

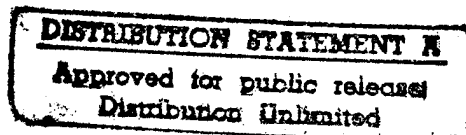
**U.S. DEPARTMENT OF THE NAVY**  
**NAVAL SECURITY GROUP ACTIVITY**  
**NORTHWEST**

**CHESAPEAKE, VIRGINIA**

**ENVIRONMENTAL ASSESSMENT**

**P-019**  
**MEDICAL/DENTAL CLINIC**  
**NAVY EXCHANGE, GAS STATION/CAR WASH**  
**FACILITY**

1995



19960510 085

(consistent with the National Environmental Policy Act  
and OPNAVINST 5090.1B Chapter 2)

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DEPARTMENT OF DEFENSE  
DEPARTMENT OF THE NAVY

FINDING OF NO SIGNIFICANT IMPACT FOR THE P-019 MEDICAL/DENTAL  
CLINIC, NAVY EXCHANGE, GAS STATION/CAR WASH FACILITY, CHESAPEAKE,  
VIRGINIA

Pursuant to section 102(2)(c) of the National Environmental Policy Act (NEPA) of 1969 and the Council on Environmental Quality regulations (40 CFR Parts 1500-1508) implementing the procedural provisions of NEPA, the Department of the Navy gives notice that an Environmental Assessment (EA) has been prepared and that an Environmental Impact Statement is not required for P-019 medical/dental clinic; Navy Exchange; and gas station/car wash facility, Chesapeake, Virginia.

The proposed action is to construct and operate a new medical/dental clinic, Navy Exchange complex, and gas station with car wash on the Naval Security Group Northwest Installation, Chesapeake, Virginia. A new medical/dental clinic will replace the existing medical and dental facilities which are undersized (meeting only 26% of the current requirements) and found to be deficient by the Inspector General. Construction of a Navy Exchange complex and gas station with car wash will improve the quality of life for military personnel and their families by providing services that are not readily available. The following construction projects will be required: a 16,110 square foot single story building; a dual lane access road that will begin at Ballahack Road and lead to the clinic; sidewalks and parking areas; a 33,154 square foot building to house a retail store, a cafeteria, service outlets, maintenance shops, a package store, and an installation warehouse; and a 3,260 square foot gas station with a car wash facility.

The following alternatives were considered for the proposed projects: the "no action" alternative; construction at another site on Naval Security Group Northwest; and construction at the proposed site. The "no action" alternative would deny construction of the proposed clinic, Navy Exchange complex, and gas station with car wash facility and would leave Naval Security Group Northwest operating with existing medical/dental and support facilities that are inadequate in capacity and location. For these reasons, the no action alternative was rejected. An alternative site located at the dead end of Northwest Boulevard was evaluated for the proposed projects. This site was rejected because it offered no environmental advantages and would be difficult to access by personnel and their families. The proposed site offers easy accessibility and minimal impact to vegetation, as it was previously an agriculture field.

Although approximately 10.9 acres of fallow cropland will be utilized for the proposed projects, there will be no impacts upon any federally listed threatened or endangered species, critical habitat, wetlands, or archaeological or historic resources. The proposed action will disturb two sites containing historic archeological deposits identified as meeting the criteria for the National Register of Historic Places. Impacts to the sites will be mitigated through data recovery in consultation with the Virginia State Historic Preservation Office and Advisory Council on Historic Preservation.

Although approximately 3 to 5 acres of impervious surface will be created within the existing fallow field, there will be no impacts to surface, ground, or potable waters. Vegetated trenches will be created along the proposed access road, facilities, and impervious areas to collect and deposit stormwater runoff into the existing vegetated feeder swale for deposition into the Northwest River. Stormwater runoff and erosion control measures such as hay bails and filter fabric will be employed during construction to reduce potential soil erosion. Wastewater from the proposed car wash will be drained into the Installation's sanitary sewer lines for treatment. The gas station will have an oil/water separator to prevent oil from entering the stormwater runoff system and a leak detection and overspill detection system.

The proposed action will occur in an area designated in attainment for 6 of the seven Criteria Pollutants and non-attainment marginal for ozone. Air quality impacts will result from exhaust emissions associated with the construction equipment, the asphalt paving process, gasoline spillage and/or vapor emissions at the gas station, commuting construction workers, vehicles delivering material and equipment to the construction site, and dust and debris associated with construction activities. An Applicability Analysis was performed in accordance with the General Conformity Rule of the Clean Air Act. The analysis determined that the ozone precursors (Nitrogen Oxides and Volatile Organic Compounds) were clearly below de minimis levels, and therefore, a Record of Non-Applicability was signed on September 15, 1995. The proposed action is exempt from the Clean Air Act General Conformity Rule requirements. Dust control measures (e.g. dust suppressants) will be used during construction to maintain air quality. Required permits for installation and operation of the gas fueling station will be obtained before construction begins.

There will be no impacts to transportation or utilities. The utility systems on the Installation will handle the increases associated with these projects. There will be no disproportionately high and adverse human health or environmental effects on minority and low-income populations.

Based on information gathered during preparation of the EA, the Navy finds that the P-019 medical/dental clinic; Navy Exchange; and gas station/car wash facility, Chesapeake, Virginia, will not significantly impact human health or the environment.

The EA prepared for the Navy addressing this action may be obtained from: Commanding Officer, Naval Security Group Activity Northwest, 1320 Northwest Boulevard, Suite 100, Chesapeake, VA 23322-4094 (Attn: Ms. Pamela Couch, Code 46PC), telephone (804) 421-8239. A limited number of copies of the EA are available to fill single copy requests.

24 February 1996

Dated

Thomas J. Peeling

Thomas J. Peeling  
Special Assistant for Environmental Planning  
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Deputy Chief of Naval Operations (Logistics)

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## INTRODUCTION

In accordance with the National Environmental Policy Act (NEPA) of 1969 as amended, and OPNAVINST 5090.1B, Chapter 2, an Environmental Assessment is to be prepared when a Federal action has the potential to impact the human environment. At Naval Security Group Activity Northwest (hereafter Northwest or the Installation), a new medical/dental clinic is proposed for construction. A Navy Exchange (NEX) and gas station with car wash have also been proposed for construction in the vicinity of the medical/dental clinic. Construction of the projects will not take place during the same timeframe. The first project, the medical/dental clinic, is scheduled for construction in FY96. The projects are sited for the northeastern portion of the Installation. This action, its justification and need, and associated environmental impacts directly or indirectly caused by the action will be assessed.

A. Proposed Action: The proposed action involves the construction of a medical/dental clinic and associated access road. The medical/dental clinic would be a single story building with permanent masonry structure, concrete floor and foundation, and built up roof. It would consist of 16,110 square feet. The medical/dental clinic, MILCON P-019, would replace existing facilities. The new access road would begin at Ballahack Road and lead to the medical/dental clinic. The new access road would have dual lanes. Associated parking and sidewalks would also be constructed.

In addition to the medical/dental clinic, a Navy Exchange and gas station with car wash are proposed. The proposed Navy exchange complex (33,154 square feet), MILCON P-708, would house a retail store, cafeteria, service outlets, maintenance shops, package store, and installation warehouse. (It should be noted that this facility has not received final approval and may eventually be reduced in size and function.) The 3,260 square foot gas

station with car wash facility, MILCON P-853, would replace that current Citgo gas station that is incompatibly located in the family housing area. (It should be noted that this facility has not received final approval.) Access to the support facilities would be from the new road described above.

B. Project Siting: Northwest is located in the Atlantic Coastal Plain of Virginia and North Carolina and encompasses approximately 3,675 acres. Roughly one-third of the activity lies in Currituck County, North Carolina, and the remainder in the City of Chesapeake, Virginia. (Figure 1) Ballahack Road, formally known as VA Route 740, runs along a portion of the northern boundary of the Installation.

The proposed project would be located within the Core Area on the northeastern portion of Northwest where most existing development is located. (Figure 2) This area holds the best potential for further development because it lacks significant operational and environmental constraints.

