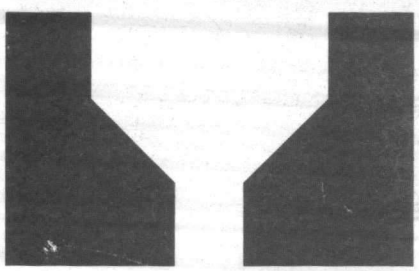
81-1689

Unaccompanied Enlisted Personnel Housing (UEPH) P-624

Marine Corps Base
Camp Lejeune, N. C.

LANTDIV

Naval Facilities Engineering
Command, Norfolk, Va.



MBTB ARCHITECTS · ENGINEERS, INC.

35% SUBMITTAL (Revised Scope)

UNACCOMPANIED ENLISTED PERSONNEL HOUSING (UEPH) P-624

MARINE CORPS BASE, CAMP LEJEUNE, N. C.

For

ATLANTIC DIVISION

NAVAL FACILITIES ENGINEERING COMMAND, NORFOLK, VA.

MAXEY L. BRYANT, P.E., PROJECT MANAGER

Prepared by

MBTB ARCHITECTS-ENGINEERS, INC.

GREENVILLE, SOUTH CAROLINA

20 DEC 1983

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MARINE CORPS BASE, CAMP LEJEUNE, N. C.

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CHAPTER I. SCOPE

AUTHORIZATION

MBTB Architects-Engineers, Inc. was authorized on 11 FEB 82 under A & E Contract N62470-81-C-3888 to prepare a PED and 35% Submittal for Project P-624, Unaccompanied Enlisted Personnel Housing (UEPH), Marine Corps Base, Camp Lejeune, N.C. This submittal was made on 22 JUL 82.

The project remained in limbo until MAR 83 when MBTB was requested to prepare a fee proposal for a new PED and 35% design to conform to the new housing criteria mandated by Congress. MBTB received authorization to proceed with the project effective 30 SEP 83.

SCOPE

The original scope of the project included five three-story barracks with associated site work and utilities at a total project cost of $19,500,000. A Minimum Project Documentation (MPD) reflecting this information was submitted on 29 JAN 82.

With the 22 FEB 82 return of the MPD, LANTDIV notified MBTB Architects-Engineers, Inc. that the project had been deferred to the FY-85 Program and reduced in scope to three three-story buildings with a total project cost of $9,450,000.

The revised scope (30 SEP 83) provides for a building to conform to the latest space criteria using a two (2) room module with shared bath as the basis of design. Provision for the same grade mix of 1,245 (E-1 through E-4), 80(E-5) and 25 (E-6 through E-9), but increase number of buildings from five (5) to six (6) (4 at 397′ length and 2 at 345′ length) thus required increased site area. The buildings shall be three-story reinforced concrete frame buildings, masonry walls, pile and spread footing foundations. Design shall include lounges, laundry, storage, vending machine areas, roads, parking, mechanical building, utilities and demolition of two (2) existing buildings occupying the site (Buildings 426 and 427). The air conditioning from demolished buildings shall be salvaged and relocated to six (6) smaller buildings designated by the activity.

The facility will be located in the Regimental Area No. 4, Hadnot Point, and is a continuation of the Marine Corps Base Master Plan for Billeting upgrade.

The project also includes the required utility connections and site work.

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This brochure and the accompanying full size drawings illustrate the approach to the design and siting of the Unaccompanied Enlisted Personnel Housing (UEPH). Included are: Basis of Design, Outline Specifications, Drawings, and Cost Estimate.

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MARINE CORPS BASE, CAMP LEJEUNE, N. C.

CHAPTER II. BASIS OF DESIGN

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A. ARCHITECTURAL

1. Type of Construction:

The Unaccompanied Enlisted Personnel Housing Buildings will be of permanent type, low maintenance construction. The buildings will be group classification "R", residential occupancy, based upon the Standard Building Code, 1982 Edition. The buildings are also of non-combustible construction.

The Mechanical Equipment Building will also be of permanent type, low maintenance and non-combustible construction.

2. Thermal Treatment:

The exterior walls of these buildings will be masonry with rigid insulation board provided in the cavity space. Exterior walls for conditioned spaces will have a U-value of 0.10.

The building roofs will include a U-value of 0.05 for conditioned spaces. The roofs will have opaque, light colored aggregate reducing solar load and limiting thermal contraction and expansion.

Windows for the buildings are located on the two opposite (principal) sides of each building, but due to various building orientations in the complex, windows will have north, south, east, and west exposures. They will be aluminum, horizontal sliding in hollow metal frames with insulating glass; located in each sleeping room and other auxiliary spaces as required. They will be shielded by the exterior walkway balconies for the entire length of the buildings, thus providing projection from solar loads.

3. Materials:

Exterior walls will be a combination of CMU plus face brick. Interior walls will be constructed of CMU.

Floor areas will have a concrete slab on grade, and a concrete topping over precast concrete deck above grade.

Floor finishes will be vinyl asbestos tile with glazed CMU base in sleeping rooms, offices, lounges, storage rooms, public toilet, laundry, corridor and vending areas. Ceramic tile floor and base will be used in bathrooms adjacent sleeping rooms. Exposed concrete will be used in the electric rooms, mechanical chases, and all stairs.

Wall finishes will be painted CMU generally. Unpainted CMU will be used in electric rooms, and mechanical chases. Brick will be used in the stairs, corridors, and vending areas.

Ceiling finishes will be simulated acoustical finish on concrete in the sleeping rooms, with paint on concrete for bathrooms. Concrete with no paint will be used in the electric rooms, stairs and mechanical chases. Suspended acoustical tile will be used in offices, lounges, corridors and vending areas.

The mechanical equipment building will have concrete slab on grade, unpainted CMU, and no ceiling.

4. Items not considered a permanent part of the structure:

This would include wardrobe units, miscellaneous storage shelving, washers, dryers, and waste can receptacles at exterior balconies.

5. Architectural Acoustics:

The office areas, lounges, corridors and vending areas will have a suspended acoustical ceiling tile system isolating mechanical system noises as required and also providing an absorbing surface for these spaces.

The sleeping rooms will have simulated acoustical finish on the concrete deck for noise absorption.

In addition, all walls will go up to the underside of the floor/roof deck above, isolating sounds from all areas.

The chillers, pumps, and expansion tanks are located in a separate and remote mechanical equipment building.

6. Physically Handicapped Requirements:

The use of these buildings will be specifically limited to able-bodied military personnel only, and provisions for the physically handicapped will not be required.

7. Unaccompanied Enlisted Personnel Housing Gross Floor Areas:

Building Type I	:	48,264 SF
No. Buildings	:	4 EA
Sub-total	:	193,056 SF
Building Type II	:	56,173 SF
No. Buildings	:	2 EA
Sub-total	:	112,346 SF
Mechanical Equipment Building	:	360 SF
Gross Total Area	=	305,762 SF

B. STRUCTURAL

1. Sub-Surface Soil Conditions:

Sub-surface soil investigations have been conducted at the proposed site with a total of 24 split spoon type borings.

Camp Lejeune lies within the Atlantic Coastal Plain Physiographic Province where the soil is characterized by inter-bedded sands and clays deposited in a marine environment. This condition is uniform thru-out the proposed site area for the 6 buildings.

The ground surface is grassed and covered with a thin zone of grass roots and topsoil. Beneath this is a 3′ to 18′ thick strata of very loose to fir sands firm sands. The sand consistency varies randomly with depth. Texturally, the sands vary from silty to fine, poorly graded materials.

At the west end of the site, a 5′ thick zone of firm to stiff clay was encountered. This strata is discontinuous and does not extend throughout the site. Below the clays and at the remaining site borings, loose to firm sands were encountered.

At a depth of 23′ to 38′ below the surface a strata of well graded sand and cemented sands, identified as marl, was encountered throughout the site. These sands are generally dense in consistency to boring termination at 50′. Drilling fluid was lost in the 35′ to 50′ depth range, representing an unsaturated formation of sand.

Ground water in the area is 10′ to 16′ below the existing surface after 24 hours.

The soil conditions are considered adequate for the support of shallow spread building foundations except for Building HP 495 which will require a deep foundation system.

2. Proposed Foundations:

Buildings HP 445, HP 455, HP 465, HP 475 & HP 485 will be supported on a system of shallow spread footings. A design soil bearing pressure of 2,000 PSF will be used to size all footings to support the three story masonry bearing walls.

Based on the soil report, total settlements of 1/2" to 3/4" are estimated with the design soil bearing pressure of 2,000 PSF, minimal new fills, and 100% of the total live and dead loads. Since only a percentage of the total live loads will actually be exerted 100% of the time, the estimated total settlement will be less than 3/4".

The load bearing walls and frame of Building HP 495 should be supported on a deep foundation system. For ease and availability a treated timber pile system is recommended. The need for deep foundations at this building results from the thin sand strata over soft clays. Footing stress from the three story heavy masonry walls would result in excessive building settlements of 1 3/8" to 1 1/2".

Floor slabs on grade will support relatively light loads of 75 PSF. This floor slab will perform satisfactorily when supported on structural fill or site sands if the subgrade is densified as outlined in the soil report.

3. Type of Construction:

The proposed buildings will utilize interior as well as exterior masonry walls as load-bearing elements. The walls will transfer vertical and horizontal forces on the structure to load-bearing systems below. This box system will utilize roof and floor decks as diaphragms to transmit lateral forces to the shear walls.

4. Structural Floor System:

The floor deck will consist of 6-inch thick hollow core slabs spanning between room walls, typically located 12'-8 on centers. The maximum clear span of the slabs will be 17'-4 in the lounge areas. The hollow core slabs will have a 2-inch concrete overpour to bring the total floor thickness to 8 inches.

Select floor areas, adjacent to the concrete columns located in the end walls, will have full thickness cast-in-place concrete floor slabs for stability considerations. Also, floors in the utility tunnel located along the centers of the buildings will be of 8-inch cast-in-place concrete.

The balcony floor will consist of precast solid concrete slabs varying in thickness from 8 to 6 inches.

5. Structural Roof System:

The roof deck will consist of 6-inch thick hollow core concrete slabs spanning between room walls, typically located 12'-8 on centers. The spans vary from a minimum clear span of 8'-8 in the mechanical equipment rooms to 17'-4 in the lounge area.

The hollow core slabs will have a 2-inch concrete overpour to bring the total roof deck thickness to 8 inches.

The roof area located immediately above the utility tunnel will have 8-inch cast-in-place concrete roof deck. Also, the roof deck adjacent to the concrete columns located in the building end walls will have full thickness cast-in-place concrete.

6. Structural Wall System:

The exterior envelope will consist of composite cavity walls, using an 8-inch concrete masonry unit wythe for the interior and a 4-inch brick exterior. The two wythes are separated by a 2-inch cavity which contains insulation.

Interior load-bearing walls will be either 6-inch or 8-inch concrete masonry unit walls reinforced as required for lateral loads on the structure.

Interior non-load-bearing walls and partitions will also be of concrete masonry units.

To minimize the dead load of the structure, all concrete masonry unit walls will be lightweight.

7. Live Loads:

Design Manual, NAVFAC DM-2, "Structural Engineering"

a. Vertical Loads

(1) Floors

Living Rooms	-	40 PSF
Public Rooms	-	100 PSF
Corridors	-	100 PSF
Balconies	-	100 PSF
Stairs	-	100 PSF

(2) Roofs

Minimum	-	20 PSF
Seasonal Snowpack	-	5 PSF

b. Wind Loads (115 MPH) q = 33.9 PSF

(1) On Walls 1.2q: 40.7 PSF

(2) On Structure 1.3q: 44.0 PSF

c. Seismic Loading

Z = .25 I = 1.00

K = 1.33 for Box-System

8. Design Criteria:

The structural design criteria for the buildings will be as follows:

a. Design Manual: NAVFAC DM-2, Structural Engineering

b. Reinforced Concrete: ACI Building Code Requirements, 1977 Edition with commentary

c. National Concrete Masonry Association: Reinforced Concrete Masonry Design

d. Seismic Design for Buildings: NAVFAC P-355, 1973 Ed.

e. Shallow Foundations - 2,000 PSF Allowable Soil Pressure

f. Deep Foundations - 25-Ton Timber Piles - 45 Ft. Long

9. References:

a. TM 5-809-3 (Army): Masonry Structural Design

b. Schneider & Dickey: Reinforced Masonry Design

C. ELECTRICAL

1. Interior Distribution System

a. Interior electrical characteristics for each of the UEPH buildings will be 120/208 volts, 3 phase, 4 wire, solidly grounded neutral. Interior electrical characteristics for the chiller building will be 277/480 volts, 3 phase, 4 wire, solidly grounded neutral.

b. Breakdown of the estimated connected and demand load (Demand factors = 40% for lighting and convenience outlet loads; 70% for HVAC and mechanical equipment loads).

c. Load Tabulation.

	Conn. Load (1Bldg.) KW	Dem. Load (1Bldg.) KW	Dem. Load (4Bldgs.) KW	Dem. Load (2Bldgs.) KW
(1) Type I Building: (120-208V, 30, 4W.)				
Lighting and convenience outlet load:	134.	54.	216.	--
Power Load, HVAC & building equipment :	24.	17.	68.	--
TOTAL LOAD	158.	71.	284.	--
(2) Type II Building: (120/208V, 30, 4W.)				
Lighting and convenience outlet load:	157.	63.	--	126.
Power load, HVAC & building equipment :	33.	23.	--	46.
TOTAL LOAD	190.	86.	--	172.
(3) Chiller Building: (277/480V, 30, 4W.)				
Lighting and convenience outlet load:	5.	2.	--	--
Mechanical equip. load :	433.	303.	--	--
TOTAL LOAD :	438.	305.	--	--

d. Type of Wiring System

(1) Power and lighting wiring will consist of copper conductors, with type THWW-THNN insulation in galvanized rigid steel (GRS) or intermediate metal conduit (IMC) run concealed where practicable. Circuits will be provided for lighting, HVac equipment, receptacles for washers, dryers, vending machines, etc., as well as for general purpose convenience outlets.

e. Pertinent Standards of Design

(1) Voltage drop: Not to exceed 5% for individual circuits.

(2) Lighting intensities: Per IES recommendation for Hotels. (Per TABLE 4-1, DOD-IES CROSS REFERENCE OF FACILITY NAME OR FUNCTION).

(3) Type of lighting fixtures: Fluorescent lighting fixtures with energy efficient lamps and energy saving ballasts.

(4) Exterior area lighting: Cobra head lighting fixtures, with integral photocell, high pressure sodium lighting.

f. Emergency Systems:

(1) Emergency lighting will generally consist of emergency battery pack installed in selected fluorescent fixtures and in exist lighting fixtures.

(2) Emergency power back up will be provided by connection to the line side of the main distribution panelboard and, through fused disconnect switches, supply the master fire alarm panel and emergency lighting.

g. Grounding:

(1) The grounding system will consist of a girdle ground for each pad mounted transformer connected to a delta configuration of ground rods at each building service entrance and to the building system ground.

h. Telephone System:

(1) From the Station overhead telephone system, empty raceway will be extended underground to each building. From a telephone service entrance plywood backboard in each building, empty raceway will be provided for telephone outlets in each building.

i. Intercommunication System:

(1) An intercommunication and raceway system will be provided consisting of outlets, system amplifiers, terminal cabinets, microphone and speakers and/or remote stations in each bedroom, lounge, and corridors.

j. Television Antenna Distribution System:

(1) A television antenna and antenna distribution system will be provided to provide reception from three local channels in the television lounges in each building.

k. Fire Alarm System:

(1) A complete interior, non-coded fire detection and alarm system will be provided consisting of raceway, wiring, manual pull stations, fire alarm bells, trouble bell, products of combustion detectors, master fire alarm panel and with provisions for transmission to the Station fire alarm system.

2. Outside Distribution System:

a. The primary system is assumed adequate for the additional estimated 35 amperes added by the new buildings.

b. The existing primary system is 12,470/7200 volts, 3 phase, 4 wire, overhead construction. Available short circuit capability in this area is 280 MVA.

c. The estimated connected load is 1450 KW; the estimated demand load is 761 KW.

d. Primary service for the buildings will consist of underground extension of copper conductors from the existing 12,470/7200 volt, 3 phase, 4 wire primary to a 300 KVA, 12,470/7200 volt, 3 phase, 4 wire, pad mounted transformer near the proposed Mechanical Building, and a 150 KVA, 12,470/7200 volt to a 120/208 volt, 3 phase, 4 wire, pad mounted transformer near each proposed barracks building. At the point of connection to the existing primary there will be provided fused disconnect switches, lightning arresters, hot line clamps, etc. for tapping the existing primary. From each pad mounted transformer secondary, there will be extended underground copper conductors, in raceway, to the 270/480 volt, 3 phase, 4 wire or 120/208 volt, 3 phase, 4 wire building service equipment. The seven proposed new building transformers will each be be supplied by a 12,470/7200 volt primary feeder from a 7 circuit, 15 KV, air switch supplying three radial feeders.

e. Conductors will be copper, type XLP, installed in underground duct banks.

f. Duct banks will be concrete encased PVC raceway.

g. Design and installation will be in accordance with the applicable requirements of the National Electrical Code, the National Electrical Safety Code, and all referenced rules and regulations.

h. Exterior lighting will consist of high pressure sodium fixtures on 35′, Class 2, pentachlorophenol treated wood poles. Illumination levels will be in accordance with Illuminating Engineering Society recommendations for the type of area.

i. Fire alarm signals will be radio-transmitted to an existing receiver in the MCB main fire station by means of two radio fire alarm transmitters located in the mechanical equipment building (Building HP-476). Each transmitter will serve three UEPH buildings by means of 2#8 in underground duct bank from each building to the associated transmitter.

D. PLUMBING

1. Plumbing equipment, fixtures, materials, installation and workmanship shall be in accordance with NAVFAC criteria and the National Plumbing Code.

2. Materials

   a. Water piping above grade 1/2" up thru 4" shall be copper, Type L, hand drawn drawn with solder joints. Water piping below grade shall be cast iron, cement lined mechanical joint. All water piping shall be above grade except at building entrance.

   b. Sanitary and vent piping and roof drain piping above grade shall be cast iron no-hub standard weight. Below grade shall be extra heavy cast iron, bell and and spigot with rubber ring joints.

3. Estimated fixture units and water demand:

Building	Fixture Units	Water Demand
Type I	1198	230 GPM
Type II	1434	265 GPM

Showers will be provided with 3 gpm flow control devices.

4. Water Pressure. Average water pressure at buildings given at 50 psig static. 50 psig used in calculations for determining pipe sizes in conjunction with the National Plumbing Code.

5. Domestic hot water heater. The domestic hot water heater and tanks for Type I and Type II building shall be a 2500 and 3000 cement lined, steel tanks using steam (15 psig) as the heating medium. Condensate heat recovery is contemplated for domestic water heating. Water storage will be at 110°F. A hot water recirculation system will be provided.

6. The roof drainage system will be interior leaders down in the pipe chase to below the floor slab and out to the underground storm sewer system.

E. HEATING, VENTILATING AND AIR CONDITIONING

1. Design Conditions:

   a. Outside: Summer - 90°Fdb; 79°Fwb
      Winter - 23°Fdb

   b. Inside: Summer - 78°Fdb; 50% R.H.
      Winter - 68°Fdb;

c. Building Cooling Load Calculations shall include the effects of heat lag by the time averaging the instantaneous heat gains in accordance with the 1981 ASHRAE Guide.

d. Psychrometric Charts will be included in the calculations.

2. Heating:

a. The Heat Energy Source will be steam. The existing central high pressure steam system will be extended to serve the Buildings.

b. Steam was selected as the energy source because no other source of energy is available in the area other than electricity which is not allowed for space comfort heating. Solar was investigated and was not economically justifiable

c. The Steam Distribution Systems serving the buildings will be a 150 psig, below ground conduit distribution system interconnecting with the existing system at an existing manhole adjacent to Building 412. The existing steam and condensate piping will be removed from point of connection and replaced with new steam and condensate piping to the new manhole serving the new Mechanical Equipment Building.

d. Steam pressure will be reduced to 50 psig in the Mechanical Equipment Building and 15 psig in the barracks buildings and will be the direct source of heat for a low temperature hot water heating system serving the air handling units, fan coil units and domestic hot water, in the barracks.

e. Controls will be pneumatic, electric or electronic for heating and air conditioning.

f. Heating hot water will be distributed from the Mechanical Equipment Building to the barracks buildings in an underground distribution system.

3. Ventilation:

a. Mechanical ventilation will be provided throughout the buildings and will consist of roof mounted fans for adjacent toilets, electrical rooms and wall mounted, thermostatically controlled fan for Laundry Rooms and ceiling mounted exhaust fans in bedroom toilets controlled from wall mounted timer switches.

b. Ventilation Requirements:

(1) Air Conditioned Areas: 10 CFM per sleeping room through air handling units. Toilets in center core at 2 CFM/SF.

4. Air Conditioning:

   a. A central station constant volume external bypass air handling units with chilled water coil will serve the bedroom areas. Variable volume terminal air blender units will be provided in the ceiling of the bedroom as shown. Space thermostats will control the terminal air blender units. Lounges will be air conditioned with fan coil units.

   b. Chilled water will be provided by a packaged air cooled chiller adjacent to the Mechanical Equipment Building. Leaving water temperature will be controlled by a thermostat in the piping leaving the chillers. Chilled water will be distributed from the Mechanical Equipment Buildings to the barracks in the summer in the same underground distribution system used for heating in the winter.

F. WATER SUPPLY

1. The site is served by an eight inch water main located along the northwest side of "K" Street (to be removed). This line ties between service mains along Main Service Road and River Road.

2. The static pressure in the area is 60 psi and will provide 2150 gallons per minute at 20 psi.

3. The existing water main will be interrupted and rerouted to provide access to the new buildings.

4. Fire hydrants are located to provide for all buildings to be covered by a 350 foot hose lay.

5. Ductile iron or PVC plastic pipe will be used.

6. Valves are located to provide for isolation of a section of pipe without disruption of the total service.

G. SEWAGE COLLECTION

1. Sewage will be collected and routed by gravity to a new manhole located on the South side of the site.

2. The new manhole will be built on an existing 36 inch truck sewer flowing southeastward (by gravity) to the sewage treatment plant.

3. New manholes will be precast concrete or traditional masonry construction.

4. Pipe will be vitrified clay.

H. PAVEMENTS

1. Improvements to "I" Street and "L" Street include continuation of curb and gutters and widening to a width of 25 feet to align with work scheduled under an adjacent project (P-628). This includes a 1-1/2 inch bituminous overlay on "I" Street and "L" Street.

2. Between "I" Street and "L" Street the northeast side of River Road will be curb and guttered.

3. The new parking areas adjacent to Buildings 428, 435 and 436 and Buildings 419, 421 and 423 will be created with 2 inch bituminous pavement on a 6 inch stabilized aggregate base course.

4. Traffic will be comprised mainly of passenger (POV) type vehicles with an occasional service vehicle.

I. STORM DRAINAGE

1. Rainfall intensity used for the design of the storm drainage system will be 3.0 inches/hour.

2. Pipe specified for the storm drainage system will be reinforced concrete pipe.

3. Design will be based on a 10 year return design frequency.

4. Slope of pavement is one percent (minimum).

5. Standard catch basins, curb inlets, and manholes will be used.

J. DUST AND EROSION CONTROL

1. Since the area in which the new site is to be located already has billeting facilities in operation, dust will be controlled by sprinkling of the site during operations which will cause dust in the air.

2. Erosion control will be accomplished by normal construction sequences called for in the grading and storm drainage specifications.

3. MBTB does not consider these items to be measures which are unusual to any construction project. Therefore, no unusual cost increases are anticipated due to use of these measures.

K. FENCING

1. Security fencing around the cooling towers at the Mechanical Equipment Building will be seven feet high chain link fencing with no top trail.

L. CATHODIC PROTECTION

1. The Design Branch of the Public Works Office has indicated to MBTB that cathodic protection of underground piping is not required at Camp Lejeune.

M. DEMOLITION

1. Existing Barracks 426 and 427 will be removed to provide room for the new facility.

2. Various pavements, sidewalks, and utilities will be removed to make way for the new facility.

N. RELOCATION OF A/C UNIT (from Buildings 426 and 427)

1. A total of 10 five ton and 10 four ton air conditioning units will be removed from Buildings 426 and 427.

2. The units will be relocated to existing facilities designated by the Public Works Office at the Marine Core Base, Camp Lejeune.

3. Current projections are for the units to be utilized in Buildings M-316, 518, 522, and 622 at Montford Point and Building BB-28 at Court House Bay.

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UNACCOMPANIED ENLISTED PERSONNEL HOUSING (UEPH) P-624

MARINE CORPS BASE, CAMP LEJEUNE, N. C.

