FINAL
ENVIRONMENTAL ASSESSMENT

for the

New Base Fire Station
at
Charleston Air Force Base, South Carolina

Contract: FA4418-04-D-0002
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Prepared For

Charleston Air Force Base
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Pursuant to the Council on Environmental Quality regulations for implementing the procedural provisions of the National Environmental Policy Act (NEPA) and 32 Code of Federal Regulations (CFR) 989, *Environmental Impact Analysis Process (EIAP)*, Charleston Air Force Base (CAFB) has prepared an Environmental Assessment (EA) for this action. The purpose of the EA is to determine the extent of environmental impacts that may result from construction of the new base fire station and to evaluate whether these impacts, if any, will be significant.

DESCRIPTION OF PROPOSED ACTION

The United States Air Force (USAF) proposes to construct a New Base Fire Station to replace the existing fire station. The new facility will include living areas, parking for existing and new fire engines, special support areas for the training of the firefighters, individual sleeping quarters and additional storage facilities for sensitive equipment. The construction of the facility is to be a combination of 1- and 2-story, with brick/stucco exterior finish and standing seam sloped metal roof. The project also includes structural seismic measures, fire detection/alarm systems, communications support for voice and data systems, fire suppression sprinkler systems, pavements with curbs and gutters, sidewalks, and fencing.

The existing fire station is over 30 years old and contains less than two-thirds of the space needed for the facility to conform to current firehouse standards and meet minimum mission requirements. The location of personnel lockers in the vehicle bay area due to the space deficiencies results in non-conformance with the National Fire Protection Association (NFPA) 1500 Safety and Health Program, as the clothes, bedding, hygiene, and personal items contained in the lockers are exposed to diesel exhaust fumes. An acute lack of station storage areas requires that two fire truck bays be utilized for storing over $500,000 of essential emergency WMD (Weapons of Mass Destruction)/Hazmat related equipment.

The rest quarters are not in compliance with current standards of space, livability or security, and are improperly configured to support the collocation of male and female firefighters. Their location in the building is in violation of NFPA 1500 Safety and Health Program (Para. 9.1.6) because of their proximity and associated exposure to carcinogens associated with diesel-engine exhaust fumes.

Two options for improvements were considered in this EA. The Preferred Action is to demolish the existing fire station and rebuild as described above. Alternative 1 is to leave the existing fire station essentially as is and to construct a satellite facility at another location accessible to the flightline to supplement the base's firefighting capability. Alternative 1 is not the preferred action because it creates communication, coordination and logistical difficulties and does not address the environmental-health and structural deficiencies of the existing fire station.

Under the No-Action alternative, the spatial shortage and building maintenance issue will not be resolved. Current deficiencies will likely worsen and continue to be an expenditure of repair/maintenance funds to maintain an inadequate and undersized building. The existing facility is not in conformance with current USAF or environmental regulatory agency standards, and does not provide an acceptable quality of life or workplace.

The Proposed Action is consistent with existing land use, resolves the issues of limited living space for personnel as well as storage requirements for special equipment, and conforms to the base's Capital Improvement Plan (CIP).

CONCLUSION

Based on the findings presented in the EA, a Finding of No Significant Impact (FONSI) to the environment is appropriate if the Proposed Action is implemented. Therefore, an Environmental Impact Statement (EIS) is not required for this project.

The project will be implemented upon approval and after public notice.

All interested agencies, groups and persons disagreeing with this decision are invited to submit written comments for consideration by the Charleston AFB Environmental Office. For questions regarding the EA, contact 437 CES/CEVP Environmental Office at Charleston AFB, South Carolina, (843) 963-4976.

SIGNED:

Steven B. Harrison

DATE: 12 Aug 05

STEVEN B. HARRISON, Colonel, USAF
Vice Commander, 437th Airlift Wing
Environmental Protection Committee Chairperson

ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION OF A NEW BASE FIRE STATION AT CHARLESTON AIR FORCE BASE

ISSUE TRACKING MATRIX

Issues	Proposed Action	Alternative 1	No-Action
Wetlands	N/A	N/A	N/A
Wildlife	N/A	N/A	N/A
Plant Life	N/A	N/A	N/A
Cost	$8.8 Million*	Unknown	$**
Purpose/Need	Compatible	Incompatible	Incompatible

N/A = Not Applicable
* - Cost of the Proposed Action provided by the 437 CES– DD Form 1391
** - Cost to continue to maintain the existing facility.