The site of the proposed construction is a 21.8 acre parcel that was used as an agricultural field until December 1993 when the agricultural lease expired. The proposed projects will utilize approximately 10.9 acres of the parcel. The parcel is located east of the current entrance. The new road would be sited approximately 1,000 feet east of the existing entrance along Ballahack Road and bisect the agricultural field. The field was taken out of agriculture production as a result of the current and future proposed projects. Future proposed projects for this site include a police station/pass office, guard house, security fence, and extension of the new access road to intersect with an existing road on the Installation, Farmhouse Road. (Figure 3)



CORE AREA

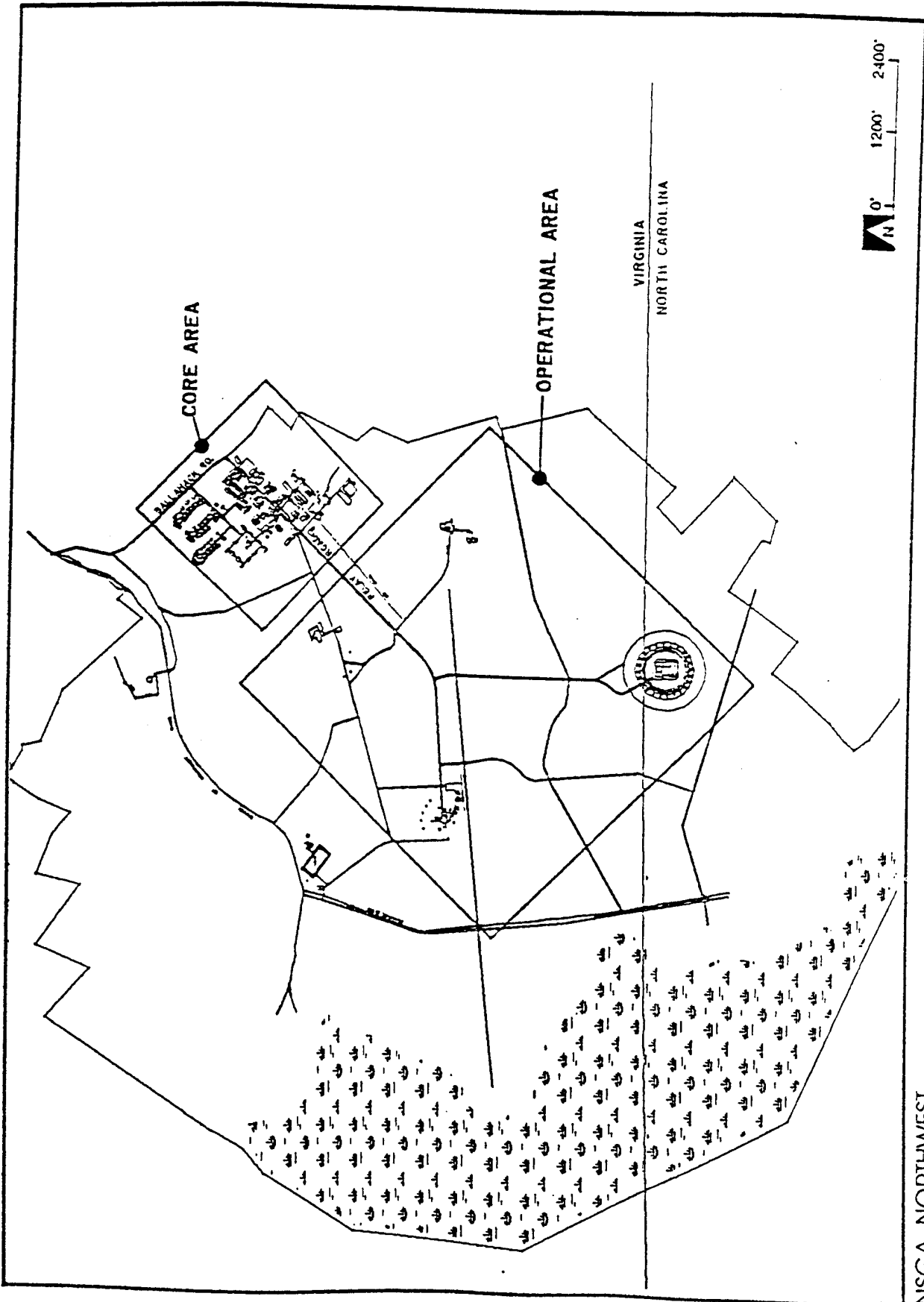
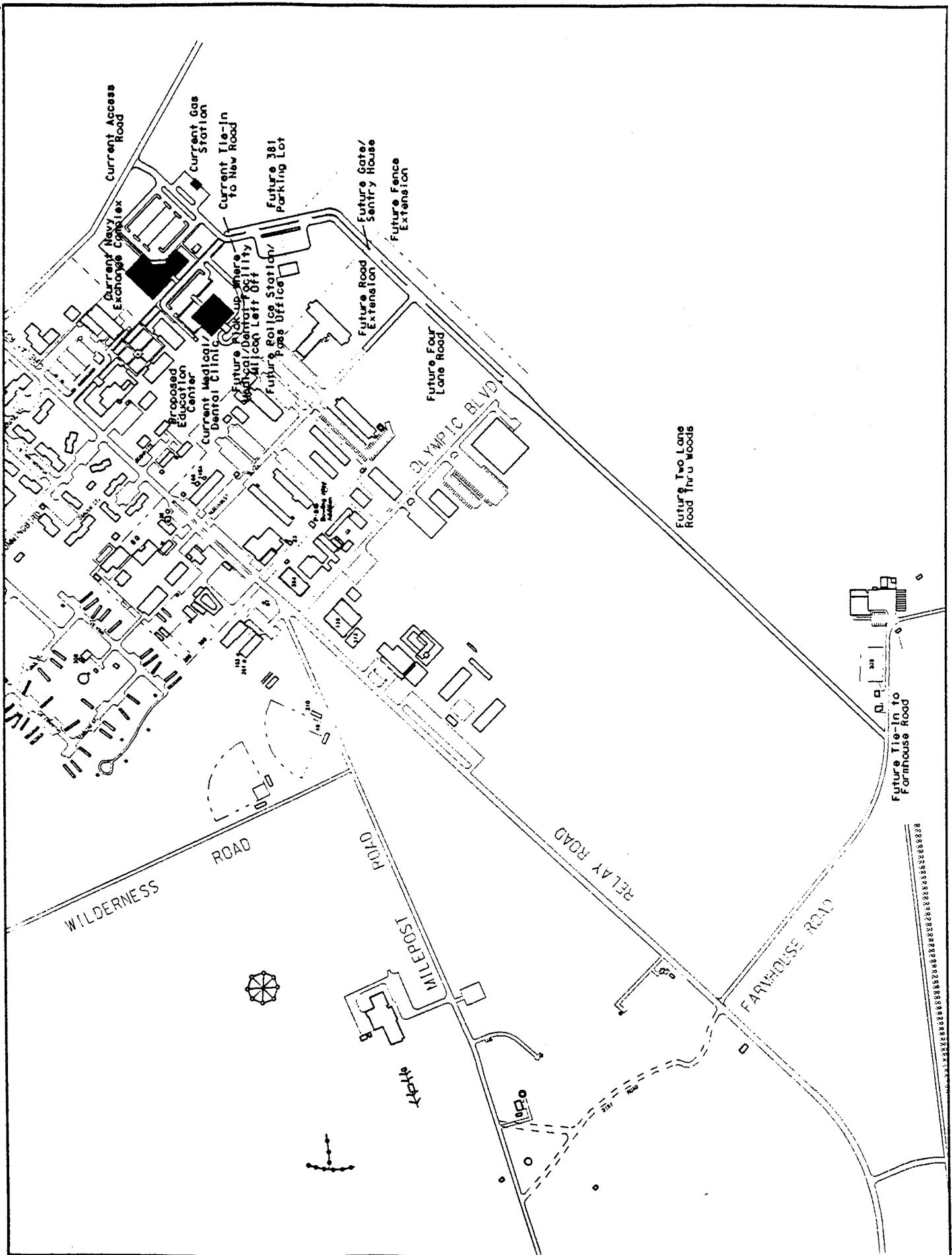


Figure 2  
Core Area

Current and Future Proposed Projects



Current and Future Proposed Projects

Figure 3

C. Purpose and Need

1. Medical/Dental Clinic:

Justification for P-019 is that a medical/dental clinic is required to provide outpatient medical and dental services to Navy and Marine Corps personnel and their family members.

The existing medical and dental facilities, which were constructed in 1953, are undersized and found to be deficient by the Inspector General. The existing facilities are located in an industrial area and only meet 26% of the current medical and dental requirements. For example, an increase in military personnel since FY 90 has created an increase in medical/dental facility use and outpatient visits which the existing facilities cannot adequately handle. General growth in military and civilian personnel since 1988 has increased from 71 civilian and 1,430 military to 437 civilian and 1,885 military personnel in 1993. Additionally, transfer of personnel due to a Base Closure Action in Charleston, South Carolina will increase base loading at Northwest by 112 military and civilian personnel by 1995. While this latter increase will be relatively small, it adds to the already existing deficiencies.

The new access road would be extended in the future to provide direct access to support facilities; eliminating vehicular traffic from driving through the residential area (family housing).

2. Navy Exchange/Gas Station/Car Wash Facility:

Justification for constructing a NEX and gas station with car wash is to improve quality of life and provide services to personnel and their families that are not readily available due to the remoteness of Northwest from other military installations and commercial shopping facilities.

Some of the community support facilities on Northwest are inadequate for accommodating existing personnel and their needs.

Currently, one car wash is scheduled for construction at Northwest. There is a need for three car washes based on the number of military personnel stationed at Northwest. Military members use inappropriate areas such as parking lots to wash their vehicles. Constructing a car wash will improve quality of life for military members and their families. The Citgo gas station that is currently in operation is in a residential section. One must drive through the family housing area where children are playing in order to gas up their vehicles. This creates an increase in the volume of traffic passing through the residential complex. The Citgo gas station site is incompatible with the surrounding facilities.