CHAPTER III. OUTLINE SPECIFICATIONS

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A. SITE WORK

1. Demolition and Removal. Remove existing buildings, pavements, walks, and utilities. Ref. Guide Spec. 02050.

2. Earthwork, adjust existing grades as shown on grading plans to provide access to buildings and drainage of the site. Ref. Guide Spec. 02200.

3. Soil treatment for termite control. Ref. Guide Spec. 02250.

4. Chain-link fencing, equal to RR-F-191 for two inch mesh fabric, nine gage, type I, two ounce galvanized coating, with accessories, seven feet high with no top rail or barbed wire. Ref. Guide Spec. 02444.

5. Grassing, soil preparation and application of Argentina Bahia, JJJ-181. Ref. Guide Spec. 02821.

6. Trees and shrubs. Ref. Guide Spec. 02831.

7. Vibratory consolidation of the upper layers of the soil will be required.

B. ROADS AND PARKING AREAS

1. Base course, select material base-subbase for flexible pavement, six inches thick. Ref. Guide Spec. 02680.

2. Bituminous prime coat, 0.15 gallon of MC-30 or MC-70 liquid asphalt per square yard conforming to ASTM D 2027. Ref. Guide Spec. 02680.

3. Bituminous surface treatment, two inches thick and one and one-half inches thick conforming to following: Ref. Guide Spec. 02680.

Coarse Aggregate:	SS-S-445, Type I, Class A
Fine Aggregate:	SS-S-71
Mineral Filler:	ASTM 0242
Asphalt Cement:	SS-A-706, Type II

4. Marking of vehicular pavement. Ref. Guide Spec. 02698.

5. Pavement Removal and Replacement. Ref. Guide Spec 02690.

C. FOUNDATIONS

1. For buildings HP 445, HP 455, HP 465, HP 475 and HP 485 use spread footings of reinforced concrete with 28-day strength equal to 3000 psi. Ref. Guide Spec. 03302.

2. For Building HP 495 use treated timber piles. Ref. Guide Spec. 02310.

3. Pile Caps of reinforced concrete with 28-day strength equal to 3000 psi. Ref. Guide Spec. 03302.

4. Equipment foundations of reinforced concrete. Ref. Guide Spec. 03302.

5. All reinforcement bars shall be deformed, ASTM A615, Grade 60. Ref. Guide Spec. 03302.

D. FRAME

1. Concrete masonry walls bearing and non-bearing walls will utilize lightweight concrete masonry. Ref. Guide Spec. 04200.

2. Cast-in-place concrete cantilevers will support the balcony areas. Ref. Guide Spec. 03302.

3. Structural steel lintels, ASTM A-26. Ref. Guide Spec. 05500.

E. WALL CONSTRUCTION

1. Exterior masonry walls will be cavity type with 8 inch CMU, 2 inch dampproofed cavity, and 4 inch face brick. Ref. Guide Spec. 04200.

2. Exterior masonry walls will be insulated with rigid board insulation installed in the cavity space. Ref. Guide Spec. 07221.

3. Interior masonry walls will predominantly be 8 inch and 6 inch, with 12 inch and 4 inch CMU as required. Ref. Guide Spec. 04200.

F. FLOOR CONSTRUCTION

1. 6-inch thick hollow core slabs of precast, prestressed concrete. Ref. Guide Spec. 03420.

2. Balcony floors will be of precast concrete slabs. Ref. Guide Spec. 03410.

3. Select floor areas will be 8-inch thick cast-in-place concrete. Ref. Guide Spec. 03302.

G. ROOFING

1. Roofing will be 4 ply built-up type with gravel surface. Ref. Guide Spec. 07510.

2. Roofing will be installed over rigid roof insulation board. Ref. Guide Spec. 07241.

3. Roof insulation will be complete with wood nailers, cants, etc. Ref. Guide Spec. 06242.

4. Roofing shall be complete including all flashing, sheet metal work, expansion joints, roof hatches and metal cap flashing. Ref. Guide Spec. 07600.

H. INTERIOR FINISHES

1. Exposed concrete floor finish shall have chemical floor hardener additive. Ref. Guide Spec. 03300.

2. Concrete floors in sleeping rooms, offices, lounges, storage rooms, laundry, corridor and vending areas will have 1/8 inch x 12 inch x 12 inch vinyl asbestos floor tile. Ref. Guide Spec. 09650. Base will be glazed CMU. Ref. Guide Spec. 04200.

3. Concrete floors in bathrooms adjacent sleeping rooms will have ceramic tile floor and base finish. Ref. Guide Spec. 09310.

4. Exposed CMU walls will have field painted finish. Ref. Guide Spec. 09910.

5. Ceilings in sleeping rooms will be simulated acoustical finish. Ref. Guide Spec. 09150.

6. Ceilings in offices, lounges, etc. will be lay-in acoustical tile system. Ref. Guide spec. 09500.

7. Ceilings in bathrooms will have field painted finish. Ref. Guide Spec. 09910.

I. WINDOWS

1. Windows will be aluminum horizontal sliding type with insulating glass thickness and size to withstand high wind loads. Windows will include insect screens and will be properly sealed. Ref. Guide Specs. 07951 and 08520.

J. DOORS

1. All doors will be 1-3/4 inch thick hollow metal type with hollow metal frames and complete with all finish hardware. Ref. Guide Specs. 08110 and 08710.

2. Labeled fire doors, frames, and hardware will be furnished where required. Ref. Guide Spec. 08110.

K. HEATING AND VENTILATION

1. The heat energy source will be 150 psig steam reduced to 50 psig in the utility building for heating and 15 psig in the barracks for domestic hot water.

2. Heating equipment will consist of steam to water heat exchanger, low temp hot water unit heaters, fan coil units and central air handling units.

3. The steam supply and low temp hot water system will consist of Schedule 40 black steel pipe, hangers, valves suitable for 150 psig, steam pressure reducing station, pumps, thermal insulation, heat exchanger and other items necessary for a complete installation.

4. The condensate return system inside buildings will consist of Schedule 80 black steel pipe, hangers, valves, condensate return receivers and pumps, thermal insulation and other items necessary for a complete installation.

5. Temperature controls.

6. Ref. Guide Specs. 15011, 15181, 15801 and 15901.

7. The ventilation systems shall consist of the following:

   a. Exhaust fans

   b. Exhaust duct work

   c. Ref. Guide Spec. 15651.

L. AIR CONDITIONING

1. Central station constant volume air handling unit with chilled and hot water coil and packaged air cooled chillers including the following:

   a. Ductwork

   b. Ductwork insulation

   c. Terminal air blender units

   d. Diffusers, registers and grilles

   e. Schedule 40 black steel chilled water piping

f. Chilled water piping insulation

g. Pumps

h. Temperature controls

i. Ref. Guide Specs. 15181, 15651 and 15901

M. ELECTRICAL

1. For each building, work shall include providing all materials and equipment for a complete installation of a new underground primary service to new pad mounted transformers and new underground secondary service to the buildings. The work shall also include overhead and underground conductors, and equipment as indicated.

2. The installation shall conform to the latest applicable rules of the National Electrical Code and the National Electrical Safety Code, and the workmanship shall be of the highest grade. Electrical materials shall be new and listed by the Underwriters' Laboratories, Inc., wherever standards have been established by that agency.

3. Wiring methods and installation shall consist of insulated conductors installed in duct banks consisting of concrete encased PVC raceway, or rigid zinc-coated steel conduit, as indicated.

4. Conductors

a. Conductors shall be annealed copper wire, stranded.

b. Conductors for underground primary service shall have 15 KV, cross-linked polyethylene insulation, shielded.

c. Conductors for secondary service shall have 600 volt, cross-linked polyethylene insulation, type RHH-RHW-USE, rated 75°C., wet locations and 90°C., dry locations.

d. Conductors shall conform to IPCEA Standards and Specification J-C-30(2).

5. Pole Mounted Equipment

a. Lightning arresters shall be of the encased valve type, designed for outdoor service, and conform to NEMA LA-1.

b. Wood crossarms shall conform to REA No. DT-5B.

c. Pole line hardware shall be zinc-coated by the hot-dip process and shall conform to MIL-H-55053.

d. Disconnect switches shall conform to NEMA SG-6.

e. Fuses shall conform to NEMA SG-2.

f. Porcelain insulators shall conform to ANSI C29.1 to C29.9 inclusive.

6. Pad mounted transformer shall be oil filled and shall conform to NEMA TR-1 and Specification W-T-631.

7. Fluorescent lighting fixtures shall be as detailed and shall comply with UL 1570. Lighting fixtures for damp and wet locations shall conform to UL 57.

8. All fluorescent lighting fixture ballasts shall be of the energy saving, CBM certified, full light output type.

9. Exit lighting fixtures shall conform to UL 924, NFPA 70, and NFPA 101, and shall be of the self-powered type.

10. Zinc-coated rigid steel conduit shall conform to UL 6.

11. Intermediate metal conduit (IMC) shall conform to UL 1242, type I.

12. Panelboards shall be bolt-in circuit-breaker equipped, type I. Circuit-breaker interrupting capacities shall conform to Federal Specification W-C-375.

13. Duplex receptacles shall be rated 15 amperes, 125 volts, 2 pole, 3 wire, grounded type with polarized parallel slots, in accordance with Federal Specification W-C-596. Receptacles with ground fault interrupters shall be in accordance with UL 943. Wall switches shall conform to Federal Specification W-S-896.

14. Conductors for interior wiring shall have 600 volt insulation, type THWN-THHN, and shall conform to IPCEA Standards and Federal Specification J-C-30(2).

15. Grounding shall be in accordance with the requirements of the National Electrical Code.

16. Fire alarm system components and installation shall conform to NFPA 72.

N. OUTSIDE UTILITIES

1. Water system. Connection to the existing water mains. Ductile-iron and PVC plastic pipe. Ref. Guide Spec. 15272.

2. Sanitary Sewer System. Construct a gravity sanitary sewer collection system for new building. Vitrified clay gravity pipe. Ref. Guide Spec. 02722.

3. Storm Drainage System. Storm water to be collected and piped to natural drainage swales. Reinforced concrete pipe, Ref. Guide Spec. 02501.

4. The steam distribution system shall be suitable for below ground installation in a premanufactured conduit system and shall consist of the following:

   a. Conduit

   b. Piping

   c. Valves

   d. Steam traps

   e. Insulation

   f. Manholes

   g. Ref. Guide Spec 15705

5. The steam condensate return system shall be a preinsulated glass fiber reinforced plastic condensate return system. Reference Guide Spec. 15707

6. Combination chilled and heating hot water distribution system shall be suitable for below ground installation in a pre-manufactured conduit system and shall consist of the following:

   a. Conduit

   b. Carrier piping

   c. Valves

   d. Insulation

   e. Ref. Guide Spec. 15707.

O. <u>PLUMBING</u>

1. The plumbing system will consist of domestic cold and hot water distribution piping, recirculation pumps and cement lined, steam fired (15 psig) domestic hot water heaters and storage tanks.

2. Water piping shall be Type L, hard drawn copper; waste, vent and roof drain piping shall be cast iron standard weight no-hub above grade and extra heavy bell and spigot with rubber gasketed joints below grade.

3. Ref. Guide Specs. 15400, 15181.

P. SPECIAL EQUIPMENT

1. None included.

35% SUBMITTAL

UNACCOMPANIED ENLISTED PERSONNEL HOUSING (UEPH) P-624

MARINE CORPS BASE, CAMP LEJEUNE, N. C.

CHAPTER IV. DRAWINGS

CHAPTER IV. DRAWINGS

Full size drawings accompany this brochure and are a part of this submittal. The list of drawings are as follows:

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C-5	SITE LAYOUT PLAN AREA A
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C-7	SITE LAYOUT PLAN AREA C
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35% SUBMITTAL

UNACCOMPANIED ENLISTED PERSONNEL HOUSING (UEPH) P-624

MARINE CORPS BASE, CAMP LEJEUNE, N. C.

CHAPTER V. COST ESTIMATE

MATERIAL & LABOR COST ESTIMATE

LANTDIV NORVA 4-11012/5(REV. 12/80)

SHEET 2 of _____

PREPARED BY _____

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND

Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000

NORFOLK, VIRGINIA

DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 | LOCATION MCB, Camp Lejeune, N.C. | [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
01 FOUNDATION (WITH PILING)									
BFAAK	SITE GRAD BAL CUT&FILL SANDY CLAY 200FT HAUL	500.0	CY	0.00	0	1.26	630	630	
BFAAM	STRIP T-SOIL OR SHALLOW EXCAV&PILING IN PILES	400.0	CY	0.00	0	1.09	436	436	
BFCBWZ	LOAD,HAUL,PLACE,& COMPACT BORROW NO MATL COST	500.0	CY	0.00	0	0.32	160	160	
BFFNB	TRENCH B-FILL COMPACT VIBRATORY COMPACT TO 95	53.0	CY	0.00	0	0.42	22	22	
BFGAE	STRUCTURAL EXCAV 3/8CY B-HOE UNCLASS EARTH	347.0	CY	0.00	0	1.28	444	444	
EBWRC	FORM WALLS TO 4'& GRADE BEAMS PLYWD 3-USE	3,640.0	SF	0.52	1,893	0.70	2,548	4,441	
ECFPHD	EDGE FORMS SLAB ON GRD 6'TO 12'HI 4 USE	380.0	LF	0.33	125	0.64	243	368	
ECJWYD	KEYWAYS 2X4 4 USES	400.0	LF	0.09	36	0.13	52	88	
EFFD	REBAR#3-#4 FOUNDATIONS	5.9	TN	459.68	2,712	158.49	935	3,647	
EFFE	REBAR #5-#6 FOUNDATIONS	5.2	TN	416.00	2,163	133.12	692	2,855	
EFID	REBAR #3-#4 MASONRY WALLS VERT	2.3	TN	459.68	1,057	376.62	866	1,923	
EFIE	REBAR #5-#6 MASONRY WALLS VERT	1.8	TN	416.00	749	231.85	417	1,166	
EFMD	REBAR #3-#4 SLABS	3.0	TN	459.68	1,379	144.76	434	1,813	
EFME	REBAR #5-#6 SLABS	3.4	TN	416.00	1,414	133.12	453	1,867	
EKIMD	PLACE CONC 2500/3000# FTG OR PILE CAP B/CHUTE	403.0	CY	42.18	16,999	2.82	1,136	18,135	
EKSMP	PLACE CONC 2500/3000#SLAB ON GRD B/HAND BUGGY	68.0	CY	42.18	2,868	3.73	254	3,122	
EKWMD	PLACE CONC 2500/3000#WALLS&GRD BMS TO 4'B/CHU	41.0	CY	42.18	1,729	2.25	92	1,821	
ENHXC	CONC FILL CMU CELLS 8' WIDE 3000#	760.0	SF	0.50	380	0.40	304	684	
ENR-C	CONC FILL FOR PILASTERS 3000#	27.0	CF	1.87	50	1.72	46	96	
ENXJC	CONC FILLED WALL CAVITY 2'THK 3000#	72.0	SF	0.32	23	0.28	20	43	
EPKJ	FINISH CONC SLAB FLOAT	910.0	SF	0.10	91	0.03	27	118	
FEKC	BRICK,FACE,STD SIZE 4'VENEER 3/8' JOINT	252.0	SF	0.99	249	1.50	378	627	
FFFJ	CMU HOLLOW 8' LT.WT.LOAD BEARING	760.0	SF	0.96	730	1.04	790	1,520	
FFNFWZ	CMU SOLID 2'LT WT LOAD BEARING	62.0	SF	0.60	37	0.84	52	89	
IEOPI	INSUL RGD URETHANE PERIMETER OR WALL 2' TK	219.0	SF	0.75	164	0.09	20	184	
	SUB-TOTAL				34,848		11,451	46,299	
	MARK-UP (PRIME)		%	20.0	6,969	36.0	4,122	11,091	
	SUB-TOTAL				41,817		15,573	57,390	
	ESCALATION		%	7.0	2,927	7.0	1,090	4,017	
	SUB-TOTAL, FOUNDATION				44,744		16,663	61,407	
							ROUNDED:	61,000	

MATERIAL & LABOR COST ESTIMATE

LANTDIV NORVA 4-11012/5(REV. 12/80)

SHEET 3 of

PREPARED BY

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND

Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000

NORFOLK, VIRGINIA

DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 | LOCATION MCB, Camp Lejeune, N.C. | [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
02 SLAB ON GRADE									
BGAAB	SOIL TRTMNT TERMITE CNTL PRETREAT UN SLABS	17,890.0	SF	0.00	0	0.05	895	895	
CIAH	STONE AGGREGATE BASE 6 INCH THICK	12,940.0	SF	1.74	22,516	0.81	10,481	32,997	
EBFRC	FORM ELEVATED SLAB PLYWD 3-USE	145.0	SF	0.58	84	0.79	115	199	
ECFPHD	EDGE FORMS SLAB ON GRADE 6'TO 12'HI 4 USE	350.0	LF	0.33	116	0.64	224	340	
EFMD	REBAR #3-#4 SLABS	0.4	TN	459.68	184	144.76	58	242	
EGFS	PLACE WIRE MESH SLABS 6X6-W2.9XW2.9	129.0	SQ	7.93	1,023	5.73	739	1,762	
EHHF	VAPOR BARRIER 6 MILL POLYETHYLENE	12,940.0	SQ	2.04	26,398	2.01	26,009	52,407	
EIKH	EXPANSION JT PREMOLDED ASPH IMPREG SLAB 1/2X6	47.0	LF	0.40	19	0.18	8	27	
EKSMP	PLACE CONC 2500/3000#SLAB ON GRD B/HAND BUGGY	205.0	CY	42.18	8,647	3.73	765	9,412	
EPKJ	FINISH CONC SLAB FLOAT	13,085.0	SF	0.00	0	0.12	1,570	1,570	
EPKS	FINISHING CONC SLAB STEEL TROWEL MACHINE	13,085.0	SF	0.00	0	0.13	1,701	1,701	
EQHD	CLEAN CONC FLOOR-BROOM SWEEP & SCRUB	13,085.0	SF	0.80	10,468	0.03	393	10,861	
ERIJ	CURING CONC SLAB SPRAYED MEMBRANE	13,085.0	SF	0.01	131	0.00	0	131	
GVGWZZ	EXP JT ASSBY ALUM FL-WALL FLS RECESS 1'SPACE	47.0	LF	4.00	188	1.30	61	249	
	SUB-TOTAL				69,774		43,019	112,793	
	MARK-UP (PRIME)	%	20.0		13,954	36.0	15,486	29,440	
	SUB-TOTAL				83,728		58,505	142,233	
	ESCALATION	%	7.0		5,860	7.0	4,095	9,955	
	SUB-TOTAL, SLAB ON GRADE				89,588		62,600	152,188	
							ROUNDED:	152,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 4 of

PREPARED BY — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
03 STRUCTURAL FRAME									
EBBRC	FORM COL PLYWD 3-USE	464.0	SF	0.58	269	1.28	594	863	
EBKRC	FORM BEAMS UNSUPPORTED PLYWD 3-USE	8,740.0	SF	0.72	6,293	1.54	13,460	19,753	
EFCD	REBAR #3-#4 BEAMS-GIRDER	3.0	TN	459.68	1,379	208.00	624	2,003	
EFCE	REBAR #5-#6 BEAMS-GIRDER	6.1	TN	416.00	2,538	175.13	1,068	3,606	
EFED	REBAR #3-#4 COLUMNS	0.2	TN	459.68	92	221.72	44	136	
EFEE	REBAR #5-#6 COLUMNS	0.5	TN	416.00	208	190.11	95	303	
EHWWZZ	DOVETAIL SLOTS GALV	240.0	LF	0.13	31	0.14	34	65	
EHWXZZ	DOVETAIL ANCHORS GALV	180.0	EA	0.04	7	0.06	11	18	
EKBMG	PLACE CONC 2500/3000# COLUMNS BY CRANE	4.3	CY	42.18	181	16.02	69	250	
EKKMG	PLACE CONC 2500/3000#GIRDERS & BEAMS BY CRANE	90.5	CY	42.18	3,817	16.02	1,450	5,267	
ERVJ	CURING CONC WALLS SPRAYED MEMBRANE	11,580.0	SF	0.01	116	0.01	116	232	
GLFHSZ	EXP SHIELD INCL DRILLING 1/2' 1-UNIT GALV	200.0	EA	0.68	136	0.35	70	206	
GNS	LINTELS STEEL	31,200.0	LB	0.43	13,416	0.12	3,744	17,160	
GBPC	MISC SHAPES (ANGLES, BARS CHANNELS ETC)	1,930.0	LB	0.39	753	0.13	251	1,004	
GBPG	MISC STL PLATES A36 (GALVANIZED)	9,650.0	LB	0.55	5,308	0.14	1,351	6,659	
	SUB-TOTAL				34,544		22,981	57,525	
	MARK-UP (SUBCONTRACTOR)		%	40.0	13,817	58.0	13,328	27,145	
	SUB-TOTAL				48,361		36,309	84,670	
	ESCALATION		%	7.0	3,385	7.0	2,541	5,926	
	SUB-TOTAL, STRUCTURAL FRAME				51,746		38,850	90,596	
							ROUNDED:	91,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 5 of

PREPARED BY

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. . $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
04 SUPPORTED FLOORS									
EBFRC	FORM ELEVATED SLAB PLYWD 3-USE	3,560.0	SF	0.58	2065	0.79	2,812	4,877	
ECGPHD	EDGE FORMS ELEVATED SLAB 6'TO 12'HI 4 USE	624.0	LF	0.48	300	0.79	493	793	
EFMD	REBAR #3-#4 SLABS	3.7	TN	459.68	1,701	144.76	536	2,237	
EGFD	PLACE WIRE MESH SLABS 6X6-W1.4XW1.4	279.0	SQ	4.42	1,233	4.75	1,325	2,558	
EIKH	EXPANSION JT PREMLD ASPH IMPREG SLAB 1/2X6	112.0	LF	0.40	45	0.18	20	65	
EKKMG	PLACE CONC 2500/3000# GIRDERS & BMS BY CRANE	73.0	CY	42.18	3,079	16.02	1,169	4,248	
EKVMG	PLACE CONC 2500 OR 3000# TOPPING BY CRANE	153.0	CY	42.18	6,454	9.00	1,377	7,831	
EPKS	FINISHING CONC SLAB STEEL TROWEL MACHINE	27,920.0	SF	0.00	0	0.13	3,630	3,630	
EQHD	CLEAN CONC FLOOR-BROOM SWEEP & SCRUB	27,920.0	SF	0.00	0	0.03	838	838	
ERIJ	CURING CONC SLAB SPRAYED MEMBRANE	27,920.0	SF	0.01	279	0.00	0	279	
EWEWWZ	PRECAST CONC BALCONY SLAB 4'-7-1/2'WI	6,960.0	SF	4.80	33,408	0.40	2,784	36,192	
EWWFEE	FLAT SLAB HC HOUDI SPAN 3'-4' WI 6'DP 10'-15'	24,500.0	SF	1.67	40,915	0.48	11,760	52,675	
GVGWZZ	EXP JT ASSBY ALUM FL WALL FLUSH RECESS 1'SPAC	94.0	LF	9.60	902	1.95	183	1,085	
HCOWZZ	1/8'HARDBOARD BEARING STRIP	570.0	SF	0.16	91	0.26	148	239	
	SUB-TOTAL				90,472		27,075	117,547	
	MARK-UP (SUBCONTRACTOR)		%	40.0	36,188	58.0	15,703	51,891	
	SUB-TOTAL				126,660		42,778	169,438	
	ESCALATION		%	7.0	8,866	7.0	2,994	11,860	
	SUB-TOTAL, SUPPORTED FLOORS				135,526		45,772	181,298	
							ROUNDED:	181,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 6 of

PREPARED BY

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 16 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
05 STAIRS									
EBURA	FORM STAIRS PLYWD 1-USE	890.0	SF	1.69	1504	2.57	2,287	3,791	
EFOD	REBAR #3-#4 STAIRS	0.6	TN	459.68	276	208.00	125	401	
EFOE	REBAR #5-#6 STAIRS	0.2	TN	416.00	83	184.70	37	120	
EKUMG	PLACE CONC 2500 OR 3000#	13.0	CY	42.18	548	9.89	129	677	
EPKD	FINISH CONC SLAB BROOM	576.0	SF	0.00	0	0.12	69	69	
EQHD	CLEAN CONC FLOOR-BROOM SWEEP & SCRUB	576.0	SF	0.00	0	0.03	17	17	
ERIJ	CURING CONC SLAB SPRAYED MEMBRANE	576.0	SF	0.01	6	0.00	0	6	
GQTZZ	EXTRUDED ALUM ABRAVISE STAIR NOSING	336.0	LF	3.20	1,075	0.91	306	1,381	
GSLWXZ	RAILING STEEL PICKETS, POSTS, KP STA LNDG	108.0	LF	20.00	2,160	1.13	122	2,282	
GSLWYZ	RAILING STEEL STAIR	108.0	LF	12.80	1,382	1.13	122	1,504	
	SUB-TOTAL				7,034		3,214	10,248	
	MARK-UP (SUBCONTRACTOR)		%	40.0	2,813	58.0	1,864	4,677	
	SUB-TOTAL				9,847		5,078	14,925	
	ESCALATION		%	7.0	689	7.0	355	1,044	
	SUB-TOTAL, STAIRS				10,536		5,433	15,969	
							ROUNDED:	16,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 7 of