1.0 PURPOSE AND NEED FOR PROPOSED ACTION

1.1 Purpose and Need

The Proposed Action is required to remedy a spatial shortage, as there is currently not enough space to meet the needs of the fire fighters and staff. As a result, fire fighters are forced to live and work in a facility that does not meet current US Air Force, OSHA and Charleston AFB safety, health and spatial requirements.

The base fire station is over 30 years old and contains less than two-thirds of the space needed for the facility to conform to current standards and meet minimum mission requirements. One consequence of this lack of space is that areas originally constructed as closets have been converted to storage for vital Self-Contained Breathing Apparatus and an office for the Assistant Fire Chief. The location of personnel lockers in the vehicle bay area due to the space deficiencies potentially exposes personnel to carcinogens associated with diesel-engine exhaust fumes. These exposures are violations of NFPA 1500 (Para. 9.1.6) that, in turn, advocates compliance with Occupational Safety & Health Administration (OSHA) regulations on air contaminants (29 CFR 1900.1000). The flat roof on the facility is a continuing maintenance problem, and the gutters/downspouts are deteriorated, missing, or non-functional. The quarters are not in compliance with current standards of space, livability or security, and are improperly configured to support the collocation of male and female firefighters.

The proposed project will include the following:

- Storage facilities for gear;
- Alarm communication center;
- Training facilities;
- Individual living quarters;
- Enlarged bays with pull-through access for fire trucks;
- Landscaping;
- Kitchen and dining facilities;
- Laundry room;
- Lounge/multipurpose areas;
- Parking, curbs and sidewalks;
- Storage facilities;
- Utilities.

1.2 Decision Needed

Based on the analysis documented in this report, the Chairman of the Environmental Protection Committee will make the following decisions:

- Does the existing fire station meet the needs of Charleston Air Force Base?
- Should a smaller facility be constructed to augment the existing fire station?
- Should the existing fire station be demolished and a New Base Fire Station constructed?

1.3 Scoping Summary

The scope of this Environmental Assessment (EA) includes demolition of the existing single-story fire station and construction of a new, combination one- and two-story fire station facility and supporting infrastructure. This EA also evaluates the potential environmental impact of demolishing the existing building and constructing the new fire station.

The proposed New Base Fire Station is to replace the existing facility, Building 168, at the same location. The site is located between the intersection of Bates Street and McCaw Street and the Flight Line Apron. An alternative might be to leave the existing facility and construct a satellite fire station elsewhere accessible to the flight line to provide the additional space and infrastructure needed. Please see Appendix C for the location of the existing (and proposed new) fire station.

1.4 Applicable Regulatory Requirements

Stormwater Management

As detailed in the South Carolina Department of Health and Environmental Control (SCDHEC) Stormwater Management and Sediment Reduction Handbook, specific requirements of the permit application and approval process are based on the amount of actual land disturbance and, if the activity is in the Coastal Zone, the project's proximity to a receiving water body. The permit application procedure is as follows:

- For activities involving less than one (1) acre of actual land disturbance and which are not part of a larger common plan of development or sale, the person responsible for the activity shall submit a simplified stormwater management and sediment control plan meeting the requirements of R.72-307H. and the appropriate reporting form. This plan does not require approval by the Department of Health and Environmental Control and does not require preparation or certification by a registered engineer, landscape architect, or Tier B land surveyor. The DHEC staff does have the authority to conduct site inspections on these projects to insure compliance with the submitted plans.

- For activities involving at least one (1) acre (and less than one (1) acre in certain cases) but two (2) acres or less of actual land disturbance and which are not part of a larger common plan of development or sale, the person responsible for the activity shall submit a simplified stormwater management and sediment control plan meeting the requirements of R.72-307H and the appropriate reporting form. The applicant is also responsible for meeting the requirements of the NPDES General Permit SCR100000. This plan does not normally require approval by the Department of Health and Environmental Control but does need to be prepared by a qualified

individual. The Department has the right to require additional information on a case-by-case basis.