The NEX at Northwest can be characterized as a convenience store. In order to utilize a full-size Navy Exchange, military members must travel approximately 48 miles to Virginia Beach or 34 miles to Portsmouth. In addition, there is no public transportation in the vicinity of Northwest. A full-size Navy Exchange at Northwest will improve the quality of life for military members and their families and eliminate the inconvenience of traveling so far.

## II. ALTERNATIVES

A. No Action: Current Installation community support facilities are inadequate to handle current and projected personnel loadings at Northwest. The medical/dental clinic is overburdened and does not meet current personnel requirements. Existing support facilities are inadequate in capacity and location. These inefficiencies would remain and become more acute given a no action alternative.

B. Construction of Proposed Projects: This Alternative would consist of constructing the medical/dental clinic, NEX, gas station with car wash facility, and associated access road as described in Section I.A.. These facilities would be located within the Core Area. This alternative would correct the current deficiencies in these areas - the incompatibility of the Citgo gas station with the family housing area and the improvement and creation of support facilities to eliminate existing deficiencies as well as accommodate the expected increase in personnel. The Core Area was selected as the preferred site because it lacks significant environmental and operational constraints.

Two potential sites within the Core Area were assessed. The first proposed site was at the dead end of Northwest Boulevard. This area is a wooded area and would require removal of trees and vegetation. Access to this area is through the Base Security Gate. This means that Military members and their families would have to show proper identification before accessing the Medical/Dental Clinic and other proposed facilities. A major siting consideration for personnel support areas (i.e. exchanges, medical facilities, etc.) is accessibility for military personnel residing both on and off Base. This proposed site was not selected because it is not as accessible as the proposed site, and offered no environmental advantages.

The second proposed site would be close to the new entrance road. The Medical/Dental Clinic and other proposed facilities could be accessed before reaching the Base Security Gate; eliminating the possibility of jeopardizing a medical emergency. This area would have minimal impact to vegetation, as it was previously an agriculture field. This is the preferred location.

C. Alternate Sites: The remaining portions of Northwest are encumbered by various building constraints and potential adverse environmental impacts. Severe building height restrictions exist within the extensive Electromagnetic Interference (EMI) and obstruction zones around the Wullenweber and Relocatable Over the Horizon Radar (ROTHR) antennae located at Northwest. Power lines are prohibited, and a limit is put on the number of vehicles, roads, and trails. Surface Danger Zones (SDZ) exist around the pistol and skeet ranges further precluding development. In addition to numerous operational constraints, wetlands and endangered species habitat are located throughout the Installation outside of the Core Area. For these reasons, little buildable land exists outside of the Core Area. The Installation's long term planning objective is to centrally locate personnel support and housing facilities in the Core Area for easy access while maintaining operational facilities within the more secure "Operational Area". (NSGA NW Master Plan)

### III. AFFECTED ENVIRONMENT

Several environmental issues will be discussed in association with construction of the proposed projects. Natural Resources and Environmental Protection Specialists from Atlantic Division, Naval Facilities Engineering Command and Naval Security Group Activity, Northwest were consulted regarding potential environmental impacts. The following potential environmental impacts are discussed:

A. General Land Use: Northwest is located in the Atlantic Coastal Plain of Virginia and North Carolina and encompasses approximately 3,675 acres. The land was acquired in 1951 and is used principally as a communication center for the U.S. Navy. Palustrine hardwood and pine forests make up approximately 1,854 acres along the western and southern boundaries

where it abuts the Great Dismal Swamp. Land use on the Installation includes forest and timber production, agriculture, antenna sites and associated buffer zones, operational and maintenance facilities, and personnel support facilities such as bachelor and family housing. Surrounding land use to the north and east is primarily privately owned rural agriculture, while the palustrine forests of the Dismal Swamp comprise most of the land use on the southern and western boundaries of Northwest.

The proposed development site (21.8 acres), of which half will be utilized for the proposed projects, was farmed on a two year, three crop rotation of corn, soybeans, and winter wheat. When the lease for the property expired in 1993, it was not renewed. The land has remained fallow. Over 650 acres of land remains for agricultural use on the Installation. Swales, hedgerows and a wooded area border the eastern and southern edges of the fallow field and are vegetated with species typical throughout the Installation. A berry-producing viburnum dominates the eastern edge of the field and provides excellent shelter and food source to songbirds and rabbits.

B. Wetlands: The majority of the soil types (Bojac, Munden, Dragston) which make up the proposed project site are non-hydric. The proposed project site has been surveyed by the U.S. Fish and Wildlife Service and mapped as "upland". (map dated 5/17/91) The site has no wetland characteristics.

C. Hydrology: Soil profiles at Northwest range from poorly drained, clayey, mucky soils (Belhaven Portsmouth-Hyde association), which have considerable building constraints, to well-to-moderately-drained sandy loam or loamy soils (Bojac-Munden). A majority of the soils at Northwest belong to the Nimmo-Tomotely-Acredale association which are poorly drained, sandy loam or silty clay soils. These soils are well suited to agriculture if properly drained.

The proposed site was an agricultural field and was drained by a system of subsurface pipes which drain stormwater into peripheral swales. The pipes were installed in the southern half of the agricultural field at a depth of two to three feet in 1981 to improve fields for row crop production. The northern portion of the field is not drained with subsurface pipes.

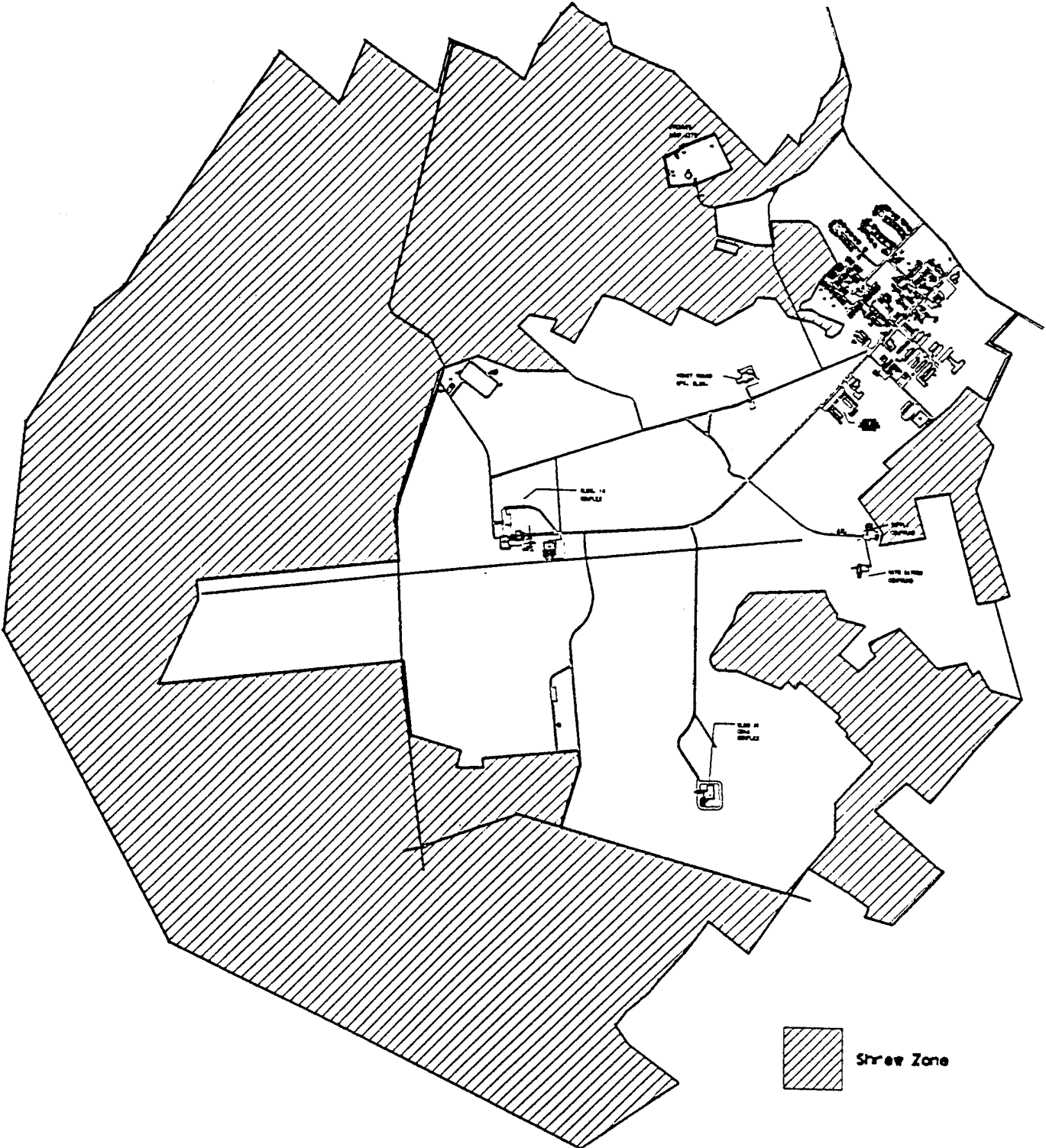
Soils at the proposed site are a combination of Bojac, Munden, Tomotley, and Dragston soils. The wooded area bordering the site is underlain primarily by Acredale soil. Each of the soil types within the agricultural field have low erodibility factors, except Acredale soil, which is slightly more erodible.