PREPARED BY

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
06 ROOF SYSTEM									
EBFRC	FORM ELEVATED SLAB PLYWD 3-USE	1,760.0	SF	0.58	1021	0.79	1,390	2,411	
ECGPHD	EDGE FORMS ELEVATED SLAB 6'TO12' HIGH 4-USE	312.0	LF	0.48	150	0.79	246	396	
EFMD	REBAR #3-#4 SLABS	2.2	TN	459.68	1,011	144.76	318	1,329	
EGFD	PLACE WIRE MESH SLABS 6X6-W1,4XW1,4	176.0	SQ	4.42	778	4.75	836	1,614	
EIKH	EXPANSION JT PREMOLDED ASPH IMPREG SLAB 1/2X6	56.0	LF	0.40	22	0.18	10	32	
EKKMG	PLACE CONC 2500 OR 3000#GRDS & BEAMS BY CRANE	43.7	CY	42.18	1,843	16.02	700	2,543	
EKVMG	PLACE CONC 2500 OR 3000# TOPPING BY CRANE	95.0	CY	42.18	4,007	9.00	855	4,862	
EPKS	FINISHING CONC SLAB STEEL TROWEL MACHINE	17,640.0	SF	0.00	0	0.09	1,588	1,588	
EQHD	CLEAN CONC FLOOR-BROOM SWEEK & SCRUB	17,640.0	SF	0.00	0	0.03	529	529	
ERIJ	CURING CONC SLAB SPRAYED MENBRANE	17,640.0	SF	0.01	176	0.00	0	176	
EWWFEE	FLAT SLAB HC HOUDI SPAN 3'-4'W 6'DP 10'-15'	15,120.0	SF	1.67	25,250	0.48	7,258	32,508	
HABVGZ	BLOCKING & NAILERSE SYP NO 2 COMMON TREATED	1,700.0	SF	0.32	544	0.32	544	1,088	
HAE2R	CANT STRIPS 4X4 FIBERBD	1,000.0	LF	0.23	230	0.20	200	430	
IELRM	INSULATION COMPOSITE BD 3-1/4'TK	15,700.0	SF	1.23	19,311	0.08	1,256	20,567	
IQCIE	BLT-UP RF ASB FELT 4PLY(AAA)INCLS 400LB/SQ GR	178.0	SQ	54.35	9,674	22.11	3,936	13,610	
IRCAS	CONTINUOUS CLEAT AL .032'	790.0	LF	0.44	348	0.22	174	522	
IRHAWZ	PARAPET CAP FLASHING AL .050'	790.0	LF	4.40	3,476	0.48	379	3,855	
IRNWZZ	PARAPET WL FLSH ASB FELTS PLAS CEM INCL ASPH	1,320.0	SF	32.00	42,240	13.00	17,160	59,400	
IRNYZZ	VENT STACK FLASHING	10.0	EA	4.00	40	3.90	39	79	
IRTQ-Y	ROOF DRAIN SUMP LEAD 24X24	8.0	EA	180.00	1,440	32.76	262	1,702	
ISUDCW	SCUPPER SS 4'X16'	4.0	EA	40.00	160	6.50	26	186	
IUMMAT	EXPANSION JOINT - 4''	56.0	LF	6.00	336	0.30	17	353	
IUPAZZ	ROOF SCUTTLE AL3-0X3-8	1.0	EA	120.00	120	32.50	33	153	
IUZ-W	WALKWAY ASPH IMPREG FOR BLT-UP RFS 1/2''TH	1,020.0	SF	0.59	602	0.10	102	704	
	SUB-TOTAL				112,779		37,858	150,637	
	MARK-UP (SUBCONTRACTOR)		%	40.0	45,111	58.0	21,957	67,068	
	SUB-TOTAL				157,890		59,815	217,705	
	ESCALATION		%	7.0	11,052	7.0	4,187	15,239	
	SUB-TOTAL, ROOF SYSTEM				168,942		64,002	232,944	
							ROUNDED:	233,000	

MATERIAL & LABOR COST ESTIMATE

LANTDIV NORVA 4-11012/5(REV. 12/80)

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND

NORFOLK, VIRGINIA

SHEET 8 of _____

PREPARED BY _____

Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000

DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624

LOCATION MCB, Camp Lejeune, N.C.

[X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
07 EXTERIOR WALLS									
EBJRC	FORM BEAMS SUPPORTED PLYWD 3-USE	680.0	SF	0.58	394	1.09	741	1,135	
EBZRC	FORM WALLS OVER 16' PLYWD 3-USE	1,530.0	SF	0.45	689	1.34	2,050	2,739	
EFCD	REBAR #3-#4 BEAMS-GIRDER	1.6	TN	459.68	735	208.00	333	1,068	
EFCE	REBAR #5-#6 BEAMS-GIRDER	1.4	TN	416.00	582	175.13	245	827	
EFDD	REBAR #3-#4 BOND BEAMS	1.1	TN	459.68	506	237.53	261	767	
EFQD	REBAR #3-#4 WALLS	0.5	TN	459.68	230	111.07	56	286	
EIKH	EXPANSION JT PREMOLDED ASPH IMPREG SLAB 1/2X6	60.0	LF	0.40	24	0.18	11	35	
EKKMG	PLACE CONC 2500 OR 3000# GIRD&BEAMS BY CRANE	60.0	CY	42.18	2,531	16.02	961	3,492	
EKZMG	PLACE CONC 2500 OR 3000# WLS OVER 16'BY CRANE	30.0	CY	42.18	1,265	15.41	462	1,727	
ENEXC	CONC FOR BOND BEAM 3000# 8'H X 8'W	1,700.0	LF	0.28	476	0.21	357	833	
ENR-C	CONC FILL FOR PILASTERS 3000#	47.4	CY	1.87	89	1.72	82	171	
ERVJ	CURING CONC WALLS SPRAYED MEMBRANE	3,000.0	SF	0.01	30	0.01	30	60	
EWEEWX	PRECAST CONC FASCIA PNLS AT BALC 4'TH 4'-0'H	1,070.0	SF	4.80	5,136	0.65	696	5,832	
EWEEWY	PRECAST CONC FASCIA PNLS AT RF 4'TH 4'-0'H	2,900.0	SF	4.80	13,920	0.65	1,885	15,805	
FCICWZ	REINF-LADDER TYPE MED GALV 12'WIDE	10,600.0	LF	0.08	848	0.06	636	1,484	
	SUB-TOTAL				27,455		8,806	36,261	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 9 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
07 EXTERIOR WALL (CONTINUED)									
FCPEWZ	WIRE TIES #8 WIRE GALV BRICK PILASTER	270.0	LB	4.80	1296	0.07	19	1,315	
FCWM	THRU-WALL FLASHING 0.030' ELASTROMERIC SHTG	1,032.0	SF	0.30	310	0.29	299	609	
FDB	MASONRY DAMPPRF-ASPH PRIMER & DAMPPRF COAT	8,560.0	SF	0.32	2,739	0.24	2,054	4,793	
FEKC	BRICK,FACE,STD SIZE 4' VENEER 3/8' JOINT	9,000.0	SF	0.99	8,910	1.50	13,500	22,410	
FFAJ	BOND BEAM 8' HGT 8'TK W/O GROUT OR REINF	1,700.0	LF	0.93	1,581	0.71	1,207	2,788	
FFFJ	CMU HOLLOW 8' LT.WT. LOAD BEARING	8,560.0	SF	0.96	8,218	1.04	8,902	17,120	
FNJI	GLAZED CMU SGL FACE 8'TK	1,700.0	SF	2.68	4,556	1.15	1,955	6,511	
GSLWZZ	RAILING STEEL RAIL PICKETS POSTS KICKPL	1,200.0	LF	12.00	14,400	1.30	1,560	15,960	
IEOPD	INSUL RGD URETHANE PERIMETER OR WALL 1' TK	8,560.0	SF	0.37	3,167	0.09	770	3,937	
IWCKWW	BACKER ROD POLYETHYLENE 5/8' DIA	32.0	LF	0.02	1	0.06	2	3	
IWCKWY	TUBULAR JT FILLER CLOSED CELL NEOPRE 5/8' DIA	300.0	LF	0.20	60	0.09	27	87	
IWCKWZ	TUBULAR JT FILLER CLOSED CELL NEOPR 1-1/4'DIA	300.0	LF	0.60	180	0.13	39	219	
IWCKYZ	TUBULAR JT FILLER CLOSED CELL NEOPR 2' DIA	0.0	LF	0.00	0	0.00	0	0	
IWCSZZ	CALK EXT CLS A TYPE II TT-S 227 TWO COM 1X1/2	9.0	LF	0.32	3	0.16	1	4	
IWESG	CALK EXT CLS A TYPE II TT-S227 TWO COM 3/8X1/	324.0	LF	0.17	55	0.14	45	100	
	SUBTOTAL FROM PREVIOUS PAGE	1.0	LS	27455.00	27,455	8806.00	8,806	36,261	
	SUB-TOTAL				72,931		39,186	112,117	
	MARK-UP (SUBCONTRACTOR)		%	40.0	29,172	58.0	22,727	51,899	
	SUB-TOTAL				102,103		61,913	164,016	
	ESCALATION		%	7.0	7,147	7.0	4,333	11,480	
	SUB-TOTAL, EXTERIOR WALLS				109,250		66,246	175,496	
							ROUNDED:	175,000	

MATERIAL & LABOR COST ESTIMATE

LANTDIV NORVA 4-11012/5(REV. 12/80)

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND

NORFOLK, VIRGINIA

SHEET 10 of _____

PREPARED BY _____

Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000

DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 | LOCATION MCB, Camp Lejeune, N.C. | [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
08 INTERIOR WALLS									
EBKRC	FORM BEAMS UNSUPPORTED PLYWD 3-USE	573.0	SF	0.58	332	1.09	625	957	
EFCD	REBAR #3-#4 BEAMS-GIRDER	0.5	TN	459.68	230	208.00	104	334	
EFCE	REBAR #5-#6 BEAMS-GIRDER	0.1	TN	416.00	42	175.13	18	60	
EFDD	REBAR #3-#4 BOND BEAMS	0.8	TN	459.68	368	237.53	190	558	
EIKH	EXPANSION JT PREMOLDED ASPH IMPREG SLAB 1/2X6	60.0	LF	0.40	24	0.18	11	35	
EKKMG	PLACE CONC 2500 OR 3000# GIRD&BEAMS BY CRANE	9.7	CY	42.18	409	16.02	155	564	
ENEWC	CONC FOR BOND BEAM 3000# 8'HX8'W	8,000.0	LF	0.20	1,600	0.18	1,440	3,040	
ENEXC	CONC FOR BOND BEAM 3000# 8'H X 8'W	5,000.0	LF	0.28	1,400	0.21	1,050	2,450	
ENEZC	CONC FOR BOND BEAM 3000# 8'HX12'W	300.0	LF	0.54	162	0.28	84	246	
ENHWC	CONC FILL CMU CELLS 6'WIDE 3000#	1,990.0	SF	0.29	577	0.28	557	1,134	
ENHXC	CONC FILL CMU CELLS 8'WIDE 3000#	990.0	SF	0.50	495	0.40	396	891	
FCICWW	REINF-LADER TYPE MEDIUM GALV 4' WIDE	26,200.0	LF	0.10	2,620	0.02	524	3,144	
FCICWX	REINF-LADDER TYPE MEDIUM GALV 6' WIDE	16,800.0	LF	0.11	1,848	0.02	336	2,184	
FCICWZ	REINF-LADDER TYPE MEDIUM GALV 12' WIDE	1,800.0	LF	0.12	216	0.02	36	252	
FEKC	BRICK,FACE,STD SIZE 4' VENEER 3/8' JOINT	2,000.0	SF	0.99	1,980	1.50	3,000	4,980	
FFAH	BOND BEAM 8' HGT 6'TH W/O GROUT OR REINF	8,000.0	LF	0.76	6,080	0.67	5,360	11,440	
FFAJ	BOND BEAM 8' HGT 8'TK W/O GROUT OR REINF	5,000.0	LF	0.93	4,650	0.71	3,550	8,200	
FFAN	BOND BEAM 8' HGT 12' TK W/O GROUT OR REINF	300.0	LF	1.02	306	0.89	267	573	
	SUB-TOTAL				23,339		17,703	41,042	

MATERIAL & LABOR COST ESTIMATE

LANTDIV NORVA 4-11012/5(REV. 12/80)

SHEET 11 of

PREPARED BY

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND

Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000

NORFOLK, VIRGINIA

DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 | LOCATION MCB, Camp Lejeune, N.C. | [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
08 INTERIOR WALLS (CONTINUED)									
FFFH	CMU HOLLOW 6' LT.WT. LOAD BEARING	17,350.0	SF	0.76	13,186	0.99	17,177	30,363	
FFFJ	CMU HOLLOW 8' LT.WT. LOAD BEARING	20,690.0	SF	0.96	19,862	1.04	21,518	41,380	
FFFN	CMU HOLLOW 12' LT.WT. LOAD BEARING	1,550.0	SF	1.32	2,046	1.28	1,984	4,030	
FNJC	GLAZED CMU SGL FACE 2'TK	1,000.0	SF	2.24	2,240	0.99	990	3,230	
FNJE	GLAZED CMU SGL FACE 4'TK	3,450.0	SF	2.40	8,280	1.04	3,588	11,868	
FNJG	GLAZED CMU SGL FACE 6'TK	560.0	SF	2.51	1,406	1.08	605	2,011	
FNJI	GLAZED CMU SGL FACE 8'TK	170.0	SF	2.68	456	1.15	196	652	
IWCKWX	BACKER ROD POLYETHYLENE 1-1/2' DIA	120.0	LF	0.08	10	0.06	7	17	
IWCSZZ	CALK EXT CLS A TYPE II TT-S227 TWO COM 1X1/2	246.0	LF	0.20	49	0.26	64	113	
IWHXG	CALK INT CLS B TYPE I TT-C-598 SGL COM 3/8X1/	8,000.0	LF	0.08	640	0.14	1,120	1,760	
	SUBTOTAL FROM PREVIOUS PAGE	1.0	LS	24817.00	24,817	22214.00	22,214	47,031	
	SUB-TOTAL				72,992		69,463	142,455	
	MARK-UP (SUBCONTRACTOR)		%	40.0	29,196	58.0	40,288	69,484	
	SUB-TOTAL				102,188		109,751	211,939	
	ESCALATION		%	7.0	7,153	7.0	7,682	14,835	
	SUB-TOTAL, INTERIOR WALLS				109,341		117,433	226,774	
							ROUNDED:	227,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 12 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
09 INTERIOR FINISHES									
KCKUTZ	ACCESS DOORS STL 18'X48' PRIME	1.0	EA	400.00	400	65.00	65	465	
KDEGAA	GYP BD 1/2'CLIP TO MET FUR CEIL.NO TAP.OR FIN	14,400.0	SF	0.12	1,728	0.11	1,584	3,312	
KDL	ADD TP GYP BD FOR TAPING & FINISHING JTS	14,400.0	SF	0.01	144	0.07	1,008	1,152	
KEMKO	CERAMIC TILE FLOOR 1'X1'UNGLAZED PORTLAND CEM	1,100.0	SF	2.32	2,552	0.57	627	3,179	
KEMYO	CERAMIC TILE FLOOR NON-SLIP PORTLAND CEM	1,100.0	SF	1.56	1,716	0.41	451	2,167	
KEXLOL	CERAM TILE WLS 4-1/4'X4-1/4CUSH EDGE PORT CEM	4,400.0	SF	1.16	5,104	0.52	2,288	7,392	
KEZZPZ	CERAMIC SOAP HOLDER AND GRAB BAR	60.0	EA	4.00	240	1.30	78	318	
KIJCRO	ACOUST PNL FOR EXP GRID SYS NRC.60 FAC AP PNT	2,600.0	SF	0.32	832	0.11	286	1,118	
KJIDII	SUSP SYS(ACST) EXP GRID 2'X4'ALUM WH FM JST	2,600.0	SF	0.20	520	0.09	234	754	
KLUR	VINYL COMP TILE 1/8' SS-T-312 TYPE IV	31,800.0	SF	0.48	15,264	0.13	4,134	19,398	
KTHF	NORMAL PAINTING PREP. UNPAINTED MASONRY,CONC	87,900.0	SF	0.00	0	0.01	879	879	
KUKMGB	PAINT METAL LADDER (1) P645 AND (2)E489	22.0	VLF	0.40	9	1.35	30	39	
KVCU	PAINT CEILING PLASTER & GYP	8,400.0	SF	0.07	588	0.11	924	1,512	
KVCW	PAINT CEILINGS CONCRETE	25,100.0	SF	0.08	2,008	0.08	2,008	4,016	
KVKG	PAINT MISC. METAL	100.0	SF	0.08	8	0.09	9	17	
KVYQ	PAINT WALLS CMU	87,900.0	SF	0.06	5,274	0.16	14,064	19,338	
	SUB-TOTAL				36,387		28,669	65,056	
	MARK-UP (SUBCONTRACTOR)		%	40.0	14,554	58.0	16,628	31,182	
	SUB-TOTAL				50,941		45,297	96,238	
	ESCALATION		%	7.0	3,565	7.0	3,170	6,735	
	SUB-TOTAL, INTERIOR FINISHES				54,506		48,467	102,973	
							ROUNDED:	103,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 13 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAIL. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 82

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
10 DOORS & WINDOWS									
IWFSE	CALK EXT CLS B TYPE II TT-S-227 2-CO 1/4X1/2	12,500.0	LF	0.11	1375	0.14	1,750	3,125	
IWHXE	CALK INT CLSB TYPE I TT-C-598 SGL CO 1/4X1/2	1,500.0	LF	0.07	105	0.14	210	315	
JARMEI	DOOR HM STOCK FLUSH HVY DUTY 3-0 X 7-0	126.0	EA	126.44	15,931	8.61	1,085	17,016	
JAKMEM	DOOR HM STOCK FLUSH HVY DUTY 2-8 X 6-8	129.0	EA	116.00	14,964	8.61	1,111	16,075	
JALMEI	DOOR HM STOCK FLUSH HVY DUTY 3-0 X 6-8	18.0	EA	120.64	2,172	8.61	155	2,327	
JALZZZ	DOOR HM STOCK FLUSH HVY DUTY 2-8 X 6-0	6.0	EA	108.00	648	8.61	52	700	
JALXXX	DOOR HM STOCK FLUSH HVY DUTY 3-6 X 6-8	12.0	EA	144.00	1,728	8.61	103	1,831	
JADMED	DOOR HM STOCK FLUSH HVY DUTY 2-6 X 6-8	6.0	EA	76.80	461	8.61	52	513	
JBTO	ADD-ON FOR MET DR REINF PLT FOR DOOR CLOSER	27.0	EA	6.80	184	0.00	0	184	
JBIG	ADD-ON FOR MET DR 1-3/4 FIRE-RATED CLB 'B'	33.0	EA	16.80	554	0.00	0	554	
JCAAZZ	FRAME HM 2-8X6-0X6-3/4	6.0	EA	40.00	240	15.64	94	334	
JCJHMC	FRAME MET HM ST MSNRY TYP 16 GA 2-8X6-8X1-3/4	129.0	EA	41.55	5,360	15.64	2,018	7,378	
JCKHMC	FRAME MET HM ST MSNRY TYP 16 GA 3-0X6-8X1-3/4	18.0	EA	41.55	748	15.64	282	1,030	
JCLLZZ	FRAME HM 3-6X6-8X6-3/4	12.0	EA	44.00	528	15.64	188	716	
JCQHMC	FRAME MET HM ST MSNRY TYP 16 GA 3-0X7-0X1-3/4	126.0	EA	43.90	5,531	15.64	1,971	7,502	
JCRHIZ	FRAME HM 5-0X6-8X6-3/4	3.0	EA	56.00	168	19.50	59	227	
JDC	ADD-ON FOR MET FRAMES FILL W/CONC	294.0	EA	3.34	982	3.51	1,032	2,014	
JDM	ADD-ON FOR MET FRAMES FIRE-RATED	27.0	EA	15.68	423	0.00	0	423	
JDUD	ADD-ON FOR MET FRAMES REINF PLT FOR HDW CLOSE	33.0	EA	2.74	90	0.00	0	90	
JTAGA	WEATHERSTRP DOORS MET, BRONZE TO UP 3-6X7-2	135.0	SET	23.20	3,132	24.60	3,321	6,453	
JPBIQZ	LOCKSET F 01	9.0	EA	80.00	720	8.61	77	797	
JPBIQY	LOCKSET F 02	123.0	EA	70.40	8,659	8.61	1,059	9,718	
JPBIQX	LOCKSET F 05	27.0	EA	76.00	2,052	8.61	232	2,284	
JPBIQ	LOCKSET F 13	120.0	EA	72.80	8,736	8.61	1,033	9,769	
JZZZZZ	CABINET HARDWARE	240.0	SET	48.00	11,520	9.75	2,340	13,860	
	SUB-TOTAL				87,011		18,224	105,235	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 14 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
10 DOORS & WINDOWS (CONTINUED)									
JLLMPZ	ALUM WINDOW HORIZONTAL SLIDING	121.0	EA	108.00	13,068	22.75	2,753	15,821	
JOHQIZ	HINGES A8111 X 600	14.0	PR	24.00	336	3.90	55	391	
JOHRAF	HINGES A8112 X 600 4-1/2X4-1/2	219.0	PR	13.59	2,976	3.69	808	3,784	
JOHYAF	HINGES A8133 X 600 4-1/2 X 4-1/2	185.0	PR	5.50	1,018	3.69	683	1,701	
JQWA	THRESHOLD SADDLE TYPE AL	405.0	LF	2.64	1,069	1.22	494	1,563	
JQX	THRESHOLD INTERLOCKING TYPE ALUM	405.0	LF	2.40	972	1.84	745	1,717	
JRK	DOOR STOP 1325E	165.0	EA	5.60	924	3.51	579	1,503	
JRNNAZ	DOOR STOP 1330 AE MOD	120.0	EA	5.60	672	3.25	390	1,062	
JRV	FLUSH BOLT FED SPEC 1049	1.0	EA	5.68	6	1.75	2	8	
JRW	DUSTPROOF STRIKE	1.0	EA	6.00	6	3.51	4	10	
JSDECI	CLOSER C02012,C02022,C02021,C02022	33.0	EA	38.16	1,259	11.25	371	1,630	
JWCGZH	INSUL GLASS CLEAR 5/8' TK	3,025.0	SF	3.75	11,344	1.56	4,719	16,063	
JWYGP	WIRE GLASS CLEAR 1/4 TK TYP III CLS I KIND A	7.0	SF	1.02	7	1.03	7	14	
KVEG	PAINT DOORS & FRAMES MTL(1)P645(1)E545(1)E509	24,000.0	SF	0.08	1,920	0.16	3,840	5,760	
LELBBZ	LOUV DR FIX 1'TK INVERT V ST BAK ON ENAM 8X10	6.0	EA	14.40	86	3.90	23	109	
LELIE	LOUV DR FIX 1'TK INVERT V ST BAK ON ENAM12X12	12.0	EA	16.00	192	3.90	47	239	
LELIJ	LOUV DR FIX 1'TK INVERT V ST BAK ON ENAM16X16	6.0	EA	22.88	137	3.90	23	160	
	SUBTOTAL FROM PREVIOUS PAGE	1.0	LS	87011.00	87,011	18224.00	18,224	105,235	
	SUB-TOTAL				123,003		33,767	156,770	
	MARK-UP (SUBCONTRACTOR)		%	40.0	49,201	58.0	19,584	68,785	
	SUB-TOTAL				172,204		53,351	225,555	
	ESCALATION		%	7.0	12,054	7.0	3,734	15,788	
	SUB-TOTAL, DOORS AND WINDOWS				184,258		57,085	241,343	
							ROUNDED:	241,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 15 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 14 NOV 82

