, viewing and circulation to accommodate visitors that come here.
2. Lighting – natural and task lighting
3. Workstations and Operations floor arrangement – how do you want to work?
4. Indoor environmental control - air quality, acoustics, lighting, ergonomics
5. Break room, exercise, lockers for different agencies, outdoor break areas
6. Security – needs to be secure but not look like a fortress.
7. Planning for flexibility and change out space
8. Typical EOC areas and issues were reviewed. Flexibility is required. Part of EOC is typically always in place, most is not.
9. Live training spaces
10. Watch centers
11. Policy room
12. Press and media, connection that goes outside of press/media room to media trucks
13. JIC – joint information center
14. Breakout rooms
15. Survivability – flood, hurricane, tornado, earthquakes, blast resistance, hardening, redundancy
16. AT/FP setbacks - 25 meter or 50 meter
17. Details – central vacuum system, access floor, critical power, fire suppression
18. Redundancy –separate COs, two separate power utility sources, emergency generator
19. Grounding, grounding, grounding
20. Integrated Systems – flexibility, reliability, optimize performance, hot aisle-cold aisle conditioning
21. Radio tower, radio, microwave, satellite dishes – Integration
22. Roof antenna farm
23. Audio Visual – large screens, monitors, cable TV, smart traffic feed, security system monitors, amateur radio
24. 911 switch, CAD
25. Mechanical and equipment enclosures to harden equipment, ground source heat pumps. Enclosure needs to be removable to get equipment out.
26. Building entrances need to be sized to allow equipment to come and go. Especially technology equipment that is replaced on regular cycle.

## Project and Critical Success Factors

1. Flexible space, multiuse
2. Efficient
3. Reliable and Resilient
4. Sustainable to the environment
5. Sustainable for long term usability – 50 plus years
6. Program for future needs
7. Develop consensus priorities – a set of 10 or so, that will show as uniform priorities to the City government.
8. Maintainable and accessible to replace equipment and service equipment
9. Proven systems and reliable technology
10. Identify and optimize operating costs - need analysis to present to the manager – costs over 25 years.
11. LEED Silver is mandated by council.
12. All new buildings must have public art interior and exterior.

13. Justifiable life cycle costs for systems
14. Realistic systems for this type of facility
15. Get project approved and funded before Council elections.
16. The Headlines are: New Raleigh Critical Public Safety Center meets needs of the citizens, is forward looking and makes efficient use of taxpayer dollars.
17. Meet most pressing needs
18. World class facility that looks at long term operations
19. Consolidation of Data Centers and other functions is smart management
20. Collaborative facility for mission critical events
21. Meets security standards and is the most secure facility around, but does not look like a fortress.
22. Human factor – employee health and wellness. Efficient productive work space.
23. Access to outside
24. Design should be timeless
25. Accessible technology
26. Civic presence

### Project Criteria

1. NFPA is a standard not a Code. Taking parts of it and not the entire standard to design by can be problematic with Fire Marshall's office.
2. NENA Technical Information Documents
3. FEMA 361, 426, 452 – meet for federal funding
4. NIOSH Standards for intake of fresh air
5. GSA Facility Guidelines – threat and risk analysis
6. DoD Facility Guidelines
7. State and National Building Codes
8. CALEA – Commission on Accreditation of Law Enforcement Agencies. The City EOC and ECC are credited with CALEA.
9. State of North Carolina Standards – potential for incorporation of 1221 into NC standards.
10. Motorola R56 Grounding standards
11. NEC Critical Operations Power (COPS)
12. ANSI/ BICSI redundancy and reliability standards
13. FBI / CJIS – security policy
14. NFPS 1221 requirements
  - a. Independent HVAC unit for dispatch operations area
  - b. Back-up HVAC
  - c. Exterior entrances and security vestibules
  - d. Ballistic Resistant windows
  - e. Two independent power sources
15. DoD Criteria
  - a. 82 feet (25 meters) for cleared vehicles
  - b. Un-cleared vehicles - 164 feet (50 meters)
16. NIOSH
  - a. Filters – exhaust and smoke
  - b. Protection of Intakes form blast and wind
17. ANSI BICSI – F3 UPS and PDU configurations
18. NFPA
19. LEED for New Construction
20. NC State 911 Board Standards – not published yet. Should be published in the next year.

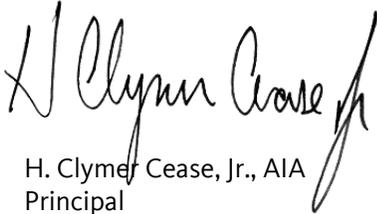
21. FAA standards – should not apply
22. TIA 942 – data center standard
23. Streets and Sidewalks Handbook – City of Raleigh Department of Public Works
24. City of Raleigh Office Space Standards

### Schedule

1. The schedule as depicted on the full Design Workshop agenda was reviewed. The goal is to have a final report by mid-November ready to go to the City Council.
2. Look at 10 and 25 year projections for staff.

*The above represents the author's understanding of the content of discussion held during the meeting. Any corrections or additions are to be forwarded to PBC+L within seven (7) days of receipt. If no written objections are received within this period the above will become the official record of decisions made in this meeting.*

Submitted by:  
PBC+L/AECOM



H. Clymer Cease, Jr., AIA  
Principal

cc: File

# MEETING ATTENDEES

1633-MN

City of Raleigh  
Critical Public Safety Facilities Project  
Session: Wake County Emergency Operations Center

PBC+L/AECOM



DATE: August 22, 2012

A meeting was held on August 22, 2012 at the Convention Center.  
Attendees included the following:

Name:	Company	Email Address	Phone
Clymer Cease	PBC+L	ClymerC@pbclarchitecture.com	919-836-9751
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Glenn Ervin	City of Raleigh	glenn.ervin@raleighnc.gov	919-996-5586
Tim Henshaw	Raleigh Fire	Timothy.Henshaw@raleigh.gov	919-996-5973
Walt Fuller	RWECC	Walt.Fuller@raleighnc.gov	919-996-5012
Josh Creighton		Joshua.creighton@wakegov.com	919-856-6485
Phil Stout		pstout@wakegov.com	919-856-6353

The following items were discussed:

## Wake County Emergency Operations Center Space Needs:

1. Goal: See if there is an opportunity to jointly use a new facility with the City EOC. Realize economies of scale.
2. Current EOC is in a basement of the County Courthouse. No running water, no bathrooms, no food preparation area. Hoping to take advantage of modern facility and leadership coordination.
3. Operate under ICS and NIMS. Engage local, state, federal and private partners.
4. Operate under the approved Wake County Emergency Operations Plan
5. Jurisdiction is Wake County as a whole and includes the City of Raleigh proper.
6. Must answer a phone 24-7. This is currently housed in the Sheriff's office.
7. Flexibility is Key – open floor plan, media control station, breakout spaces, policy room, JIC, incident management center, media/briefing area, management staff and space, emergency supplies, staff quarters.

## EOC program:

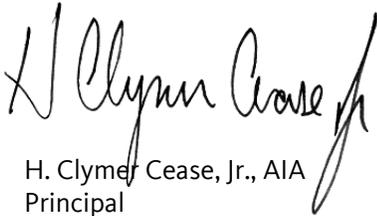
1. Staff space
  - Director - 1 PO
  - EM Specialist - 4 WS
  - Automation specialist - 1 WS
  - Admin Assistant/reception – 1 WS
  - Workroom
  - 3 part time positions
  - Copy wok area can share with Ops center
2. Operations Center

- 32 operational seats including command seats and video controller and amateur radio. Does not include policy seats.
  - 12 seats for municipalities
  - 6 outside agency seats
  - Video wall
  - Watch center is currently sheriff's dispatch and Raleigh ECC
  - Breakout rooms – would require 7 for 4-10 people each. Could be combinable. These can also be additional training areas.
  - SCIF – compliance with DCID? Can be secure teleconference room.
  - Policy room – have 7 today. May increase if locate jointly with City
  - Citizen phone bank – 4 people
  - Media briefing room, could connect to satellite trucks. Could be 12 -15 people.
  - JIC – needs 15 spaces at tables
  - Amateur radio – 2 seats. Have their radio station and a laptop.
  - Would like to maintain EOC operational at all times.
  - Activation area for some table and chair and storage if do not stand up EOC all the time.
  - 2 GIS workstations, no plotters today. Would like dedicated plotter tied to operations room.
3. Break room/ coffee room
  4. Kitchen/ cafeteria – food preparation for 30 people under full activation. Commercial kitchen with 3 compartment sink and appliances. Similar to fire station kitchen.
  5. Emergency supplies. Currently keep 72 hours of food and water and hygiene. Want to be sustainable for 72 hours.
  6. Lockers and showers. Can use half lockers – 60 people.
  7. Showers and restrooms per code
  8. Bunk rooms – potentially for 32 people. Look for conversion opportunities.
  9. Storage room for radios, radiological kits
  10. Storage for consumables
  11. Mobile command is stored in an existing warehouse currently.
  12. Technology support: Five racks currently and they are full. Houses internal switches for phone and data, cable, servers for reverse 911, and static notification system.
  13. Security: Badges are issued and color coded for access. Will need to be on separate access control system or can be integrated? Need to track who was where when for FEMA reimbursement.
  14. Recommend allowing 2 racks – one for City security and one for County EOC security.
  15. Will need DAS/ BDA.
  16. Separate wireless system network for non EOC internet.
  17. Will need fiber for DOT.
  18. Will need digital antenna for TV.
  19. Warning point must have satellite phone.
  20. Will need some level of UHF.
  21. Does not need a weather station, already have enough in the County.
  22. Use satellite as back up for cable TV.
  23. Should plan to isolate AHU's from threats - outdoor air dampers, location of intakes, filters, emergency shutdown. NIOSH standards.
  24. Just completed HIRA risk assessment.

25. Need spaces for fire trucks and chiefs vehicles. Need shore power for truck's computer equipment to remain running during an activation. Need 110 volt power. Police cruisers and ambulances will need power as well to keep equipment running. Need 802 wireless in this parking area as well.
26. Mobile communications unit (40' long) needs 1 - 100 amp circuit.
27. On site need 3 outlets for fire vehicles.
28. Secondary decontamination area needed without having to enter the building.
29. CCTV for cameras at doors. DOT is fed into system.

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Submitted by:  
PBC+L/AECOM



H. Clymer Cease, Jr., AIA  
Principal

cc: File

# MEETING ATTENDEES

1633-MN

City of Raleigh  
Critical Public Safety Facilities Project  
Session: Emergency Communications Center/ 911

PBC+L/AECOM



DATE: August 22, 2012

A meeting was held on August 22, 2012 at the Convention Center.  
Attendees included the following:

Name:	Company	Email Address	Phone
Clymer Cease	PBC+L	ClymerC@pbclarchitecture.com	919-836-9751
Shann Rushing	PBC+L	ShannR@pbclarchitecture.com	919-836-9751
Brian Super	AECOM	Brian.Super@aecom.com	757-306-6749
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Jay Lund	City of Raleigh	jay.lund@raleighnc.gov	919-996-5587
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Glenn Ervin	City of Raleigh	glenn.ervin@raleighnc.gov	919-996-5586
Tim Henshaw	Raleigh Fire	Timothy.Henshaw@raleigh.gov	919-996-5973
Barry Furey	RWECC	Barry.Furey@raleighnc.gov	919-996-5015
Walt Fuller	RWECC	Walt.Fuller@raleighnc.gov	919-996-5012

The following items were discussed:

## Emergency Communication Center Space Needs

1. Barry Furey handed out a space programming worksheet for Lightner that has been updated.
2. Barry will provide an ECC org chart and will take a look at the current projected future positions.
3. Administrative suite
  - Director – 1 Person, Private office (PO)
  - Ops Deputy Director -1, PO
    - Ops – 1, PO
    - Finance/personnel/ tech – 1, PO
  - CALEA manager – 1, PO
    - File storage, several lateral files
  - Quality assurance manager
    - Supervisor – 1 PO
    - Tech – WS
  - Records manager, future - 1 PO
    - View area
    - Administrative assistant – 1 currently, 1 future. 2 workstations (WS)
  - Receptionist
  - Add 3 workspaces over the next 25 years