D. Threatened and Endangered Species/Wildlife: One federally listed threatened species, the Dismal Swamp southeastern shrew, is known to exist within Northwest. The shrew was listed as federally threatened on December 27, 1986 under the Endangered Species Act.

The shrew has been found in pockets within the forested portion of Northwest, though the entire forested area is considered potential shrew habitat (Rose 1988). In cooperation with the U.S. Fish and Wildlife Service, a "Shrew Habitat Zone" (based on land use and vegetation) has been established at Northwest, which excludes all of the agricultural fields and developed/disturbed areas. (Figure 4, Attachment A)

Northwest supports a diversity of wildlife species which include white tail deer, Northern bobwhite quail, grey squirrel, eastern cottontail, mourning dove, red and grey fox, and numerous bird species. Cropped lands provide cover and food for a variety of species, though lack of hedgerows may limit sheltered movement between fields and forested areas.

Shrew Zone Habitat



Shrew Zone Habitat  
Figure 4

NOT TO SCALE

E. Historic/Cultural Resources: The proposed construction site does not contain any structures and is not located within or in close proximity of a historic district. Therefore, historic structures listed on or eligible for the National Register of Historic Places will not be impacted.

A Phase I Archaeological Survey of the proposed site was completed in August 1994. The results of the survey found that two sites required a Phase II archaeological survey.

The draft Phase II Archaeological Survey of the two sites (44CS187 and 44CS188) was completed in June 1995. The survey report concludes that the deposits at the sites are eligible for inclusion in the National Register. Consultation with the Virginia State Historic Preservation Office to obtain their concurrence on eligibility of historic archaeological deposits which were found at these sites has taken place and their concurrence has been given. (Attachment B)

F. Surface Waters: Currently, stormwater soaks into the field, and runoff is controlled by the underground pipe system which drains the field into peripheral trenches. The proposed construction would create approximately three to five acres of impervious surface within the existing fallow field. Wastewater from the proposed car wash would drain into the Installation's sanitary sewer lines. The gas station would have a leak detection and overflow detection system which would automatically signal for help in the event of either. An oil/water separator would be installed at the gas station.

G. Socioeconomics: The proposed project site was utilized as an agricultural field until December 1993, when the current agricultural lease expired. The field is now fallow land. The total loss of acreage used for farming at Northwest as a result of not renewing the agriculture lease is

approximately 3% (21.8 acres of the 683 acres currently farmed). Over 650 acres of land remains for agriculture use.

H. Air Quality: Direct and indirect emissions would impact air quality as a result of the proposed action. Direct emissions would result from the exhaust associated with the construction equipment, the asphalt paving process, and spillage of gasoline at the gas station. Indirect emissions would result from the exhaust associated with the vehicles of the construction workers, the trucks delivering material and equipment to the construction site, vapors displaced during fuel filling of tanks, and vapors which escape from the underground fuel storage tanks.

Dust and debris would also be emitted during construction.

Section 176(c) of the Clean Air Act (CAA) prohibits any federal action that does not conform to an approved State Implementation Plan (SIP). The SIP is a State's plan for meeting the National Ambient Air Quality Standards (NAAQS) for six specified pollutants. The USEPA published the Federal General Conformity Rule to determine whether a federal action conforms to an applicable implementation plan (SIP) in accordance with the General Conformity Rule before the action is taken. The USEPA has listed the Hampton Roads Intrastate Air Quality Control Region as "nonattainment marginal" for the Ozone Standard due to high ozone levels in the past years.

I. Contaminated Sites: A preliminary assessment was conducted in 1989 to find potential installation restoration sites at Northwest. No sites were located within the proposed construction area.

J. Utilities: Electric power for the Installation is purchased from Virginia Power Company. The electric distribution system on the Installation was upgraded in 1989.

Heat pumps will be used as the source for heating those facilities requiring heat.

There are five wells on the Installation that are used for potable water. A new treatment plant was constructed to reduce the iron and manganese levels found in the water to acceptable levels.

Almost all areas of the Installation are connected to the sanitary sewage collection system. There is a sewage treatment plant on the Installation. This plant was upgraded in 1994.

K. Transportation: The road outside of the main entrance to Northwest is Ballahack Road. It is a secondary, two-lane, black top road. The speed limit is 45 miles per hour. Ballahack Road is in good condition. A traffic survey taken at the main entrance gate to Northwest resulted in a 1,300 vehicle volume during a 24 hour period. A total of 300 vehicles during a nine-hour period was surveyed traveling on Ballahack Road passing the intersection to the Installation, but not entering the Installation.

L. Environmental Justice in Minority Populations and Low-Income Populations: In accordance with Executive Order 12898 dated February 11, 1994, and Secretary of the Navy Notice 5090 dated May 27, 1994, the Navy is required to identify and address, as appropriate, the potential for disproportionately high and adverse human health or environmental effects of its actions on minority or low-income populations.

#### IV. ENVIRONMENTAL IMPACTS

The No Action and Alternate Site Alternatives will not be considered because they would not correct current deficiencies and support the projected increase in military and civilian personnel. The impacts of the proposed construction project on existing environmental conditions are discussed below.

A. General Land Use: The proposed construction site is located in the Core Area of the Installation. A 21.8 acre parcel was taken out of agricultural use as a result of the current and future proposed projects. Current proposed projects for this parcel include a medical/dental clinic, NEX, gas station with car wash, and associated access road, parking areas, and sidewalks. Future proposed projects for this parcel include a police station/pass office, guard house, security fence, and extension of the new access road to intersect with an existing road on the Installation to provide a new main entrance. Future land use plans for this area recommend replacement of existing personnel support facilities that are inadequate and/or currently sited in incompatible areas. (NSGA NW Master Plan)

B. Wetlands: The majority of the soil types at the construction site are non-hydric. The site has no wetland characteristics and has been surveyed by the U.S. Fish and Wildlife Service and classified as "upland". Therefore, the construction would have no impact on wetlands.

C. Hydrology: Construction in this area has the potential to increase soil erosion. Sediment control measures, as required by Section 319 of the Clean Water Act and Virginia Erosion and Sediment Control Laws, would be taken to keep erosion to a minimum.

Trees and vegetation that cover peripheral trenches would remain in place during construction to prevent soil erosion into the trenches. This vegetation acts as a natural erosion control buffer and prevents soil runoff from the former farm field from entering the trenches. The use of hay bales and silt fencing, together with watering the soil to prevent dust from blowing, will be employed during construction to reduce erosion from the construction areas.

Should vegetation be removed for landscaping purposes after construction is completed, it will be replaced with appropriate vegetation.

Given the gradual slope of the land and the low erodibility factors of the soil types present on the proposed construction site, soil erosion would not pose a serious problem.

D. Threatened and Endangered Species/Wildlife: The proposed construction site lies outside the Shrew Habitat Zone, and construction would have no impact on the endangered shrew or its habitat. (Attachment A)

Additionally, the food and cover provided by this area to other wildlife is available on adjacent forested and cultivated land. The main impact would be increased disturbance to wildlife due to the proximity of the development area. More than likely, wildlife, such as deer, would avoid these areas and utilize other adjacent areas. Hedgerows and swale vegetation would be retained to preserve this habitat and lessen impact to wildlife.

Historic/Cultural Resources: A Phase I Archaeological Survey was conducted on the proposed site in August 1994. The site was shovel tested. The report recommended a Phase II archaeological survey for two specific sites. These two sites would be disturbed by the proposed projects. The remaining project sites have no historic or cultural significance.

The draft Phase II Archaeological Survey report was completed in June 1995. The report recommends that the historic archaeological deposits at Sites 44CS187 and 44CS188 are eligible for inclusion in the National Register. The report was submitted to the Virginia State Historic Preservation Office for their concurrence on eligibility. The Virginia State Historic Preservation Office concurred with the eligibility determination. (Attachment B). Data recovery will be implemented in consultation with the Virginia State

Historic Preservation Office and Advisory Council on Historic Preservation. Impacts to the sites will be mitigated through the data recovery. Therefore, the proposed projects will have no adverse effect on archaeological resources. Consultation with the Virginia State Historic Preservation Office will continue in accordance with Section 106 of the National Historic Preservation Act.

F. Surface Waters: To control the potential increase in stormwater runoff caused by the increase of impervious surfaces, vegetated trenches along the new access road, facilities, and impervious areas would be created. The trenches would collect stormwater runoff that is not absorbed by the ground and deposit it into the existing vegetated feeder swale that borders the site along Ballahack Road. The vegetated feeder swale collects stormwater runoff from the Installation and deposits it into the Northwest River.

Wastewater from the proposed car wash would drain into the Installation's sanitary sewer lines. The gas station incorporates an oil/water separator which would prevent oil from entering the stormwater runoff system as well as a leak and overspill detection system.