- For activities involving two (2) acres or less of actual land disturbance which are within one-half (1/2) mile of a receiving water body in the Coastal Zone. The Coastal Zone Management Program Refinements state that "stormwater management and sediment reduction plan submittal and regulatory approval shall be required for those smaller projects located within 1/2 mile of a receiving waterbody." Particular emphasis shall be placed on the following projects in this category:

  (a) All commercial buildings which will handle hazardous chemicals (including gasoline, kerosene, diesel fuel, nutrients, etc.).
  (b) All commercial buildings and parking/runway areas with greater than one (1) acre of impervious surface (building and parking).
  (c) All commercial buildings and parking/runway areas with greater than one-half (1/2) acre of impervious surface located directly adjacent to a saltwater (critical) area.
  (d) All residential subdivision developments located directly adjacent to a saltwater (critical) area.
  (e) All projects impacting Geographical Areas Of Particular Concern (GAPC's).

  These activities (a-e) must meet the requirements of R.72-307I and must have the plans and specifications prepared by a registered engineer, landscape architect or Tier B land surveyor. Other activities in this category require a permit but must only meet the submittal requirements of R.72-307H, which do not require preparation by a licensed professional. If an activity falls into this category and the actual land disturbance is greater than or equal to one (1) acre (or less than one (1) acre in certain cases), the requirements of the NPDES General Permit SCR100000 also apply as outlined above under the second bullet.

- For activities involving more than two (2) acres of actual land disturbance, which are not part of a larger common plan of development or sale, the requirements of R.72-305 and R.72-307 and the requirements of the NPDES General Permit SCR100000 apply. Plans and specifications for these activities will be prepared by professional engineers, landscape architects or Tier B land surveyors. Additional design requirements apply for certain projects in the Coastal Zone as adopted in the Coastal Zone Management Program. These requirements address design needs for activities located in close proximity to receiving water bodies, bridge projects, golf courses, mines and landfills.

Because Charleston AFB is located in a coastal county, permit applications must be submitted to the SCDHEC Office of Ocean and Coastal Resource Management (OCRM) for approval. The OCRM administers SCDHEC's stormwater/erosion control requirements in these coastal areas.

Wetlands

In consideration of the proposed site, no wetland will be affected. If any regulated activities are proposed in wetlands near the Alternative 1 location, the US Army Corps of Engineers (USACE) may require an updated wetland delineation. This conclusion was reached based on a review of the *Final Report for Natural Resources Surveys, Charleston Air Force Base, South Carolina*, October 2003.

Threatened and Endangered Species

In consideration of the two proposed sites, no threatened and/or endangered species will be affected by this project. This determination was made based on a review of the *Final Report for Natural Resources Surveys, Charleston Air Force Base, South Carolina,* October 2003; and a review of *South Carolina Rare, Threatened, and Endangered Species Inventory, Species Found in Charleston County,* dated June 9, 2003

Dust and Asbestos

For demolition of the existing site, dust and asbestos will need to be contained and disposed of using protocols and methods approved by SCDHEC, should the Proposed Action be implemented.

Lead Based Paint

For demolition of the existing building, any lead based paint will need to be contained and disposed of using protocols and methods by approved SCDHEC, should the Proposed Action be implemented.

SWMU 79

The oil/water separator previously used by the fire station is identified as Solid Waste Management Unit (SWMU) 79 in Charleston AFB's RCRA Part B permit. The oil/water separator was removed in late 2004. Soil samples were analyzed and target constituents were found to be below EPA Region 9 risk-based concentrations. Advent, in their December 2004 Report for Oil/Water Separator Removals, recommended that SWMU 79 be removed from the RCRA Part B permit as requiring further action.

Other Environmental Permits

- If the boiler is over 1.5 million BTUs, a Construction Permit will be required.
- The existing site is just over 2 acres. If more than 2 acres are disturbed during demolition/construction, a Land Disturbance Permit will be required after the Sediment and Erosion Control Plan has been submitted and approved by SCDHEC. The submittal will need to be in digital format (AutoCAD) along with a narrative describing the intended work at the site. Should a Land Disturbance Permit not be required, SCDHEC asks that a submittal be made for its permanent files.
- An Air Permit for the Gas-Fired Boiler will be required if the unit is over 1.5 million BTUs.

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 Detailed Discussion of the Proposed Action

The Proposed Action is construction of a new base fire station and infrastructure at the site of the existing base fire station. An alternate approach is to leave the existing fire station and construct a satellite facility somewhere else on base accessible to the flight line to supplement the base's fire-fighting capability. The options are referred to herein as the Preferred Action and Alternative 1. The location of the existing base fire station is shown on a map in Appendix C.