- Additional Ops manager -1
  - Public Information -1
  - Admin assistant listed above
  - File Storage – have 6-7 four drawer files, in lockable room
  - Copy work area and office supply storage
  - Storage for Public Education
  - Storage for clothing
  - Conference room for 30 people ( share with EOC)
  - Conference room for 16-18 people for staff meeting (share but needs to be on ECC side)
4. ECC Technical staff and Training staff
- Tech Supervisor - 1 PO
  - System Analyst - 4 WS
  - GIS Tech -1 WS
  - 800 MHZ Radio Tech – 1 WS
  - Additional future GIS position - 1 WS
  - Future system analyst for trouble shooting – 3 WS
  - Space for plotter and layout of large maps
  - Storage for small amount of maps
  - Future technicians- 2 WS
  - Conference area for 8-10
  - Copy/work area (could be shared)
  - Flex workstation for 2 (for vendors coming in)
  - Somewhere there needs to be Storage for tools and spare parts – keyboards monitors, cables, work station, vendor spare parts. This is Tech storage for Operations center and needs to be near Operations floor for critical parts. Needs to be closet with built-in shelves. Storage area to include outlets for charging equipment.
5. Training
- Training Supervisor – 1 PO
  - Trainers – 3 WS
  - Future trainers – 3 WS
  - Storage for training materials – 12 CPR dummies.
  - Need work space for production of training materials. Need training information library for reference manuals.
  - Classroom training, general purpose (can be shared with EOC). Will be used from 14 -16 weeks twice a year. In service training is done on a quarterly basis. Maybe used about 8 months out of the year. Needs to be sized for 40 for in-service training. Academy people all have laptops. Needs to be heavy on AV.
  - Hands on training – now doing at backup center, Live Training for 12 people, includes instructor. Needs instructor workstation. There will be 3 monitors.  
Consoles could be fixed in place and part of EOC. During activation could bring in Fire and EMS to work there. This could be space between ECC and EOC. Need AV.
6. Operations Floor
- Supervisor console – 2, 1 for call takers and 1 is dispatch ( 5 supervisors total)
  - assistant supervisor console – 2 ( 5 assistant supervisors total)

- Currently occupy 4 supervisors and assist supervisor positions at one time. This includes future. Need manual storage near supervisor consoles.
- 8 consoles for Raleigh PD
- Municipal Police DCI, Division of Criminal Information – 6 consoles includes future
- 8 Fire and EMS, includes future. Currently have 4.
- 6 Flex space consoles for broken stations, special events. These spaces also need phones and spaces could be used for incident response. These would be on the floor.
- 12 call taker consoles
- 44 consoles total
- Console floor – fax and copier near supervisor, headset storage
- Need storage space at console for coats, bags
- Chair storage for 8 chairs
- Video wall or monitor space
- Supervisor offices – can be cubed area for each shift with 2 people per cube, for 5 two people cubicles for present. Need cube area for each shift. Ones shared workstation for 2 people comprise 1 cube. Files storage for 2 people for each workstation.
- Two future cube workstations for growth.
- Shift supervisor Office with files
- Need lockable storage for each super to put their information in for their crew.
- Need open work space for supervisor offices. Need docking stations.
- Counseling space for supervisors, small conference table and phone

#### 7. Staff Support

- Locker space – 25 years out could have 150 staff. Prefer full size lockers. Will consider half size lockers. Do not like them lining the corridor. If do not put them in a locker area, create an alcove.
- Break room
  - Seating area
  - Do you use break room for muster room?
  - Muster room for potentially 40 people. Could be 1 room with movable partition and one-half could also serve as the ECC conference room for 16 people.
  - Break room could then seat 12.
  - Some casual seating area with TV
  - Internet kiosk - 2
  - Counter space
  - Refrigerators (3), stove, 2 microwaves, 2 wall ovens, dishwasher, ice maker (50lbs)
  - Kuerig coffee maker pre piped. Storage for each shift. Currently have 5 pantry cabinets, will need 7.
  - Outdoor break area, connect to indoor break area. Gas line for gas grille. Could be rooftop break area.
  - Restrooms. Do not want a restroom door directly off of operations floor. Size to accommodate a full activation.
  - Changing lockers, showers
  - Fitness room should have 3-5 cardio machines, could be shared with the facility
  - Quiet room for several people, or a couple of single rooms. Should have couch, lamp and phone.
  - Need space for vending machines. Could be in a common area and used by others.
  - Bunk rooms could also be an EOC need.

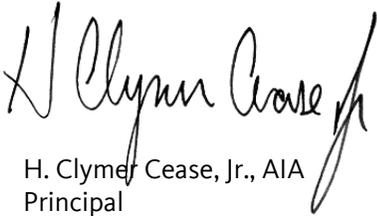
#### 8. Lobby and Public Space

- Unisex restroom
  - Reception Counter/ Security at front door for entire building. Need sign in and temporary badging with picture ID.
  - Reception at ECC as well?
  - Lobby needs to hold a tour group.
  - Mail goes through the City and will be screened and delivered. Need mail drop area.
  - FedEx and UPS packages go where? Drop area for these would be to be secured and under negative pressure. Consider remote delivery for critical public safety campus.
  - Work area for lawyers, police to view records
  - Viewing area or observation area for tours or City Council
9. Equipment Room
- Motorola 7500 IP based
  - CAD
  - 911 switch
  - 800 MHZ connectivity from dispatcher or supervisor consoles plus consoles in training area
  - Would like to avoid RF.
  - P25 connectivity
  - Fire Dispatch is on VHF currently – 4 VHF transmitters.
  - 18 UHF transmitters, non-emergency radio
  - Configure backup for access to 800 MHZ System.
  - 800 MHZ consolettes at dispatch positions
  - Do not maintain RMS currently.
  - AVL switches
  - CAD and telephone run a hot link to backup site.
  - Need rack space and workspace to accommodate swap out live systems.
  - Will require diverse entrances of power into building.
  - ECC has started virtualization.
  - Open to blade servers in racks
  - AV – are big on this. Want all information that comes to building to be able to be displayed in most spaces if desired.
  - Want to be sustainable as practical.
  - CRAC units
  - Off of receiving and staging area, need locking racks or locking cages with fobs. Envision line of 5-6 racks sized for biggest system.
  - Need separate but adjacent workbench space for 3 ECC computers off the ECC equipment area. It would be good to have one workstation in this area.
  - People would not be deployed in these spaces unless there was a problem.
  - Could see a common receiving room, unpacking rooms, staging/clean room for burn in and minor repair.
  - Consider trash compactor in unpacking.
  - Building monitoring systems will be in overall equipment area.
  - Need freight elevator, or oversize passenger elevator
  - For major change outs vendors will track their inventory.
  - Need storage for test equipment, spares, cables, CPE, manuals, monitors

- Need segregated storage for ECC.

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Submitted by:  
PBC+L/AECOM

A handwritten signature in black ink, appearing to read "H. Clymer Cease, Jr.", written in a cursive style.

H. Clymer Cease, Jr., AIA  
Principal

cc: File

# MEETING ATTENDEES

1633-MN

City of Raleigh

PBC+L/AECOM

Critical Public Safety Facilities Project

Session: Facilities and Operation & Organizational Development and Training



DATE: August 23, 2012

A meeting was held on August 23, 2012 at the Convention Center.

Attendees included the following:

Name:	Company	Email Address	Phone
Clymer Cease	PBC+L	ClymerC@pbclarchitecture.com	919-836-9751
Shann Rushing	PBC+L	ShannR@pbclarchitecture.com	919-836-9751
Steve Loomis	AECOM	Steve.Loomis@aecom.com	757-306-6730
Mark Hannah	AECOM	Mark.Hannah@aecom.com	571-242-2315
Kristian Zebrosky	AECOM	Kristian.Zebrosky@aecom.com	571-216-3862
Brian Super	AECOM	Brian.Super@aecom.com	757-306-6749
Belinda Redd	AECOM	Belinda.redd@aecom.com	757-366-6745
Brian Vodzak	AECOM	brian.vodzak@aecom.com	757-306-6754
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Craig Haines	Raleigh PD	Craig.Haines@raleighnc.gov	919-996-1224
Tim Henshaw	Raleigh Fire	Timothy.Henshaw@raleigh.gov	919-996-5973

The following items were discussed:

## Facilities and Operations Space Needs

1. Facilities Operations Control, highest pay grade - 1 (PO)
2. Facilities Operations Manager – 1 (WS)
3. Senior Plant Equipment Manager – 1 (WS)
4. Mechanics – 2 (WS)
5. Special Systems Ops 1-2 (WS)
6. Conference room for 12
7. Need NOC area – need to look at multiple applications on multiple screens. There will be different people in the NOC at different times. Looking at BAS, cameras and status of alarms. Currently looking at on monitors. Need about 6 screens.
8. Need general filing area. Estimate two 4 drawer cabinets.
9. Would like to be near generators, UPS and switches.
10. The City's security system is through a contract.
11. Front reception desk to building. This person (contract security employee) needs access to security cameras. Responsibilities are access control. Need to communicate with people outside that want to come in. Needs multiple monitors. Needs panic button and ability to shelter in place for a few minutes until police arrive. Will need ballistic protection.

12. Remote delivery? May need to look at another person.
13. Cleaning and maintenance of building. The city does this by contract. The contract people need a locked closet to store their cleaning supplies.
14. Bulk Storage for consumables. Needs to be secure.
15. Back-up equipment parts will be across the street.
16. Grounds maintenance is by contract.
17. Trash and recyclables. Cleaning contractor is responsible for recyclables. Will use roll can containers like residential cans.
18. Contractor collects recyclables from within the facility. Roll out of building to his truck. Contractor does not take cardboard. Recyclables can be comingled. Pickup is once a week. Will have under counter containers in the breakrooms, conference rooms, etc., for recycle collection. Provide ample counter space for slots for under counter containers.
19. Trash is contracted out. Need 1 dumpster.
20. Need 1 cardboard dumpster.

### Mechanical and Electrical Systems

1. Run on Open Platform, *Jase* (?) Niagara platform. Have about 8 approved vendors that can install this system. Have certified control specialists for this system.
2. Equipment preferences. Do not like McQuay chillers.
3. Like ASCO or Russell Electric Gear.
4. Like manual bypass systems.
5. Do not like variable refrigerant systems. These manufacturers are not working with control companies. They want their own stand alone controls.
6. Staff is trained on most all systems.
7. Pick most reliable and efficient systems. Like to have available and reliable part delivery.
8. Like water cooled chillers better than air cooled.
9. Mechanical rooms need space to expand. Need thoughtful routes in and out.
10. Materials need to be low maintenance.
11. Like paralleling generators that can cascade loads. Like maintenance bypass on generators.
12. Lightner was designed as a Tier 4 for power.
13. Collection of storm water would be good.
14. Parascope – a trial energy management system Raleigh is participating in. Will be able to compare billing data against actual data. Want to meter communication equipment energy draw. Staff will install energy metering system themselves to these new systems.
15. Like to set up UPS systems so can isolate quadrants. Like to shut off in banks.
16. Look carefully at fueling capacity carefully. Want 5 days, are considering 7 days.
17. Smoking, cooking and lightning strikes cause most fires.
18. Spare or backup rooms should not be in same fire zone. ECC and EOC should be separated in Fire zones.
19. Think about smoke releases when doing layout of building.
20. Shafts need to be rated appropriately and have access panels that can open and close and keep shaft fire rating intact.
21. Want to have capability to do zero % outside air if need to for emergencies.
22. Commercial hoods will be required for commercial cooking equipment.
23. Fire Marshall will not require wet system in addition to clean agent system in the communication equipment room.
24. On the ECC operations floor, prefer double interlock pre action system.
25. Would like clean agent system in UPS room and Switch room.

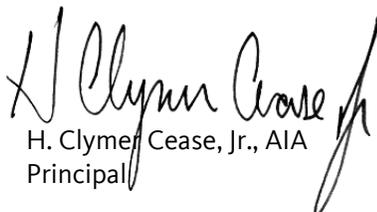
26. CAT generator service is not good in Raleigh area for their generators. National Power represents Generac generators and has good service. Prefer ASCO or Russell gear.
27. Provide H-O-A switches on equipment controls.
28. City power charges are on a rate structure.
29. LEED. Do not want to buy Green Power.
30. Panels should be set up such that if loose 1 panel will not lose all of one critical services agency.
31. AECOM discussed Tier 3 power architecture and static transfer switches. Lightner was Tier 4.
32. Want to be able to do testing where put whole building on generator power at defined intervals.
33. Would like a quick connect for bringing in a generator on a trailer.

### Training and Organizational Development

1. Vision for Training. Have multiple sites throughout the City that are now being used for training. Desire a flexible center at a site that is centrally located.
2. Desire approximately 20,000 square feet total including breakout spaces around perimeter of the larger space. Similar to a conference center. Can have 10 – 300 people for a training session. The center could house a large general training session as well as technical and safety training sessions. Smaller perimeter spaces would be classroom style training.
3. Have had session with up to 300 people for Oracle training. Most common training is 3-10 in a group. Are holding some training in Council chambers now.
4. A 300 person space has been set up in the past with round tables. The critical thing to capture in this big space is engagement.
5. Have some informational meetings that need auditorium style as well as team training in smaller groups. May be going to more web based training.
6. A/V components are critical.
7. Have contract trainers coming in. Could be housed in a common area.
8. Will need work space for manager, administrator, training coordinators and IT trainer plus possible administrator.
9. Will need IT labs for 15 -20 people.
10. Estimate 4-8 breakout rooms.
11. Can use outdoor areas for training.
12. May have some need for public to come in.
13. Parking requirement for 300 – how do we address this on this site that is already constrained for parking space.
14. Wake County Commons has a facility that is similar to what are looking for.
15. The training center would require pre function space and vending area as well. Space for storage of refreshments. Space for concessionaire and catering kitchen.
16. There may be some synergies with the Northeast District Police Community Room.