G. Socioeconomics: The proposed construction would permanently convert a fallow field, which was a cultivated field until December 1993, into developed landscape. The agricultural lease expired on December 31, 1993, and was not renewed. The total loss of agricultural land is approximately 3% (21.8 acres of the 683 acres currently farmed). At a leasing cost of \$42.58/acre, loss of 21.8 acres of farmland reduces revenue to the Navy by \$928/year. This is about 3% of the total income generated from leasing land for agriculture. Over 650 acres of land remain for agricultural use. This land is leased under the Agricultural Outlease program. This program provides

a means for the Government to collect income for land that is currently not being utilized.

H. Air Quality: Current vehicular traffic does not create an air pollution problem at Northwest. The projected increase in military and civilian personnel is small: about 112 people by 1996. Many of the military and civilian work force are on alternate work schedules, which aids in reducing vehicle traffic exiting and entering the Installation at a given time. The proposed projects would not create an increase in personnel at Northwest.

Direct short-term air quality impacts would result from the exhaust emissions associated with the construction equipment and the asphalt paving process. The asphalt paving process emits Volatile Organic Compounds (VOC). Emulsified asphalt paving emits the lowest levels of VOC and will be used for this project. Direct emissions would also be emitted from gasoline spillage at the gas station.

Indirect emissions from vehicles of the commuting construction workers and from vehicles delivering material and equipment to the construction site would have a temporary short-term impact on air quality. Long-term indirect emissions would result from gasoline vapors associated with the gas station.

Construction time for the entire development site is estimated to be one and a half years. For purposes of calculating the impacts on air quality, it is assumed construction for each project would occur within the same timeframe. The assumptions made regarding the type of construction equipment and its usage are presented in Table 1. Table 2 calculates the emission rates related to the proposed project.

Table 1

<u>Type of Equipment</u>	<u># of Units</u>	<u>Total Usage (hrs)</u>
Crane	1	200
Grader	2	250
Front End Loader	3	600
Excavator	3	600
Backhoe	4	250
Bulldozer	2	150
Paving Machine	1	20
Dump Truck	10	250
Delivery/Concrete Truck	4	60
Roller	2	150
Compactor	1	60
Worker Vehicle	25	18000

Table 2

<u>Pollutant Source</u>	<u>Construction Emission Rates (Tons)</u>	
<u>Direct</u>	<u>NO-X</u>	<u>VOC</u>
Construction Equipment	1.246	.237
<u>Indirect</u>		
Delivery/Concrete Trucks	.125	.006
Dump Trucks	.521	.024
Worker Vehicles	.846	.882
TOTAL	2.738	1.149

The emissions from the construction equipment would be dispersed over a 10.9 acre construction area. Since construction emissions are short-term and would cease at the completion of the construction, they would not hinder the achievement of the attainment designation for Ozone in the Hampton Roads Intrastate Air Quality Control Region. Total emissions associated with construction of the proposed project are approximately 2.7 tons for NO-X and 1.1 tons for VOC for the one and a half-year construction timeframe. This is significantly below the 100 tons per year limit for NO-X and VOC in marginal nonattainment areas.

Long term operational pollutant emissions would be generated by spillage loss and vapor emissions during refueling at the gas station. It is estimated that the uncontrolled emissions from vapors displaced during refueling average 11 pounds per 1,000 gallons of dispensed gasoline. The amount of spillage loss depends on tank configuration and operator techniques.

The average spillage loss is .7 pounds per 1,000 gallons of dispensed gasoline. The amount of uncontrolled emissions from vapors displaced during refilling of the tanks average 11.5 pounds per 1,000 gallons of gasoline. The amount of emissions that escape from the underground tanks average 1.0 pounds per 1,000 gallons of gasoline. Table 3 shows the estimated emission loss per pound for each 1,000 gallons of gasoline and the number of gallons of gasoline estimated to be pumped during a one-year period. This number is then converted into tons.

Table 3

Vehicle Refueling Operations/Evaporative Emissions  
VOC

<u>Emission Source</u>	<u>lb/1000 Gal</u>	<u># Gallons Used/Yr</u>	<u>lbs/Yr</u>	<u>Tons/Yr</u>
Vehicle Refueling Displacement Losses (uncontrolled)	11	30,000 Unleaded	330	.165
Spillage	.7	30,000 Unleaded	21	.011
Tank Refilling Losses	11.5	30,000 Unleaded	345	.173
Underground Tank Breathing	1.0	30,000 Unleaded	30	.015
TOTAL				.364

The emissions summary for the proposed action is presented in Table 4.

Table 4

Comparison of Annual Emission Rates of Nonattainment Pollutants Resulting from Construction and Operation of the Proposed Action

<u>Pollutant</u>	<u>Total Project Emissions (Tons/18 mos)</u>	<u>Threshold Emission Rates (Tons/Yr)</u>
NOX	2.738	100
VOC	1.513	100

Since the total emission rates for the proposed action are below established de minimis levels, a formal conformity determination is not

required for this project. A Record of Non-Applicability has been prepared. (Attachment C) No significant impacts to air quality would occur as a result of the proposed action.

Dust and debris associated with construction activities will be emitted. These impacts to air quality are minor and short term in duration.

The contractors would be required by contract stipulation to keep down dust at all times, including nonworking hours. In addition, they would be required to sprinkle or treat, with dust suppressants, the soil at the construction site, haul roads, and other areas disturbed by operations.

I. Contaminated Sites: A preliminary assessment of installation restoration sites has been conducted at Northwest. No sites were located within the proposed construction site.

J. Utilities: The various utility systems (electric, sanitary sewage, potable water) on the Installation are capable of handling the increases associated with these projects.

Electric power for the Installation is purchased from Virginia Power Company. The old electric distribution system was upgraded in 1989. The facilities requiring heat will utilize a heat pump.

Five wells on the Installation are used for potable water. The average daily usage of water is currently at 160,000 gallons; the system is capable of handling 432,000 gallons per day.

The wastewater treatment plant is capable of treating 300,000 gallons of wastewater per day. It currently treats 150,000 gallons per day.

K. Transportation: The traffic count for the Installation is 1,300 vehicles within a 24 hour period. Traffic initially utilizing the new road would be limited to personnel traveling to the new medical/dental clinic,

NEX, and gas station. The City of Chesapeake has advised that east and west turn lanes will be constructed by the City to expedite traffic exiting and entering the Installation when the road is extended in the future and becomes the new entrance to the Installation. Consultation with the City of Chesapeake Planning Commission confirmed that the new entrance would not impact community plans and programs.

L. Environmental Justice in Minority Populations and Low-Income Populations: The Navy has not directly or indirectly used criteria, methods, or practices that discriminate on the basis of race, color, or national origin. In addition, the Navy has analyzed the economic and social impacts of the proposed project and determined that no economic or social impacts are anticipated on minority or low-income communities. No human health impacts are anticipated. No mitigation measures are necessary to address significant adverse environmental impacts on minority and low-income communities.

#### V. COORDINATION

The project area has been approved as a "non-shrew" habitat by the U.S. Fish and Wildlife Service. (Attachment A)

Consultation with the Virginia State Historic Preservation Office (SHPO) is ongoing. A Phase I and II Archaeological Survey report on the proposed project site was prepared and forwarded to SHPO. A data recovery plan for Sites 44CS187 and 44CS188 will be prepared and submitted to the Virginia State Historic Preservation Office.

Consultation with the City of Chesapeake Planning Commission on November 16, 1993 confirmed that their approval was not required for the new road. The City of Chesapeake advised that east and west turn lanes will be constructed by them after the Navy constructs the new entrance road.

Required permits for installation and operation of the gas fueling station will be obtained before construction begins.

## VI. MITIGATION MEASURES

Mitigation measures to assure minimal impacts to the environment will be incorporated in the design and construction of the proposed projects. The following measures would be employed:

1. Avoid impacts to peripheral drainage trenches and hedgerows by not removing vegetation. Replace any vegetation removed after construction for landscaping or aesthetic purposes. Maintain or replace visual barrier of trees between Navy property and private farmland to the east. This action would maintain wildlife habitat and provide erosion control buffers.

2. Erosion control measures such as hay bails and filter fabric will be employed during construction to reduce potential soil erosion in accordance with Navy specifications consistent with Virginia Erosion and Sediment Control Regulations.

3. Contractors would be required to implement dust control measures during construction to maintain air quality. Measures would include using dust suppressants at the site, haul roads, and other areas disturbed by operations to control dust generation during working and nonworking hours.

4. Utilize existing trenches to accommodate stormwater runoff. Construct new vegetated trenches to connect to the existing stormwater runoff feeder swales fronting Ballahack Road that deposit stormwater runoff into the Northwest River to accommodate potential increase in stormwater runoff.

5. Emulsified asphalt paving will be used to minimize emission of volatile organic compounds.

6. Once construction is complete, landscaping by planting ornamental trees and shrubs, planting grass, and using mulch around vegetation

will be implemented to aid in sediment filtration and stormwater runoff absorption.