Preferred Action

The preferred action is to build the New Base Fire Station at the location of the existing fire station. It is between the intersection of Bates Street and James Avenue, and the flight line Apron. The approximately two-acre site is relatively flat and covered with impervious surfaces (concrete and asphalt). Improvements to the land include an enlarged parking area, pull-thru access for fire trucks, and green spaces. The existing fire station is currently in a state of disrepair, but will lend the replacement facility the convenience of remaining infrastructure that will not have to be replaced. Utilizing existing water, sewer and gas lines will be a major benefit of the site. Per the USAF and CAFB Fire Safety Response times, the fire station cannot be located in a remote part of the base. The single fire station serves both the main base as well as the flight line. Mandated response times of three minutes for an unannounced call and one minute for an announced call are currently being met at the existing station's location. The preferred action is the current location for the new fire station because:

- Infrastructure is already in place;
- The site size is compatible with the proposed design;
- The site location will allow for continued optimal response times;
- Conforms to the current base Capital Improvement Plan (CIP).

According to the 437 CES, the estimated cost of the Proposed Action at this site is $8.8 million. This cost includes demolition of the existing fire station.

Alternative 1

One of the deficiencies of the existing fire station is that it is about two-thirds the size needed to conform to current standards and meet minimum mission requirements. Alternative 1 is to perform minimal improvements to the present facility and supplement the base's fire-fighting capability with a satellite facility elsewhere, but accessible to the flight line. A specific location has not been identified.

Alternative 1 is not the preferred action because:

- Communication and coordination would be a constant concern and subject to disruption.
- Emergency supplies and equipment and improvements fundamental deficiencies of the existing structure would remain.

2.2 Alternatives Considered

Two alternatives were considered and evaluated. They include:

- No-Action
- Alternative 1 – split the base's fire-fighting capability between two locations.

2.2.1 Detailed Discussion of the No-Action Alternative

With the No-Action Alternative, the existing fire station would remain in its existing state of inadequacy regarding space, storage, health and safety issues and structural deficiencies. Personnel will continue to live and work in substandard facilities. The existing fire station will require continued expenditure of ever-scarcer repair/maintenance funds to maintain an inadequate and undersized building which is not in conformance with current USAF or environmental regulatory agency standards, does not provide an acceptable quality of life or workplace, and presents a less than professional image to the base personnel, visitors, and commercial travelers.

2.2.2 Detailed Discussion of Alternative 1

Splitting the fire-fighting function would result in the communication/coordination dilemma outlined above and the risk that emergency response equipment might be stored at the wrong location for a particular incident. Non-Compliance with health and safety requirements at the existing facility will likely remain, with attendant liability exposure.

2.3 Detailed Discussion of the Preferred Action

The Preferred Action is replacing the deficient fire station with a new larger, base fire station at the same location. The Preferred Action will provide a modern base fire station that conforms to current USAF standards for size and interior configuration, will ensure the safety of station personnel and will support the primary mission of Charleston AFB. By retaining the present site, the New Base Fire Station is consistent with the long-range land use planned for the installation.

3.0 AFFECTED ENVIRONMENT

3.1 Introduction

Representatives of ZAPATAENGINEERING visited Charleston AFB on March 17, 2005. The purpose of this visit was to meet with Charleston AFB personnel to collect site and project information. Reconnaissance of the base fire station was conducted to develop a site-specific understanding of current environmental conditions. The site is located in a section of the base that includes other industrial facilities.

Wetlands and other natural resource issues at Charleston AFB are described in detail in the *Final Report for Natural Resources Surveys, Charleston Air Force Base, South Carolina*, October 2003, prepared by Pinnacle Consulting Group. The existing fire station is not in a wetland area. The sections that follow describe environmental concerns regarding construction of the new fire station. The discussions are derived primarily, in some cases verbatim, from the *Final Report for Natural Resources Surveys*.

3.2 Location, History, and Current Mission

Charleston AFB is home to the 437th Airlift Wing that provides a large part of Air Mobility Command's global reach airlift capability. The mission of the 437th Airlift Wing is to airlift troops and passengers, cargo and medical supplies. The mission may require airdrop of troops, equipment and supplies. Missions may be military, humanitarian or to support U.S. embassies. Since 1993, the 437th Airlift Wing has been flying the C-17 Globemaster III transport aircraft.