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Submitted by:  
PBC+L/AECOM

  
H. Clymer Cease, Jr., AIA  
Principal

# MEETING ATTENDEES

1633-MN

City of Raleigh  
Critical Public Safety Facilities Project  
Session: Information Technology

PBC+L/AECOM



DATE: August 23, 2012

A meeting was held on August 23, 2012 at the Convention Center.  
Attendees included the following:

Name:	Company	Email Address	Phone
Clymer Cease	PBC+L	ClymerC@pbclarchitecture.com	919-836-9751
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Mark Hannah	AECOM	Mark.Hannah@aecom.com	571-242-2315
Kristian Zebrosky	AECOM	Kristian.Zebrosky@aecom.com	571-216-3862
Belinda Redd	AECOM	Belinda.redd@aecom.com	757-366-6745
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Cassandra Hicks	City of Raleigh	Cassandra.hicks@raleighnc.gov	919-996-5513
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Trevor Pressley		Trevor.Pressley@raleighnc.gov	919-996-5500
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The following items were discussed:

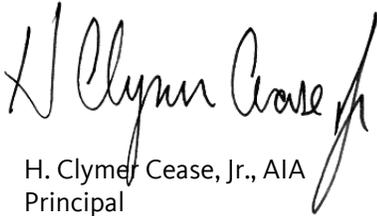
## Data Center Space Needs

1. Three Groups – NOC staff, Systems staff and Network staff
  - NOC Staff
    - Analyst s – 3 now, 3 additional staff in future (WS). 4 monitors
    - Manager also manages help desk and goes back and forth. This is a temporary work space now.
    - Need a conference table for brain storming session - war room table. Could be 10-15 people. Need to be able to view NOC screens. Could use a folding partition so that this conference space can be utilized as a conference room and separated from NOC.
    - NOC should be adjacent to the data center.
  - Systems staff
    - Systems and Data Base manager - 1 (PO). 1 additional in future
    - Systems admin – 4 (WS). Need 4 more now. 4 additional in future
    - Data base admin - 3 (WS). Need 3 more now. 3 additional in future
    - Vendor work area – 1 now (WS). 2 additional in future

- Network staff
    - Network manager – 1 (PO). 1 additional in future
    - Net Eng. – 3 (WS). 6 additional in future
    - Intern -1 (WS). 1 future
    - Vendor area can be shared for Data Center
  - Network Security
    - Manager - 1
    - Security admin – 1 (WS). 3 additional in future
  - Storage for incoming infrastructure and network equipment (20 x 10 for shelving). Verify with Lightner study.
  - For receiving area – would like pallet jack. Take equipment off pallets here.
  - Need secure staging area for unpacking boxes. After unpacking may take to shelf and store.
  - In same area as storage, there should be bench space for starting up and testing equipment, with space to accommodate 4 people. Need test racks. Need workstations for staff and vendor.
  - Need separate storage area for infrastructure to go out of facility.
  - Staging, storage and burn-in areas need to be separate from ECC
2. Police currently share IT equipment space with ECC. Can continue to do this. Need 4 secure racks for police. Need one workspace for police for working on systems. See Lightner report.
  3. Fire needs 4 racks and 6 in future.
  4. Data Center
    - Need number of racks and cabinets. Need load densities.
    - Lightner study estimated racks/cabinets.
    - Need to put in space and system tie-ins for future electrical and cooling infrastructure.
    - Can virtualize some servers. However, there are some industry and standard rules that require security of individual agency systems.
    - IT has 14 to 15 racks today, going to 40 and then 60 in future. This includes changeout space.
    - There will be a public safety network, City of Raleigh business network, and possibly AV network, traffic management wants their own. Four networks estimated.
    - BAS and security is on City network at present. Can be on same LAN but each large building operates on a building BAS network. Hard to push data through current leased lines.
  5. A general conference room for City IT could be shared other than NOC conference area. If vendors come in or need meeting with others, can use small shared conference room in public area of building.
  6. Staff Support
    - Breakroom. Foresee a shared building breakroom and Kitchen/cafeteria.
    - Wellness/Fitness. This will be shared. Will be on access system.
  7. Copy/work area. Could share with EOC but depends on where located. Currently use Public Works plotter to print network diagrams.
  8. Switches and IDFs. Network closets/rooms will be fobbed. Rooms will be based on BICSI standards for size. IDFs will be stacked if possible.
  9. Entrance facilities. Need two on separate ends of building for diversity. Size of rooms will be similar to IDFs. Do not want exterior door leading to this area. Can have separate internal entrance without going through equipment rooms. Needs to be adjacent to data center. Outdoor fiber transitions to indoor fiber in this room. Indoor fiber then immediately goes to data center.

*The above represents the author's understanding of the content of discussion held during the meeting. Any corrections or additions are to be forwarded to PBC+L within seven (7) days of receipt. If no written objections are received within this period the above will become the official record of decisions made in this meeting.*

Submitted by:  
PBC+L/AECOM

A handwritten signature in black ink, appearing to read "H. Clymer Cease, Jr.", with a stylized flourish at the end.

H. Clymer Cease, Jr., AIA  
Principal

cc: File

# MEETING ATTENDEES

1633-MN

City of Raleigh

PBC+L/AECOM

Critical Public Safety Facilities Project

Session: Workshop #2 – Northeast District Police Facilities



DATE: August 24, 2012

A meeting was held on August 24, 2012 at the City of Raleigh Construction Management Office.

Attendees included the following:

Name:	Company	Email Address	Phone
Clymer Cease	PBC+L	ClymerC@pbclarchitecture.com	919-836-9751
Shann Rushing	PBC+L	ShannR@pbclarchitecture.com	919-836-9751
Steve Loomis	AECOM	Steve.Loomis@aecom.com	757-306-6730
Brian Super	AECOM	Brian.Super@aecom.com	757-306-6749
Mark Hannah	AECOM	Mark.Hannah@aecom.com	571-242-2315
Belinda Redd	AECOM	Belinda.redd@aecom.com	757-366-6745
Roula Qubain	AECOM	Roula.Qubain@aecom.com	919-854-7515
Jay Lund	City of Raleigh	jay.lund@raleighnc.gov	919-996-5587
Glenn Ervin	City of Raleigh	glenn.ervin@raleighnc.gov	919-996-5586
Doug Pearce	City of Raleigh	doug.pearce@raleighnc.gov	919-996-3420
Todd Jordan	Raleigh PD	todd.jordan@raleighnc.gov	919-278-6369
Kim Swinson	Raleigh PD	Kimberly.swinson@raleighnc.gov	919-996-1233
Dee Dee Smith	Raleigh PD	deedee.smith@raleighnc.gov	919-996-3719

The following items were discussed:

## Northeast District Police Facilities Space Needs

### Goals

- The Northeast District Police is currently located in a shopping center.
- Prefer a standalone facility to bring in persons of interest.
- Are CALEA certified.
- The District believes they have room to grow. They think they could increase the number of officers by 20 in 5 years.
- Could have between 65-80 vehicles at any one time. This includes police, private, public and shift change.
- Currently have 3-4 people visiting station an hour.
- Station will house patrol officers and community police and community room.
- Detectives will be housed at Atlantic Avenue facility - detective campus.
- Needs to be secure but also feel open to public.
- Need easy access into and out of the facility/site.

## Northeast District Police Facilities Space Needs

### 1. Current Staff:

- One Captain
- Lieutenants – 4
- Sergeants – 4
- Officers – 56
- Civilian Admin -1

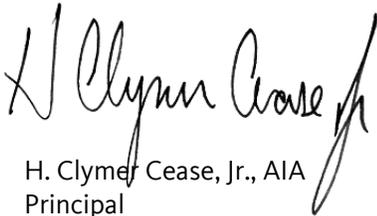
2. 25 year projected staff
  - Captain -2
  - Lieutenants – 0
  - Sergeants – 7
  - Officers – 59
  - Civilian Admin -2
  - Major -1
3. Executive
  - Major - PO
  - Staff support - WS
  - Captain - PO
  - Lieutenants – WS, shared space
  - Sergeants - shared offices that are adjacent, 2 persons per office - WS
  - Copy work area
    - Files
  - Conference room for 14
4. Lobby
  - Desk Officer Counter
    - Design of desks is currently being assessed. Desks are high. Will have ballistic panels.
    - Also have a low area.
  - Metal detector- may want to check everyone coming through front door.
  - Public Restroom – men’s and women’s
  - Lobby seating for 6
  - Displays: North Carolina and US flags; shoulder patch on wall that states district; fallen officer wall
  - Computer Kiosk for electronic forms -2
  - Secure vestibule
  - Need a small conference room after pass through the metal detector and secure vestibule for interviews.
  - There is an inspection safety team that has been tasked with assessing security needs at the lobby.
  - Security monitoring – monitor vestibule 24 hours from a 24-hour operation station. Provide panic button.
  - Station is not occupied 24/7 at front desk.
5. Community Room for 75-100, divided
  - Officer Training
  - Coffee bar
  - AV equipment
  - Blackout shades for classes and presentations
  - May be staging area for media for briefings
6. Desk Officer
  - This Officer is only approached after go through the metal detector.
  - Officer is on raised area.
  - Workstation, desk panels are ballistic protected.
  - Need small refrigerator near desk.

- Monitors security cameras.
  - File space
  - Have stationary radio, phone and computer
7. Community Policing Team
- Officers - 6 now and 6 in future. WS
  - Are in secure area of the station. Should be housed together with workstations for the officers.
  - Crime prevention officer – 1 now and 1 in the future. WS
  - May have sergeants (1 now and 1 in future)
  - Storage closet for materials that are taking to community
    - Can store balls, bicycles and things donated as well as smaller items.
1. Patrol
- Sergeants – 16. Need 8 offices with 2 WS in each office. Each officer has his own WS with computer and files.
  - Could go to 3 shifts. Need to capture this space.
  - Patrol Officers will need report writing room with 15 docking stations. Storage for forms, individual mailboxes, copier/printer.
  - Work area for packaging of evidence is currently in report writing room. Needs to be nearby and have room for supplies. Needs a counter and evidence lockers with pass through.
  - Evidence lockers
    - Pass through
  - Armory Vault – near evidence area for storage of additional weapons
    - No gun cleaning here
  - Bulk items evidence storage – will keep centralized. May need temporary storage.
  - Interview rooms for suspects. Mostly do custodial interviews. Need 3 interview rooms.
    - Need secure area
    - Would be nice to have a separate secure entrance at rear of building.
    - Need search room with detection wand. Also bench area that could handcuff to.
    - Need temporary locker for interviewee personal items.
    - Would like space for a few intoxicizers that could go in the search area.
    - Need soundproofing.
    - Do not need viewing room. Will stream video to officers' computers
    - Restroom for interview rooms
2. Roll call/ready room for 25 officers and a podium. Flat screen monitor behind podium. Two flags and accent wall. Need IT for video conferencing.
3. Need storage room for officer bicycles and Segways, patrol supplies.
4. Ancillary building for storage – 4-wheeler, hub caps, oil, flares, cones, toolbox, jack
5. Outdoor land ports on pedestals for down loading of video – need approximately 3 ports.
6. Staff Lockers – need more male locker space than female. Currently have about 15% overall female for City.
- Estimate 100 lockers for men
  - 30 women
  - Need quad power in lockers
  - 2x2 lockers
  - Lockers that have attached bench are being used in other facilities. DSM makes them.
  - Showers and toilets

7. Fitness room
  - Five cardio machines
8. Break room,
  - Refrigerator, coffee, ice machine, sink
  - Seating for 15
9. Support
  - Bulk Storage
  - 1 closet
10. IT Room
  - Space for switches and routers
  - MDF
  - Data room will be next door
11. Mechanical Room
12. Electrical Room
  - Needs generator backup for full facility operation. Backup duration for fuel storage may be less than ECC. Option may be to connect to generator plant at CPSF.
13. Police Mobile command parking – will this need shore power?