7. Drainage from the car wash will be treated by the Installation sanitary sewer system. Waxes are floatable and will come out in the primary treatment. Soaps and detergents will be consumed in the biological process.

8. The gas station will be designed to remotely signal for help should a leakage or overspill occur. An oil/water separator will be installed at the gas station. This will prevent oil from entering the stormwater runoff system. The underground storage tanks will be registered with the Tidewater Regional Office of the Department of Environmental Quality.

9. Data recovery for archaeological deposits found at Sites 44CS187 and 44CS188 will be implemented in consultation with the Virginia State Historic Preservation Office and the Advisory Council on Historic Preservation.

## VII. CUMULATIVE IMPACTS

Approximately 22 acres of land has been taken out of agriculture use as a result of the current and future proposed projects. Another proposed project (planned for construction before these projects) located in the Operational Area of the Installation, would eliminate 2.3 acres of agricultural land. These two parcels had been outleased to farmers under the Agricultural Outlease program. This program provides a means of income to the Government for land which is not currently being utilized by the Government. The two agricultural fields have been designated as areas for future development as needed by the Installation. (NSGA NW Master Plan) Over 650 acres remain that can be utilized for farming.

Construction and operation of the proposed projects is not expected to have any significant cumulative adverse impacts on the

environment. Additional National Environmental Policy Act (NEPA) documentation will be prepared on the future projects, including the proposed road extension, once more details on the scope and siting are known.

#### VIII. CONCLUSION

No significant environmental impacts would occur as a result of the proposed action. The major reasons for lack of impacts is the site selected and the mitigation measures to be employed. The site does not encroach upon any prohibited areas, does not adversely effect the threatened or endangered Dismal Swamp shrew, provides mitigation for impacts to significant archaeological resources through data recovery, and sites the projects in the Core Area of the Installation as recommended by the Naval Security Group Activity Northwest Master Plan.

# **ATTACHMENTS**



United States Department of the Interior

FISH AND WILDLIFE SERVICE  
DIVISION OF ECOLOGICAL SERVICES  
1825 VIRGINIA STREET  
ANNAPOLIS, MARYLAND 21401

September 1, 1992

Lieutenant Commander Daniel A. Berenato  
Environmental Planning and Natural Resources  
Department of the Navy  
Atlantic Division  
Naval Facilities Engineering Command  
Norfolk, Virginia 23511-6287

Re: Dismal Swamp shrew at NSGA  
Northwest

Dear Lt. Cmdr. Berenato:

This responds to your letter of August 4, 1992, conveying maps of threatened Dismal Swamp shrew (Sorex longirostris fisheri) habitat and non-shrew habitat at Naval Security Group Activity, Northwest, located within the City of Chesapeake, Virginia. This information was developed in coordination with our endangered species staff.

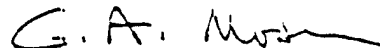
We have reviewed these maps and concur with the boundaries. Most of the land within the non-shrew boundary has structures, is paved, consists of mowed lawns, or is in agricultural usage. Such areas do not provide habitat suitable for occupation by the threatened shrew. Small, isolated patches of otherwise suitable habitat within this developed/agricultural area would be unlikely to support sustainable shrew populations in the long term. Thus, no further consultation pursuant to Section 7 of the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) will be required for future developments within the designated non-shrew areas, provided these developments do not have impacts (e.g. hydrological changes) on areas outside the designated non-shrew boundary.

It is our understanding from previous coordination with your environmental planning staff that most or all of the area outside of the non-shrew boundary that is not presently cleared or roaded would be maintained in a natural, or semi-natural state, which would perpetuate the shrew in this area. Exceptions might include small-scale timber operations or other activities that might cause temporary, but not permanent, habitat alterations. As you indicated, such activities would require formal consultation with the Fish and Wildlife Service.

Attachment A

We commend your efforts and those of NSCA staff to contribute to the recovery of this threatened mammal. Please contact Judy Jacobs of this office if you have any questions about this matter.

Sincerely,



John P. Wolflin  
Supervisor  
Chesapeake Bay Field Office

cc: FWS, White Marsh  
ATTN: C. Schulz  
VDGIF, ATTN: K. Terwilliger



# COMMONWEALTH of VIRGINIA

H. Alexander Wise, Jr., Director

## Department of Historic Resources

221 Governor Street  
Richmond, Virginia 23219

October 3, 1994

Pam Couch  
Natural Resource Manager  
Code 46PC  
NSGA, Northwest  
1320 Northwest Boulevard, Suite 100  
Chesapeake, Virginia 23322-4094

Re: Phase I Archaeological Survey  
Naval Security Group Activity, Northwest  
VDHR Project No. 94-1783-F

Dear Ms. Couch:

We have received the Phase I report for the above-referenced project. The report was prepared by the James River Institute for Archaeology, Inc. in August of 1994 and our review copy, submitted to us directly by the consultant, was received on August 24, 1994.

Three sites were identified in the course of survey. Two of these, designated 44CS187 and 44CS188, consist of late-eighteenth/early-nineteenth-century sites. The third site, 44CS189, is a late-nineteenth/early-twentieth century site. The consultant has recommended further evaluation of Site 44CS187 but no further work at Sites 44CS188 and 44CS189.

Based on the information provided in the report, our Department's Archaeological Evaluation Committee concurs with the consultant that further evaluation of Site 44CS187 is necessary if the site cannot be avoided in light of proposed construction. The site is potentially eligible for inclusion on the National Register of Historic Places. The Committee also recommends that further archaeological evaluation be conducted at Site 44CS188. The information presented in the report does not satisfactorily preclude the potential significance of the site. The Committee concurs that the third site, 44CS189, has low research potential and is not eligible for inclusion on the National Register.

In general, the report meets the federal standards entitled Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines (48 FR 44716-44742, September 29, 1983) and our Department's Guidelines for Preparing Identification and

Attachment B  
23-2

TELEPHONE: (804) 786-3143 TDD: (804) 786-1934 FAX: (804) 225-4261

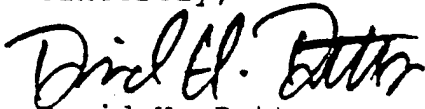
Ms. Couch  
VDHR File No. 94-1783-F

October 3, 1994  
Page 2

Evaluation Reports for Submission Pursuant to Sections 106 and 110, National Historic Preservation Act, Environmental Impact Reports of State Agencies, Virginia Appropriations Act, 1992 Session Amendments (June 1992). Please note that we have a few concerns with the report that you may wish to discuss with your consultant for future reference. These are included on the following page.

If you have any questions concerning our comments, please contact Cara Metz of our project review staff. We look forward to working with you on this and other projects.

Sincerely,



David H. Dutton  
Director, Division of Project Review

cc: Bruce Larson  
LANTNAVFACENGCOM

Garrett Fesler  
JRIA Inc.

Review of the Phase I Archaeological Survey of the Naval Security Group Activity, Northwest has brought up the following concerns:

1. The proposed project is not clearly discussed in any section of the report. Before a review of this project can be completed, it will be necessary for project documentation to be submitted to this office by the Navy.
2. Several of the figures used in the report are difficult to interpret. Figure 1, for example, has no scale, no orientation, and no reference. A total of 22 historic maps is included in the report, yet not one indicates scale, orientation, or location of the project area. In order for the figures to provide contextual information they must be related at least in general to the project area.
3. Previous research by the same consultant at NSGA Northwest is mentioned on Page 43 of the report, yet no appropriate reference is provided. According to the consultant, sites have also been identified in the vicinity of the current project area in the course of survey related to other projects. Previous research should be taken into consideration to provide a context for current research. References should also be provided for this data.



DEPARTMENT OF THE NAVY

NAVAL SECURITY GROUP ACTIVITY  
NORTHWEST  
CHESAPEAKE VIRGINIA 23322

5750  
Ser 467 01559  
24 OCT 1994

Ms. Cara Metz, Archaeologist  
Department of Historic Resources  
221 Governor Street  
Richmond, Virginia 23219

RE: Phase I Archaeological Survey, Naval Security Group Activity  
(NSGA) Northwest, Chesapeake, Virginia, VDHR Project No. 94-1783-F

Dear Ms. Metz:

We have received your recommendations for further archaeological evaluations to be conducted at Sites 44CS187 and 44CS188. These sites are located in the survey area identified as Parcel 1 on page 51 of the Phase I Archaeological Survey Report. Mr. Bruce Larson, LANTNAVFACENGCOM archaeologist, is in the process of preparing the scope of work for the Phase II surveys for the above sites so that we may proceed with the recommended surveys. We will forward the survey results once the surveys have been completed along with the project documentation for Parcel 1.

We are enclosing project documentation for the projects which are proposed to be constructed in the survey area identified as Parcel 2 on page 59 of the Phase I Archaeological Survey Report. No archaeological resources were found in Parcel 2. Therefore, these projects will have no effect on archaeological resources and we will proceed with the completion of the environmental assessment, design and construction of the proposed projects.

We have reviewed your concerns on the Phase I Archaeological Survey Report that was submitted directly to you by our consultant, the James River Institute. We will ensure that any future reports prepared by consultants will address these concerns. If you should require additional information for any of the projects described in enclosure (1), please contact Ms. Pamela Couch at (804) 421-8239.