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
11 SPECIALITIES									
GBXZCZ	SAFETY CHAIN	8.0	EA	17.60	141	3.25	26	167	
GROSR	LADDER W/O CAGE STL 18'W	22.0	VLF	18.05	397	4.09	90	487	
LMZOS	ROOM SIGN 2' HIGH PLAST WITH 1-1/2' LETTERS	60.0	EA	12.00	720	3.25	195	915	
LRLAAZ	MAIL BOX 102 COMPARTMENT (4'X5'UNITS) 6HX17W	2.0	EA	1200.00	2,400	162.50	325	2,725	
LXHMO	MIRROR 1/4' PLATE GLASS UP TO 5 SF	13.0	SF	2.96	38	0.97	13	51	
LXHMOA	MIRROR 1/4' PLATE GLASS OVER 5 SF	750.0	SF	2.57	1,928	0.78	585	2,513	
LXKSGA	COMB TOWEL DISP AND WASTE RECEP RECESSED	3.0	EA	96.88	291	7.80	23	314	
LXLS	ROBE HOOK STAINLESS STEEL	360.0	EA	4.08	1,469	1.33	479	1,948	
LXRJZ	SHOWER ROD 1-1/4' DIA CHROME FIN OVER BRASS	60.0	EA	8.80	528	6.50	390	918	
LXVSO	TOILET TISSUE DISP S.S. SGL ROLL WALL MTD	123.0	EA	14.40	1,771	2.60	320	2,091	
LXWSOR	TOWEL BAR S.S. 24' LONG	240.0	EA	13.20	3,168	2.67	641	3,809	
NCVHHI	PREFAB VANITY W/TOP 31'H FORMICA LAM DBL DOOR	120.0	EA	120.00	14,400	16.25	1,950	16,350	
NBWHFA	WARDROBE BEQ TYPE 1 SIZE B CLS 1 CONDITION 1	120.0	EA	256.00	30,720	11.70	1,404	32,124	
NFZ	NFZVBZ VENETIAL BLINDS TYPE II 1' SLATS	3,025.0	SF	2.24	6,776	0.14	424	7,200	
	SUB-TOTAL				64,747		6,865	71,612	
	MARK-UP (PRIME)		%	20.0	12,949	36.0	2,471	15,420	
	SUB-TOTAL				77,696		9,336	87,032	
	ESCALATION		%	7.0	5,438	7.0	653	6,091	
	SUB-TOTAL, SPECIALTIES				83,134		9,989	93,123	
							ROUNDED:	93,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 16 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 82

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
12 PLUMBING									
RT#BBB	4' DUCTILE IRON PIPE M/J	25.0	LF	3.56	89	3.36	84	173	
SAEEB	25 GPM SIMPLEX PUMP 17TDH 1/3 HP 1750 RPM	1.0	EA	112.18	112	64.35	64	176	
QCIAJG	1-1/2' 90 DEG ELL 150 LB MALLE IRON THRD GALV	8.0	EA	1.40	11	6.44	52	63	
OCIEJG	1-1/2' TEE 150 LB MALL IRON THREADED GALV	2.0	EA	2.04	4	9.63	19	23	
QCIPKC	PIPE 1-1/2'GALV ST O-12'AFF THRD SCH 40 MULTI	100.0	LF	0.95	95	0.52	52	147	
QH#C2A	1/2'CU L PIPEW/CPLG EVERY 20'MULTI STORY BLDG	5,300.0	LF	0.48	2,544	1.05	5,565	8,109	
QH#D2A	3/4'CU L PIPE W/CPLG EV 20'& SUP ON HGR EV 6'	700.0	LF	0.66	462	1.07	749	1,211	
QH#E2A	1'CU L PIPE W/CPLG EV 20& SUPP ON HGR EV 6'	2,000.0	LF	0.92	1,840	1.11	2,220	4,060	
QH#I2A	1-1/2'CU L PIPE W/CPLG EV 20'& SUPP ON HGR @8	1,200.0	LF	1.43	1,716	1.06	1,272	2,988	
QH#J2A	2'CU L PIPE W/CPLG EV 20'& SUPP ON HGR EV 8'	400.0	LF	2.20	880	1.16	464	1,344	
QH#X2X	1-1/4'CU L PIPE W/CPLG EV 20'ON HANGERS	900.0	LF	1.36	1,224	1.04	936	2,160	
QHCAA	1/2' CU 90 DEG ELL WROT	657.0	EA	0.07	46	2.22	1,459	1,505	
QSPBV	CISP NO HUB 6'' PIPE HORIZ IN MULTISTORY BLDG	142.0	LF	3.88	551	1.25	178	729	
QHDAA	3/4' CU 90 DEG ELL WROT	14.0	EA	0.17	2	2.43	34	36	
QHDEA	3/4' CU TEE WROT	220.0	EA	0.32	70	3.65	803	873	
QHEAB	1' CU 90 DEG ELL WROT	500.0	EA	0.44	220	2.92	1,460	1,680	
QHEEB	1' CU TEE WROT	20.0	EA	1.17	23	4.38	88	111	
QHGAB	1 1/4' CU 90 DEG ELL WROT	10.0	EA	0.76	8	3.15	32	40	
QHGEB	1-1/4' CU TEE WROT	150.0	EA	1.71	257	4.79	719	976	
QHIAA	1-1/2' CU 90 DEG ELL WROT	85.0	EA	1.01	86	3.39	288	374	
QHIEA	1-1/2' CU TEE WROT	285.0	EA	2.23	636	5.12	1,459	2,095	
QHJAA	2' CU 90 DEG ELL WROT	10.0	EA	1.94	19	3.65	37	56	
QHJEB	2' CU TEE WROT	70.0	EA	3.59	251	5.44	381	632	
QHKEB	2-1/2' CU TEE WROT	6.0	EA	6.89	41	6.66	40	81	
QHK2B	TYPE L CU 2-1/2' PIPE IN MILTI STORY BLDG	50.0	LF	2.64	132	0.55	28	160	
	SUB-TOTAL				11,319		18,483	29,802	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 17 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
12 PLUMBING									
QHLF	3' CU REDUCING TEE WROT	8.0	EA	7.65	61	10.18	81	142	
QHL2B	3'TYPE L CU PIPE HARD EXPOS HORIZ OR VERT IN	200.0	LF	3.56	712	0.95	190	902	
QHNA	4' CU 90 DEG ELL WROT	8.0	EA	10.67	85	10.99	88	173	
QHNF	4' CU REDUCING TEE WROT	8.0	EA	14.33	115	14.65	117	232	
QHN2B	4'TYP L CU PIPE HARD EXPOS HORIZ OR VERT IN	100.0	LF	5.87	587	1.17	117	704	
QRQXX	CISP H&S 8' PIPE UNDER SLAB ON GRADE	36.0	LF	4.76	171	1.62	58	229	
QRQXY	CISP DOUBLE Y 8' H&S UNDER SLAB ON GRADE	1.0	EA	25.60	26	6.50	7	33	
QSJMB	CISP NO-HUB COMB Y&1/8 BEND 2' EXP HORIZ OR V	122.0	EA	1.92	234	7.70	939	1,173	
QSJVB	CISP NO HUB 2' PIPE EXP HORIZ OR VERT IN MULT	2,410.0	LF	1.23	2,964	0.72	1,735	4,699	
QSJXE	2' P-TRAP NO HUB 0-10' ABOVE FIN FLOOR	63.0	EA	2.76	174	4.39	277	451	
QSJXG	2' P-TRAP NO HUB BELOW GROUND	3.0	EA	2.76	8	3.49	10	18	
QSLMB	CISP NO-HUB COMB Y&1/8 BEND 3' EXP HORIZ OR V	4.0	EA	2.75	11	9.41	38	49	
QSLVB	CISP NO HUB 3'PIPE EXP HORIZ OR VERT IN MULTI	134.0	LF	1.78	239	0.91	122	361	
QSNMB	CISP NO-HUB COMB Y&1/8 BEND 4' EXP HORIZ OR V	63.0	EA	7.52	474	9.76	615	1,089	
QSNME	2' VTR	4.0	EA	4.00	16	16.27	65	81	
QSNVB	CISP NO HUB 4' PIPE EXP HORIZ OR VERT IN MULT	1,670.0	LF	2.12	3,540	0.96	1,603	5,143	
QSNW	VTR 4'	10.0	EA	6.40	64	20.34	203	267	
QSJNB	2'' SAN TEE	135.0	EA	1.92	259	7.70	1,040	1,299	
QSLMB	3'' SAN TEE	3.0	EA	2.75	8	9.41	28	36	
QSNMB	4'' SAN TEE	63.0	EA	7.52	474	9.76	615	1,089	
QYZ	TEST AND DISINFECT	1.0	EA	40.00	40	101.40	101	141	
QY1	PIPE IDENTIFICATION	10,200.0	LF	0.08	816	0.21	2,142	2,958	
QZRA	ROOF/FLOOR PENETRATION NEW CONSTRUCTION	85.0	EA	8.00	680	18.25	1,551	2,231	
Q6F	SHOCK ABSORBER TYPE A	72.0	EA	24.36	1,754	2.19	158	1,912	
Q6WC	WASHING MACHINE BOX W/DRAIN CONN AND VALVES	9.0	EA	17.88	161	8.13	73	234	
	SUB-TOTAL				13,673		11,973	25,646	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 18 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
PLUMBING									
AJ	FREEZELESS YARN HYDRANT	4.0	EA	42.02	168	8.61	34	202	
SIDD	FLOOR DRAIN CI 3''	9.0	EA	51.91	467	18.92	170	637	
QSJXE	2'' P-TRAP NO-HUB	66.0	EA	2.76	182	4.39	290	472	
RRAEC	1'' THK INSULATION	1200.0	EA	0.72	864	0.57	684	1,548	
SIFF	CLEAN OUT WALL, 4'	8.0	EA	60.56	484	12.94	104	588	
SIGF	CLEAN OUT FLOOR, 4'	100.0	EA	60.56	6,056	17.23	1,723	7,779	
RQKY	WATER HEATER STEAM	1.0	EA	4251.20	4,251	304.20	304	4,555	
SJ#B	LAV WALL HUNG TRIM, WASTE PIPE, VENT PIPE, ETC	3.0	EA	178.18	535	73.04	219	754	
SJ#G	WATER CLOSET FL MTD W/FLUSH VALVE WAST E.VENT	63.0	EA	194.55	12,257	103.36	6,512	18,769	
SJA	LAV COUNTER TOP WHITE 20'X18' W/FITTINGS	120.0	EA	115.68	13,882	17.23	2,068	15,950	
SKD	ELEC WATER COOLER WALL MTD	3.0	EA	221.77	665	4.30	13	678	
SJV	BATHTUB FIBERGLASS	60.0	EA	249.05	14,943	25.85	1,551	16,494	
RAJXX	GATE VALVE 3' BRONZE 125 LB THREADED	2.0	EA	120.00	240	22.75	46	286	
RAKBC	GATE VALVE 4' CI 125 LB FLANGED	2.0	EA	134.11	268	23.70	47	315	
RCHAA	CHECK VALVE 2' BRZ 125 LB THREADED	2.0	EA	27.24	54	7.93	16	70	
RFCAL	BALL VALVE BRONZE 250 LB THREADED 1/2'	4.0	EA	24.92	100	8.61	34	134	
RFDAL	BALL VALVE BRONZE 250 LB THREADED 3/4'	10.0	EA	33.08	331	9.47	95	426	
RFEAL	BALL VALVE BRONZE 250 LB THREADED 1'	150.0	EA	45.32	6,798	10.34	1,551	8,349	
RFFAL	BALL VALVE BRONZE 250 LB THREADED 1-1/4'	2.0	EA	64.35	129	11.20	22	151	
RFGAL	BALL VALVE BRONZE 250 LB THREADED 1-1/2'	170.0	EA	86.11	14,639	12.06	2,050	16,689	
RFHAL	BALL VALVE BRONZE 250 LB THREADED 2'	160.0	EA	118.28	18,925	12.92	2,067	20,992	
RJEAA	BALANCING VALVE BRONZE 125 LB THREADED 1'	2.0	EA	19.77	40	5.34	11	51	
RKDX	PRESSURE RELIEF VALVE 1'	1.0	EA	14.40	14	6.50	7	21	
RKDY	TEMP RELIEF VALVE 1'	1.0	EA	20.00	20	6.50	7	27	
RRAAA	FIBERGLASS INSULATION 1' TK ON 1/2' DIA PIPE	5,300.0	LF	0.52	2,756	0.52	2,756	5,512	
	SUB-TOTAL				99,068		22,381	121,449	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 19 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
12 PLUMBING									
RRAAB	FIBERGLASS INSULATION 1' TK ON 3/4' DIA PIPE	700.0	LF	0.64	448	0.52	364	812	
RRAAD	FIBERGLASS INSULATION 1' TK ON 1-1/4'DIA PIPE	900.0	LF	0.68	612	0.58	522	1,134	
RRAAE	1' THK FG INSULATION ON 2' DIA PIPE	400.0	LF	0.81	324	0.64	256	580	
RRAAF	1' THK FG INSULATION ON 2-1/2' DIA PIPE	50.0	LF	0.95	48	0.78	39	87	
RRAFH	1-1/2' THK FG INSULATION ON 3' DIA PIPE	200.0	LF	1.92	384	0.78	156	540	
RRAFJ	1-1/2' THK FG INSULATION ON 4' DIA PIPE	20.0	LF	1.97	39	1.11	22	61	
RMAGC	INLINE PUMP BRONZE CENTR 20 GPM 20' HD	1.0	EA	573.17	573	8.61	9	582	
RPPS	PRESSURE GAUGE, DIRECT READING	2.0	EA	41.20	82	7.43	15	97	
RPTS	THERMOMETER DIRECT READING 6' STEM 9' CASE	2.0	EA	42.84	86	7.43	15	101	
SJN	SERVICE SINK 24''X20''	3.0	EA	213.05	639	21.54	65	704	
SJQ	KITCHEN SINK DBL COMP	3.0	EA	140.79	422	12.92	39	461	
	SUBTOTAL FROM PREVIOUS PAGE	1.0	LS	11319.00	11,319	18483.00	18,483	29,802	
	SUBTOTAL FROM PREVIOUS PAGE	1.0	LS	13673.00	13,673	11973.00	11,973	25,646	
	SUBTOTAL FROM PREVIOUS PAGE	1.0	LS	99068.00	99,068	22381.00	22,381	121,449	
	SUB-TOTAL				127,717		54,339	182,056	
	MARK-UP (SUBCONTRACTOR)	%	40.0		51,086	58.0	31,516	82,602	
	SUB-TOTAL				178,803		85,855	264,658	
	ESCALATION	%	7.0		12,516	7.0	6,009	18,525	
	SUB-TOTAL, PLUMBING				191,319		91,864	283,183	
							ROUNDED:	283,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 20 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
13 ROOF DRAINAGE									
QRPFD	CISP LG 1/4 BEND H&S UNDER SLAB ON GR	2.0	EA	14.40	29	9.76	20	49	
SAACC	6 IN CAST IRON SOIL PIPE	32.0	LF	5.80	186	0.72	23	209	
QZRA	ROOF/FLOOR PENETRATION NEW CONSTRUCTION	16.0	EA	8.00	128	18.25	292	420	
SIEX	ROOF DRAIN CI 5'	8.0	EA	88.00	704	32.50	260	964	
SAACD	8 IN CAST IRON SOIL PIPE	96.0	LF	10.09	969	0.78	75	1,044	
QSPVB	CISP NO HUB 6''PIPE VERT IN MULTISTORY BLDG	150.0	LF	3.88	582	1.25	188	770	
QSNVB	CISP NO HUB 4''PIPE VERT IN MULTISTORY BLDG	140.0	LF	2.12	297	0.96	134	431	
	SUB-TOTAL				2,895		992	3,887	
	MARK-UP (SUBCONTRACTOR)		%	40.0	1,158	58.0	575	1,733	
	SUB-TOTAL				4,053		1,567	5,620	
	ESCALATION		%	7.0	283	7.0	109	392	
	SUB-TOTAL, ROOF DRAINAGE				4,336		1,676	6,012	
							ROUNDED:	6,000	

MATERIAL & LABOR COST ESTIMATE

LANTDIV NORVA 4-11012/5(REV. 12/80)

SHEET 21 of

PREPARED BY

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND

Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000

NORFOLK, VIRGINIA

DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 | LOCATION MCB, Camp Lejeune, N.C. | [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
15 HVAC									
QNCPI	PVC 3/4' PIPE ASTM-D-1785 PRESSURE	100.0	LF	0.09	9	0.26	26	35	
QNDAI	PVC SCH 40 3/4' 90 DEG ELL SOCKET CONN	15.0	EA	0.32	5	1.63	24	29	
QNDEI	PVC SCH 40 3/4 TEE SOCKET TYP ASTM-D-2466 PRE	10.0	EA	0.39	4	2.43	24	28	
QNDPI	PVC SCH 40 1-1/4'DIA PIPE ASTM-D-1785 PRESS	100.0	LF	0.09	9	0.26	26	35	
QNGAI	PVC SCH 40 1-1/4'90 DEG ELL SOCKET CONN	35.0	EA	0.80	28	2.43	85	113	
QNGEI	PVC SCH 40 1-1/2' TEE SOCKET TYP ASTM-D-2466	6.0	EA	1.00	6	3.65	22	28	
QSNME	2'VTR	2.0	EA	4.00	8	16.27	33	41	
RKBA	HOSE BIBB 3/4'	6.0	EA	2.88	17	3.44	21	38	
UGXBII	RETURN AIR GRILL 10X10	120.0	EA	7.60	912	5.62	674	1,586	
UGXBKK	RETURN AIR GRILL 30X6	120.0	EA	12.01	1,441	7.73	928	2,369	
QACAJG	1/2' 90 DEG ELL 150 LB MALL IRON THREADED	22.0	EA	0.30	7	4.31	95	102	
QACEJG	1/2' TEE 150 LB MALLEABLE IRON THREADED	8.0	EA	0.35	3	6.44	52	55	
QAC7AC	1/2' BLK STL STD WT PIPE 0-10' AFF THREADED	110.0	LF	0.32	35	0.34	37	72	
QADAJG	3/4' 90 DEG ELL 150 LB MALLEABLE IRON THREADE	20.0	EA	0.33	7	4.76	95	102	
QADEJG	3/4' TEE 150 LB MALLEABLE IRON THREADED	12.0	EA	0.53	6	7.05	85	91	
QAD7AC	3/4' BLK STL STD WT PIPE 0-10' AFF THREADED	120.0	LF	0.38	46	0.34	41	87	
QAEAJG	1' 90 DEG ELL 150 LB MALLEABLE IRON THREADED	4.0	EA	0.62	2	5.60	22	24	
QAEEJG	1' TEE 150 LB MALLEABLE IRON THREADED	6.0	EA	0.96	6	8.34	50	56	
QAEIJG	1' UNION 150 LB MALLEABLE IRON THREADED	16.0	EA	1.54	25	4.48	72	97	
QAE7AC	1' BLK STL STD WT PIPE 0-10' AFF THREADED	60.0	LF	0.53	32	0.34	20	52	
QAGAJG	1-1/4' 90 DEG ELL 150 LB MALLEABLE IRON THREA	4.0	EA	1.01	4	6.05	24	28	
QAGEJG	1-1/4' TEE 150 LB MALLEABLE IRON THREADED	4.0	EA	1.57	6	9.07	36	42	
QAGIJG	1-1/4' UNION 150 LB MALLEABLE IRON THREADED	4.0	EA	2.13	9	4.81	19	28	
QAG8AC	1-1/4' BLK STL EX HVY PIPE WT 0-10' AFF THREA	120.0	LF	0.82	98	0.40	48	146	
QAIAJG	1-1/2' 90 DEG ELL 150 LB MALLEABLE IRON THREA	50.0	EA	1.33	67	6.44	322	389	
	SUB-TOTAL				2,792		2,881	5,673	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 22 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
15 HVAC (CONTINUED)									
QAIEJG	1-1/2' TEE 150 LB MALLEABLE IRON THREADED	16.0	EA	1.92	31	9.63	154	185	
QAIIJG	1-1/2' UNION 150 LB MALLEABLE IRON THREADED	16.0	EA	2.59	41	5.15	82	123	
QAI7AC	1-1/2' BLK STL STD WT PIPE 0-10' AFF THREADED	450.0	LF	0.83	374	0.39	176	550	
QAJAJG	2' 90 DEG ELL 150 LB MALLEABLE IRON THREADED	12.0	EA	1.95	23	6.89	83	106	
QAJEJG	2' TEE 150 LB MALLEABLE IRON THREADED	8.0	EA	2.82	23	10.36	83	106	
QAJIJG	2' UNION 150 LB MALLEABLE IRON THREADED	4.0	EA	3.30	13	5.88	24	37	
QAJ7AC	2' BLK STL STD WT PIPE 0-10' AFF THREADED	300.0	LF	1.12	336	0.45	135	471	
QAKATH	2-1/2'L RAD 90 D ELL SCH 40 CARBON STL BUTT W	20.0	EA	4.11	82	20.70	414	496	
QAKETH	2-1/2' TEE SCH 40 CARBON STL BUTT WELDED	16.0	EA	11.64	186	31.07	497	683	
QAK7AM	2-1/2' BLK STL SCH 40 PIPE 0-10' AFF WELD	575.0	LF	1.57	903	0.65	374	1,277	
QALATH	3'L RAD 90 D ELL SCH 40 CARBON STL BUTT WELD	8.0	EA	5.72	46	24.13	193	239	
QALETH	3' TEE SCH 40 CARBON STL BUTT WELDED	4.0	EA	15.02	60	36.19	145	205	
QAL7AM	3'BLK STL SCH 40 PIPE 0-10' AFF WELD A-120	120.0	LF	2.06	247	0.70	84	331	
QZZUB	3/8' ALL THREADED ROD GALVANIZED	770.0	LF	0.32	246	0.06	46	292	
QZZVB	1/2' ALL THREAD ROD GALVANIZED	60.0	LF	0.54	32	0.06	4	36	
RACAD	GATE VALVE 1/2' BRONZE 150 LB THREADED	4.0	EA	8.90	36	4.40	18	54	
RADAD	GATE VALVE 3/4' BRONZE 150 LB THREADED	4.0	EA	11.72	47	4.74	19	66	
RAGAD	GATE VALVE 1-1/2' BRONZE 150 LB THREADED	4.0	EA	23.59	94	6.72	27	121	
RAHAD	GATE VALVE 2' BRONZE 150 LB THREADED	4.0	EA	34.08	136	7.93	32	168	
RBEAD	GLOBE VALVE 1' BRZ 150 LB THREADED	4.0	EA	20.51	82	5.34	21	103	
RCDAD	CHECK VALVE 3/4' BRZ 150 LB THREADED	4.0	EA	12.19	49	4.74	19	68	
RJCAA	BALANCING VALVE BRONZE 125 LB THREADED 1/2'	6.0	EA	6.12	37	4.40	26	63	
RJDAA	BALANCING VALVE BRONZE 125 LB THREADED 3/4'	6.0	EA	7.71	46	4.74	28	74	
RJJZB	2-1/2' BALANCING VALVE W/BAL CONN	6.0	EA	123.60	742	10.34	62	804	
RJKAB	3/4' SQ HEAD COCK 125PSI BRONZE BODY	6.0	EA	2.95	18	4.73	28	46	
	SUB-TOTAL				3,930		2,774	6,704	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 23 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
15 HVAC (CONTINUED)									
TQBAA	VACUUM BREAKER ATMOS. SCREWED CONNECTION 3/4'	6.0	EA	53.60	322	10.35	62	384	
TQFFAI	PRESS REDUCING VALVE HI PRESS BRASS BODY 1/2'	2.0	EA	17.24	34	9.42	19	53	
TRNAB	THERMOSTATIC TRAP LO-PRESS 25 PSI ANGL TY 3/4	2.0	EA	21.03	42	15.09	30	72	
TRNAC	THERMOSTATIC TRAP LO-PRESS 25 PSI ANGL TY 1'	2.0	EA	28.84	58	16.02	32	90	
TRO	AIR VENT FOR HOT WATER	20.0	EA	6.31	126	0.00	0	126	
RRAAA	FIBERGLASS INSULATION 1' TK ON 1/2'DIA PIPE	115.0	LF	0.52	60	0.52	60	120	
RRAAB	FIBERGLASS INSUL 1' TK ON 3/4' DIA PIPE	135.0	LF	0.64	86	0.52	70	156	
RRAAD	FIBERGLASS INSUL 1' TK ON 1-1/4' DIA PIPE	627.0	LF	0.68	426	0.58	364	790	
RRAAE	1'THK FG INSULATION ON 2' DIA PIPE	650.0	LF	0.81	527	0.64	416	943	
RRAAF	1' THK FG INSULATION ON 2-1/2' DIA PIPE	650.0	LF	0.95	618	0.78	507	1,125	
RRAFH	1-1/2' THK FG INSULATION ON 3' DIA PIPE	140.0	LF	1.92	269	0.78	109	378	
RRSS	DUCTWORK LINING	275.0	SF	0.24	66	0.13	36	102	
RRSUD	FIBEROUS GLASS BLANKET 1-1/2''	17,424.0	SF	0.29	5,053	0.25	4,356	9,409	
TSBBG	DUPLEX CONDENSATE PUMP 10 GPM 3 HP CI	1.0	EA	2014.68	2,015	257.36	257	2,272	
TUBAA	3000 CFM AHU MED PRES SGL Z4 ROW COIL FIL MX	6.0	EA	1395.74	8,374	116.70	700	9,074	
TIQABC	HORIZ 5000 BTUH HORIZ 12500 T=BTUH 200 CFM	2.0	EA	144.95	290	28.58	57	347	
TIRAAD	FAN COIL UN 200 CFM FL MTD 2 PIPE W/ELECT CON	1.0	EA	302.20	302	48.25	48	350	
TIRFAA	FAN COIL UN 800 CFM CL HG 2PIPE W/ELECT CONTR	3.0	EA	598.30	1,795	80.43	241	2,036	
TISMA	TOILET EXHAUST FAN 90 CFM	63.0	EA	84.76	5,340	31.27	1,970	7,310	
T1XXX	TERMINAL AIR BLENDER 250 CFM TABB 04 TRANE	120.0	EA	52.00	6,240	19.50	2,340	8,580	
UJH	WATER BALANCE	12.0	EA	0.00	0	4.32	52	52	
UBCXXX	320 CFM PROPELLER WALL MTD EF-5	1.0	EA	64.00	64	13.00	13	77	
UBCXXY	420 CFM CENTRI ROOF MTD EF-1	1.0	EA	200.00	200	13.00	13	213	
UBCXYY	500 CFM PROPELLER WATT MTD EF-2	3.0	EA	80.00	240	13.00	39	279	
UBCYYY	TROOF MTD EXHAUST HOOD	1.0	EA	84.00	84	11.70	12	96	
	SUB-TOTAL				32,631		11,803	44,434	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 24 of