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Submitted by:  
PBC+L/AECOM



H. Clymer Cease, Jr., AIA  
Principal

cc: File

# MEETING ATTENDEES

1633-MN

**City of Raleigh**  
**Critical Public Safety Facilities Project**  
**Session: Workshop #2 – Traffic Control Center**

**PBC+L/AECOM**



**DATE: August 24, 2012**

A meeting was held on August 24, 2012 at the City of Raleigh Construction Management Office.  
Attendees included the following:

Name:	Company	Email Address	Phone
Shann Rushing	PBC+L	ShannR@pbclarchitecture.com	919-836-9751
Steve Loomis	AECOM	Steve.Loomis@aecom.com	757-306-6730
Brian Super	AECOM	Brian.Super@aecom.com	757-306-6749
Mark Hannah	AECOM	Mark.Hannah@aecom.com	571-242-2315
Belinda Redd	AECOM	Belinda.redd@aecom.com	757-366-6745
Roula Qubain	AECOM	Roula.Qubain@aecom.com	919-854-7515
Jay Lund	City of Raleigh	jay.lund@raleighnc.gov	919-996-5587
H.P Humphries	City of Raleigh	hp.humphries@raleighnc.gov	919-996-4061
Glenn Ervin	City of Raleigh	glenn.ervin@raleighnc.gov	919-996-5586
Doug Pearce	City of Raleigh	doug.pearce@raleighnc.gov	919-996-3420

The following items were discussed:

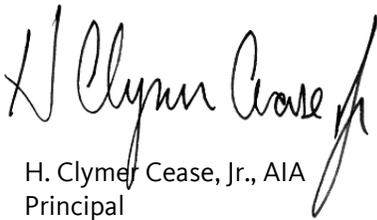
## Traffic Control Center (TCC) Space Needs

1. Staff
  - Manager - 1 PO
  - Senior Analyst - 1, plus 1 additional in future. WS
  - Analyst - 3, plus 2 in future, plus possibly 1 additional in future. WSMay be up to 700 signals in future.
2. TCC
  - Control Center - 2 seats at workstations in front of video/monitor wall. Plan for two additional in future.
  - Video wall for 30 cubes
  - Lightner had 44 feet of wall for flat screen monitors
  - Four network management monitors
  - Need space for PTZ controls and phones at workstation
3. Test Bench - workstations with bench for mock up of signaling system
4. Reference area - some minimal plans, book case, plan review table with storage under table.
5. Work area with printer, scanner, and fax. Could be open area. Could be future workstation as paper plans go away.
6. Need a coffee bar close to TCC and workstations.
7. Can share plotter with EOC.
8. Equipment racks. Have four current racks being used. Two are video and 2 are for fiber. Signaling software is running on single server on one of fiber racks. Should plan for 3 additional racks, 1 for fiber and 2 for video, for future growth in the equipment area. Plan for two change out racks.
9. Currently have 85-90% of City monitored. By end of this project will have 100%.
10. May have additional equipment for tying into NCDOT.
11. Need a storage room for office supplies, misc cables. Can be combined or separate.

12. The UPS should be provided with the building UPS.
13. There is a potential for base station/handheld - at TCC.
14. Will need access to a conference space for 12-15 people.
15. How will video wall or traffic video be shared with ECC and EOC? Explore this as go forward.
16. May need space for Video Management system and Video wall controller if this approach is taken.
17. May add traffic management signs in future if can get government funds.

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Submitted by:  
PBC+L/AECOM

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H. Clymer Cease, Jr., AIA  
Principal

cc: File

# MEETING ATTENDEES

1633-MN

City of Raleigh  
Critical Public Safety Facilities Project  
Session: Workshop 2 – Day 5 – E.O.C.

PBC+L/AECOM



DATE: August 30, 2012

A meeting was held on August 30, 2012 at the Convention Center.  
Attendees included the following:

Name:	Company	Email Address	Phone
Clymer Cease	PBC+L	ClymerC@pbclarchitecture.com	919-836-9751
Shann Rushing	PBC+L	ShannR@pbclarchitecture.com	919-836-9751
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Brian Super	AECOM	Brian.Super@aecom.com	757-306-6749
Belinda Redd	AECOM	Belinda.redd@aecom.com	757-366-6745
Roula Qubain	AECOM	roula.qubain@aecom.com	919-854-7515
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Garry Spain	Raleigh Fire	Garry.Spain@raleighnc.gov	919-986-5957
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Jerry Hubert	COR PD Insp.	Jerry.Hubert@raleighnc.gov	919-996-2455
Curt Willis	COR Insp.	Curt.Willis@raleighnc.gov	919-996-2701
T.J. Lynch	COR PU Dept	tj.lynch@raleighnc.us	919-250-7824
Chris McGee	COR/ PW	chris.mdgee@raleighnc.gov	919-996-6446
Jayne Kirkpatrick	COR/ PA	jayne.kirkpatrick@raleighnc.gov	919-996-3100
Colleen Sharpe	COR/ GIS	Colleen.sharpe@raleighnc.gov	919-996-2520
Dan Howe	COR/ City Manager	Daniel.howe@raleighnc.gov	919-996-4656
Marianne Schilling	COR/ EM	Marianne.schilling@raleighnc.gov	919-996-4656
Carl Dawson	COR PW	carl.dawson@raleighnc.gov	919-996-4093
Walt Fuller	RWECC	Walt.Fuller@raleighnc.gov	919-996-5012

The following items were discussed:

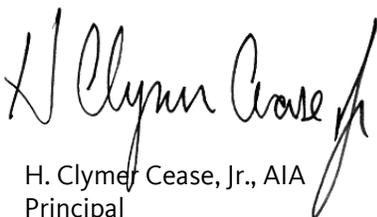
1. Staff – full time
  - 1 Manager - Derrek Remer, for day-to-day operations
  - Intern position – 1 current. Plan on shared space for 1 other person
  - Plan for future staff - project is planned for 25 years
  - Plan for shared space for 4 workstations
  - Multifunction spaces
  - Need vast majority of the EOC admin. space to appear utilized
  - 1 coffee bar
2. Operations room
  - Currently 10 positions, but will go up to 22 in an emergency.

- 
- Cluster model would seem to work best for the various City workgroups
  - Work Groups: Planning, logistics/finance, fire, police, public works. Believe need 5 clusters with 6-7 seats at each cluster.
  - Work Group tables - like the V-shape tables with commander at head
  - Command Table: City manager or assistant; EOC manager; public works director; IT; command function- ops chief. Command table could be oval on a raised area in middle of room. Should sit up to 10. These folks will have a command role.
  - Think there may be up to 75 in Operations room during an event.
  - Are trying to move toward the national standard of work groups.
  - Could have screens at each workgroup cluster to show information tailored to their group
  - Adjacent Policy Room is where decision makers will go.
  - Screens and/or video wall: Have everything that will need access for up on the video wall. CAD, message board, traffic information, weather, dispatch, etc.
  - Biggest design issue is flexibility. Flexibility will be the key to make this building work.
  - Large touch screen for GIS data
  - GIS support – need plotter, multifunction printer on or adjacent to the floor.
  - Some hard PC workstations would be good in case someone's laptop is not working.
  - Like the idea of a scalable EOC with some permanent EOC always set up and ready to go. Use a divider such that the EOC setup is divided off from the rest of the space and still have the remaining area that can be used during non activation times.
  - Storage associated with Operations room: office supplies; table chair storage; manuals; plotter paper.
3. GIS is on the City network and also have a standalone network
4. Breakout Rooms:
- Policy Room – should not be dedicated. Decision makers will likely only be there a short time.
  - Finance space
  - Public works
  - Planning
  - Plan on 5 flexible spaces or rooms of varying sizes. Four rooms should seat a minimum of 6 to 12 with one room holding up to 18.
  - No secure space needed.
  - Non-emergency call center could be a shared space and shared with Academy training. Could have consoles seat up with software. House up to 6 to 10 people with status board.
5. JIC:
- Need medium size briefing rooms.
  - Need 12 seats in the JIC.
  - Need access to City's network.
  - Should accommodate 15 press persons.
  - Accommodate 5 TV stations ( 2 people for each station) and one national affiliate
  - Accommodate 2 staff.
  - Accommodate 2 radio station for 1 person each.
6. Reception/Security desk:
- Need to issue temporary cards/passes
  - 1 Unisex restroom

7. Separate Viewing Room for escorted public and other agencies. Will not do tours when activated. Viewing room may be more for the ECC as it is a 24/7 operation.
8. Central briefing room
9. IT support space: There will be a City NOC in the building. May need an IT seat to assist persons on the Operations floor. There may also be one person controlling the video feeds. Could have central station near GIS where all control feeds go to.
10. Staff Support:
  - Bunking space. Utilize flexible space and roll out cots. Could have 20 people per shift. Have storage space for 25 -30 cots. Need storage for linens and washing and drying of linens.
  - Space for washer and dryer
  - Food: Ability to cook with stove, 3 section sink, refrigerator. Do not need full cafeteria. May need built-in cooler for food storage for 5 days? Will this be a shared space? Individual refrigerators typically work better for multiuse building. Could be shared with the ECC kitchen which would be used daily. EOC will likely bring in catered food when they can, but may need cooking ability too. EOC will need large serving counter for food brought in.
  - Food Storage for activation: Could drop food if EOC is activated. Would prefer to drop off food and water than maintain food in the building long term.
  - Break room and seating for meals: Accommodate 25 people. Use flexible space.
  - Showers: Have at least 2 showers per sex. Provide some half lockers.
  - Lockers: Small personal lockers.
  - Fitness: shared with ECC
  - Outdoor Break: shared
  - IT space: video, Web EOC, plus 1 spare rack.
  - GIS will be on City servers
11. Networks: AV network, City network and CAD network.
12. HAM radio: County has the HAM radio. City currently does not.
13. Site Issues:
  - Shore parking for command staffs – police, fire, EMS – large SUVs
  - Consider decontamination area – could be shared space with NE Police station. Will need established drain area. Space to put up tarps.
  - EOC activation parking for the 75 persons on floor
  - Shift change – could have overlap during shift change.
  - Consider Logistics for fuel trucks getting in around parking

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Submitted by:  
PBC+L/AECOM



H. Clymer Cease, Jr., AIA  
Principal

cc: File:

# MEETING ATTENDEES

1633-MN

City of Raleigh

PBC+L/AECOM

Critical Public Safety Facilities Project

Session: Workshop 3 – Day 1 – City of Raleigh EOC & Wake County EOC



DATE: September 10, 2012

A meeting was held on September 10, 2012 at the Convention Center.

Attendees included the following:

Name:	Company	Email Address	Phone
Shann Rushing	PBC+L	ShannR@pbclarchitecture.com	919-836-9751
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Belinda Redd	AECOM	Belinda.redd@aecom.com	757-366-6745
Roula Qubain	AECOM	roula.qubain@aecom.com	919-854-7515
Mark Hannah	AECOM	Mark.Hannah@aecom.com	571-242-2315
Steve Loomis	AECOM	Steve.Loomis@aecom.com	757-306-6730
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Terry Dodge	AECOM	terry.dodge@aecom.com	757-306-4000
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Dan Howe	CoR / Asst City Mgr	daniel.howe@raleighnc.gov	919-996-4656
Chris McGee	Trans Fld Sus Mgr	chris.mcgee@raleighnc.gov	919-996-6446
Derrick Remer	CoR / EM	derrick.remer@raleighnc.gov	919-996-4657
William R Jackson	CoR / Fac Ops	billy.jackson@raleighnc.gov	919-996-3420
James D Poole	Raleigh FD	james.poole@raleighnc.gov	919-996-5956
John McGrath	Raleigh FD	john.mcgrath@raleighnc.gov	919-996-6115
Craig Schulz	RWECC	craig.schulz@raleighnc.gov	919-996-5013
Walt Fuller	RWECC	Walt.Fuller@raleighnc.gov	919-996-5012
Josh Creighton	Wake Co	Joshua.creighton@wakegov.com	919-856-6485
Phil Stout	Wake Co	pstout@wakegov.com	919-856-6353

The following items were discussed:

## Raleigh Critical Public Safety Facility (CPSF) Space Program Review

Revisions that were made to the space program during the following review meetings are incorporated into the attached CPSF Draft Space Program

## City of Raleigh Emergency Operations Center Program

1. The Lobby is intended to be a shared space for the entire building.
2. The Press Room may have a secure space entry as well as public entrance. It should be directly off the lobby.
3. The City EOC Copy Work Room could be shared with another agency depending on how the spaces lay out.
4. The Non Emergency Call Center needs a centralized display which will be part of the building AV system.
5. The Fire Department PIO works from the Fire Department headquarters.
6. The County EOC will need 15 PIO positions. Collectively between the City and County, 20 PIO workstations may be required.
7. The City does not think that space labeled and dedicated for filing cabinets should be listed in this space program for a high tech facility. Some stakeholders have indicated they will require minimal physical space for lateral files. This

should be explored as an Operational Policy change. If there will be lateral file cabinets, this square footage will need to be planned and accounted for in the spreadsheet in order for spaces to function effectively.

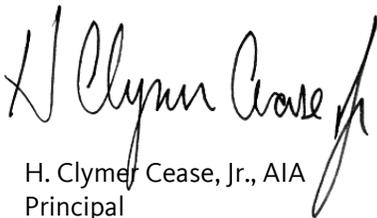
8. The City EOC will need more storage space. Need to store radio cache.

#### Wake County EOC

1. Wake County EOC Operations Room: Will need 14 positions set up as full time and remainder of space as flex space. Do not need the podium space indicated in the spreadsheet.
2. The County EOC does not need a coffee station. Prefer to go to the cafeteria for this.
3. Do need a secure SCIF area. This space should not be shared.
4. Breakout rooms: Should have some that are for privacy and some that can be more open. Could use flexible walls in breakout areas.
5. The Policy room could be used for a SCIF.
6. The stakeholders stated that could start as EOC being one big space to serve both City and County. However, the stakeholders discussed that 60 or so people in a room may be loud. Some breakout spaces, such as for planning, cannot be used by City and County jointly as they have different missions.
7. Shared spaces (8.00 Shared Staff Support): These spaces will be shared by everyone in the building.
8. Need food storage to be sustainable for 72-96 hours. May need small walk-in refrigerator.
9. Need about 150 SF for storage for electronics.
10. Parking and shift overlap: The County has 7:00 a.m. – 7:00 p.m. hours. Six people will be the largest day shift. Use 40 parking spaces as the County overlap during an event.
11. Shore power for 4 for Fire and mobile command trucks.
12. Six Shore power stations for each City and County EOC.