Sincerely,

R. L. GERSH  
Lieutenant, CEC, U. S. Navy  
By direction of the  
Commanding Officer

Encl:  
(1) Project Documentation

Copy to:  
COMNAVSECGRU (Bob Boyd, N445)  
LANTNAVFACENGCOM (Bruce Larson, Code 2031BL)

Attachment B

# COMMONWEALTH of VIRGINIA

H. Alexander Wise, Jr., Director

221 Governor Street  
Richmond, Virginia 23219

## Department of Historic Resources

August 7, 1995

Charles W. Walker, P.E.  
Head, Environmental Planning/Natural Resources  
Atlantic Division  
Naval Facilities Engineering Command  
1510 Gilbert Street  
Norfolk, VA 23511-2699

Re: Phase II Evaluation, Site 44CS187/44CS188  
NSGA Northwest  
DHR File No. 94-1783-F

0/2-2

Post-It™ brand fax transmittal memo 7871 # of pages 1

To/	From
Kan Covale	Bruce Larson
Co.	Co.
Dept.	Phone #
Fax #	Fax #
804.421.8255	

Dear Mr. Walker:

We have received the Phase II evaluation report for Sites 44CS187/44CS188. The report was prepared by R. Christopher Goodwin and Associates in June of 1995.

On July 18, 1995 our Department's National Register Evaluation Committee met to consider the eligibility of Sites 44CS187 and 44CS188. Based upon the information provided in the report, we concur with the consultant's recommendations for these two sites. The Committee finds that Sites 44CS187 and 44CS188 are eligible for the National Register of Historic Places for their demonstrated ability to contribute information important to our understanding of Virginia's history (Criterion D). Both of these sites are associated with the late 18th to early 19th century farm complex belonging to the Thomas W. Happer family, or their tenant, Andrew McPherson. The presence of intact features indicates that these sites can provide important new information on the socioeconomic status of the sites' inhabitants and the spatial configuration of farmsteads of this period.

The level of effort and the resulting report are consistent with the federal standards entitled Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines (48 FR 44716-44742, September 29, 1983) and our Department's Guidelines for Preparing Identification and Evaluation Reports for Submission Pursuant to Sections 106 and 110, National Historic Preservation Act, Environmental Impact Reports of State Agencies, Virginia Appropriations Act, 1992 Session Amendments (June 1992). Please note for future reference that the DHR file number should be listed on the cover of the report.

We look forward to your determination of effect for this project. Please contact: Cara Metz if you have any questions regarding our review.

Sincerely,

David H. Dutton  
Director, Division of Project Review

c: Bruce Larson

TELEPHONE: (804) 786-3143 TDD: (804) 786-1934 FAX: (804) 225-4261

Attachment B



DEPARTMENT OF THE NAVY

NAVAL SECURITY GROUP ACTIVITY  
NORTHWEST  
CHESAPEAKE, VIRGINIA 23322

5750  
46/ 2 1 8 7

23 OCT 1995

Mr. Alexander Wise, Jr., Director  
Department of Historic Resources  
221 Governor Street  
Richmond, Virginia 23219

RE: Cultural Resource Data Recovery of Sites 44CS187/44CS188, Naval Security Group Activity (NSGA) Northwest, Chesapeake, Virginia, DHR File No. 94-1783-F

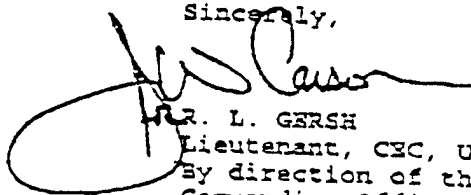
Dear Mr. Wise:

Naval Security Group Activity Northwest is proposing to construct a medical/dental facility, security pass/identification office, Navy exchange, Gas Station, Car Wash and associated realignment of main gate. Immediately to the east is private property where the Navy has no access rights, to the west and immediately adjacent to the proposed site is located housing units and the south lie existing administration buildings. The projects were designed to move the front gate access away from the housing area while still maintaining direct access to the core area.

We have received your letter dated August 7, 1995 which concurred with our findings that sites 44CS187 and 44CS188 are eligible for inclusion in the National Register of Historic Places under criteria D. The Navy has determined that the proposed undertakings will have an effect on these historic resources. Due to project constraints as noted in paragraph 1, avoidance is not a feasible alternative. Therefore, we are proposing data recovery of all archaeological deposits contained at the sites. Our data recovery plan was provided in September 1995 to Ms. Cara Metz for review and comment.

Pursuant to 36 CFR 800.9(c), we are requesting your concurrence with a determination of no adverse effect with the condition that the data recovery plan be implemented.

Sincerely,



R. L. GERSH  
Lieutenant, CEC, U. S. Navy  
By direction of the  
Commanding Officer

Attachment B



COMMONWEALTH of VIRGINIA

Department of Historic Resources

H. Alexander Wise, Jr., Director

221 Governor Street  
Richmond, Virginia 23219

November 7, 1995

Ms. Pam Couch  
Natural Resource Manager  
Code 46PC  
NSGA Northwest  
1320 Northwest Boulevard  
Suite 100  
Chesapeake, VA 23322-4094

Re: Data Recovery Plan  
Sites 44CS187 and 44CS188  
City of Chesapeake  
DHR File No. 94-1783-F

Dear Ms. Couch:

Thank you for the opportunity to review the treatment plan for the referenced project. We find that the plan, prepared and submitted by the firm of R. Christopher Goodwin and Associates, is consistent with the Secretary of the Interior's Standards for Archeological Documentation (48 FR 44734-44742) and the Advisory Council on Historic Preservation's Treatment of Archeological Properties (1980). We look forward to reviewing the report resulting from the work to be conducted at Sites 44CS187 and 44CS188.

Please contact Cara Metz at (804) 786-4517 if you have any questions or if we can be of further assistance.

Sincerely,

David H. Dutton  
Director, Division of Project Review

c: Christopher Polglase  
Bruce Larson

Attachment B

23-2

TELEPHONE: (804) 786-3143 TDD: (804) 786-1934 FAX: (804) 225-4261



DEPARTMENT OF THE NAVY

NAVAL SECURITY GROUP ACTIVITY  
NORTHWEST  
CHESAPEAKE VIRGINIA 23322

5750  
46/ 2 3 7 1  
22 NOV 1995

Ms. Druscilla Knull  
Advisory Council on Historic Preservation  
1100 Pennsylvania Avenue North West  
Old Post Office Bldg. Suite 809  
Washington, D.C. 20004

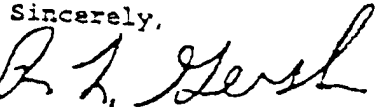
RE: Cultural Resource Data Recovery of Sites 44CS187/44CS188, Naval Security Group Activity (NSGA) Northwest, Chesapeake, Virginia, DHR File No. 94-1783-F

Dear Ms. Knull:

Naval Security Group Activity Northwest is proposing to construct a medical/dental facility, security pass/identification office, Navy exchange, Gas Station, Car Wash and associated realignment of main gate. Immediately to the east is private property where the Navy has no access rights, to the west and immediately adjacent to the proposed site is located housing units and to the south lie existing administration buildings. The projects were designed to move the front gate access away from the housing area while still maintaining direct access to the core area.

A phase I survey was conducted in August 1994. The Commonwealth of Virginia, Department of Historic Resources (VDHR) concurred with our findings that further surveys were warranted for sites 44CS187 and 44CS188 (Enclosure 1). In April 1995, a phase II survey was conducted. Based on this survey, the Navy concluded that these sites were eligible for inclusion in the National Register of Historic Places under criteria D and the VDHR concurred with this determination via letter dated August 7, 1995 (Enclosure 2). The Navy then determined that the proposed undertakings would have an effect on these historic resources and a data recovery plan was prepared (Enclosure 3) and submitted to VDHR. On November 7, 1995 the VDHR reviewed the treatment plan for this project and determined that it is consistent with the Secretary of Interior's Standards for Archaeological Documentation and the Advisory Council on Historic Preservation's Treatment of Archeological Properties (Enclosure 4).

Pursuant to 36 CFR 800.6, we are requesting your review and comment on the determination of no adverse effect with the condition that the data recovery plan be implemented. If you should require additional information about this project, please contact Ms. Pamela Couch at (804) 421-8239.

Sincerely,  
  
R. L. GERSH  
Lieutenant, CEC, U. S. Navy  
By direction of the  
Commanding Officer

- Encl:
- (1) VDHR letter dated 10/03/94
  - (2) VDHR letter dated 8/7/95
  - (3) Data Recovery Plan
  - (4) VDHR letter dated 11/7/95

Attachment B



COMMONWEALTH of VIRGINIA

H. Alexander Wise, Jr., Director

Department of Historic Resources

221 Governor Street  
Richmond, Virginia 23219

November 29, 1995

Robert L. Gersh  
Lieutenant, CEC, U.S. Navy  
Naval Security Group Activity Northwest  
Chesapeake, VA 23322

Re: Main Gate Realignment and Related Construction Projects  
NSGA Northwest  
City of Chesapeake  
DHR File No. 94-1783-F

Dear Lieutenant Gersh:

Thank you for your letter of October 23, 1995 concerning the referenced projects. We concur with your determination that the projects will have no adverse effect on historic properties provided that the data recovery plan approved by letter dated November 7, 1995 is implemented.