The history of CAFB dates back to 1931, when an airfield and flying service were established at Charleston's airport. The Army Air Corps took control of the airfield in 1941. In 1952, Charleston and the Air Force agreed to joint use of the runways. Units assigned to CAFB have participated in military actions from World War II to the present.

Charleston AFB is a joint-use airfield, sharing two intersecting runways with Charleston International Airport. CAFB is situated within a developed area of North Charleston, South Carolina. Surrounding development consists of residential, commercial, and industrial areas. Charleston AFB is bordered to the west by Dorchester Road. Interstate Highway 26 is located northeast of the base. The proposed new base fire station will be located in an industrial area of the base.

3.3 Description of the Project Area

3.3.1 General Land Use

Approximately 85 percent of the land at Charleston AFB is characterized as "improved grounds." This category includes acreage on which maintenance must be planned and performed. The dominant land use at Charleston AFB within the improved grounds category consists of an airfield, aircraft operations and maintenance areas, industrial and administrative areas, and housing.

The remaining 15 percent of the land at Charleston AFB is comprised of forests and wetlands. Portions of these areas are classified as "semi-improved lands," which require periodic maintenance. Remaining forests and wetlands are classified as "unimproved lands" that are kept in a natural state by Charleston AFB.

3.3.2 Soils

Fifteen soil types have been mapped at Charleston AFB. The surface soils are typically sand and sandy loam, with clay content generally increasing with depth. Permeability is relatively higher in surface soils, and decreases with depth and increasing clay content. The decrease in permeability of the clayey subsoil results in short-term saturation of sandy surface soils following rainfall events.

3.3.3 Principal Natural Communities

Virtually all of the natural communities at Charleston AFB consist of forested wetlands, most of which are located near installation boundaries. Red maple, sweetgum, sweetbay, and black willow trees control the canopy of these wetland communities. Understory communities include viburnum, redbay, elderberry, and privet shrubbery. The herb layer communities consist of soft rush, alligator weed, smartweeds, and chain ferns. An elongated ephemeral gum pond is located in the northwest portion of the installation. The forested wetland is dominated by swamp blackgum, with few red maples around the fringes.

3.3.4 Plant and Animal Life

3.3.4.1 Plant Life

- No federally listed threatened and/or endangered (T&E) plant species or suitable habitat for such species is present at the base fire station.
- No federal Species-of-Concern or suitable habitat for such species is present at the base fire station.

3.3.4.2 Animal Life

- No federally listed T&E animal species or suitable habitat for such species is present at the base fire station.
- No state listed threatened, endangered or special concern animal species nor suitable habitat for such species is present at the base fire station.

The following indigenous animals are common to the area:

- Mammals: White-tailed deer.
- Birds: Eastern kingbird, northern cardinal, blue jay, red-tailed hawk, white-eyed vireo, and American goldfinch.

No reptiles or amphibians reportedly were sighted or heard during the T&E surveys.

ZAPATAENGINEERING reviewed the *South Carolina Rare, Threatened, and Endangered Species Inventory, Species Found in Charleston County,* June 9, 2003, to verify that no species, as identified in the *Natural Resources Surveys,* was listed as threatened and endangered.

3.3.5 Special Interest Natural Areas

The *Final Report for Natural Resources Surveys* identified one area, the ephemeral gum pond located in the northwestern portion of the base, as a special interest natural area. This habitat provides excellent breeding habitat for amphibians. The pond is remote from the fire station site.

4.0 ENVIRONMENTAL CONSEQUENCES

This section discusses the probable consequences of each alternative on the affected environment.

4.1 No-Action Alternative

No environmental consequences are associated with the No-Action alternative. This alternative allows for the existing base fire station deficiencies to remain unresolved. This negates the need for construction and eliminates the potential for environmental impact.

4.2 Alternative 1

Environmental consequences of constructing a satellite fire-fighting facility are unknown, because a specific location is not identified. Because a satellite facility would be very near the flight line, environmental impact likely would be minimal because it would be in a developed, industrial part of the base. However drawbacks to splitting the fire-fighting functions are communication/coordination problems, allocation of equipment and retention of the presently deficient fire station.