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Submitted by:  
PBC+L/AECOM



H. Clymer Cease, Jr., AIA  
Principal

cc: File

# MEETING ATTENDEES

1633-MN

City of Raleigh

PBC+L/AECOM

Critical Public Safety Facilities Project

Session: Workshop 3 – Day 1 – Emergency Communications Center



DATE: September 10, 2012

A meeting was held on September 10, 2012 at the Convention Center.

Attendees included the following:

Name:	Company	Email Address	Phone
Shann Rushing	PBC+L	ShannR@pbclarchitecture.com	919-836-9751
Brian Super	AECOM	Brian.Super@aecom.com	757-306-6749
Belinda Redd	AECOM	Belinda.redd@aecom.com	757-366-6745
Roula Qubain	AECOM	roula.qubain@aecom.com	919-854-7515
Mark Hannah	AECOM	Mark.Hannah@aecom.com	571-242-2315
Steve Loomis	AECOM	Steve.Loomis@aecom.com	757-306-6730
Jay Lund	City of Raleigh	jay.lund@raleighnc.gov	919-996-5587
Glenn Ervin	City of Raleigh	glenn.ervin@raleighnc.gov	919-996-5586
Craig Schulz	RWECC	craig.schulz@raleighnc.gov	919-996-5013
Walt Fuller	RWECC	Walt.Fuller@raleighnc.gov	919-996-5012

The following items were discussed:

## Raleigh Critical Public Safety Facility (CPSF) Space Program Review

Revisions that were made to the space program during the following review meetings are incorporated into the attached CPSF Draft Space Program

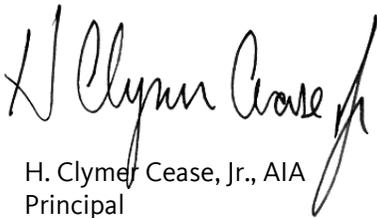
## Emergency Communication Center Space Program Review

1. The Facility space program spread sheet was reviewed, starting with the ECC spaces.
2. There is a preference to have a separate out building, or remote delivery facility, for mail and packages.
3. The Mail room shown in the program is only 40 SF and may be used to drop mail for distribution after it has been received and sorted at a remote facility.
4. The shaded program areas that appear in the program spreadsheet could potentially be shared.  
The vending machines will be removed from the lobby area.
5. The ECC will have a Deputy Director of Finance and Personnel, Deputy Director of Operations, and Deputy Director of Technology (future position). These spaces are 150 SF.
6. The Deputy Directors should have larger office than the supervisors. The Supervisor offices should possibly be at 120 SF instead of 150 SF.
7. Reduce the Records Manager space to 96 SF.
8. Delete the workbench in the Administrative area.
9. The Copy area should have room for a GIS plotter and storage for plotter paper.
10. The Administrative storage will also be used for Training storage. Training has 12 CPR dummies.
11. Need workspace for production of training materials as well as a Training Information library.
12. The IT Storage and IT Staging Lab need to be near data center. The architect placed this space in the ECC spreadsheet summary so it will be captured as an ECC space and not get lost.
13. ECC Operations: Supervisor consoles should be workstations.
14. One lateral file cabinet will be needed for each supervisor. Use 4 drawer high lateral files.

15. The Video Wall space depends on technology selected.
16. For the lockers in Staff Support, the stakeholders need to take a closer look at staffing per shift. Currently have 17 staff per shift for 5 shifts.
17. The ECC needs a full kitchen with stove. They will be cooking quite a bit. Need a sink and prep area. May need more refrigerators - minimum 4?
18. The stakeholders need to think more about storage and conference rooms.
19. Data Center: The ECC racks were reviewed. The total data center rack count including EOC , TCC, and all other systems is currently planned for 160 with change out and future racks.
20. The Tower may be 300 feet high according to a Motorola propagation study. A Tower shelter with racks will be required next to the Tower. Racks will also be required in the Data Center for a Tower IT systems router.
21. Will need a separate public safety Storage and Lab area for unpacked equipment. Can share receiving and unpacking with the other building agencies but not the storage and lab spaces. The lab and storage space will also serve the EOC, Fire and Police equipment. Storage could be up to 1 month. Equipment will be processed from the unpacking area, to Storage, to Lab/ White room and then go to the Data Center. Unpacked items could go to the storage area if no one is available to unpack.
22. Need ECC storage for 130 monitors – large storage area. Need a small storage area for parts.
23. There should be a separate storage and lab for the City Data Center and TCC.
24. The County EOC storage and lab space can be located within the City public safety storage space.
25. Remote delivery services will need to be revisited with all agencies. A remote facility is problematic due to having to transport unpacked equipment to the public safety building.
26. The City also asked to consider providing meeting space for association meetings. The Police building will have a community meeting space function, and this public safety association meeting space may be better located here. Need to revisit this space as the program and concepts develop more.
27. The prime site location will be a County decision.
28. The shift overlap for ECC parking may be more like 20 spaces.

*The above represents the author's understanding of the content of discussion held during the meeting. Any corrections or additions are to be forwarded to PBC+L within seven (7) days of receipt. If no written objections are received within this period the above will become the official record of decisions made in this meeting.*

Submitted by:  
PBC+L/AECOM



H. Clymer Cease, Jr., AIA  
Principal

cc: File

# MEETING ATTENDEES

1633-MN

City of Raleigh

PBC+L/AECOM

Critical Public Safety Facilities Project

Session: Workshop 3 – Day 2 – IT Data Center / Facilities Ops / Traffic Control Center



DATE: September 11, 2012

A meeting was held on September 11, 2012 at the Raleigh Convention Center.

Attendees included the following:

Name:	Company	Email Address	Phone
David Francis	PBC+L	davidf@pbclarchitecture.com	919-836-9751
Kristian Zebrosky	AECOM	Kristian.Zebrosky@aecom.com	571-242-2315
Brian Super	AECOM	Brian.Super@aecom.com	757-306-6749
Belinda Redd	AECOM	Belinda.redd@aecom.com	757-366-6745
Roula Qubain	AECOM	roula.qubain@aecom.com	919-854-7515
William R. Jackson	City of Raleigh	billy.jackson@raleighnc.gov	919-996-2984
Jay Lund	City of Raleigh	jay.lund@raleighnc.gov	919-996-5587
Mike Kennon	City of Raleigh	mike.kennon@raleighnc.gov	919-996-3030
H.P. Humphries	City of Raleigh	hp.humphries@raleighnc.gov	919-996-4061
Kim Swinson	Raleigh PD	Kimberly.swinson@raleighnc.gov	919-996-1233
Cassandra Hicks	COR/ IT	Cassandra.Hicks@raleighnc.gov	919-996-5513
Stewart Jones	COR/IT	Stewart.Jones@raleighnc.gov	919-996-5508
Walt Fuller	RWECC	Walt.Fuller@raleighnc.gov	919-996-5012
Craig Schulz	RWECC	Craig.Schulz@raleighnc.gov	919-996-5013

The following items were discussed:

## Raleigh Critical Public Safety Facility (CPSF) Space Program Review

Revisions that were made to the space program during the following review meetings are incorporated into the attached CPSF Draft Space Program.

## IT Data Center Program

1. The IT office square footages will be fine tuned as the space concept develops to account for seating and small conference tables.
2. The Systems Manager and Network Manager positions may be reduced to 120 SF.
3. Systems Manager will have 1 position now and 1 future Data Base Manager, for total of 2 Systems/Data Base managers.
4. There may be a shared receiving area where boxes will be unpacked. IT will have a separate storage and setup/testing areas that equipment can be setup and tested before it goes into the Data Center.
5. Data Center:
  - Traffic Control Center needs to be adjacent to the Data Center.
  - AV racks should be increased to 4
  - All IT equipment will be rack mounted.
  - Cable management will be overhead.
  - The 35 future racks will be left at that number for now, as well as the 20 racks for change out racks.
6. Need to confirm numbers of racks for the 800 MHz system. These will be located in the remote RF Equipment Building.

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**Facilities and Operations Program**

1. The City suggested that for the Lobby area, the Workroom/Conference room space should be incorporated into the Press room. Press room should be adjacent to Lobby.
2. May need to have another staff position for 1 person that will handle the receiving.
3. Some workstations need to be 96 SF instead of 64 SF and adjacent to each other for staff to collaborate.
4. Need Custodial closet space for storage of mops and cleaning equipment on each floor. May need to be bigger than 40 SF as will store custodial cleaning products and paper products. Custodial products will be contracted out.
5. Will need space to house roll can trash containers on each floor.
6. The washer and dryer area needs to have its own keyed entry. Receiving area appears small. The size may be OK if there is a remote delivery.
7. A recycling space needs to be located on each floor.
8. Need storage space for recycled card board as well as roll trash cans.
9. Need full size locker space for 8 people in the Facilities and Operations area.
10. Remote delivery facility should have the following areas:
  - Receiving - needs to be bigger than 200 SF
  - Mail drop
  - Storage – (IT /ECC) 800 SF of temporary storage in remote facility
  - Elevated loading dock with pallet jack
11. The building needs to have a private lactation room for anyone that works in the building to use.

**Traffic Control Center Program Comments**

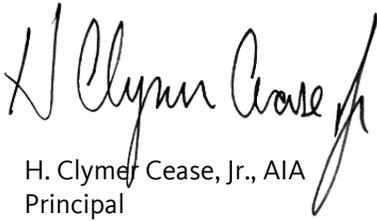
1. Plan table and storage may be segregated off of open office space.
2. TCC can share the EOC plotter.
3. Building Staff Support areas are for use by all located in the building.

**Northeast District Police Facilities Program**

1. The Community lobby will have male and female restrooms.
2. Lobby space will be open between 8:00 a.m. – 5:00 p.m.
3. Lieutenants and Sergeants double up with 2 staff per office
4. Community Policing Storage Room should be larger – about 200 SF.
5. Community Policing Patrol Sergeants will share offices – 2 per office.
6. Will not need refrigerated evidence stored at this facility.
7. Need storage for Segways, tools, oils, chemicals– 400 to 600 SF.
8. Need space designated for decontamination near secure entrance.
9. Need 10 x 12 IT closets or rooms (IDF) for every 10,000 SF. This facility will need 2.
10. This facility will need 100% emergency generator capacity.
11. For campus wide generator, a 150 SF Electrical room would not be big enough for the switch gear.
12. Parking including shift overlap should be larger. May have special vehicles parking also. Shore power station for police vehicles is estimated at six. May need parking for about 100 police vehicles.
13. Parking for Fire and Mobile command trucks is estimated at 4. ECC and EOC mobile command trucks is estimated at 6 each.

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Submitted by:  
PBC+L/AECOM

A handwritten signature in black ink, reading "H. Clymer Cease, Jr." with a stylized flourish at the end.

H. Clymer Cease, Jr., AIA  
Principal

cc:      File:

# MEETING ATTENDEES

1633-MN

City of Raleigh

PBC+L/AECOM

Critical Public Safety Facilities Project

Session: Workshop 3 – Day 2 – Threat and Security Assessment Workshop



DATE: September 11, 2012

A meeting was held on September 11, 2012 at the Raleigh Convention Center.

Attendees included the following:

Name:	Company	Email Address	Phone
David Francis	PBC+L	davidf@pbclarchitecture.com	919-836-9751
Kristian Zebrosky	AECOM	Kristian.Zebrosky@aecom.com	571-242-2315
Brian Vozdak	AECOM	Brian.Vozdak@aecom.com	757-306-6754
Belinda Redd	AECOM	Belinda.redd@aecom.com	757-366-6745
Steve Loomis	AECOM	steve.loomis@aecom.com	757-306-6730
Terry Dodge	AECOM	terry.dodge@aecom.com	757-306-6720
Sean Gleason	AECOM	sean.gleason@aecom.com	919-854-6213
Bill Jenkins	AECOM	bill.jenkins@aecom.com	919-854-6228
Mark Hannah	AECOM	mark.hannah@aecom.com	571-242-2315
William R. Jackson	City of Raleigh	billy.jackson@raleighnc.gov	919-996-2984
Doug Pearce	City of Raleigh	doug.pearce@raleighnc.gov	919-996-3420
Brian M Harrison	Raleigh PD	brian.harrison@raleighnc.gov	919-291-2721
Jeff DeHaan	Raleigh PD	jeffrey.dehaan@raleighnc.gov	919-996-1464
Dee Dee Smith	Raleigh PD	deedee.smith@raleighnc.gov	919-996-3719
Richard Kelly	COR/ CM	Richard.Kelly@raleighnc.gov	919-996-5576
Derrick Remer	COR/ EM	Derrick.Remer@raleighnc.gov	919-996-4657
Walt Fuller	RWECC	Walt.Fuller@raleighnc.gov	919-996-5012
Craig Schulz	RWECC	Craig.Schulz@raleighnc.gov	919-996-5013
Avi Braverman	BMcD	avib@netragroup.com	818-602-4560
Brandon Kehl	BMcD	bkehl@burnsmcd.com	816-560-3777
R.J. Hope	BMcD	rjhope@burnsmcd.com	816-349-6754

The following items were discussed:

## Threat and Security Assessment (Burns and McDonnell)

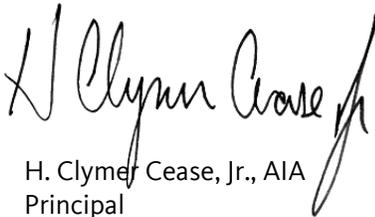
The Burns and McDonnell Memorandum for Review and Comment – September 6 and September 7 Workshop for Level of Protection are attached to these meeting notes.