PREPARED BY — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
15 HVAC (CONTINUED)									
UDADCC	DUCT RECT GALV STL LP 15000-50000LB 15% ALLOW	21,780.0	LB	0.25	5445	0.38	8,276	13,721	
UGDBJJ	SUPPLY SIR REGISTER 32X4 BAKED ENAM FIN.12X12	120.0	EA	25.05	3,006	7.03	844	3,850	
UGHBEE	6X4 REGISTER 6X6 SGL DEFLECTION W/OBD	60.0	EA	7.83	470	6.32	379	849	
UGHBIG	10X6 RETURN AIR REGISTER W/OBD 10X8	60.0	EA	11.78	707	6.60	396	1,103	
UJG	AIR BALANCE	86.0	EA	0.00	0	4.12	354	354	
UMFECB	CONTROL DAMPER GALV STL 16.10 W/0 MOTOR	36.0	EA	69.96	2,519	16.51	594	3,113	
UMFEDB	CONTROL DAMPER GALV STL 28X16 W/O MOTOR	12.0	EA	69.96	840	16.51	198	1,038	
UMFY	MOT CONTROL DAMPERS	24.0	EA	96.00	2,304	9.75	234	2,538	
UMFZ	FIRE DAMPERS	210.0	EA	16.00	3,360	5.20	1,092	4,452	
UKAS	INSTRU AIR SYS 2-2HP COMPRS, RCVR REFRIG DRYER	1.0	EA	3200.00	3,200	655.20	655	3,855	
UTAAAA	TAB UN CONTRL PNEU RM T'STAT DMPR MTR 2-W VAL	120.0	EA	108.54	13,025	97.03	11,644	24,669	
UTAAAB	FAN COIL UN CNTRL PNEU RM T'STAT 3-WAY VALVE	4.0	EA	116.96	468	97.03	388	856	
UTAAC	TAB/FCU MTG/CLG CHANGEOVER	1.0	EA	294.75	295	258.24	258	553	
UTHAGC	AHU CNTRL RM TSTAT QA TSTAT RM HSTAT	6.0	EA	739.21	4,435	571.26	3,428	7,863	
RRAFJ	1-1/2''THG FG INSUL ON 4'' DIA PIPE	90.0	LF	1.97	177	1.11	100	277	
Q3B	STRAINER'Y' BODY 250 LB 1' SCREWED CONN C.I.	4.0	EA	7.20	29	5.34	21	50	
Q3E	STRAINER 'Y' BODY 250 LB 2' SCREWED CONN C.I.	4.0	EA	19.09	76	7.93	32	108	
RPPS	PRESSURE GAGE, DIRECT READING	8.0	EA	41.20	330	7.43	59	389	
RPTS	THERMOMETER DIRECT READING 6' STEM 9' CASE	12.0	EA	42.84	514	7.43	89	603	
	SUBTOTAL FROM PREVIOUS PAGE	1.0	LS	2792.00	2,792	2881.00	2,881	5,673	
	SUBTOTAL FROM PREVIOUS PAGE	1.0	LS	3930.00	3,930	2774.00	2,774	6,704	
	SUBTOTAL FROM PREVIOUS PAGE	1.0	LS	32631.00	32,631	11803.00	11,803	44,434	
	SUB-TOTAL				80,553		46,499	127,052	
	MARK-UP (SUBCONTRACTOR)		%	40.0	32,221	58.0	26,969	59,190	
	SUB-TOTAL				112,774		73,468	186,242	
	ESCALATION		%	7.0	7,894	7.0	5,142	13,036	
	SUB-TOTAL, HVAC				120,668		78,610	199,278	
							ROUNDED:	199,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 25 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. . $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
28 FIRE ALARM SYSTEM									
YU#DF	GROUND ROD CU CLAD 3/4'X10'& GROUND CLAMP	7.0	EA	11.04	77	12.27	86	163	
VEMA	1/2' 1H STRAP STAM RC	176.0	EA	0.07	12	0.35	62	74	
VEMC	1' 1HH STRAP STAMP RC	10.0	EA	0.18	2	0.35	4	6	
VETC	1 IN GRS ENT CAP	4.0	EA	3.53	14	3.51	14	28	
VIA	1/2 IMC	1,760.0	LF	0.28	493	0.26	458	951	
VIC	1 IN IMC	100.0	LF	0.47	47	0.43	43	90	
VINA	1/2 IN IMC ELBOW 90 DEG	10.0	EA	0.73	7	1.66	17	24	
VINC	1 IN IMC ELBOW 90 DEG	2.0	EA	1.41	3	2.36	5	8	
VMMI	1/2' CHANNEL STRAP RC	10.0	EA	0.38	4	0.17	2	6	
VMMK	1' CHANNEL STRAP RC	10.0	EA	0.46	5	0.17	2	7	
MVAC	1/4 TOGGLE BOLT	72.0	EA	0.20	14	0.06	4	18	
VMMHA	1-1/2' HANGER CHANNEL HOLES	10.0	EA	1.22	12	1.05	11	23	
WFD	8 THW STR CU	200.0	LF	0.05	10	0.06	12	22	
WGA	14 THHN-THWN STR CU BLA CK	3,500.0	LF	0.03	105	0.06	210	315	
WPA	4' BOXES	36.0	EA	0.48	17	0.61	22	39	
WRBC	HNG COV WIREWAY 4X4X2 FT	1.0	EA	5.44	5	3.94	4	9	
XUMA	SAFETY SW-HVY DTY 3P 4W 30AFUSED 600V NEMA	1.0	EA	64.68	65	27.20	27	92	
XXHA	FUSE ONE-TIME 1-30A 250V	2.0	EA	0.32	1	0.00	0	1	
ZSC	AUTO CODED TRANSMITTER	1.0	EA	396.00	396	35.37	35	431	
ZSD	FIRE ALARM CONTROL PANEL (SIMPLEX)	1.0	EA	368.00	368	35.37	35	403	
ZSI	FIRE ALARM PULL STATION, MANUAL	18.0	EA	12.00	216	4.42	80	296	
ZSJ	FIRE ALARM HORN WITH OUTLET BOX	18.0	EA	38.40	691	4.42	80	771	
ZSK	FIRE ALARM TROUBLE BELL 4' W/OUTLET BOX	2.0	EA	23.20	46	5.89	12	58	
ZSZZZ	SMOKE DETECTOR, CEILING TYPE	120.0	EA	60.00	7,200	25.00	3,000	10,200	
	SUB-TOTAL				9,810		4,225	14,035	
	MARK-UP (SUBCONTRACTOR)		%	40.0	3,924	58.0	2,450	6,374	
	SUB-TOTAL				13,734		6,675	20,409	
	ESCALATION		%	7.0	961	7.0	467	1,428	
	SUB-TOTAL, FIRE ALARM SYSTEM				14,695		7,142	21,837	
							ROUNDED:	22,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 26 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
31 POWER SYSTEM									
VEI	3 IN GRS CONDUIT	150.0	LF	2.56	384	1.31	197	581	
VEQI	3 IN GRS ELBOW 90 DEG	4.0	EA	14.92	60	14.04	56	116	
VIA	1/2 IMC	1,800.0	LF	0.28	504	0.26	468	972	
VIG	2-1/2 IN IMC	820.0	LF	1.56	1,279	0.79	648	1,927	
VINA	1/2 IN IMC ELBOW 90 DEG	600.0	EA	0.73	438	1.66	996	1,434	
VING	2-1/2 IN IMC ELBOW 90 DEG	14.0	EA	6.19	87	7.28	102	189	
VMMI	1/2'' CHANNEL STRAP RC	180.0	EA	0.38	68	0.17	31	99	
VMMHA	1-1/2' HANGER CHANNEL HOLES	82.0	EA	1.22	100	1.05	86	186	
WGB	12 THHN-THWN STR CU	5,400.0	LF	0.04	216	0.06	324	540	
WGC	10 THHN-THWN STR CU	1,100.0	LF	0.07	77	0.09	99	176	
WHK	2/0 XHHW RHH-RHW STR CU	320.0	LF	0.76	243	0.20	64	307	
WHN	250 XHHW RHH-RHW STR CU	2,960.0	LF	1.60	4,736	0.26	770	5,506	
WHP	350 XHHW RHH-RHW STR CU	400.0	LF	2.12	848	0.30	120	968	
WPBA	4-11/16' BOX	340.0	EA	1.13	384	2.19	745	1,129	
WPBE	4-11/16' COVER BLANK	340.0	EA	0.40	136	0.87	296	432	
WPCA	2 GANG BOX	260.0	EA	2.57	668	2.19	569	1,237	
WSF3D4	800 AMP 42 CCT MCB 3 PH	1.0	EA	1160.00	1,160	195.00	195	1,355	
WP#AHB	4'SQ BX W/1 OR 2 GANG PLSTR RING AND DEVICE	944.0	EA	2.12	2,001	7.94	7,495	9,496	
WPDK	COVER PLATE FOR STND BOXDRYER RECEP250V30/50A	6.0	EA	1.20	7	2.19	13	20	
WXA	125 VOLT 20A 2POLE BRN DUPLEX RECEP GRND TY	701.0	EA	3.73	2,615	1.75	1,227	3,842	
WXS	125V 20A 2POLE GND FALT INTER-BRN DUPLX RECEP	120.0	EA	32.76	3,931	3.06	367	4,298	
WYE	250V 20A 2POLE BRN SGL RECEP GROUND TYPE	123.0	EA	3.16	389	2.19	269	658	
WZD	DRYER RECEPT 250 V 30A/50A 3 WIRE	6.0	EA	8.57	51	5.70	34	85	
WZDE	PLASTIC PLUG/CAP 30A FOR DRYER RECEPTACLES	6.0	EA	4.08	24	3.06	18	42	
WZDF	CORD SET 36INCH W/3 #10 WIRES FOR DRYER RECEP	6.0	EA	2.87	17	3.06	18	35	
	SUB-TOTAL				20,423		15,207	35,630	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 27 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. . $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
31 POWER									
WGE	6 THHN-THWN STR CU	740.0	LF	0.19	141	0.12	89	230	
WGJ	1/0 XHHN-RHH-RHW STR CU	100.0	LF	0.91	91	0.20	20	111	
WSF3A4	ET 225AMP 42 CCT 3PH 4W 120/208 FL-SURF	7.0	EA	1200.00	8,400	458.00	3,206	11,606	
WSXXIZ	1200 AMP PNL BD MLO 3PH 4W 600V SURF MT 45IN	1.0	EA	1600.00	1,600	700.00	700	2,300	
	SUBTOTAL FROM PREVIOUS PAGE	1.0	LS	20423.00	20,423	15207.00	15,207	35,630	
	SUB-TOTAL				30,655		19,222	49,877	
	MARK-UP (SUBCONTRACTOR)	%		40.0	12,262	58.0	11,148	23,410	
	SUB-TOTAL				42,917		30,370	73,287	
	ESCALATION	%		7.0	3,004	7.0	2,125	5,129	
	SUB-TOTAL, POWER SYSTEM				45,921		32,495	78,416	
							ROUNDED:	78,000	

MATERIAL & LABOR COST ESTIMATE

LANTDIV NORVA 4-11012/5(REV. 12/80)

SHEET 28 of

PREPARED BY

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND

Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. . $16,352,000

NORFOLK, VIRGINIA

DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624

LOCATION MCB, Camp Lejeune, N.C.

[X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
32 LIGHTING									
VIA	1/2 IMC	2,600.0	LF	0.34	884	1.11	2,886	3,770	
VIG	2-1/2 IN IMC	100.0	LF	2.16	216	2.76	276	492	
VINA	1/2 IN IMC ELBOW 90 DEG	800.0	EA	1.08	864	3.45	2,760	3,624	
VING	2-1/2 IN IMC ELBOW 90 DEG	100.0	EA	10.16	1,016	13.65	1,365	2,381	
VMMI	1/2' CHANNEL STRAP RC	260.0	EA	0.44	114	0.20	52	166	
VMMO	2-1/2' CHANNEL STRAP RC	20.0	EA	0.80	16	0.42	8	24	
VMAC	1/4 TOGGLE BOLT	2,700.0	EA	0.20	540	1.37	3,699	4,239	
VMMHA	1-1/2' HANGER CHANNEL HOLES	100.0	EA	0.68	68	0.27	27	95	
WFN	250 THW STR CU	100.0	LF	1.16	116	0.55	55	171	
WGB	12 THHN-THWN STR CU	10,400.0	LF	0.04	416	0.10	1,040	1,456	
WHK	2/0 XHHW RHH-RHW STR CU	100.0	LF	0.66	66	0.38	38	104	
WPAA	4' OCTOGON BOX	840.0	EA	0.63	529	5.53	4,645	5,174	
WPAD	4' ROUND COVER BLANK	840.0	EA	0.29	244	1.72	1,445	1,689	
WPCA	2 GANG BOX	184.0	EA	2.00	368	5.53	1,018	1,386	
WPDF	SWITCH BOX WITH KNOCKOUT	174.0	EA	0.82	143	4.10	713	856	
WU#11	1 GANG SPST 20 AMP TOGGLE SW W/BOX PLSTER RIN	174.0	EA	6.67	1,161	12.67	2,205	3,366	
WU#21	2 GANG SPST 20AMP TOGGLE SW W/BOX PLASTER RIN	184.0	EA	11.47	2,110	16.76	3,084	5,194	
WWA	ASTRONOMICAL TIME SWITCH SPDT 40A	3.0	EA	52.80	158	30.55	92	250	
ZCQ-A1	LAMP 20W MED BIPIN BASE F20T12/CW 24'	126.0	EA	2.52	318	1.11	140	458	
ZCQ-B1	LAMP 30W MED. BIPIN BASE F30T12/CW/RS 36'	240.0	EA	3.40	816	1.24	298	1,114	
ZCQ-C1	LAMP 40W MED. BIPIN BASE F40T12/CW/RS 48'	478.0	EA	1.32	631	1.24	593	1,224	
ZCQ-G2	LAMP 100W INCAN, 100A MED.BASE INSIDE FROST	30.0	EA	0.69	21	0.68	20	41	
ZA2B	1-LAMP SUR.MT.WRAP AROUND LITH.LB240A FOR OTH	165.0	EA	21.60	3,564	13.65	2,252	5,816	
ZA2C	4-LAMP SUR.MT.WRAP AROUND LITH.LB440A FOR OTH	1.0	EA	36.80	37	20.80	21	58	
	SUB-TOTAL				14,416		28,732	43,148	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 29 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
32 LIGHTING (CONTINUED)									
ZA26A	18W L.P.S.WALL MT. BENJAMIN OLW-118-120	84.0	EA	120.00	10080	27.00	2,268	12,348	
ZA26B	18W L.P.S. WALL MT. W.F. HARRIS 1018-LPS	10.0	EA	100.00	1,000	27.00	270	1,270	
ZA3B	2-LAMP TROFFER 1'X4' LITH. GP240IMA	6.0	EA	25.70	154	20.00	120	274	
ZA3C	3-LAMP TROFFER 2'X4' LITH. 2GP340IMA	18.0	EA	36.80	662	22.00	396	1,058	
ZA3D	4-LAMP TROFFER 2'X4' LITH. 2GP440IMA	3.0	EA	36.80	110	23.00	69	179	
ZA45A	INCAN.EXT.BRACKET LUM.CYLIN,GLOBE LIGHTRON	30.0	EA	14.40	432	14.00	420	852	
ZA48A	EXIT LT.ALUM,OR STL,UNIVER,MT'G ARTMETAL ERIC	28.0	EA	23.20	650	14.00	392	1,042	
ZBJ1A1	PL. 16-J-1 2-LAMP 2FT WALL MT.DAYBRIGHT 25242	63.0	EA	48.00	3,024	16.00	1,008	4,032	
ZBJ2B1	PL,16-J-2 2-LAMP 3FT WALL MT.DAYBRIGHT 35242	120.0	EA	50.40	6,048	16.00	1,920	7,968	
ZBJ3C1	PL. 16-J-3 2-LAMP 4FT WALL MT.DAYBRIGHT 45242	18.0	EA	50.40	907	16.00	288	1,195	
	SUBTOTAL FROM PREVIOUS PAGE	1.0	LS	14416.00	14,416	28732.00	28,732	43,148	
	SUB-TOTAL				37,483		35,883	73,366	
	MARK-UP (SUBCONTRACTOR)	%	40.0		14,993	58.0	20,812	35,805	
	SUB-TOTAL				52,476		56,695	109,171	
	ESCALATION	%	7.0		3,673	7.0	3,968	7,641	
	SUB-TOTAL, LIGHTING				56,149		60,663	116,812	
							ROUNDED:	117,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80)

SHEET 30 of ____

PREPARED BY ____

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND

NORFOLK, VIRGINIA

Const. Contr. No. N62470-81-B-3888

FUNDS AVAIL. $16,352,000

DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624

LOCATION MCB, Camp Lejeune, N.C.

[X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
39 EMCS									
OXBA	FIELD INTERFACE DEVICE (FID) A MICROPROCESSOR	1.0	EA	1920.00	1920	130.00	130	2,050	
OXBBA	LOCAL DEMAND INDICATION PANEL	1.0	EA	160.00	160	32.50	33	193	
OXBC	MULTIPLEXER PANEL (MUX)	1.0	EA	2720.00	2,720	26.42	26	2,746	
OXBE	FUNCTION CARD FOR (FID) OR (MUX) ANALOG INPUT	1.0	EA	88.00	88	0.00	0	88	
OXBF	FUNCTION CARD FOR (FID) OR (MUX) BINARY INPUT	1.0	EA	2.40	2	0.00	0	2	
OXBH	MODEM (MODULAR DEMODULATOR) A HARDWARE DEVICE	1.0	EA	280.00	280	51.35	51	331	
OXBK	TEMP SENSOR AIR SPACE 50 FT OF WIR AND CONDUI	30.0	EA	33.60	1,008	54.60	1,638	2,646	
OXBM	DIFFERENTIAL PRESS SEN ANALOG 50'OF WIR & CON	15.0	EA	595.20	8,928	230.10	3,452	12,380	
OXBNA	PRESS TRANSMITTER SENSORS P1,P2,P3,P5,P6	5.0	EA	629.60	3,148	179.40	897	4,045	
OXBP	START/STOP CONTROLS S1 THRU S9	9.0	EA	49.60	446	107.90	971	1,417	
OXBT	CONTACT STATUS C1,C2,C5,C7	4.0	EA	49.60	198	88.40	354	552	
OXBG	FUNCTION CARD FOR(FID)OR(MUX)BINARY OUTPUT	1.0	EA	34.40	34	0.00	0	34	
				0.00	0	0.00	0	0	
				0.00	0	0.00	0	0	
				0.00	0	0.00	0	0	
				0.00	0	0.00	0	0	
				0.00	0	0.00	0	0	
				0.00	0	0.00	0	0	
				0.00	0	0.00	0	0	
				0.00	0	0.00	0	0	
				0.00	0	0.00	0	0	
				0.00	0	0.00	0	0	
				0.00	0	0.00	0	0	
				0.00	0	0.00	0	0	
				0.00	0	0.00	0	0	
	SUB-TOTAL				18,932		7,552	26,484	
	MARK-UP (SUBCONTRACTOR)		%	40.0	7,572	58.0	4,380	11,952	
	SUB-TOTAL				26,504		11,932	38,436	
	ESCALATION		%	7.0	1,855	7.0	835	2,690	
	SUB-TOTAL, EMCS				28,359		12,767	41,126	
							ROUNDED:	41,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 31 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 82