4.3 Proposed Action

The Proposed Action is construction of a New Base Fire Station at the existing site. The Proposed Action will meet current Air Force and Department of Defense (DoD) standards, OSHA requirements and the CIP, is consistent with existing land use, and resolves the issues of limited living space for personnel and storage space for equipment. Minimal environmental impact is anticipated. The New Base Fire Station will not significantly increase the amount of impervious surface or create additional runoff.

Fire-fighting equipment and personnel will be temporarily relocated to an existing building (or buildings) proximate to the flight line during construction of the New Base Fire Station. During this time, inconvenience to fire-station personnel likely will increase, but environmental impacts will be minimal because no new construction is associated with the temporary relocation.

4.4 Cumulative Effects

The Council on Environmental Quality defines cumulative effects in 40 CFR 1508 as the impacts on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.

In addition to the construction of the new fire station, numerous construction activities are planned on the installation over the next several years. During this period, there is the potential for adverse short-term cumulative effects on air quality, runoff and contributions to noise. Demolition's impact is short-term and, therefore, will not contribute to cumulative effects. The new fire station will not add impervious surface to the watershed.

Favorable long-term cumulative effects to operations and quality of life would be expected for the fire fighters and station personnel. Construction of the new fire station would alleviate the financial burden placed on the base to maintain the existing 30+ year old facility. Availability of new living quarters would be expected to have a favorable long-term cumulative effect on the morale of staff, because a sense of privacy and being able to acquire proper amounts sleep would be expected to increase.

4.5 Mitigating Cumulative Effects

Mitigation actions would be expected to reduce, avoid, or compensate for adverse cumulative effects. The following summarizes proposed mitigation actions.

4.5.1 Air Quality

- Ensure dust and asbestos control measures are implemented during the demolition and construction effort.

4.5.2 Lead Based Paint

- Ensure lead-based-paint coated materials are handled and disposed of properly during the demolition effort.

4.5.3 Noise

- Limit construction activities to daylight hours.

4.5.4 Stormwater

- Use best management practices to reduce soil erosion during demolition and construction.
- Follow SCDHEC OCRM regulations on stormwater management, sediment and erosion control.

4.5.5 Traffic

- Limit construction vehicle access to the base to a single gate.
- Coordinate traffic rerouting and road closures with the Civil Engineering Squadron to alleviate the impact to emergency response and public traffic.
- Coordinate the locations of construction material and demolition debris with the Civil Engineering Squadron to expedite material drop-off and debris pick-up.

5.0 CONCLUSION

The Proposed Action, as described in this document, is the only alternative that meets all requirements of the project with consideration of the surrounding environment. Building the New Base Fire Station alleviates shortages of existing living space for fire fighters and staff and removes the financial burden placed on CAFB to maintain a deteriorating facility. The Proposed Action will meet current Air Force, DoD and OSHA standards and the CIP. It is also consistent with existing land use, and resolves the issues of limited living and storage space. Minimal environmental impact is anticipated.

Alternative 1 may be feasible from an environmental standpoint (the location of a possible satellite facility is unknown at this point), but splitting the fire-fighting functions between two locations is considered impractical.

The No-Action alternative is protective of the environment, but does not meet project requirements and the base's long-term planning goals.

6.0 LIST OF REFERENCES

32 CFR 989, *Environmental Impact Analysis Process (EIAP)*, July 2002.

Advent 2004, *Report for Oily/Water Separator Removals*, Contract FA4418-04-P-0126, December 2004.

AF Form 813, *Preliminary Environmental Impact Analysis, No. 04-2*, DKFX983018, February 25, 2004.

Charleston Air Force Base, *2020 Plan*, Appendix A, Fire Station.

Charleston Air Force Base, Base General Plan, Under Development.

Charleston Air Force Base, Bioenvironmental Engineering Flight, *Lead Based Paint Survey, 12* May 1998.

DD Forms 1391 and 1391c, FY 2007 Military Construction Project Data, Base Fire Station, Charleston AFB, South Carolina.

Department of the Air Force, 2003, *Statement of Work for Environmental Assessment (EA) New Base Fire Station, Charleston Air Force Base*, 10 March 2005.

Occupational Safety & Health Administration (OSHA), Toxic and Hazardous Substances, Air Contamininats, 29 CFR 1910.1000.