1. Key Missions:
  - a. Maintain Public Confidence
    - Maintain Data reliability and security
    - Response to public needs
    - Appropriate to Raleigh cultural environment
  - b. Ensure Public Health
    - Protect human life
    - Communications
    - Incident response and public safety

- c. Facilitate Incident Response and Planning
  - Planning for planned/unplanned events
  - Management of emergencies/ service coordination
- d. Maintain Self Sufficiency
  - Redundancies (power, water, nutritional)
2. Facilitate incident response and planning, ensure public health, and maintain self sufficiency were rated as most important.
3. Need zero impact to loss of normal power or data. Need zero interruption of UPS for medium-high risks.
4. Consequence Table:
  - Loss of life, loss of ability to provide services, 911 service, data service, emergency response, cost to city budget.
5. Consequence of loss of ability to provide 911 service tolerance is 0 minutes.
6. Highest sustained winds were recorded at 55 mph.
7. Highest daily rain is 5-6 inches.
8. Tornado and ice are highest risk probabilities.
9. Progress energy may be providing 2 separate feeds.
10. AECOM stated lightning is always a probability. The CPSF will likely be the tallest building in the area.
11. Accidental threats should be considered.
12. AECOM stated that the space naming terminology presented in the Burns and McDonnell tables and Weighted Rank table for interior security should match the AECOM space program names. There is no ECC Comm Control Room or ECC NOC in the space program.
13. AECOM stated that it will need to get the design wind categories for tornados and hurricanes prior to its draft report in order document design criteria and factor into the cost estimate.

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Submitted by:  
PBC+L/AECOM



H. Clymer Cease, Jr., AIA  
Principal  
cc: File:



September 9, 2012

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Jay Lund  
City of Raleigh  
Public Works Department, Construction Management  
Division One Exchange Plaza  
219 Fayetteville Street  
Suite 801  
Raleigh NC 27601

**Re: Memorandum for Review and Comment – September 6 and September 7 Workshop**

Jay Lund:

Enclosed in this Memorandum for Review and Comment are the following documents:

- Identified key missions and pairwise comparison of missions
  - Mission – Maintain Public Confidence
  - Mission – Ensure the Public Health
  - Mission – Facilitate Incident Response and Planning
  - Mission – Maintain Self-Sufficiency
- (4) worksheets of pairwise comparison of identified critical assets to key missions
- Consolidated criticality matrix with tier recommendations
- Level of Protection (LOP) slides
- Sample explanation of 4 tiered security methodology

During the workshop, discussions were held to identify the LOP the city would like to utilize. The alternative of a 4 tiered security methodology was presented and agreed to in concept by those in attendance. The LOP will be revisited once again when the Threat and Risk Assessment is completed and preliminary designs documents are provided to determine the ability/necessity to meet these requirements based on site constraints, assessment findings, and etc.

Additionally, the generator and fuel storage have been removed from the critical asset comparison matrixes. While these assets are critical, they are not part of the internal parts of the overall facility and will be treated specifically due to these circumstances.



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September 6 – 7 Proposed Workshop Agenda

September 9, 2012  
Page 2

Sincerely,

A handwritten signature in black ink, appearing to read "RJ Hope". The signature is written in a cursive style with a large, looping "R" and "H".

RJ Hope, CPP  
Project Manager

## Key Outcomes (Macro Level Missions of the Facility)

### A Maintain Public Confidence

- Maintaining Data Reliability & Security
- Response to public needs (traffic flow, snow removal, etc.)
- Appropriate to the Raleigh cultural environment (greening, efficiency, appearance, etc.)

### B Ensure Public Health

- Protecting Human Life
- Communications
- Incident response and public safety

### C Facilitate Incident Response & Planning

- Planning for planned / unplanned events
- Management of emergencies / service coordination

### D Maintain Self-Sufficiency

- Redundancies (power, water, nutritional, etc.)

	Maintain Public Confidence	Ensure Public Health	Facilitate Incident Response & Planning	Maintain Self-Sufficiency	Sum
Maintain Public Confidence		1	1	1	3
Ensure Public Health	5		3	4	12
Facilitate Incident Response & Planning	5	3		4	12
Maintain Self-Sufficiency	5	2	2		9

Must Add up to 6

Reads as X axis in relation to Y axis

Importance		
5	=	Much More
4	=	More
3	=	Same
2	=	Less
1	=	Much Less



Invert Public Health

Item	DCM Center NDC	IT Server/ Data Room	ITC NDC	ECC NDC	ECC Comp Control Storage	EMT/CP Storage Area	ECC Eps Room	ECC Training	ECC Conference	ECC Room	ECC Training Center	Facilities NDC	IT Server/ Data Room	Facilities NDC	Generator/ Dry Tank	Est. Storage	List/ Mech Cont	DC Center (Includes Training)	ITC Eps Room	Plus Switching Dry	Total	Estimated KWh/Year	Weighted Cost	Max Value
DCM Center NDC	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	12	455	1000	
IT Server / Data Room	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16	182	1000	
ECC NDC	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	50	650	1000		
ECC Comp Control Storage	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	45	700	1000	
EMT/CP Storage Area	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	485	1000	
ECC Eps Room	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	815	1000	
ECC Training	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	474	1000	
ECC Comp Control Storage	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	24	252	1000	
ECC Eps Room	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	548	1000	
ECC Training	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	584	1000	
IT Server / Data Room	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	504	1000	
ECC Eps Room	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	574	1000	
ECC Training	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0	1000	
Generator / Dry Tank	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0	1000	
IT Server / Data Room	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	612	1000	
ECC Eps Room	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	756	1000	
ECC Training	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	574	1000	
Generator / Dry Tank	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	612	1000	

Importance

5 = Very High  
4 = High  
3 = Medium  
2 = Low  
1 = Minimal

Facilities Inventory, Equipment & Planning

Facility Name	Data Center	IT Server / Clear Room	ECC FOC	ECC Cont'd / Control Room	Critical Components Storage Area	ECC Ops Floor	ECC Testability	ECC Performance	ECC Shutdown Room	ECC Non-Dwnt Ctrl Center	Facilities NOC	Storage Room / Ops Floor	Incident Mgmt. Room	Perimeter / Dry Stack	Test Storage	Blat / Mech. Clpct	Data Center (Includes Telecom)	Transfer Op. Center	Overhead / Under Deck	Total	Deposite Multiplier	Weighted Risk	Min. Value
DAS Control / NOC	1	5	3	1	4	1	2	2	1	1	1	2	1	1	1	1	1	1	3	3	17	437	1000
IT Server / Control Room	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	12	182	1000
ECC NOC	3	5	5	3	3	1	2	4	1	1	3	3	3	3	3	3	3	3	39	12	468	1000	
ECC Control Room	5	5	5	5	5	3	4	4	4	4	4	4	4	4	4	4	4	4	63	12	756	1000	
Critical Component Storage Area	2	5	3	3	5	1	2	7	4	1	1	1	1	1	1	1	1	1	28	12	336	1000	
LOG Ops Floor	5	5	5	5	5	5	5	5	4	5	4	4	4	4	4	4	4	4	67	12	804	1000	
ECC Control	4	4	4	4	4	4	4	4	2	2	2	2	2	2	2	2	2	2	45	12	540	1000	
ECC Control	4	3	2	2	4	1	2	5	3	2	1	1	1	1	1	1	1	1	35	12	396	1000	
BOC Attention Room	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	63	12	756	1000	
ECC Non-Dwnt Ctrl Center	5	5	4	2	5	1	4	4	1	1	1	3	3	3	3	3	3	3	52	12	624	1600	
Facilities NOC	3	5	5	2	5	2	4	5	3	3	3	3	3	3	3	3	3	3	51	12	612	1000	
Perimeter Storage Room / Ops Floor	4	5	3	2	3	2	4	5	2	2	2	2	2	2	2	2	2	2	51	12	612	1000	
Facilities Web Server	3	5	3	1	4	3	3	4	3	3	3	3	3	3	3	3	3	3	51	12	612	1000	
Server Room / Data Field																			0	12	0	0	
Hot Storage																			0	12	0	0	
Blat / Mech. Clpct	3	5	3	2	4	3	3	4	3	3	3	3	3	3	3	3	3	3	52	12	624	1000	
Pris Center (Includes Telecom)	5	5	5	2	5	2	4	5	2	3	4	4	4	4	4	4	4	4	58	12	696	1000	
Perimeter Ops Center	5	5	4	3	5	2	4	4	2	2	3	3	3	3	3	3	3	3	58	12	696	1000	
Overhead / Under Deck	3	5	4	3	4	3	3	4	3	3	3	3	3	3	3	3	3	3	53	12	636	1000	

Importance	1	2	3	4	5
High Value	1	2	3	4	5
Low Value	5	4	3	2	1
Other	1	2	3	4	5
Multi-Use	1	2	3	4	5

Vertical S&C Sufficiency

Item	DLR Center EOC	IT Service / Description	EC, NOC	SOC Comm Control Support	Output Component Support	EC Op Dpr	EC Training	ICC Coexistence	SOC Situation Support	ZBC Non-Emerg Call Center	Facilities NOC	Request Area / Sp. Equip	Function Mch. Rights	Generator / Dpr. UPS	Power Monitor	Elect / Mech. Controls	Data Center Facilities (Inlets / UPS)	Facilities Op. Control	Data Switching / Admin. Controls	Total	Component Multiplier	Weighted Total	Max Value
DLR Center NOC	1		2	1	1	3	4	4	7	4	5	4	3				2	3	3	45	3	495	810
IT Serv / Clean Room	7		2	3	3	3	7	4	7	7	2	2	7				2	7	7	55	6	330	510
EC NOC	3			3	3	3	7	5	7	7	7	7	7				2	7	7	63	9	567	810
EC Comm Control Room	5		3	7	7	7	7	5	8	4	1	3	3				7	7	7	47	9	423	810
Control Component Support Area	5		1	5	5	5	8	5	4	4	3	7	3				2	3	7	35	9	315	810
EC Op Room	3		2	3	3	3	3	5	4	4	3	7	7				2	3	7	47	9	423	810
EC Training	3		2	3	3	3	3	5	3	3	2	7	7				2	3	7	42	9	378	810
EC Coexistence	2		1	1	1	1	1	1	1	1	1	1	1				1	1	1	18	9	162	810
LOC Situation Room	2		4	2	2	2	3	5	3	3	7	7	7				2	3	7	44	9	396	810
60K Non-Emerg Call Center	2		4	2	2	2	3	5	3	3	7	7	7				2	3	7	45	9	405	810
Facilities NOC	1		4	4	4	4	4	5	4	4	3	3	3				4	4	3	60	9	540	810
Facilities Situation Room / Ops Room	3		4	4	4	4	4	5	4	4	3	3	3				4	4	7	56	9	504	810
Facilities Mech Room	3		2	4	4	4	4	5	4	4	3	3	3				4	4	5	50	9	450	810
Generator / Day Tank																				0	9	0	810
Fuel Storage																				0	9	0	810
Elect / Mech Control	1		4	4	4	4	4	5	4	4	3	3	3				3	3	7	58	9	522	810
Data Center (Includes Telecom)	4		4	4	4	4	4	5	4	4	7	7	7				3	3	7	55	9	495	810
Telecom Ops Center	3		3	3	3	3	3	5	3	3	2	7	7				3	3	7	49	9	441	810
Data Switching / Telecom Control	1		4	4	4	4	4	5	4	4	3	3	3				3	3	7	58	9	522	810