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
	PHONE SYSTEM								
.1	3 IN GRS CONDUIT	40.0	LF	2.56	102	1.31	52	154	
VEK	4 IN GRS CONDUIT	10.0	LF	3.80	38	1.75	18	56	
VEQB	1/2 IN GRS ELBOW 90 DEG	30.0	EA	1.05	31	2.19	66	97	
VEQC	3/4 IN GRS ELBOW 90 DEG	20.0	EA	1.28	26	2.63	53	79	
VEQD	1 IN GRS ELBOW 90 DEG	6.0	EA	1.89	11	3.06	18	29	
VEQG	2 IN GRS ELBOW 90 DEG	30.0	EA	5.03	151	5.70	171	322	
VEQI	3 IN GRS ELBOW 90 DEG	2.0	EA	14.92	30	14.04	28	58	
VEQK	4 IN GRS ELBOW 90 DEG	1.0	EA	30.00	30	21.93	22	52	
VIA	1/2 IMC	50.0	LF	0.28	14	0.26	13	27	
VIB	3/4 IMC	150.0	LF	0.35	53	0.35	53	106	
VIC	1 IN IMC	200.0	LF	0.47	94	0.43	86	180	
VID	1-1/4 IMC	60.0	LF	0.61	37	0.53	32	69	
VIE	1-1/2 IMC	60.0	LF	0.72	43	0.65	39	82	
VIF	2 IN IMC	250.0	LF	0.98	245	0.76	190	435	
VMAC	1/4 TOGGLE BOLT	32.0	EA	0.16	5	1.05	34	39	
WFCA	10 THW SOLID CU	100.0	LF	0.06	6	0.06	6	12	
ZUQ	PULL WIRE	570.0	LF	0.01	6	0.02	11	17	
ZUR	2/C TELEPHONE CABLE	570.0	LF	0.04	23	0.07	40	63	
ZUC	BACKBOARD 4'X4'X3/4' PLYWOOD	1.0	EA	14.40	14	8.77	9	23	
ZUN	TELEPHONE JACK 4 PRONG HOUSEHOLD	1.0	EA	3.20	3	3.90	4	7	
ZUD	TELEPHONE WALL OUTLET	3.0	EA	2.60	8	3.51	11	19	
	SUB-TOTAL				970		956	1,926	
	MARK-UP (SUBCONTRACTOR)		%	40.0	388	58.0	554	942	
	SUB-TOTAL				1,358		1,510	2,868	
	ESCALATION		%	7.0	95	7.0	105	200	
	SUB-TOTAL, TELEPHONE SYSTEM				1,453		1,615	3,068	
							ROUNDED:	3,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 32 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
42 INTERCOMMUNICATION SYSTEM									
VEMA	1/2' 1H STRAP STAMP RC	88.0	EA	0.07	6	0.35	31	37	
VEMC	1' 1HH STRAP STAMP RC	30.0	EA	0.18	5	0.35	11	16	
VEMF	2' 1H STRAP STAMP RC	25.0	EA	0.58	15	0.35	9	24	
VIA	1/2 IMC	880.0	LF	0.28	246	0.26	229	475	
VIC	1 IN IMC	80.0	LF	0.47	38	0.43	34	72	
VIF	2 IN IMC	250.0	LF	0.98	245	0.76	190	435	
VINA	1/2 IN IMC ELBOW 90 DEG	90.0	EA	0.73	66	1.66	149	215	
VINC	1 IN IMC ELBOW 90 DEG	123.0	EA	1.41	173	2.36	290	463	
VINF	2 IN IMC ELBOW 90 DEG	30.0	EA	3.78	113	4.29	129	242	
VMAC	1/4 TOGGLE BOLT	252.0	EA	0.16	40	1.05	265	305	
WGC	10 THHN-THWN STR CU	100.0	LF	0.07	7	0.09	9	16	
WPHQ	18X24X6 JUNC BOX GALV S COV	1.0	EA	24.02	24	10.96	11	35	
ZUC	BACKBOARD 4'X4'X3/4' PLYWOOD	1.0	EA	14.40	14	8.77	9	23	
ZURC	100 PAIR COMM CABLE	100.0	LF	1.01	101	0.52	52	153	
ZVXXZ1	CONTROL RACK DUKANE 100-36	1.0	EA	104.00	104	13.00	13	117	
ZVXXZ2	100 WATT AMPLIFIER DUKANE 1A803	1.0	EA	280.00	280	32.50	33	313	
ZVXXZ3	PROGRAM CONTROL PANEL DUKANE 9A1675	1.0	EA	168.00	168	52.00	52	220	
ZVXXZ4	CONTROL PANEL DUKANE 9A1665A	1.0	EA	248.00	248	52.00	52	300	
ZVXXZ5	POWER SUPPLY DUKANE 17A365	1.0	EA	96.00	96	13.00	13	109	
ZVXXZ6	SWITCH BANK 25 CHANNELS DUKANE 9A1430A	1.0	EA	192.00	192	26.00	26	218	
ZVXXZ7	MICROPHONE CABLE & JACK	1.0	EA	40.00	40	6.50	7	47	
ZYXXZ8	ET 4 IN SPEAKER/BOX MTL GRILL & PLASTER RING	123.0	EA	16.00	1,968	6.50	800	2,768	
ZVXXZ9	2 CONDUCTOR SHIELDED CABLE NO 22 AWG	1,280.0	LF	0.00	0	0.00	0	0	
				0.00	0	0.00	0	0	
				0.00	0	0.00	0	0	
	SUB-TOTAL				4,189		2,414	6,603	
	MARK-UP (SUBCONTRACTOR)		%	40.0	1,675	58.0	1,400	3,075	
	SUB-TOTAL				5,864		3,814	9,678	
	ESCALATION		%	7.0	410	7.0	266	676	
	SUB-TOTAL, INTERCOMMUNICATION SYSTEM				6,274		4,080	10,354	
							ROUNDED:	10,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 33 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
43 TV SYSTEM									
VERD	1 IN GRS PIPE CAP	30.0	EA	0.60	18	1.31	39	57	
VEMB	3/4' 1H STRAP STAMP RC	30.0	EA	0.08	2	0.35	11	13	
VEMC	1' 1HH STRAP STAMP RC	200.0	EA	0.18	36	0.35	70	106	
VIB	3/4 IMC	300.0	LF	0.35	105	0.35	105	210	
VIC	1 IN IMC	1,940.0	LF	0.47	912	0.43	834	1,746	
VINB	3/4' IN IMC ELBOW 90 DEG	20.0	EA	0.96	19	2.01	40	59	
VINC	1 IN IMC ELBOW 90 DEG	40.0	EA	1.41	56	2.36	94	150	
VMAC	1/4 TOGGLE BOLT	248.0	LF	0.16	40	1.05	260	300	
ZWA	TV OUTLET SELF TERMINAT W/COV PLT W/MALE CONN	124.0	EA	3.00	372	6.14	761	1,133	
ZWC	COAX CABLE RG59/U (CAL-59-1000)	2,240.0	LF	0.08	179	0.24	538	717	
ZWN	IN-LINE TAPS PTU-SERIES 36 TV SYSTEM	124.0	EA	3.90	484	6.14	761	1,245	
ZWPA	BROADBAND AMP 55 DB GAIN JERROLD MOD	1.0	EA	320.00	320	130.00	130	450	
	SUB-TOTAL				2,543		3,643	6,186	
	MARK-UP (SUBCONTRACTOR)		%	40.0	1,017	50.0	2,112	3,129	
	SUB-TOTAL				3,560		5,755	9,315	
	ESCALATION		%	7.0	249	7.0	402	651	
	SUB-TOTAL, TV SYSTEM				3,809		6,157	9,966	
							ROUNDED:	10,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 34 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
50 ELECTRICAL DISTRIBUTION									
WKH	#2 #2 AWG CU XLP CABLE 15 KV SHIELDED	5,700.0	LF	1.19	6783	0.18	1,026	7,809	
YIXX4Z	PAD MT AIR SW GR 15KV 6-3P-600A SWS/SURGE PRO	1.0	EA	51530.00	51,530	5200.00	5,200	56,730	
YKZA	TYPE 1 POWER MAN HOLE CAST IN PLACE	12.0	EA	906.50	10,878	639.90	7,679	18,557	
YKZN	TYPE 2 HAND HOLE CAST IN PLACE	1.0	EA	601.30	601	456.84	457	1,058	
YPAB	1 WAY 1-1/4'GRS DUCT BANK NO PAVEMENT REMOVAL	1,080.0	LF	0.96	1,037	1.27	1,372	2,409	
YPAD	1 WAY 2 INCH GRS DUCT BANK NO PAVEMENT REMOVA	800.0	LF	2.29	1,832	1.14	912	2,744	
YPAF	1WAY 3IN GRS DUCT BANK NO PVMNT REMOV OR REPL	300.0	LF	4.01	1,203	1.88	564	1,767	
YTAH	1WAY 4IN PVC DUCT BANK NO PVMNT REMOV OR REPL	200.0	LF	1.51	302	0.88	176	478	
YTBH	2WAY 4IN PVC DUCT BANK NO PVMNT REMOV OR REPL	100.0	LF	2.74	274	1.44	144	418	
YTCH	3WAY 4IN PVC DUCT BANK NO PVMNT REMOV OR REPL	100.0	LF	3.37	337	2.71	271	608	
YTDH	4WAY 4IN PVC DUCT BANK NO PVMNT REMOV OR REPL	1,900.0	LF	4.36	8,284	3.25	6,175	14,459	
YUD	3/4'X10' GROUND ROD COPPER CLAD	70.0	EA	9.85	690	9.31	652	1,342	
YUWA	BRAZED CONNECT FOR #6 WIRE	21.0	EA	0.80	17	1.62	34	51	
YUWC	BRAZED CONNECT FOR #2/0 WIRE	84.0	EA	1.43	120	2.43	204	324	
ZN1	FLAT STEEL BRACE 2-PIECE	40.0	EA	2.07	83	1.62	65	148	
ZN10	STEEL PIN FOR INSULATOR	20.0	EA	1.42	28	0.26	5	33	
ZN11	PIN TYPE INSULATOR	20.0	EA	1.23	25	1.62	32	57	
ZN16	5/8' EYE BOLT (14-16')	1.0	EA	1.42	1	2.02	2	3	
ZN2	BOLT 3/8-IN X 5-1/2 IN	120.0	EA	0.27	32	0.13	16	48	
ZN3	8 FT WOOD CROSSARM	40.0	EA	18.33	733	4.05	162	895	
ZN30	GUY HOOK	1.0	EA	0.50	1	1.62	2	3	
ZN31	GUY STRAIN INSULATOR	1.0	EA	3.08	3	2.43	2	5	
	SUB-TOTAL				84,794		25,152	109,946	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 35 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
50 ELECTRICAL DISTRIBUTION (CONTINUED)									
ZN39	HOT LINE CLAMP	3.0	EA	7.00	21	1.62	5	26	
ZN40A	FUSED CUT-OUT 7,8KV-15KV 10A-16,000A	3.0	EA	72.00	216	15.00	45	261	
ZN41A	LIGHTNING ARRESTOR 9KV	3.0	EA	50.00	150	15.00	45	195	
ZN47	TERMINATOR, PROCELAIN HSD	3.0	EA	116.00	348	15.00	45	393	
ZN48	MOUNTING BRACKET	3.0	EA	2.50	8	1.21	4	12	
ZN49	CABLE GRIP HANGER	3.0	EA	1.35	4	1.62	5	9	
ZN50	HOSE CLAMP	3.0	EA	0.58	2	0.81	2	4	
ZN53	TRIPLE INSULATOR BRACKET FOR LINE POST INSULA	10.0	EA	9.62	96	2.43	24	120	
ZN6	LAG SCREW 1/2 IN X 4 IN	30.0	EA	0.23	7	0.13	4	11	
ZN8	BOLT 1/2 IN X 12 IN	15.0	EA	0.50	8	0.13	2	10	
YJDAB	150 KVA 3-PHASE OIL FILLED	6.0	EA	4025.00	24,150	507.00	3,042	27,192	
YJDAF	750 KVA 3-PHASE OIL FILLED	1.0	EA	9758.00	9,758	861.00	861	10,619	
WAF	#4 STRANDED CONDUCTORS CU BARE	1,290.0	LF	0.27	348	0.19	245	593	
WAK	#2/0 STRANDED CONDUCTORS CU BARE	800.0	LF	1.01	808	0.33	264	1,072	
WHH	2 XHHW RHH-RHW STR CU	840.0	LF	0.37	311	0.12	101	412	
WHP	350 XHHW RHH-RHW STR CU	2,640.0	LF	1.64	4,330	0.61	1,610	5,940	
XXBP	MOLDED CASE CKT BRKR W/O ENCL 225 A FRAME MAX	12.0	EA	124.95	1,499	32.40	389	1,888	
XXCR	MOLDED CASE CKT BRKR W/O ENCL 400 A FRAME MAX	2.0	EA	239.75	480	55.08	110	590	
YUS	COPPER BRAID 1'X1/8' FOR DOOR GND	35.0	EA	0.87	30	2.43	85	115	
YWCC	CURRENT TRANSFORMER CABINET	1.0	EA	63.00	63	17.13	17	80	
ZRCED	GUY CABLE, ALUMAWELD,1X19 #10,0,509'DIA(1/2')	30.0	LF	0.38	11	0.00	0	11	
ZRCMLA	TIMBER POLE,CLASS 2,80YELLOWPINE,6#CCA35-45FT	5.0	EA	112.00	560	0.00	0	560	
	SUBTOTAL FROM PREVIOUS PAGE	1.0	LS	84794.00	84,794	25152.00	25,152	109,946	
	SUB-TOTAL				128,002		32,057	160,059	
	MARK-UP (SUBCONTRACTOR)		%	40.0	51,200	58.0	18,593	69,793	
	SUB-TOTAL				179,202		50,650	229,852	
	ESCALATION		%	7.0	12,544	7.0	3,545	16,089	
	SUB-TOTAL, ELECTRICAL DISTRIBUTION				191,746		54,195	245,941	
							ROUNDED:	246,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 36 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
52 AREA LIGHTING									
VEE	11/4 GRS CONDUIT	1,700.0	LF	0.79	1343	0.80	1,360	2,703	
VEQE	1-1/4' GRS ELBOW 90 DEG	600.0	EA	2.78	1,668	4.85	2,910	4,578	
WHD	8 XHHW RHH-RHW STR CU	3,400.0	LF	0.18	612	0.09	306	918	
WHF	4 XHHW RHH-RHW STR CU	500.0	LF	0.30	150	0.12	60	210	
ZJL	CONCRETE POLE FOR LGHTNG 40 FEET	16.0	EA	276.25	4,420	52.00	832	5,252	
ZCBC	PL 16 BBC 6' 2'' DIA ALUM ARM	32.0	EA	28.90	925	16.20	518	1,443	
ZCBJJ5	PL 16 BBJ HPS 200W COBRA HEAD W/O ARM	32.0	EA	159.80	5,114	5.40	173	5,287	
	SUB-TOTAL				14,232		6,159	20,391	
	MARK-UP (SUBCONTRACTOR)		%	40.0	5,692	58.0	3,572	9,264	
	SUB-TOTAL				19,924		9,731	29,655	
	ESCALATION		%	7.0	1,394	7.0	681	2,075	
	SUB-TOTAL, AREA LIGHTING				21,318		10,412	31,730	
							ROUNDED:	32,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 37 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
54 COMMUNICATION									
YPAB	1 WAY 1-1/4'GRS DUCT BNK N/PVMENT REMOV/REPLC	700.0	LF	1.17	819	1.27	889	1,708	
YTAH	1WAY 4INCH PVC DUCT BNK N/PVMNT/REMOV/REPLCMT	1,900.0	LF	1.84	3,496	0.88	1,672	5,168	
ZWC	COAX CABLE RG59/U (CAL-59-1000)	2,600.0	LF	0.08	208	0.22	572	780	
ZWP	T V PEDESTAL	7.0	EA	119.00	833	24.00	168	1,001	
ZWPA	TV LINE EXTENDR 35CHANNEL 54DB GAIN JERROLD	13.0	EA	660.00	8,580	96.00	1,248	9,828	
	SUB-TOTAL				13,936		4,549	18,485	
	MARK-UP (SUBCONTRACTOR)		%	40.0	5,574	58.0	2,638	8,212	
	SUB-TOTAL				19,510		7,187	26,697	
	ESCALATION		%	7.0	1,365	7.0	503	1,868	
	SUB-TOTAL, COMMUNICATION				20,875		7,690	28,565	
							ROUNDED:	29,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 38 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 82

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
55 FIRE ALARM									
VED	1 IN GRS CONDUIT	700.0	LF	0.60	420	0.64	448	868	
VEQD	1 IN GRS ELBOW 90 DEG	14.0	EA	2.01	28	3.77	53	81	
WHD	8 XHHW RHH-RHW STR CU	1,400.0	LF	0.18	252	0.09	126	378	
ZSCZZZ	RADIO FIRE ALARM TRANSMITTER	2.0	EA	750.00	1,500	100.00	200	1,700	
	SUB-TOTAL				2,200		827	3,027	
	MARK-UP (SUBCONTRACTOR)		%	40.0	880	58.0	479	1,359	
	SUB-TOTAL				3,080		1,306	4,386	
	ESCALATION		%	7.0	215	7.0	91	306	
	SUB-TOTAL, FIRE ALARM				3,295		1,397	4,692	
							ROUNDED:	5,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 39 of

PREPARED BY — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 | LOCATION MCB, Camp Lejeune, N.C. | [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
58 HEAT DISTRIBUTION									
BFFAP	TRENCH BACKFL COMPCT UTILITY TRACTOR	2,300.0	CY	1.36	3128	1.28	2,944	6,072	
CFMA	M-HOLE FRAME & COVER TRAFFIC SIZE 22A	5.0	EA	99.83	499	24.72	124	623	
EBXRC	FORM WALLS TO 8' PLYWD 3-USE	1,125.0	SF	0.48	540	1.05	1,181	1,721	
EFID	REBAR #3-#4 WALL VERT	2.5	TN	488.41	1,221	463.53	1,159	2,380	
EFMD	REBAR #3-#4 SLABS	0.6	TN	492.66	296	178.17	107	403	
EKSMD	PLACE CONC 2500 OR 3000#SLAB/THRUST BLOCK CHU	26.0	CY	45.21	1,175	3.20	83	1,258	
EKWMD	PLACE CONC 2500 OR 3000# WALLS BY CHUTE	45.0	CY	45.21	2,034	3.20	144	2,178	
QAEIJG	1'UNION 150 LB MALLEABLE IRON THREADED	7.0	EA	1.64	11	5.52	39	50	
QAE7AC	1'BLK STL STD WT PIPE 0-10' AFF THREADED	160.0	LF	0.56	90	0.42	67	157	
QALEUH	3'TEE SCH 80 BUTT WELDED	5.0	EA	19.62	98	73.19	366	464	
QAPATH	6'LONG RAD 90DEG ELL SCH40 CARBON STL BUTT WE	10.0	EA	25.77	258	59.39	594	852	
QAPETH	6'TEE SCH40 CARBON STL BUTT WELD	5.0	EA	40.61	203	89.11	446	649	
RAEAD	GATE VALVE 1' BRONZE 150LB THREADED	38.0	EA	9.49	361	6.58	250	611	
RCEAD	CHECK VALVE 1' BRZ 150 LB THREADED	4.0	EA	17.00	68	6.58	26	94	
RCGAD	CHECK VALVE 1-1/2' BRZ 150 LB THREADED	2.0	EA	29.01	58	8.28	17	75	
QWP7DB	6IN.TRI SERVICE TRENCH SCH 40 WELDED	790.0	LF	55.25	43,648	10.91	8,619	52,267	
Q1LADB	2' 90 DEG ELL FRP TRENCH	6.0	EA	30.60	184	20.66	124	308	
Q1LPDA	3' PIPE FRP PREINSUL JACKET OD 6.14'X70 MIL	790.0	LF	9.63	7,608	2.04	1,612	9,220	
Q3B	STRAINER 'Y'BODY 250LB 1'SCREWED CONN. C.I.	6.0	EA	7.65	46	6.58	39	85	
TRDEB	INVERTED BUCKET STM TRAP SCREWED CONN 1'	6.0	EA	114.18	685	19.72	118	803	
ROM	EJECTRO SUMP PUMP	10.0	EA	332.69	3,327	45.76	458	3,785	
QAEAUH	1'90DEG ELL SCH 80 BUTT WELDED LONG TURN	21.0	EA	2.79	59	15.93	335	394	
QASAJG	1-1/4' 90DEG ELL 150LB MALLEABLE IRON THREADE	6.0	EA	1.07	6	7.44	45	51	
QAGEJG	1-1/4' TEE 150LB MALLEABLE IRON THREADED	2.0	EA	1.67	3	11.16	22	25	
QAGIJG	1-1/4' UNION 150 LB MALLEABLE IRON THREADED	4.0	EA	2.26	9	5.92	24	33	
	SUB-TOTAL				65,615		18,943	84,558	

MATERIAL & LABOR COST ESTIMATE

LANTDIV NORVA 4-11012/5(REV. 12/80)

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND

NORFOLK, VIRGINIA

SHEET 40 of _____

PREPARED BY _____

Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000

DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 | LOCATION MCB, Camp Lejeune, N.C. | [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
58 HEAT DISTRIBUTION (CONTINUED)									
QAG7BD	1-1/4' BLK STL STD WT PIPE 10-20 AFF THREADED	100.0	LF	0.74	74	0.58	58	132	
QAIAJG	1-1/2' 90 DEG ELL 150 LB MALLEABLE IRON THREA	2.0	EA	1.41	3	7.92	16	19	
QAIEJG	1-1/2' TEE 150 LB MALLEABLE IRON THREADED	2.0	EA	2.04	4	11.86	24	28	
QAIIJG	1-1/2' UNION 150 LB MALLEABLE IRON THREADED	4.0	EA	2.75	11	6.34	25	36	
QAI7BC	1-1/2' BLK STL STD WT PIPE 10-20' AFF THREADE	50.0	LF	0.88	44	0.64	32	76	
QAJAJG	2' 90 DEG ELL 150 LB MALLEABLE IRON THREADED	4.0	EA	2.07	8	8.48	34	42	
QAJEJG	2' TEE 150 LB MALLEABLE IRON THREADED	2.0	EA	3.00	6	12.76	26	32	
QAJIJG	2' UNION 150 LB MALLEABLE IRON THREADED	10.0	EA	3.51	35	7.24	72	107	
QAJ7BC	2' BLK STL STD WT PIPE 10-20' AFF THREADED	150.0	LF	1.19	179	0.74	111	290	
QALAUH	3' 90 DEG ELL SCH 80 BUTT WELDED	10.0	EA	9.30	93	48.79	488	581	
QALEUH	3' TEE SCH 80 BUTT WELDED	5.0	EA	19.62	98	73.19	366	464	
QAL8BM	3' BLK STEEL SCH 80 PIPE 10-20' AFF WELD	60.0	LF	3.07	184	1.17	70	254	
QANATH	4' LONG RAD 90 DEG ELL SCH 40 CARBON STL BUTT	2.0	EA	10.02	20	40.31	81	101	
QAN7BN	4' BLK STL SCH 40 PIPE 10-20' AFF WELD	20.0	LF	5.22	104	1.28	26	130	
QAPATH	6' LONG RAD 90 DEG ELL SCH 40 CARBON STL	10.0	EA	25.77	258	59.39	594	852	
QAPETH	6' TEE SCH 40 CARBON STEEL BUTT WELD	5.0	EA	40.61	203	89.11	446	649	
QAP7BN	6' BLK STL SCH 40 PIPE 10-20' AFF WELD	60.0	LF	7.46	448	1.78	107	555	
QWG7DB	1-1/4'SCH 40 STL PIPE IN CLASS A CONDUIT SYS	1,050.0	FT	21.25	22,313	5.40	5,670	27,983	
QWI7DB	1-1/2' SCH 40 STL PIPE IN CLASS A CONDUIT SYS	250.0	FT	21.25	5,313	5.60	1,400	6,713	
QWJ7DB	2' SCH 40 STL PIPE IN CLASS A CONDUIT SYS	400.0	FT	22.95	9,180	6.00	2,400	11,580	
QWN7DB	4' SCH 40 STL PIPE IN CLASS A CONDUIT SYS	20.0	FT	34.00	680	8.00	160	840	
QWP7DB	6' SCH 40 STL PIPE IN CLASS A CONDUIT SYS	790.0	FT	55.25	43,648	10.91	8,619	52,267	
Q1JADB	2' 90 DEG ELL FRP TRENCH	6.0	EA	25.50	153	10.54	63	216	
Q1JPDA	2' PIPE FRP PREINSULATED JACKET DD 6.14'X70 M	1,720.0	FT	8.19	14,087	2.04	3,509	17,596	
RAGAA	GATE VALVE 1-1/2' BRONZE 125 LB THREADED	6.0	EA	17.07	102	8.28	50	152	
	SUB-TOTAL				97,248		24,447	121,695	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 41 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
58 HEAT DISTRIBUTION (CONTINUED)									
RAGAD	GATE VALVE 1-1/2' BRONZE 150 LB THREADED	4.0	EA	25.06	100	8.28	33	133	
RDHBC	OS&Y CAST IRON GATE VLV 125 LB FLANGED 2'	8.0	EA	90.96	728	9.54	76	804	
RDJBC	OS&Y CAST IRON GATE VLV 125 LB FLANGED 3'	5.0	EA	111.23	556	13.79	69	625	
RDMBC	OS&Y CAST IRON GATE VLV 125 LB FLANGED 6'	4.0	EA	250.07	1,000	24.40	98	1,098	
	SUBTOTAL FROM PREVIOUS PAGE	1.0	LS	65615.00	65,615	18943.00	18,943	84,558	
	SUBTOTAL FROM PREVIOUS PAGE	1.0	LS	97248.00	97,248	24447.00	24,447	121,695	
	SUB-TOTAL				165,247		43,666	208,913	
	MARK-UP (SUBCONTRACTOR)	%		40.0	66,098	58.0	25,326	91,424	
	SUB-TOTAL				231,345		68,992	300,337	
	ESCALATION	%		7.0	16,194	7.0	4,829	21,023	
	SUB-TOTAL, HEAT DISTRIBUTION				247,539		73,821	321,360	
							ROUNDED:	321,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 42 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
59 CHILLED WATER DISTRIBUTION									
QALATH	3'LONG RAD 90DEG ELL SCH40 CARBON STL BUTT WE	12.0	EA	6.08	73	29.70	356	429	
QANATH	4'LONG RAD 90DEG ELL SCH40 CARBON STL BUTT WE	24.0	EA	10.02	240	40.31	967	1,207	
QANFTH	4'REDUCING TEE SCH 40 CARBON STL BUTT WELD	2.0	EA	18.19	36	49.18	98	134	
QAPATH	6'LONG RAD 90DEG ELL SCH40 CARBON STL BUTT WE	12.0	EA	25.77	309	59.39	713	1,022	
QAPFTH	6''REDUCING TEE SCH40 CARBON STL BUTT WELD	6.0	EA	38.31	230	70.54	423	653	
QAQFTH	8''REDUCING TEE SCH40 CARBON STL BUTT WELD	2.0		71.50	143	94.48	189	332	
Q1LPDC	3 IN RTR PREINSUL RTR JACKET	1,360.0	LF	14.25	19,380	2.04	2,774	22,154	
Q1NPDC	4 IN RTR PREINSUL RTR JACKET	800.0	LF	17.19	13,752	2.76	2,208	15,960	
Q1PPDC	6 IN RTR PREINSUL RTR JACKET	1,440.0	LF	21.92	31,565	3.84	5,530	37,095	
Q1QPDC	8 IN RTR PREINSUL RTR JACKET	100.0		30.52	3,052	4.56	456	3,508	
	SUB-TOTAL				68,780		13,714	82,494	
	MARK-UP (SUBCONTRACTOR)		%	40.0	27,512	58.0	7,954	35,466	
	SUB-TOTAL				96,292		21,668	117,960	
	ESCALATION		%	7.0	6,740	7.0	1,516	8,256	
	SUB-TOTAL, CHILLED WATER DISTRIBUTION				103,032		23,184	126,216	
							ROUNDED:	126,000	