National Fire Protection Association (NFPA), 2002, Standard on Fire Department Occupational Safety and Health Program, NFPA 1500.

Pinnacle Consulting Group, 2003. *Final Report for Natural Resources Surveys, Charleston Air Force Base, South Carolina*, Contract No. F41624-94-D-8048-0013, August 2003.

South Carolina Department of Health and Environmental Control, Bureau of Water, Office of Ocean and Coastal Resource Management, *South Carolina Stormwater Management and Sediment Control Handbook for Land Disturbance Activities*, August 2003.

South Carolina Department of Health and Environmental Control, Bureau of Water, NPDES Stormwater Program at the web address of http://www.scdhec.net/water/html/swnpdes.html.

South Carolina Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management. Stormwater Permitting and Certification at the web address of http://www.scdhec.net/ocrm/html/apps.html.

South Carolina Department of Natural Resources, Wildlife and Freshwater Fisheries Division. *South Carolina Rare, Threatened & Endangered Species Inventory, Species Found in Charleston County*, June 9, 2003.

7.0 LIST OF PREPARERS

This report was prepared for Charleston AFB Environmental Management Office by ZAPATAENGINEERING. Listed below are members of the professional staff who contributed to the development of this document.

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GIS Technician

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Project Manager

8.0 LIST OF AGENCIES AND PERSONNEL CONTACTED

Presented below is a listing of each agency consulted or contacted.

Agency	Contact
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437 CES/CECP Charleston AFB Charleston, South Carolina 29404	Mr. Vaughn Bussell
437 CES/CECP Charleston AFB Charleston, South Carolina 29404	Mr. Bill Werrell
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Fire Station Charleston AFB Charleston, South Carolina 29404	Mr. Gilbert Lozano Mr. James Copeland

APPENDIX A

PUBLIC NOTICE DOCUMENT

PUBLIC NOTICE DOCUMENT

NOTICE TO PUBLIC OF NO SIGNIFICANT IMPACT ON THE ENVIRONMENT

June 2005

TO ALL INTERESTED AGENCIES, GROUPS, AND PERSONS

Charleston Air Force Base proposes to construct a new Fire Station. The new facility will be constructed on the existing parcel where the current Fire Station stands. The new facility will consist of:

- Training facilities;
- Sleeping and kitchen facilities;
- Pull-thru access for fire engines;
- Landscaping;
- Laundry and decontamination rooms;
- Lounge/multipurpose areas;
- Parking;
- Storage facilities; and
- Utilities;
- Alarm communications center.

FINDING OF NO SIGNIFICANT IMPACT

It has been determined that construction of the New Base Fire Station will not significantly affect the quality of the environment. The Charleston Air Force Base Environmental Office has prepared an Environmental Assessment under the National Environmental Policy Act of 1969. The Environmental Assessment indicates that the project will not have any impact on wetlands or threatened and endangered species. The new fire station will be built in the same location as the existing fire station. Necessary agencies were consulted about this project.

The Environmental Assessment is on file at the Dorchester County Library, located near Charleston Air Force Base, on Dorchester Road and is available for public examination and copying upon request between the hours of 10 AM and 5 PM, Monday through Friday.

No further environmental review of this project is proposed to be conducted prior to commencement of construction.

PUBLIC COMMENT ON FONSI

Within 30 days of this publication, all interested agencies, groups, and persons disagreeing with this decision are invited to submit written comments for consideration by the Charleston Air Force Base Environmental Office to 437 CES/CEVP, 100 West Stewart Avenue, Charleston Air Force Base, South Carolina 29404. All such comments received will be considered. Charleston Air Force Base will not take any action on the proposed project prior to the public comment period expiration.

APPENDIX B

RECORDS OF COMMUNICATION

RECORD OF COMMUNICATION

PROJECT TASK: NEW BASE FIRE STATION, ENVIRONMENTAL ASSESSMENT

COMMUNICATION WITH: SCDHEC Receptionist

DATE OF COMMUNICATION: APRIL 5, 2005

TELEPHONE NUMBER: (843) 740-1590

CONDUCTED BY: Lisa Page

RE: New Base Fire Station

SUMMARY: I asked the receptionist whom would I need to speak with about environmental permitting for a construction project at Charleston Air force Base. She said that I would need to speak with Harvey Wilkins in the Bureau of Water/Water Quality with SCDHEC. I was transferred to his voicemail and left a message.