Impedance	Max. Value
3	810
4	810
5	810
6	810
7	810
8	810
9	810

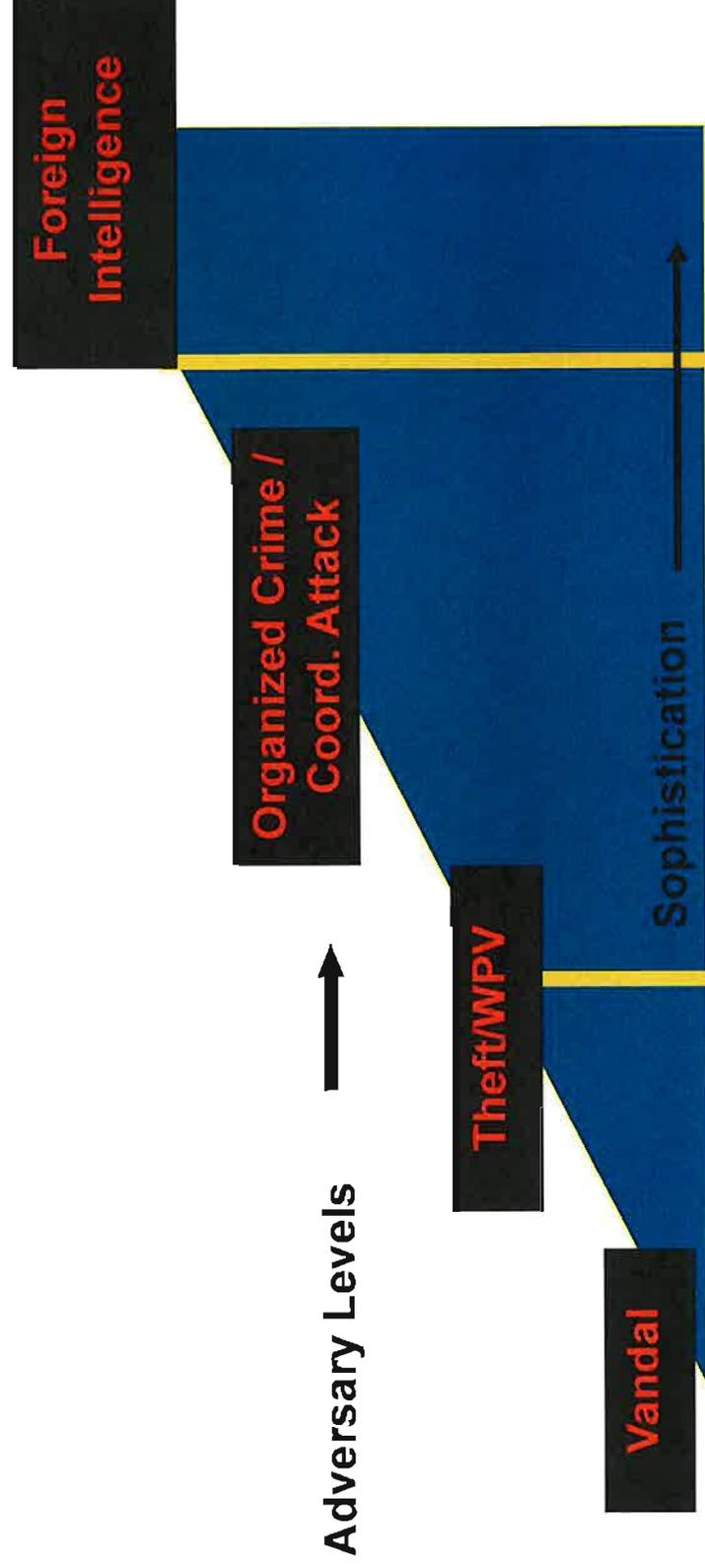
# Weighted Rank

	Maintain Public Confidence	Ensure Public Health	Facilitate Incident Response & Planning	Maintain Self-Sufficiency	Total Weighted Rank	Consequence Factor
ECC Ops Floor	198	816	804	423	2241	0.692
Data Center (Includes Telcoms)	201	756	696	495	2148	0.663
ECC Comm Control Room	186	780	756	423	2145	0.662
Facilities NOC	168	684	624	540	2016	0.622
Facilities Mech Rooms	168	624	624	540	1956	0.604
EOC Situation Room	150	648	756	396	1950	0.602
Data Switching / Telcom Closets	171	612	636	522	1941	0.599
Elect / Mech Closets	168	624	624	522	1938	0.598
Traffic Ops Center	132	684	672	441	1929	0.595
Facilities Situation Room / Ops Floor	132	504	612	504	1752	0.541
EOC Non-Emerg Call Center	147	588	624	369	1728	0.533
ECC NOC	177	600	468	369	1614	0.498
ECC Training	84	492	540	423	1539	0.475
Data Center NOC	171	456	432	405	1464	0.452
Critical Component Storage Area	87	480	336	495	1398	0.431
ECC Conference	60	252	396	162	870	0.269
IT Setup / Clean Room	48	192	192	315	747	0.231
Generator / Day Tanks	0	0	0	0	0	0.000
Fuel Storage	0	0	0	0	0	0.000

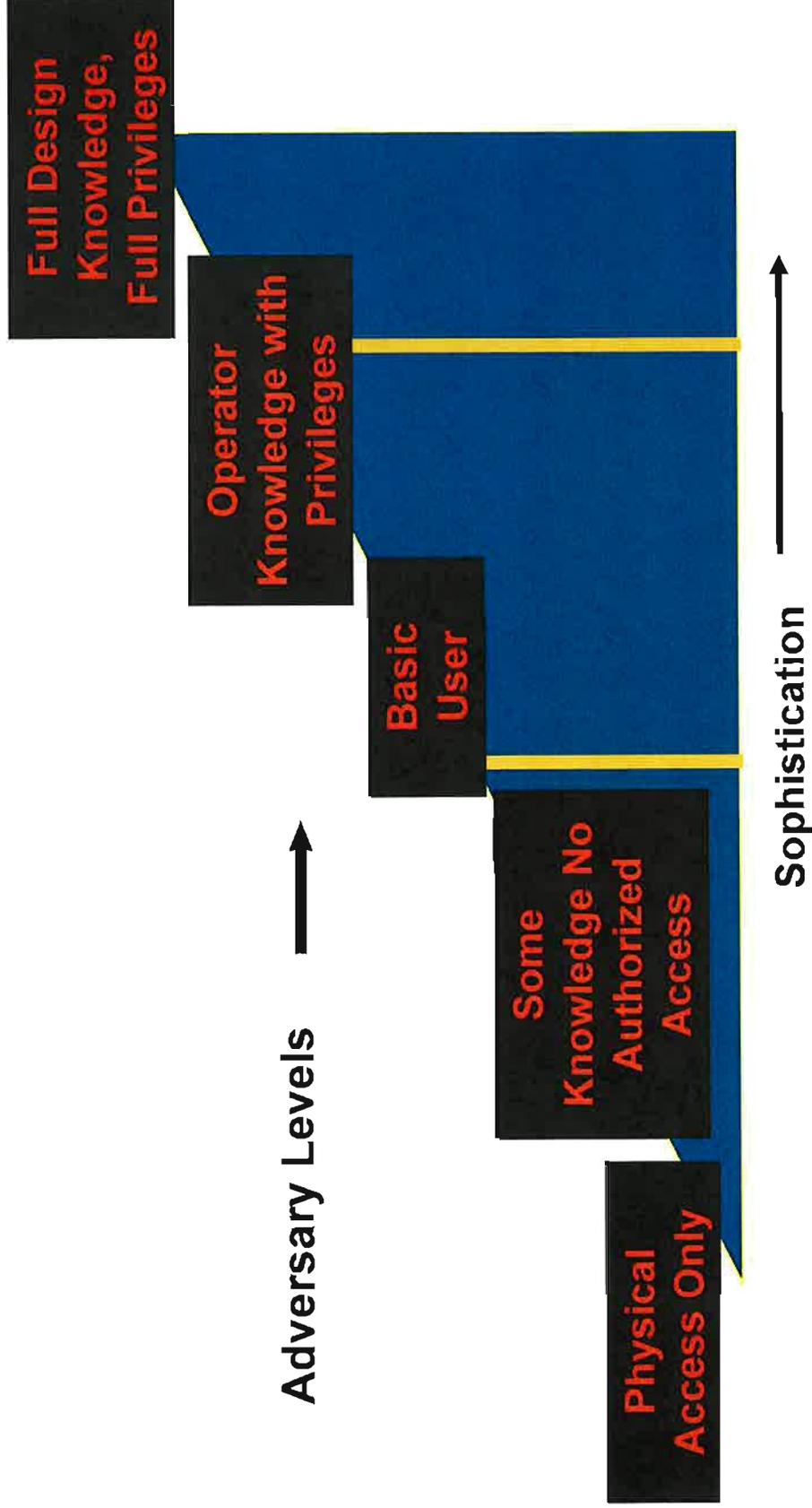
Level 4 Security
Level 3 Security
Level 2 Security

Note: Level 1 security would constitute the "Owner Controlled" area where persons on site are subject to surveillance and passive screening by on site security.

# LOP – Outsider Adversary Levels



# LOP – Insider Levels





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September 9, 2012

Jay Lund  
City of Raleigh  
Public Works Department, Construction Management  
Division One Exchange Plaza  
219 Fayetteville Street  
Suite 801  
Raleigh NC 27601

Re: **4 Tiered Security Methodology**

Jay Lund:

4 tiered security methodology is based on the concentric rings of security; where security increases (physical and procedural) as you proceed to the innermost ring, and the most critical asset(s). Enforced and maintained security policies and procedures, such as visitor and contractor escort policies, will consist of a large segment of the overall 4 tier security program. The utilization of a tiered approach enables facility leadership to escalate and deescalate security posture based on specific, credible threat information or as operational tempo dictates.

For clarification and discussion, listed below are sample measures of a 4 tiered approach for discussion.

- Tier 1** This is an "Owner Controlled" area past the main entry gate where persons on site are subject to surveillance and site security has conducted preliminary screening such as ID checks and/or appointment verification either in person or over video-type phones.
- Tier 2** This tier consists of the area past the guest entry vestibule. Persons are subject to belongings and personal items searching/screening prior to entry. These can be visual inspections and may include the use of a magnetometer. Visitors and un-cleared contractors are provided color coded badges and escorts for their duration onsite. Cleared contractors are allowed to work unescorted.
- Tier 3** This is the portion beyond the Tier 2 area of the facility whereby access is obtained only by badge reader credentials. Visitors are not allowed without leadership provided, preapproved access and escorts and cleared contractors are allowed to work unescorted.
- Tier 4** The most critical area of the facility. Access to this area is gained by two factor authentication such as a badge reader and a personal 4 digit PIN. Visitors are not allowed without leadership provided, preapproved access and both approved visitors and cleared contractors are escorted.



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September 6 – 7 Proposed Workshop Agenda

September 9, 2012  
Page 2

Sincerely,

A handwritten signature in black ink, which appears to read "RJ Hope". The signature is written in a cursive style with a large, prominent "R" and "H".

RJ Hope, CPP  
Project Manager

# MEETING ATTENDEES

1633-MN

**City of Raleigh**  
**Critical Public Safety Facilities Project**  
**Session: Workshop 4 – Site Planning Workshop**

PBC+L/AECOM



DATE: September 12, 2012

A meeting was held on September 12, 2012 at the Convention Center.

Attendees included the following:

Name:	Company	Email Address	Phone
Shann Rushing	PBC+L	ShannR@pbclarchitecture.com	919-836-9751
David Francis	PBC+L	davidf@pbclarchitecture.com	919-836-9751
Jeffrey Lee	PBC+L	jeffreyl@pbclarchitecture.com	919-836-9751
Brian Super	AECOM	Brian.Super@aecom.com	757-306-6749
Belinda Redd	AECOM	Belinda.redd@aecom.com	757-366-6745
Roula Qubain	AECOM	roula.qubain@aecom.com	919-854-7515
Mark Hannah	AECOM	Mark.Hannah@aecom.com	571-242-2315
Steve Loomis	AECOM	Steve.Loomis@aecom.com	757-306-6730
Sean Gleason	AECOM	sean.gleason@aecom.com	919-854-6213
Brian O'Haver	CJS	bohaver@colejeneststone.com	919-645-5961
Jay Lund	City of Raleigh	jay.lund@raleighnc.gov	919-996-5587
Cassandra Hicks	CoR / IT	cassandra.hicks@raleighnc.gov	919-996-5513
Trevor Pressley	CoR / IT	trevor.pressley@raleighnc.gov	919-996-5500
Jed Niffenegger	CoR / PW	jed.niffenegger@raleighnc.gov	919-996-4039
Mike Kennon	CoR / PW	mike.kennon@raleighnc.gov	919-996-3030
Derrick Remer	CoR / EM	derrick.remer@raleighnc.gov	919-996-4657
William R Jackson	CoR / Fac Ops	billy.jackson@raleighnc.gov	919-996-3420
Doug Pearce	City of Raleigh	doug.pearce@raleighnc.gov	919-996-3420
Tim Henshaw	Raleigh FD	timothy.henshaw@raleighnc.gov	919-996-5973
Jeff DeHaan	Raleigh PD	jeffrey.dehaan@raleighnc.gov	919-996-1464
Brian Harrison	Raleigh PD	brian.harrison@raleighnc.gov	919-291-2721
Dee Dee Smith	Raleigh PD	deedee.smith@raleighnc.gov	919-996-3719
Kim Swanson	Raleigh PD	kimberly.swanson@raleighnc.gov	919-996-1233
Craig Schulz	RWECC	craig.schulz@raleighnc.gov	919-996-5013
Walt Fuller	RWECC	Walt.Fuller@raleighnc.gov	919-996-5012
Avi Braverman	BMcD	avib@netiragroup.com	818-602-4250
R.J. Hope	BMcD	rjhope@burnsmcd.com	913-638-9349
Brandon Kehl	BMcD	bkehl@burnsmcd.com	816-560-3777

The following items were discussed:

## Raleigh CPSF Site Analysis

The power point presentation is attached to this conference summary for reference.