Please contact Cara Metz at (804) 786-4517 if you have any questions or if we can be of further assistance.

Sincerely,

David H. Dutton  
Director, Division of Project Review

Attachment B

23-2

TELEPHONE: (804) 786-3143 TDD: (804) 786-1934 FAX: (804) 225-4261

# Advisory Council On Historic Preservation

---

The Old Post Office Building  
1100 Pennsylvania Avenue, NW, #809  
Washington, DC 20004

---

DEC 7 1995

LT R. L. Gersh  
Naval Security Group Activity Northwest  
Chesapeake, VA 23322

REF: Construction of Medical/Dental Facility, Security Office, Exchange, & Gas Station  
Naval Security Group Activity Northwest, Chesapeake, Virginia

Dear Lt. Gersh:

On November 27, 1995, the Council received your determination, supported by the Virginia State Historic Preservation Office (SHPO), that the referenced ~~undertaking~~ will have no adverse effect upon Archeological Sites 44CS187 and 44CS188, properties eligible for listing on the National Register of Historic Places. Pursuant to Section 800.5(d)(2) of the Council's regulations, "Protection of Historic Properties" (36 CFR Part 800), we do not object to your determination. Therefore, you are not required to take any further steps to comply with Section 106 of the National Historic Preservation Act other than to ensure that the undertaking is implemented as proposed and consistent with any conditions you have reached with the Virginia SHPO.

Thank you for your cooperation.

Sincerely,



Druscilla J. Null  
Historic Preservation Specialist

Attachment B

Record of Non-Applicability

P-019

Medical/Dental Clinic, NEX, Gas Station/Car Wash Facility  
Naval Security Group Activity Northwest  
Chesapeake, Virginia

Section 176(c) of the Clean Air Act (CAA) prohibits Federal agencies, departments, or instrumentalities from engaging in, supporting, licensing, or approving any action which does not conform to an approved State or Federal implementation plan.

The Hampton Roads area is in attainment with five of the six Criteria Pollutants established by the Environmental Protection Agency. Hampton Roads is listed as non-attainment marginal for the Ozone standard due to high Ozone levels in the past years.

The proposed project meets Exemption A which states:

"Actions where the total of all reasonably foreseeable direct and indirect emissions do not equal or exceed the de minimis levels."

The total emission rate is 2.738 tons for Nitrous Oxide (NOX) and 1.513 tons for Volatile Organic Compound (VOC) for the entire 18-month construction timeframe. The VOC and NOX emissions are less than 100 tons per year, which is the de minimis level for marginal nonattainment areas. Therefore, a conformity determination is not applicable. This determination is based on the air emissions analysis for the proposed projects which was developed by the Environmental Protection Specialist preparing the Environmental Assessment for this project.

Comparison of Annual Emission Rates of Nonattainment Pollutants Resulting from Construction and Operation of the Proposed Action

<u>Pollutant</u>	<u>Total Project Emissions (Tons/18 Mos)</u>	<u>De Minimis Emission Rates (Tons/Yr)</u>
NO-X	2.7	100
VOC	1.5	100

To the best of my knowledge the information provided is correct and accurate and I concur in the finding that air emissions associated with the proposed action will conform to the State Implementation Plan and therefore does not require a further conformity determination.

Robert L. Gresh

9-15-95

Date

Attachment C

VOC EMISSION RATE CALCULATIONS  
(rounded)

Grader (2) 250 hrs <u>x 0.410 lbs/hr</u> 103 lbs	<u>103 lbs</u> 2000 lbs	=	.052 Tons
Front End Loader (3) 600 hrs <u>x 0.250 lbs/hr</u> 150 lbs	<u>150 lbs</u> 2000 lbs	=	.075 Tons
Excavator (3) 600 hrs <u>x 0.098 lbs/hr</u> 59 lbs	<u>59 lbs</u> 2000 lbs	=	.030 Tons
Backhoe (4) 250 hrs <u>x 0.098 lbs/hr</u> 25 lbs	<u>25 lbs</u> 2000 lbs	=	.013 Tons
Bulldozer (2) 150 hrs <u>x 0.410 lbs/hr</u> 62 lbs	<u>62 lbs</u> 2000 lbs	=	.031 Tons
Paving Machine (1) 20 hrs <u>x 0.250 lbs/hr</u> 5 lbs	<u>5 lbs</u> 2000 lbs	=	.003 Tons
Dump Truck (10) 250 hrs <u>x 0.192 lbs/hr</u> 48 lbs	<u>48 lbs</u> 2000 lbs	=	.024 Tons
Delivery/Concrete Truck (4) 60 hrs <u>x 0.192 lbs/hr</u> 11.5 lbs	<u>12 lbs</u> 2000 lbs	=	.006 Tons

VOC  
 (rounded)  
 (continued)

Crane (1)			
200 hrs	30 lbs		
x 0.152 lbs/hr	<u>2000 lbs</u>	=	<u>.015 Tons</u>
<u>30.4 lbs</u>			

Roller (2)			
150 hrs	<u>10 lbs</u>		
x 0.067 lbs/hr	<u>2000 lbs</u>	=	<u>.005 Tons</u>
<u>10.1 lbs</u>			

Compactor (1)			
60 hrs	<u>25 lbs</u>		
x 0.410 lbs/hr	<u>2000 lbs</u>	=	<u>.013 Tons</u>
<u>25 lbs</u>			

Worker Vehicle (25)			
2 hrs/day	18000 hrs		
x 20 day/mo	<u>x 0.098 lbs/hr</u>		
<u>40 hrs/mo</u>	<u>1,764 lbs</u>		
x 18 mos			
<u>720 hrs/18 mos</u>	<u>1764 lbs</u>		
x 25 vehicles	<u>2000 lbs</u>	=	<u>.882 Tons</u>
<u>18000 hrs</u>			

TOTAL 1.149

NOX EMISSION RATE CALCULATIONS  
(rounded)

Grader (2) 250 hrs <u>x 0.320 lbs/hr</u> 80 lbs	<u>80 lbs</u> 2000 lbs	=	.04 Tons
Front End Loader (3) 600 hrs <u>x 1.890 lbs/hr</u> 1134 lbs	<u>1134 lbs</u> 2000 lbs	=	.567 Tons
Excavator (3) 600 hrs <u>x 0.827 lbs/hr</u> 496 lbs	<u>496 lbs</u> 2000 lbs	=	.248 Tons
Backhoe (4) 250 hrs <u>x 0.827 lbs/hr</u> 207 lbs	<u>207 lbs</u> 2000 lbs	=	.104 Tons
Bulldozer (2) 150 hrs <u>x 0.320 lbs/hr</u> 48 lbs	<u>48 lbs</u> 2000 lbs	=	.024 Tons
Paving Machine (1) 20 hrs <u>x 1.890 lbs/hr</u> 38 lbs	<u>38 lbs</u> 2000 lbs	=	.019 Tons
Dump Truck (10) 250 hrs <u>x 4.166 lbs/hr</u> 1042 lbs	<u>1042 lbs</u> 2000 lbs	=	.521 Tons
Delivery/Concrete Truck (4) 60 hrs <u>x 4.166 lbs/hr</u> 250 lbs	<u>250 lbs</u> 2000 lbs	=	.125 Tons

Attachmet C

NOX  
(rounded)  
(continued)

Crane (1)  
200 hrs  
x 1.691 lbs/hr  
338.2 lbs

338 lbs  
2000 lbs

= .169 Tons

Roller (2)  
150 hrs  
x 0.862 lbs/hr  
129 lbs

129 lbs  
2000 lbs

= .065 Tons

Compactor (1)  
60 hrs  
x 0.320 lbs/hr  
19 lbs

19 lbs  
2000 lbs

= .010 Tons

Worker Vehicle (25)  
2 hrs/day  
x 20 day/mo  
40 hrs/mo  
x 18 mos  
720 hrs/18 mos  
x 25 vehicles  
18000 hrs

18,000 hrs  
x 0.094 lbs/hr  
1,692 lbs

1692 lbs  
2000 lbs

= .846 Tons

TOTAL 2.738

VOC  
 Vehicle Refueling Operations/Evaporative Emissions

<u>Emission Source</u>	<u>lb/1000 Gal</u>	<u># Gallons Used/Yr</u>	<u>lbs/Yr</u>	<u>Tons/Yr</u>
Vehicle Refueling Displacement Losses (uncontrolled)	11	30,000 Unleaded	330	.165
Spillage	.7	30,000 Unleaded	21	.011
Tank Refilling Losses	11.5	30,000 Unleaded	345	.173
Underground Tank Breathing	1.0	30,000 Unleaded	30	.015
TOTAL				.364

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### List Of Persons Contacted

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