MATERIAL & LABOR COST ESTIMATE

LANTDIV NORVA 4-11012/5(REV. 12/80)

SHEET 43 of _____

PREPARED BY _____

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND

Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000

NORFOLK, VIRGINIA

DATE 10 NOV 82

PROJECT Unaccompanied Enlisted Personnel Housing P-624 | LOCATION MCB, Camp Lejeune, N.C. | [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
60 SANITARY SEWERS									
BICAA	OPEN TIMBER SHTG & BRACING TRENCH UNDER 6'W	2,400.0	SF	0.52	1248	0.52	1,248	2,496	
BFFAP	TRENCH,B-FILL,COMPACT UTIL TRACTOR W/FNT END	1,150.0	CY	1.77	2,036	1.28	1,472	3,508	
BFFNA	TRENCH B-FILL COMPACT HAND TAMPING TO 95% COM	380.0	CY	0.00	0	1.19	452	452	
BFLBA	WATER DRAIN.BY PUMP.3'DIA GAS DRIV W/50FT HOS	5.0	DAY	0.00	0	55.12	276	276	
CDBA	CONNECT NEW MANHOLE TO EXISTING TRUNK LINE	1.0	EA	770.00	770	480.00	480	1,250	
CFGCP	PRECAST 48'DIA MANHOLE 4'DEEP W/FRAME & COVER	1.0	EA	429.00	429	124.00	124	553	
CFGCQ	PRECAST 48'DIA MANHOLE 5'DEEP W/FRAME & COVER	1.0	EA	474.10	474	238.40	238	712	
CFGCS	PRECAST 48'DIA MANHOLE 7'DEEP W/FRAME & COVER	2.0	EA	564.30	1,129	324.00	648	1,777	
CFGCU	PRECAST 48'DIA MANHOLE 9'DEEP W/FRAME & COVER	1.0	EA	653.40	653	416.80	417	1,070	
CGCFB	RAISE EXIST FRAME AND COVER (2 IN	1.0	EA	82.50	83	28.00	28	111	
CGCFC	RAISE EXIST FRAME AND COVER) 2 IN	2.0	EA	104.50	209	80.00	160	369	
SAAAC	8'VITRIFIED CLAY PIPE EXTRA STRENGTH	2,283.0	LF	2.86	6,529	1.16	2,648	9,177	
SADDC	SEWER CLEAN OUT 4 INCH	3.0	EA	258.39	775	54.00	162	937	
	SUB-TOTAL				14,335		8,353	22,688	
	MARK-UP (SUBCONTRACTOR)		%	40.0	5,734	58.0	4,844	10,578	
	SUB-TOTAL				20,069		13,197	33,266	
	ESCALATION		%	7.0	1,404	7.0	923	2,327	
	SUB-TOTAL, SANITARY SEWERS				21,473		14,120	35,593	
							ROUNDED:	36,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 44 of

PREPARED BY — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAL. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 | LOCATION MCB, Camp Lejeune, N.C. | [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
62 WATER DISTRIBUTION									
BFFAP	TRENCH,B-FILL,COMPACT UTIL TRACTOR W/FRT END	1,140.0	CY	1.77	2,018	1.28	1,459	3,477	
BFFNA	TRENCH,B-FILL,COMPACT HAND TAMPING TO 95% COM	380.0	CY	0.00	0	1.19	452	452	
BFLBA	WATER DRAIN BY PUMPING 3'DIA GAS DRIV W/50FT	5.0	DAY	0.00	0	55.12	276	276	
RTBBB	4'DUCTILE IRON PIPE S/J 4-6FT TRENCH B-FILL	683.0	LF	4.68	3,196	1.37	936	4,132	
RTBBC	6'DUCTILE IRON PIPE S/J 4-6FT TRENCH B-FILL	565.0	LF	7.44	4,204	1.44	814	5,018	
RTBBD	8'DUCTILE IRON PIPE S/J 4-6 FT TRENCH B-FILL	2,163.0	LF	10.96	23,706	1.44	3,115	26,821	
RTFAE	4 INCH 90 DEG BEND CI MJ	5.0	EA	60.91	305	27.81	139	444	
RTFAM	8 INCH 90 DEG BEND CI MJ	4.0	EA	110.12	440	36.64	147	587	
RTFAN	8 INCH 45 DEG BEND CI MJ	3.0	EA	105.43	316	36.64	110	426	
RTFDCZ	8'X6' TEE CI MJ	3.0	EA	119.79	359	36.80	110	469	
RTFDF	8'X8' TEE CI MJ	4.0	EA	181.50	726	36.80	147	873	
RTFVC	8X6' REDUCER CI MJ	2.0	EA	94.75	190	29.20	58	248	
RTGAB	4 INCH GATE VALVE MJ	7.0	EA	228.08	1,597	69.76	488	2,085	
RTGAC	6 INCH GATE VALVE MJ WITH ADJ BOX	5.0	EA	319.31	1,597	83.91	420	2,017	
RTGAD	8 INCH GATE VALVE MJ WITH ADJ BOX	8.0	EA	414.70	3,318	88.32	707	4,025	
RTHAA	FIRE HYDRANT STD POST TY 3 WAY 6' MECH JOINT	5.0	EA	566.50	2,833	110.80	554	3,387	
RTHCB	VALVE BOX ADJUST FOR VALVE UP TO 20'4FT TRENC	23.0	EA	35.20	810	16.62	382	1,192	
RTHDD	CONC THRUST BLOCK 1/4 CY	13.0	EA	27.50	358	12.00	156	514	
RTHDE	CONCRETE THRUST BLOCK 1/2 CY	21.0	EA	55.00	1,155	24.02	504	1,659	
RTIBF	8X8 TAPPING SLEEVE	2.0	EA	439.82	880	49.19	98	978	
RTICC	8 INCH TAPPING VALVE MJ	2.0	EA	371.80	744	88.64	177	921	
RTICP	TAP 8 INCH HOLE IN PIPE	2.0	EA	0.00	0	187.42	375	375	
QII2D	TY K COPPER 1-1/2''DIA IN OPEN TRENCH	75.0	EA	1.94	146	0.24	18	164	
RAGAB	GATE VALE 1-1/2'' BRONZE 125 LB SOLDER	1.0	EA	22.99	23	6.40	6	29	
	SUB-TOTAL				48,921		11,648	60,569	
	MARK-UP (SUBCONTRACTOR)		%	40.0	19,568	58.0	6,755	26,323	
	SUB-TOTAL				68,489		18,403	86,892	
	ESCALATION		%	7.0	4,794	7.0	1,288	6,082	
	SUB-TOTAL, WATER DISTRIBUTION				73,283		19,691	92,974	
							ROUNDED:	93,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 45 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
71 MECHANICAL EQUIPMENT BUILDING									
BFAAM	STRIP T-SOIL OR SHALLOW EXCAV &PILING ON SITE	50.0	CY	0.00	0	1.34	67	67	
BFFNB	TRENCH B-FILL COMPACT VIBRA COMPACTION TO 95%	1.9	CY	0.00	0	0.52	1	1	
BFGFB	STRUCT EXCAV FOUND.B-FILL W/O COMPACT BY MACH	15.4	CY	0.00	0	1.48	23	23	
BGAAB	SOIL TREATMENT TERMITE CONT PRE-TREAT UN SLAB	252.0	SF	0.00	0	0.06	15	15	
CIAH	STONE AGGREGATE BASE 6 INCH THICK	29.0	SY	1.85	54	1.00	29	83	
EBWRC	FORM WALLS TO 4' & GRADE BEAMS PLYWD 3-USE	456.0	SF	0.55	251	0.86	392	643	
ECGPGD	EDGE FORMS ELEVATED SLAB TO 6'HIGH 4 USE	137.0	LF	0.32	44	0.68	93	137	
ECGPHD	EDGE FORMS ELEVATED SLAB 6'TO12'HIGH 4 USE	50.0	LF	0.51	25	0.98	49	74	
ECJWYD	KEYWAYS 2X4 4 USES	86.0	LF	0.10	9	0.16	14	23	
EFDE	REBAR #5-#6 BOND BEAMS	0.1	TN	442.00	44	268.28	27	71	
EFFD	REBAR #3-#4 FOUNDATIONS	0.3	TN	488.41	147	195.07	59	206	
EFFE	REBAR #5-#6 FOUNDATIONS	0.1	TN	442.00	44	163.84	16	60	
EFQD	REBAR #3-#4 WALLS	0.4	TN	488.41	195	136.70	55	250	
EHHF	VAPOR BARRIER 6 MILL POLYETHYLENE	2.5	SQ	2.16	5	2.48	6	11	
EK#SO	PLACE CONC EQPT PADS COMPLETE INCL WWM	1.0	CY	93.55	94	83.91	84	178	
EK@MA	FLOOR SLAB 4'COMPLETE FINISHING POUROUS FILL	1,386.0	SF	1.01	1,400	0.45	624	2,024	
EK@MC	FLOOR SLAB 6'COMPLETE INCL FORMS WWM CURING	225.0	SF	1.28	288	0.48	108	396	
EKIMD	PLACE CONC 2500 OR 3000#FIG OR PILE CAP BY CH	8.1	CY	44.82	363	3.48	28	391	
EKWMD	PLACE CONC 2500 OR 3000#WALLS & GRD BEAMS TO	6.7	CY	44.82	300	2.77	19	319	
ENEXC	CONC FOR BOND BEAM 3000# 8'H X 8'W	70.0	LF	0.29	20	0.26	18	38	
ENHXC	CONC FILL CMU CELLS 8' WIDE 3000#	93.0	SF	0.53	49	0.50	47	96	
EQHD	CLEAN CONC FLOOR-BROOM SWEEP & SCRUB	1,638.0	SF	0.00	0	0.04	66	66	
ERVJ	CURING CONC WALLS SPRAYED MEMBRANE	456.0	SF	0.01	5	0.01	5	10	
FCAA	CONTROL JTS ASPH IMPREGNATED 4'W W/O SEALANT	182.0	LF	0.37	67	0.46	84	151	
FCICZZ	REINF TAB-TIE SPECIAL MED GALV 12' WALL	512.0	LF	0.12	61	0.40	205	266	
	SUB-TOTAL				3,465		2,134	5,599	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 46 of

PREPARED BY — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
71 MECHANICAL EQUIPMENT BUILDING (CONTINUED)									
FEKC	BRICK,FACE,STD SIZE 4' VENEER 3/8' JOINT	676.0	SF	1.05	710	1.85	1,251	1,961	
FFAJ	BOND BEAM 8' HGT 8'TK W/D GROUT OR REINF	70.0	LF	0.99	69	0.88	62	131	
FFFJ	CMU HOLLOW 8' LT.WT. LOAD BEARING	630.0	SF	1.02	643	1.28	806	1,449	
GAFE	BEAMS & GIRDERS WLD A-36	0.3	TN	738.65	222	239.40	72	294	
GBNTV	WELDING SGL PASS 3/16'TK	6.0	LF	0.40	2	0.61	4	6	
GBPC	MISC SHAPES (ANGLES,BARS CHANNELS ETC)	215.0	LB	0.41	88	0.16	34	122	
GBPG	MISC STL PLATES A36 (GALVANIZED)	141.0	LB	0.58	82	0.18	25	107	
GHPGHH	ROOF DECK MET 22 GA GALV 1-1/2'DP NON-COMPOSI	207.0	SF	0.54	112	0.10	21	133	
GLBHH	ANCHOR BOLTS 1/2'X10' LG	54.0	EA	2.05	111	2.42	131	242	
GMNGQ	SLEEVE STD PIPE GALV 2' TO 4' DIA	20.0	EA	5.10	102	1.20	24	126	
GNS	LINTELS STEEL	27.0	LB	0.45	12	0.15	4	16	
GPELL	GRATING PTD STL RECT TO 6 LB/SF	63.0	LB	1.94	122	0.15	9	131	
HABVGZ	BLOCKING & NAILERS SYP NO 2 COMMON TREATED	130.0	SF	0.34	44	0.56	73	117	
IELRM	INSUL COMPOSITE BD 3-1/4'TK C=.05 R=20.00	233.0	SF	1.30	303	0.10	23	326	
IRCAS	CONTINUOUS CLEAT AL .032'	64.0	LF	0.47	30	0.27	17	47	
IRWASY	GRAVEL STOP AL .050' 6 IN	64.0	LF	2.12	136	0.48	31	167	
IWESE	CALK EXT CLS A TYPE II TT-S-227 2-COMP.1/4X1/	21.0		0.13	3	0.17	4	7	
IWHXE	CALK INT CLS B TYPE I TT-C-598 SGL COMP 1/4X1	21.0	LF	0.07	1	0.17	4	5	
JASAAA	HOLLOW METAL DOOR, FRAME & HARDWARE, EXTERIOR	1.0	EA	348.50	349	72.00	72	421	
KUEMG	PAINT DOORS, FRAME, & TRIM	46.0	SF	0.08	4	0.20	9	13	
SAEEA	10 GPM SUMP PUMP 23'TDH 1750 RPM 1/3HP	1.0	EA	119.19	119	79.20	79	198	
QHIAA	1-1/2' CU 90DEG ELL WROT	2.0	EA	1.07	2	4.17	8	10	
QHI2A	TYP L CU 1-1/2'PIPE EXPO HORIZ OR VERT IN SGL	20.0	LF	1.25	25	0.46	9	34	
QRJAD	CISP H&S1/4BEND 2'UN SLAB ON GR PRIOR TO CONC	1.0	EA	2.16	2	8.01	8	10	
QRNJD	CISP DBL ,Y & 1/8 BEND 4'H&S UN SLAB ON GR	1.0	EA	16.21	16	20.03	20	36	
	SUB-TOTAL				3,309		2,800	6,109	

MATERIAL & LABOR COST ESTIMATE

LANTDIV NORVA 4-11012/5(REV. 12/80)

SHEET 47 of

PREPARED BY

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND

Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000

NORFOLK, VIRGINIA

DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 | LOCATION MCB, Camp Lejeune, N.C. | [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
71 MECHANICAL EQUIPMENT BUILDING (CONTINUED)									
QRNYD	CISP H&S 4' PIPE UNDER SLAB	16.0	LF	2.44	39	0.69	11	50	
QSJVA	CISP NO HUB 2' PIPE EXPOSED HORIZ OR VERT	12.0	LF	1.30	16	0.64	8	24	
QSNME	2'' VTR	1.0	EA	4.25	4	20.03	20	24	
QZWA	WALL PENETRATION NEW CONSTRUCTION	7.0	EA	8.50	60	23.29	163	223	
RKIEA	BACKFLOW PREVENTER 1' BRONZE	1.0	EA	183.85	184	28.64	29	213	
SIGF	CLEAN OUT FLOOR, 4'	1.0	EA	64.35	64	21.21	21	85	
QADAJG	3/4'90 DEG ELL 150 LB MALLEABLE IRON THREADED	10.0	EA	0.35	4	5.86	59	63	
QADIJG	3/4'UNION 150 LB MALLEABLE IRON THREADED	4.0	EA	1.11	4	4.68	19	23	
QAD7AC	3/4' BLK STL STD WT PIPE 0-10' AFF THREADED	4.0	LF	0.40	2	0.42	2	4	
QAD8AC	3/4'BLK STL EX.HVY PIPE WT 0-10' AFF THREADED	11.0	LF	0.46	5	0.42	5	10	
QAEAJG	1'90 DEG ELL 150 LB MALLEABLE IRON THREADED	2.0	EA	0.66	1	6.89	14	15	
QAEIJG	1'UNION 150 LB MALLEABLE IRON THREADED	1.0	EA	1.64	2	5.52	6	8	
QAE7AC	1'BLK STL STD WT PIPE 0-10' AFF THREADED	6.0	LF	0.56	3	0.42	3	6	
QAIAJG	1-1/2'90 DEG ELL 150 LB MALLEABLE IRON THREAD	5.0	EA	1.41	7	7.92	40	47	
QAIEJG	1-1/2'TEE 150 LB MALLEABLE IRON THREADED	1.0	EA	2.04	2	11.86	12	14	
QAIIJG	1-1/2'UNION 150 LB MALLEABLE IRON THREADED	1.0	EA	2.75	3	6.34	6	9	
QAI7AC	1-1/2'BLK STL STD WT PIPE 0-10' AFF THREADED	15.0	LF	0.88	13	0.48	7	20	
QAI8AC	1-1/2'BLK STL EX.HVY PIPE WT 0-10'AFF THREADE	20.0	LF	1.06	21	0.52	10	31	
QAJIJG	2'UNION 150 LB MALLEABLE IRON THREADED	4.0	EA	3.51	14	7.24	29	43	
QAJ7AC	2'BLK STL STD WT PIPE 0-10'AFFTHREADED	6.0	LF	1.19	7	0.56	3	10	
QAJBAC	2'BLK STL EX.HVY PIPE WT 0-10'AFF THREADED	8.0	LF	1.47	12	0.59	5	17	
QAKATH	2-1/2'L RAD 90DEG ELL SCH40 CARBON STL BUTT W	2.0	EA	4.36	9	25.48	51	60	
QAKXJI	2-1/2'FORGED STL WELDING NECK FLANGES 150 LB	2.0	EA	9.21	18	12.72	25	43	
QAK7AM	2-1/2'BLK STL SCH 40 PIPE 0-10'AFF WELD A-120	6.0	LF	1.67	10	0.80	5	15	
QALXJI	3'FORGED STL WELDING NECK FLANGES 150 LB	4.0	EA	11.05	44	14.84	59	103	
	SUB-TOTAL				548		612	1,160	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 48 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
71 MECHANICAL EQUIPMENT BUILDING (CONTINUED)									
QAL8AM	3'BLK STL SCH 80 PIPE 0-10' AFF WELD A-120	3.0	LF	3.07	9	0.97	3	12	
QAPATH	6'L RAD 90DEG ELL SCH40 CARBON STL BUTT WELD	12.0	EA	25.77	309	59.39	713	1,022	
QAPXJI	6' FORGED STL WELD NECK FLANGES 150 LB	4.0	EA	21.45	86	29.70	119	205	
QAP7AM	6' BLK STL SCH 40 PIPE 0-10' AFF WELD A-120	45.0	LF	7.46	336	1.48	67	403	
QA07AN	5' BLK STL SCH 40 PIPE 0-10'AFF WELD A-53 ERW	0.0	LF	7.17	0	1.28	0	0	
QAQATH	8'L RAD 90DEG ELL SCH40 CARBON STL BUTT WELD	18.0	EA	44.37	799	76.42	1,376	2,175	
QAQETH	8' TEE SCH 40 CARBON STL BUTT WELD	2.0	EA	77.00	154	114.56	229	383	
QAQ7AN	8' BLK STL SCH 40 PIPE 0-10'AFF WELD A-53 ERW	160.0	LF	10.24	1,638	1.93	309	1,947	
RADAD	GATE VALVE 3/4' BRONZE 150 LB THREADED	4.0	EA	12.45	50	5.84	23	73	
RAHAD	GATE VALVE 2' BRONZE 150 LB THREADED	4.0	EA	36.21	145	9.76	39	184	
RAJBC	GATE VALVE 3' CI 125 LB FLANGED	2.0	EA	106.99	214	13.26	27	241	
RBEAD	GLOBE VALVE 1' BRZ 150 LB THREADED	1.0	EA	21.79	22	6.58	7	29	
RBHAD	GLOBE VALVE 2' BRZ 150 LB THREADED	1.0	EA	58.59	59	9.76	10	69	
RBIBN	GLOBE VALVE 2-1/2' CI 250 LB FLANGED	1.0	EA	214.56	215	12.72	13	228	
RCDAD	CHECK VALVE 3/4' BRZ 150 LB THREADED	1.0	EA	12.95	13	5.84	6	19	
RCGAD	CHECK VALVE 1-1/2' BRZ 150 LB THREADED	1.0	EA	29.01	29	8.28	8	37	
RCHAD	CHECK VALVE 2' BRZ 150 LB THREADED	2.0	EA	42.64	85	9.76	20	105	
RCJAA	CHECK VALVE 4' BRZ 125 LB	0.0	EA	118.26	0	19.09	0	0	
RCMAB	CHECK VALVE 6' BRZ	2.0	EA	205.00	410	24.40	49	459	
REMDF	BUTTERFLY VALVE CI WAFER FLANGE LEVER HNDL 6'	4.0	EA	218.48	874	21.96	88	962	
RENDF	BUTTERFLY VALVE CI WAFER FLANGE LEVER HNDL 8'	6.0	EA	263.78	1,583	24.16	145	1,728	
RJKAB	3/4' SQ HEAD COCK 125PSI BRONZE BODY	1.0	EA	3.13	3	5.82	6	9	
RJLXXX	6' CONTROL VALVE	2.0	EA	1785.00	3,570	40.00	80	3,650	
RJL2WI	2-WAY MODULATING CONTROL VALVE 1'	2.0	EA	43.77	88	9.86	20	108	
RQGXXX	EXPANSION TANK 125 PSI VALV ST ASHE	2.0	EA	1360.00	2,720	80.00	160	2,880	
	SUB-TOTAL				13,411		3,517	16,928	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 49 of