## Site Analysis

September 12, 2012

1. The site zoning is industrial 2. The site is on the border of conditional use zoning.
2. The main access to the site is off Westinghouse Boulevard. An existing right-in and right-out access is shown on the property plat onto Raleigh Boulevard. Access may be achievable on the south end of the property along Brentwood Road if the grade change can be incorporated.
3. The inner beltline access is from the Capital Boulevard exit and/or Yonkers Road exit to Raleigh Boulevard.
4. The height restriction is 50 feet. The ordinance states that you must add one foot of setback to every foot you exceed 50 feet height.
5. The communication tower must also meet zoning restrictions. A tower of 300 feet high would require a variance. Do not know height of tower yet.
6. This site used to be completely wooded. The site was cleared and prepared for development. The site is about 15 feet higher than Raleigh Boulevard. There is an access road for shared use with the private property, Lot 5, that is on City Property and is permitted for private property use. This access is identified for cross access until lot 4 (project lot) is built upon.
7. There is a curb cut off of Westinghouse Boulevard. The site is also permitted for right-in and right-out access along Raleigh Boulevard.
8. The highest point of site is at the northwest corner of the site. Slopes vary between 1% and 3 % across property with the exception of the north east perimeter which has fill slopes as steep as 3:1 and retaining walls. The site is believed to have 13 feet of fill material which is believed to be uncontrolled fill.
9. Site Utilities: Have 3 storm drainage structures on the site. Most of this pipe system could be relocated. The site has plenty of fall. There is a 12" DIP waterline along Raleigh Boulevard, as well as one along Brentwood Road. There also appears to be water main along Westinghouse Boulevard. As the project progresses, it will be necessary to collect pressure and flow data from nearby fire hydrants. The project will need a looped water system in case one of the water lines is out of service. There is a sanitary sewer manhole that discharges toward Westinghouse; however this location is near the high point of the site. There is also a sanitary sewer manhole at the north east corner of Raleigh Boulevard and Brentwood Road with elevations low enough to serve the site. There are FOC boxes for fiber identified at several locations. There are also cable boxes around site. City fiber runs along Capital Boulevard. The City is planning to bring fiber to this campus and create one loop for this City campus. Need to insure 2 separate fiber entrances into the building. This fiber infrastructure is in the pre-planning stage.
10. There have been discussions about bringing in power from separate substations. Need to look at if the substations are overhead or underground. City will put PBCL/AECOM in contact with Progress Energy. The project will also need 2 COs. City will pass that contact information on to PBCL/AECOM soon.
11. There was a discussion of City reuse water being available to this site.
12. There is a 3:1 slope from retaining wall to roadway.
13. Recommend that several test borings be performed once the building is situated to provide best construction cost information to the City.
14. The Tower will need to house the 800 Mhz system as well as UHF and other frequencies. Studies will need to be done to determine final height based on what tower will house as well as relationship to other sites.
15. Downtown Remote Operations Site: Phase I will house the Vehicle Service Department, Vehicle Fleet Department, Radio Service Department, Street Maintenance. The Remote Operations site will also have a fuel farm and traffic engineering facility onsite. Remote Operations will have storage capacity of 90,000 gallons of liquid fuel.
16. Phase II of the Remote Operations project will be a parks and recreation development.
17. Fiber optic service will come down Westinghouse to serve the Remote Operations site.

18. There will be a building chiller plant to serve the Remote Operations site. The Traffic Engineering facility at the Operations site will have its own mechanical system. The Remote Operations project is not utilizing geothermal due to groundwater contamination.
19. The Remote Operations site was a previous dumping ground for a developer. Are now looking at repairing the site. The developer of the Remote Operations site was the same developer as this site.
20. Storm water control for the CPSF site will likely utilize underground storage and some landscaping features for quantity control. For storm water quality control, will need to utilize bio retention and filters to get to nitrogen and phosphorous levels to the point where the project can buy down the rest.
21. There was discussion of grey water use for toilets for this site. Water would still have to be treated additionally after reductions are achieved for water quality.
22. Natural gas does not appear to exist at this site. It is probable that the gas company would bring in infrastructure to the site.
23. There is a draft analysis of traffic at Raleigh Blvd and Westinghouse Boulevard. By the time this project comes on line there will need to be a traffic signal. Could build a traffic study for this site onto the traffic study for Ops site.
24. Threat and Risk: DOD (anti terrorism and force protection) standard typically uses 25 meter security setback for buildable area for mission critical facilities. Parking and police facility may not have to comply with this.
25. Threat and Risk:
  - DOD standard
  - Secure parking
  - Dumpsters outside security zone
  - Mission Critical equipment inside security zone
  - Remote delivery
  - Security Fence
  - Passive vehicle barriers
26. Shared Opportunities external:
  - Remote parking
  - Activation parking
  - Communications tower
27. The Remote Operations project is strained on parking as well. Their site is already packed. No opportunity for parking or a tower here. Parking for activation would be problematic. Operations also goes to 12 hour shifts during activation periods with overlap in shifts.
28. Other areas that could be used for parking: Iceplex or adjacent commercial property.
29. Shared Opportunities Internal:
  - Energy Plant
  - Secure parking
  - Onsite public parking visitors and community room
  - Structured parking
30. The calculated number for reuse demand is 32,000 gallons per day including irrigation, toilet and HVAC.
31. Reviewed parking program numbers with the stakeholders.
32. Community parking could be reduced. Police representatives will revisit with their agency. Also this function would not be available during activation. Staggering shifts during activation could also bring parking numbers down.
33. Sustainable opportunities:
  - Stormwater management
  - Reclaimed Water
  - Native species

- Green space
  - Green roof
  - Heat Island effect
  - Parking
  - Bus routes
  - Building orientation
34. Project is already registered for LEED.
35. Two separate fiber systems must come to this site. One for traffic and one for IT. Fiber will come from Capital Blvd down Westinghouse Boulevard. Additional fiber routing information will be needed from the City. Need redundancy in loops.
36. Site program elements – things that go onsite
- CPSF
  - NE Police
  - Parking surface and structured
  - Service access/ Secondary site access
  - Tower and Shelter (ice fall zone)
  - Remote delivery with loading dock
  - Secure Service Yard (generators, cooling towers, etc.)
  - Fuel Storage – Facilities prefer underground for protection
  - Dumpster
  - Public Art
  - Secure Outdoor Break area
37. Site strategies
- May need an access lane for cuing if accessing the site off of Raleigh Blvd.
  - It makes sense for the CPSF to go on the eastern side of the site due to the main access points and keeping the CPSF secure.
  - Surface lot parking is a significant challenge.
  - Structured parking options should be looked at.
38. Next steps
- Priorities are: determine CPSF requirements (City EOC , ECC, Data Center and TCC); determine CPSF parking surface or structured; determine associated infrastructure tower, etc; then add in Wake County EOC and add in NE district station.
  - These could be phased, but construction on the CPSF site is a security risk.
  - Cannot build for complete future. Need to plan strategically to phase.
  - Need to contact Motorola on propagation study for 800 Mhz.
  - Need additional City information by Sept 25<sup>th</sup> to incorporate for the next workshop on October 1.
39. The City's goal is to determine premiums that this is site is creating.

*The above represents the author's understanding of the content of discussion held during the meeting. Any corrections or additions are to be forwarded to PBC+L within seven (7) days of receipt. If no written objections are received within this period the above will become the official record of decisions made in this meeting.*

Submitted by:  
PBC+L/AECOM



H. Clymer Cease, Jr., AIA  
Principal

cc: File

# CITY OF RALEIGH CRITICAL PUBLIC SAFETY FACILITY

12 September 2012



City of Raleigh

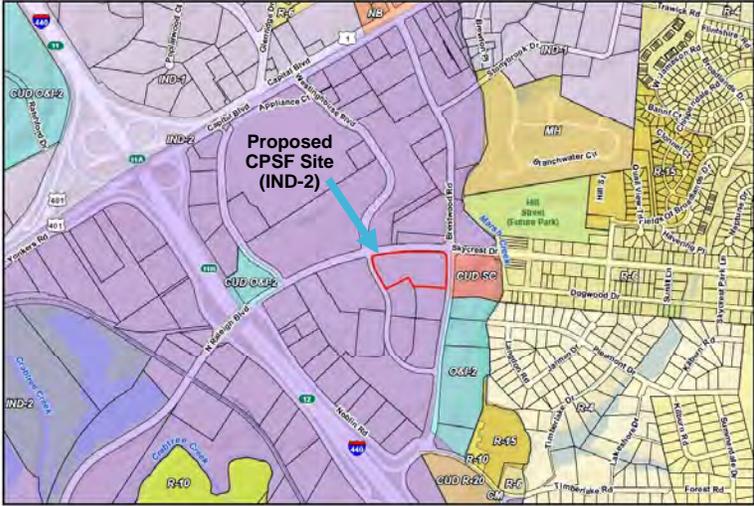
Pearce Brinkley Cease + Lee | AECOM

## Existing Site

# Overall Vicinity Map



# Zoning Map



# Remote Operations Master Plan

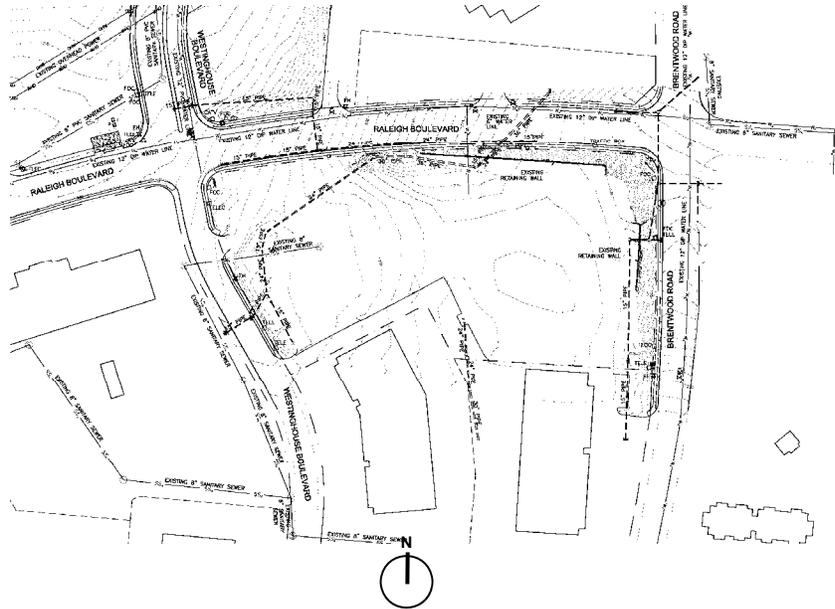


# Aerial View





# Existing Utilities





# Threat and Risk

## Threat and Risk



## **Threat and Risk**

- **DOD Standard**
- **Secure Parking**
- **Dumpsters outside security zone**
- **Equipment inside security zone**
- **Remote Delivery**
- **Security Fence?**
- **Passive Vehicle Barriers?**

## **Shared Opportunities**

## **Shared – External**

- **Remote parking**
- **Activation parking**
- **Communications tower**

## **Shared – Internal**

- **Energy Plant**
- **Secure Parking**
- **On Site Public Parking**
- **Structured Parking**

# **Sustainable Opportunities**

## **Sustainable / LEED**

- **Storm water management**
- **Reclaimed water (onsite/CoR)**
- **PV / Solar hot water**
- **Geothermal**
- **Native species**
- **Green space**
- **Green roof**
- **Heat island effect**
- **Parking (van, electric vehicles)**
- **Bus routes**
- **Building orientation**

## **Programmatic Elements**

## Site Program Elements

- **Public Safety Operations Center (CPSF)**
- **NE District Police Station**
- **Parking (surface / structured)**
- **Service Access / Secondary Site Egress**
- **Tower & Equipment Shelter (ice fall zone)**
- **Remote Delivery w/ Loading Dock**
- **Service Yard (generators, cooling towers, etc)**
- **Fuel Storage**
- **Dumpster area**
- **Public Art**
- **Secure Outdoor Break Area**

## Site Strategies

# Site Analysis



# Site Analysis – Security Setback



### Site Analysis – Site Features



### Site Analysis – Major Vehicular Access



### Site Analysis – Secondary Vehicular Access



### Site Analysis – Functional Siting



### Option 1



### Option 2



### Option 3



### Option 4



### Option 5



### Option 6