FOLLOW-UP: Harvey Wilkins returned my call at 1:05pm. I then called him back at 1:35pm and asked questions about the permitting of the Fire Station.

A Construction Permit will NOT be required. A Potable Water Permit will not be required due to the fact that the new buildings will be tapping into existing primary facilities on the base.

He then directed me to Susan Yates with Air Quality Control for the additional permitting questions that I had. He transferred me to her line where I left a voice mail.

RECORD OF COMMUNICATION

PROJECT TASK: NEW BASE FIRE STATION, ENVIRONMENTAL ASSESSMENT

COMMUNICATION WITH: Mark Hiott

DATE OF COMMUNICATION: APRIL 6, 2005

TELEPHONE NUMBER: (843) 740-1590

CONDUCTED BY: Lisa Paige

RE: New Base Fire Station

Summary: Mark Hiott, SCDHEC, Environmental Quality Control - Air Quality Control Division returned a call that I had placed to Susan Yates yesterday. We discussed the permitting issues for CAFB and the EA study.

An Air Permit for Gas Fired Boiler Construction will NOT be required if the boiler is UNDER 1.5 million BTUs.

Should the boiler be OVER 1.5 million BTUs a full Construction Permit will be required, along with a Boiler Construction Permit and Boiler Operation Permit. A letter will need to be written to the Columbia office of SCDHEC to the attention of Allison Hayes should there be any major modification to the existing boiler system. An Operational Permit will need to be requested no more than 15 days from start up of the relocated existing or new boiler system for the Fire Station. Should that time elapse, an extension of the original Construction Permit will need to be requested to avoid violation charges.

Mark then transferred me to the OCRM (Ocean and Costal Resource Management) office. I left a message for Richard Geer.

RECORD OF COMMUNICATION

PROJECT TASK: NEW BASE FIRE STATION, ENVIRONMENTAL ASSESSMENT

COMMUNICATION WITH: Shannon Hicks

DATE OF COMMUNICATION: APRIL 7, 2005

TELEPHONE NUMBER: (843) 747-4323 x123

CONDUCTED BY: Lisa Paige

RE: New Base Fire Station

SUMMARY: Ms. Shannon Hicks of SCDHEC returned my call to Richard Geer of the OCRM division at 1:50pm. I asked her about the Land Disturbance Permitting notations in the paperwork that ZAPATAEGINEERING was provided by CAFB.

I told her that the New Base Fire Station is proposed to be built in the same place as the existing station. She said that if the area of impervious surface is the same with the new design a waiver could be written for the New Base Fire Station. Documentation along with a narrative of what is intended for the site would be required when applying for the waiver and/or permit for the new station.

She stated that a Land Disturbance permit WILL need to be issued for projects over 2 acres and/or ½ mile from receiving water bodies. She noted that the "blue line streams" on Quad Maps are the areas of receding and receiving bodies of water.

She also mentioned that even if the project does not require a permit – SCDHEC would like a copy of the footprint of the building shown in the property boundaries in digital format (AutoCad), notations being in State Plan Coordinates, and a narrative of what is intended for the site for their files.

The State Storm Water Package has all the information required for contractors and/or AE to fill out the paperwork.

APPENDIX C

SITE MAP

ZAPATA ENGINEERING
6302 Fairview Road, Suite 600 704.358.8240 Phone
Charlotte, North Carolina 28210 704.358.8342 Fax
ZAPATA@ZAPENG.COM WWW.ZAPENG.COM
TRUST • INTEGRITY • QUALITY

Charleston Air Force Base
Charleston, SC

Environmental Assessment
New Base Fire Station

Project No.	Drawn By	Checked By	Date	Engineering Scale	Figure
1075	ATD	NJG	MAY 2005	1" = 100'	1

APPENDIX D

PHOTOGRAPHS

1. Standing on Bates Street facing the front of the fire station.

2. From Bates Street looking at fire station (left) and terminal building (right).

3. From Bates Street looking at pull-through doors and road access to flight line.

4. From Bates Street, looking at the parking area in front of the fire station.

5. Fire station and nearby buildings from Bates Street near Hill Boulevard.

6. From Bates Street looking at administrative side of fire station (right) and pull-through doors (left).