PREPARED BY

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
71 MECHANICAL EQUIPMENT BUILDING (CONTINUED)									
TQABA	AIR ELIMINATOR PURGER AIRTROL FITTING 3/4'	1.0	EA	13.40	13	12.74	13	26	
TQBBA	VACUUM BREAKER ANTI-SIPHON BRASS 3/4'	1.0	EA	8.47	8	12.74	13	21	
TQFFAA	PRESS REDUCING VALVE HI PRESS BRASS BODY 3/4'	1.0	EA	23.94	24	12.74	13	37	
TRMAE	FLOAT & THERMOSTATIC TRAP 15 PSI 2'	2.0	EA	124.47	249	23.08	46	295	
RSABC	FIBERGLASS INSULATION 1' TH ON 3/4'DIA PIPE	57.0	LF	0.80	46	0.46	26	72	
RSADC	FIBERGLASS INSUL 1' TH ON 1-1/4' DIA PIPE	65.0	LF	0.92	60	0.56	36	96	
RSAFC	1'THK FG INSULATION ON 2' DIA PIPE	36.0	LF	1.10	40	0.56	20	60	
RSAGC	1' THK FG INSULATION ON 2-1/2' DIA PIPE	12.0	LF	1.24	15	0.56	7	22	
RSAHC	1-1/2' THK FG INSULATION ON 3' DIA PIPE	6.0	LF	2.32	14	0.69	4	18	
RSAKC	1-1/2' THK FG INSULATION ON 6' DIA PIPE	72.0	LF	4.75	342	0.74	53	395	
RSAJC	2' THK FG INSULATION ON 5' DIA PIPE	0.0	LF	4.64	0	0.69	0	0	
RSALC	2' THK FG INSULATION ON 8' DIA PIPE	24.0	LF	5.87	141	0.74	18	159	
RMFRE	BASE MTD CENTRIF CI SGL STAGE 200 GPM 50' HD	1.0	EA	1061.54	1,062	59.40	59	1,121	
RMFRJ	BASE MTD CENTRIF CI SGL STAGE 200 FPM 100' HD	1.0	EA	1087.02	1,087	59.40	59	1,146	
TQAJZZ	175 TN CHILLER,RECIP,AIR COOL,	2.0	EA	42457.50	84,915	768.00	1,536	86,451	
TQSZ	CHEMICAL FEEDER 5 GAL	1.0	EA	131.12	131	54.99	55	186	
TSBHG	DUPLEX COND PUMP 15 GPM 5 HP	1.0	EA	1259.84	1,260	316.76	317	1,577	
TSBXX	HW CONVERTER 150 GPM	1.0	EA	4652.73	4,653	202.88	203	4,856	
UKAS	INSTRU AIR SYS 2-2HP COMPRESSORS,RCVR REFRI	1.0	EA	3400.00	3,400	807.04	807	4,207	
UMC	SAFETY STAT DEVICE	1.0	EA	41.45	41	12.05	12	53	
UTHAC	HTG/CLG CHANGE OVER CONT	1.0	EA	825.18	825	491.20	491	1,316	
Q3A	STRAINER 'Y'BODY 250LB 3/4'SCREWED CONNECT	1.0	EA	6.15	6	5.84	6	12	
Q3E	STRAINER 'Y'BODY 250LB 2'SCREWED CONNECTIONS	2.0	EA	20.28	41	9.76	20	61	
Q8K	WALL SLEEVE 8' DIA CI	4.0	EA	11.05	44	8.52	34	78	
RDMBI	OS&Y CAST IRON GATE VLV 150 LB FLANGED 6'	2.0	EA	255.00	510	24.00	48	558	
	SUB-TOTAL				98,927		3,896	102,823	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 50 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
71 MECHANICAL EQUIPMENT BUILDING (CONTINUED)									
RLKDB	PRESS REDUC VLV BNZ THREAD HI PRESS 250-5PSI	1.0	EA	187.88	188	11.77	12	200	
RPPS	PRESSURE GAUGE, DIRECT READING	3.0	EA	43.77	131	9.15	27	158	
RPTS	THERMOMETER DIRECT READING 6' STEM 9' CASE	2.0	EA	45.52	91	9.15	18	109	
TRC	INVERTED BUCKET STEAM TRAP SCREW CONNECT 3/4'	1.0	EA	29.61	30	18.51	19	49	
VDB	1/2 LT FLEX CONDUIT	20.0	EA	0.49	10	0.53	11	21	
VDNB	1/2 LT FLEX CONN	3.0	EA	0.95	3	1.42	4	7	
VEH	21/2 GRS CONDUIT	100.0	LF	2.02	202	1.40	140	342	
VEK	4 IN GRS CONDUIT	380.0	LF	4.04	1,535	2.16	821	2,356	
VEQH	2-1/2' GRS ELBOW 90 DEG	8.0	EA	9.86	79	11.88	95	174	
VEQK	4 IN GRS ELBOW 90 DEG	4.0	EA	31.88	128	27.00	108	236	
VIA	1/2 IMC	100.0	LF	0.30	30	0.32	32	62	
VINA	1/2 IN IMC ELBOW 90 DEG	14.0	EA	0.78	11	2.04	29	40	
VMAC	1/4 TOGGLE BOLT	24.0	LF	0.17	4	1.29	31	35	
WGBA	12 THHN-THWN SOLID CU	300.0	LF	0.04	12	0.09	27	39	
WGC	10 THHN-THWN STR CU	20.0	LF	0.07	1	0.11	2	3	
WGD	8 THHN=THWN STR CU	30.0	LF	0.13	4	0.14	4	8	
WHH	2 XHHW RHH-RHW STR CU	100.0	LF	0.45	45	0.16	16	61	
WHK	2/0 XHHW RHH-RHW STR CU	100.0	LF	0.81	81	0.24	24	105	
WHM	4/0 XHHW RHH-RHW STR CU	300.0	LF	1.33	399	0.29	87	486	
WPCA	2 GANG BOX	1.0	EA	2.73	3	2.69	3	6	
WPCH	2 GANG COVER DEVICE	1.0	EA	1.30	1	1.08	1	2	
WPDF	SWITCH BOX WITH KNOCKOUT	2.0	EA	0.71	1	3.24	6	7	
WSCA	STD PNL 08 BOLTIN A 4W MCB F	1.0	EA	215.37	215	64.80	65	280	
WS4LC	600AMP FA CCT MLD 3PH 4W 277/480V FLUSH-SURF	1.0	EA	251.08	251	225.17	225	476	
WPDM	DUPLEX RECEP COVER PLATE	2.0	EA	0.36	1	0.43	1	2	
	SUB-TOTAL				3,456		1,808	5,264	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 51 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 82

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
71 MECHANICAL EQUIPMENT BUILDING (CONTINUED)									
WU#21	2 GANG SPST 20AMP TOGGLE SW WITH BOX PLASTER	2.0	EA	10.53	21	11.54	23	44	
WXA	125 V 20A 2 POLE BROWN DUPLEX RECEPT GRND TYP	2.0	EA	3.96	8	2.16	4	12	
XHCA	1/50 TO 1.5 HP 120/240V 3 WIRE	2.0	EA	1.27	3	8.09	16	19	
XHCB	1.75 TO 3 HP 120/240V 3 WIRE	3.0	EA	2.12	6	12.96	39	45	
XHCE	20 TO 25 HP 120/240V 3 WIRE	1.0	EA	5.52	6	32.40	32	38	
XNAA	STARTER ONLY SIZE 0 3HP GP ENCL 200V-575V	2.0	EA	374.37	749	32.40	65	814	
XNCA	STARTER ONLY SIZE 2 10-20HP GP ENCL 200V-575V	3.0	EA	734.16	2,202	64.80	194	2,396	
XUMA	SAFETY SW-HVY DTY 3P 4W 30A FUSED 600V NEMA	5.0	EA	68.72	344	33.48	167	511	
XUWC	SAFETY SW-HVY DTY 3P 4W 400A N-FUSED 240-600V	2.0	EA	477.78	956	129.48	259	1,215	
XXCS	MLD CASE CKT BRKER W/O ENCL 400A FRAME MAX	2.0	EA	325.12	650	75.60	151	801	
XXIJ	FUSETRON 10-30A 600V	12.0	EA	2.31	28	0.00	0	28	
YVAAF	10 KVA 1 PH INTERIOR DRY TYPE	1.0	EA	294.10	294	97.20	97	391	
ZA26A	18W L.P.S. WALL MT. BENJAMINE OLW-118-120	1.0	EA	0.00	0	10.80	11	11	
ZA7B	4' 2 LAMP STRIP FLOUR. LITH. C-240	3.0	EA	16.15	48	7.56	23	71	
XNDA	STARTER W/OVERLOAD, SIZE 3	1.0	EA	1108.53	1,109	81.00	81	1,190	
XUNA	SAFETY SW-HVY DUTY 3P 4W 60A FUSED 600V NEMA	1.0	EA	82.74	83	43.20	43	126	
	SUBTOTAL FROM PREVIOUS PAGE	1.0	LS	3465.00	3,465	2134.00	2,134	5,599	
	SUBTOTAL FROM PREVIOUS PAGE	1.0	LS	3309.00	3,309	2800.00	2,800	6,109	
	SUBTOTAL FROM PREVIOUS PAGE	1.0	LS	548.00	548	612.00	612	1,160	
	SUBTOTAL FROM PREVIOUS PAGE	1.0	LS	13411.00	13,411	3517.00	3,517	16,928	
	SUBTOTAL FROM PREVIOUS PAGE	1.0	LS	98927.00	98,927	3896.00	3,896	102,823	
	SUBTOTAL FROM PREVIOUS PAGE	1.0	LS	3456.00	3,456	1808.00	1,808	5,264	
	SUB-TOTAL				129,623		15,972	145,595	
	MARK-UP (SUBCONTRACTOR)	%		40.0	51,849	58.0	9,263	61,112	
	SUB-TOTAL				181,472		25,235	206,707	
	ESCALATION	%		7.0	12,703	7.0	1,766	14,469	
	SUB-TOTAL, MECH. EQUIPMENT BUILDING				194,175		27,001	221,176	
							ROUNDED:	221,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 52 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
72 RELOCATE A/C UNITS									
BFDD	NO 57 GRAVEL (FOB PLANT)	2.0	CY	10.45	21	0.00	0	21	
EK#SP	PLACE CONC EQPT PADS COMPLETE INCL WWM	7.0	CY	88.36	619	48.42	339	958	
KZABBZ	PATCH & PAINT	48.0	EA	17.10	821	28.50	1,368	2,189	
SAAAE	12' VC PIPE FOR DRYWELL EXTRA STRENGTH	16.0	LF	5.34	85	1.28	20	105	
QHCAA	1/2' CU 90 DEG ELL WROT	110.0	EA	0.08	9	3.24	356	365	
QHC2A	1/2' REGRIG PIPING TYPE L CU SGL STORY BLDG	570.0	LF	0.37	211	0.48	274	485	
QHD2A	3/4' COND DRAIN PIPE TYPE L CU SGL STORY BLDG	570.0	LF	0.57	325	0.48	274	599	
QHEAB	7/8' CU 90 ELL	40.0	EA	0.52	21	4.27	171	192	
QHE2A	7/8' REFRIG PIPING TYPE L CU SGL STORY BLDG	260.0	LF	0.82	213	0.48	125	338	
QHGAB	1-1/8' CU 90 ELL	40.0	EA	0.90	36	4.61	184	220	
QHG2B	1-1/8' REFRIG PIPING TYPE L CU SGL STORY BLDG	320.0	LF	1.10	352	0.71	227	579	
RADADB	REFRIG SIGHT GLASS 1/2'	18.0	EA	14.67	264	12.59	227	491	
RADADD	REFRIG EXPAN VALVE 1/2' 1-3/8'	18.0	EA	100.78	1,814	15.11	272	2,086	
RADADE	REFRIG FILTER-DRIER 1/2' 1-5/8'	18.0	EA	97.85	1,761	15.11	272	2,033	
UGXBMM	DOOR GRILLES RECT 16X16	20.0	EA	15.94	319	11.30	226	545	
RBCAA	REFRIG SERVICE VALVE 1/2'	18.0	EA	7.75	140	6.43	116	256	
RRUZZ1	FOAM RUBBER INSULATION ON 3/4' PIPE	330.0	LF	0.58	191	1.29	426	617	
RRUZZ2	FOAM RUBBER INSULATION ON 7/8' PIPE	260.0	LF	0.61	159	1.29	335	494	
RRUZZ3	FOAM RUBBER INSULATION ON 1-1/8' PIPE	320.0	LF	0.85	272	1.42	454	726	
UHXXX	FILTERS AHU	36.0	EA	1.80	65	0.38	14	79	
UJXXX	4 TN AC REMOVAL (AHU & COND. UNIT)	20.0	EA	0.00	0	190.00	3,800	3,800	
UJXXY	5 TN AC REMOVAL (AHU & COND. UNIT)	20.0	EA	0.00	0	190.00	3,800	3,800	
UJXYX	4 TN AC REINSTALL (AHU & COND. UNIT) INCL CHG	18.0	EA	0.00	0	285.00	5,130	5,130	
UJXYY	5 TN AC REINSTALL (AHU & COND. UNIT) INCL CHG	18.0	EA	0.00	0	285.00	5,130	5,130	
UJYYY	CONTROLS & FIELD TEST	18.0	EA	19.00	342	76.00	1,368	1,710	
	SUB-TOTAL				8,040		24,908	32,948	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 53 of

PREPARED BY

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
72 RELOCATE A/C UNITS (CONTINUED)									
UJYYZ	SUSPEND AHU	18.0	EA	19.00	342	76.00	1,368	1,710	
UDACEC	DUCT RECT GALV STL LP	8,500.0	LB	0.30	2,550	0.82	6,970	9,520	
UGFBJE	SUPPLY AIR REGISTER 12X6	225.0	EA	14.46	3,254	10.27	2,311	5,565	
UJG	AIR BALANCE EA DIFFUSER & AHU	243.0	EA	0.00	0	6.03	1,465	1,465	
VDB	1/2 LT FLEX CONDUIT	200.0	EA	0.55	110	0.63	126	236	
VDNB	1/2 LT FLEX CONN	10.0	EA	1.06	11	1.69	17	28	
VEK	4 IN GRS CONDUIT	20.0	LF	4.52	90	2.56	51	141	
VEOQ	1/2 LB CONDUIT BODY GRS	16.0	EA	1.85	30	5.13	82	112	
VEOR	3/4 LB CONDUIT BODY GRS	1.0	EA	2.26	2	6.41	6	8	
VEOW	21/2 LB CONDUIT BODY GRS	1.0	EA	24.39	24	38.47	38	62	
VIA	1/2 IMC	850.0	LF	0.34	289	0.38	323	612	
VIB	3/4 IMC	100.0	LF	0.41	41	0.51	51	92	
VID	1-1/4 IMC	350.0	LF	0.73	256	0.78	273	529	
VIG	2-1/2 IN IMC	100.0	LF	1.86	186	1.15	115	301	
VIH	3 IN IMC	100.0	LF	2.42	242	1.37	137	379	
VINA	1/2 IN IMC ELBOW 90 DEG	50.0	EA	0.87	44	2.43	122	166	
VINB	3/4' IN IMC ELBOW 90 DEG	30.0	EA	1.14	34	2.94	88	122	
VING	2-1/2 IN IMC ELBOW 90 DEG	5.0	EA	7.35	37	10.64	53	90	
VINH	3 IN IMC ELBOW 90 DEG	5.0	EA	11.81	59	15.39	77	136	
WAF	#4 STRANDED CONDUCTORS CU BARE	25.0	LF	0.37	9	0.30	8	17	
WGBA	12 THHN-THWN SOLID CU	2,100.0	LF	0.04	84	0.11	231	315	
WGD	8 THHN-THWN STR CU	450.0	LF	0.15	68	0.17	77	145	
WHH	2 XHHW RHH-RHW STR CU	900.0	LF	0.50	450	0.19	171	621	
WHL	3/0 XHHW RHH-RHW STR CU	100.0	LF	1.19	119	0.32	32	151	
WHM	4/0 XHHW RHH-RHW STR CU	400.0	LF	1.49	596	0.35	140	736	
	SUB-TOTAL				8,927		14,332	23,259	

MATERIAL & LABOR COST ESTIMATE

LANTDIV NORVA 4-11012/5(REV. 12/80)

SHEET 54 of _____

PREPARED BY _____

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND

Const. Contr. No. N62470-81-B-3888

FUNDS AVAIL. $16,352,000

NORFOLK, VIRGINIA

DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 | LOCATION MCB, Camp Lejeune, N.C. | [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
72 RELOCATE A/C UNITS (CONTINUED)									
WHR	500 XHHW RHH-RHW STR CU	300.0	LF	3.53	1059	0.54	162	1,221	
WIB	#12 AWG CU USE WIRE 600 VOLT	2,500.0	LF	0.11	275	0.08	200	475	
WIC	#10 AWG CU USE WIRE 600 VOLT	850.0	LF	0.16	136	0.11	94	230	
WID	#8 AWG CU USE WIRE 600 VOLT	2,700.0	LF	0.21	567	0.11	297	864	
WIG	#3 AWG CU USE WIRE 600 VOLT	900.0	LF	0.00	0	0.17	153	153	
WPLD	4-1/2 IN RD WP BOX & COV 2-3/4 IN TAP	18.0	EA	5.99	108	7.04	127	235	
WSF3B4	400 AMP 42 CCT MCB 3 PH 4W 120/208V FLUSH-SUR	1.0	EA	733.65	734	160.94	161	895	
WSF3C4	600 AMP 42 CCT MCB 3 PH 4W 120/208V FLUSH-SUR	1.0	EA	1309.39	1,309	267.39	267	1,576	
XXAP	MLD CASE CKT BRKR W/O ENCL 100 A FRAME MAX	3.0	EA	72.67	218	33.98	102	320	
XXBP	MLD CASE CKT BRKR W/O ENCL 225 A FRAME MAX	3.0	EA	169.57	509	51.30	154	663	
XXCR	MLD CASE CKT BRKER W/O ENCL 400A FRAME MAX	3.0	EA	325.37	976	87.21	262	1,238	
XXG22A	2 POLE 15-60 AMP 240V 10K AIC CIRCUIT BRKR	36.0	EA	11.21	404	7.22	260	664	
ZYB	CONTROL CABLE 600V #14 THWN-PVC JACKET 4 WIRE	600.0	LF	0.12	72	0.15	90	162	
	SUBTOTAL FROM PREVIOUS SHEET	1.0	LS	8040.00	8,040	24908.00	24,908	32,948	
	SUBTOTAL FROM PREVIOUS SHEET	1.0	LS	8927.00	8,927	14332.00	12,976	21,903	
	SUB-TOTAL				23,334		40,213	63,547	
	MARK-UP (SUBCONTRACTOR)	%	40.0		9,333	58.0	23,323	32,656	
	SUB-TOTAL				32,667		63,536	96,203	
	ESCALATION	%	7.0		2,286	7.0	4,447	6,733	
	SUB-TOTAL, RELOCATE A/C UNITS				34,953		67,983	102,936	
							ROUNDED:	103,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 55 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
73 ROADS									
BFHAD	RD-WAY SUB-GR REPAT SCARIFY&COMPACT UNCLASS E	2,050.0	SY	0.00	0	0.06	123	123	
CMAA	PAINTING LINES 4 INCHES WIDE ON PAVEMENT	860.0	LF	0.06	52	0.04	34	86	
CJAA	BITUMINOUS TACK COAT	850.0	GAL	0.96	816	0.09	77	893	
CJAE	BITUMINOUS PRIME COAT	850.0	SY	0.34	289	0.03	26	315	
CJBAZZ	FULL DEPTH BIT. PAVING	820.0	TON	8.80	7,216	2.40	1,968	9,184	
CJBH	1.5' ASPHALT OVERLAY	4,269.0	SY	1.44	6,147	0.17	726	6,873	
CJBJ	BITUMINOUS PAVING FOR PIPE TRENCH	100.0	SY	7.70	770	2.00	200	970	
CMBE	CONC CURB AND GUTTER	3,675.0	LF	3.92	14,406	2.32	8,526	22,932	
	SUB-TOTAL				29,696		11,680	41,376	
	MARK-UP (SUBCONTRACTOR)		%	40.0	11,878	58.0	6,774	18,652	
	SUB-TOTAL				41,574		18,454	60,028	
	ESCALATION		%	7.0	2,910	7.0	1,291	4,201	
	SUB-TOTAL, ROADS				44,484		19,745	64,229	
							ROUNDED:	64,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 56 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. . $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
74 PARKING									
BFHAD	ROADWAY SUB-GRD PREPAT SCARIFY&COMPACT UNCLAS	3,380.0	SY	0.00	0	0.06	203	203	
CMAA	PAINTING LINES 4 INCH WIDE ON PAVEMENT	9,560.0	LF	0.06	574	0.04	382	956	
CJAA	BITUMINOUS TACK COAT	670.0	GAL	0.96	643	0.09	60	703	
CJAE	BITUMINOUS PRIME COAT	3,380.0	SY	0.34	1,149	0.03	101	1,250	
CJBE	ASPH BINDER&WEARING COURSE FOR FLEX PVMNT 2IN	3,380.0	SY	1.92	6,490	0.24	811	7,301	
CMBE	CONC CURB AND GUTTER	1,465.0	SY	3.92	5,743	2.32	3,399	9,142	
CIAH	STONE AGGREGATE BASE 6 INCH THICK	3,380.0	SY	2.39	8,078	0.20	676	8,754	
	SUB-TOTAL				22,677		5,632	28,309	
	MARK-UP (SUBCONTRACTOR)		%	40.0	9,070	58.0	3,266	12,336	
	SUB-TOTAL				31,747		8,898	40,645	
	ESCALATION		%	7.0	2,222	7.0	622	2,844	
	SUB-TOTAL, PARKING				33,969		9,520	43,489	
							ROUNDED:	43,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 57 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
75 SIDEWALKS									
CMCA	CONC SIDEWALKS 4 INCH CAST-IN-PLACE NO BASE	2,550.0	SY	6.43	16,397	3.20	8,160	24,557	
CMCAZ	CONC SIDEWALKS 8 INCH CAST-IN-PLACE NO BASE	2,090.0	SY	11.77	24,599	3.20	6,688	31,287	
CKBA	JOINTS IN SIDEWALK	8,816.0	LF	0.71	6,259	0.24	2,116	8,375	
EIKH	EXPANSION JOINTS	560.0	LF	0.55	308	0.23	129	437	
CMCAZZ	CONC TURNED-DOWN EDGE, MATCH CURB	910.0	LF	1.92	1,747	1.16	1,056	2,803	
BFGDA	STRUCT EXCAV HAND TRIM SHAPING UNCLASS EARTH	300.0	CY	0.00	0	0.30	90	90	
	SUB-TOTAL				49,310		18,239	67,549	
	MARK-UP (PRIME)	%	20.0		9,862	36.0	6,566	16,428	
	SUB-TOTAL				59,172		24,805	83,977	
	ESCALATION	%	7.0		4,142	7.0	1,736	5,878	
	SUB-TOTAL, SIDEWALKS				63,314		26,541	89,855	
							ROUNDED:	90,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 58 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
78 STORM DRAINAGE									
BICAA	OPEN TIMBER SHTG & BRACING TRENCH UNDER 6'W	3,000.0	SF	0.52	1560	0.38	1,140	2,700	
BFFAP	TRENCH,B-FILL,COMPACT UTIL TRACTOR W/FRT END	3,640.0	CY	0.00	0	1.28	4,659	4,659	
BFFNA	TRENCH B-FILL COMPACT HAND TAMPING TO 95% COM	1,220.0	CY	0.00	0	1.19	1,452	1,452	
BFLBA	WATER DRAINAGE BY PUMP 3'DIA GAS DRIVEN W/50F	15.0	DAY	0.00	0	0.00	0	0	
CAAA	PIPE CONC PLAIN 6'BELL&SPIGOT JT CLS II STD	180.0	LF	1.29	232	0.36	65	297	
CAAB	PIPE CONC PLAIN 8'BELL&SPIGOT JT CLS II STD	1,110.0	LF	1.87	2,076	0.49	544	2,620	
CABA	PIPE CONC REINFORCED 12'CLS III T&G JOINT	1,754.0	LF	5.07	8,893	0.64	1,123	10,016	
CABB	PIPE CONC REINFORCED 15' CLS III T&G JOINT	984.0	LF	7.04	6,927	0.86	846	7,773	
CABC	PIPE CONC REINFORCED 18' CLS III T&G JOINTS	849.0	LF	9.51	8,074	1.39	1,180	9,254	
CABD	PIPE CONC REINFORCED 21' CLS III T&G JOINTS	390.0	LF	11.27	4,395	1.43	558	4,953	
CABE	PIPE CONC REINFORCED 24' CLS III T&G JOINT	552.0	LF	13.36	7,375	1.73	955	8,330	
CABG	PIPE CONC REINFORCED 30' CLS III T&G JOINT	381.0	LF	20.13	7,670	2.08	792	8,462	
CABH	PIPE CONC REINFORCED 36' CLS III T&G JOINT	533.0	LF	28.32	15,095	2.50	1,333	16,428	
CDBA	CONNECT NEW DRAIN LINE TO EXISTING MANHOLE	1.0	EA	55.00	55	55.76	56	111	
CDBB	CONNECT EXISTING DRAIN LINE TO NEW MANHOLE	3.0	EA	38.50	116	55.76	167	283	
CFBI	30'' HEADWALL TYPE B 3:1	1.0	EA	404.80	405	208.80	209	614	
CFBL	36'' HEADWALL TYPE B 3:1	1.0	EA	541.20	541	278.40	278	819	
CFDC	STD CONC CATCH BSN 5FT D FOR CONC PIPE TO 18'	50.0	EA	370.70	18,535	216.00	10,800	29,335	
CFGCP	PRECAST 48'DIA MANHOLE 4'DEEP W/FRAME & COVER	1.0	EA	429.00	429	84.00	84	513	
CFGCQ	PRECAST 48'DIA MANHOLE 5'DEEP W/FRAME & COVER	2.0	EA	474.10	948	160.00	320	1,268	
CFGCR	PRECAST 48'DIA MANHOLE 6'DEEP W/FRAME & COVER	2.0	EA	519.20	1,038	186.40	373	1,411	
CFGCS	PRECAST 48'DIA MANHOLE 7'DEEP W/FRAME & COVER	3.0	EA	564.30	1,693	213.60	641	2,334	
CFLB	CURB INLET MAX DEPTH 8FT 4FT THROAT 12'-30'PI	15.0	EA	495.00	7,425	400.00	6,000	13,425	
DWAB	RIP-RAP OUTLET PROTECTION	800.0	EA	6.60	5,280	1.00	800	6,080	
	SUB-TOTAL				98,762		34,375	133,137	
	MARK-UP (SUBCONTRACTOR)		%	40.0	39,504	58.0	19,937	59,441	
	SUB-TOTAL				138,266		54,312	192,578	
	ESCALATION		%	7.0	9,678	7.0	3,801	13,479	
	SUB-TOTAL, STORM DRAINAGE				147,944		58,113	206,057	
							ROUNDED:	206,000	

MATERIAL & LABOR COST ESTIMATE

LANTDIV NORVA 4-11012/5(REV. 12/80)

SHEET 59 of _____

PREPARED BY _____

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND

Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000

NORFOLK, VIRGINIA

DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 | LOCATION MCB, Camp Lejeune, N.C. | [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
79 SITE EARTHWORK									
BBBE	CUT TREES & CLEAR OUT STUMPS UP TO 8'CALIPER	1.0	EA	0.00	0	22.59	23	23	
BBBF	CUT TREES & CLEAR OUT STUMPS 9'TO 12'CALIPER	7.0	EA	0.00	0	38.86	272	272	
BBBG	CUT TREES & CLEAR OUT STUMPS 13'TO 23'CALIPER	28.0	EA	0.00	0	46.40	1,299	1,299	
BBBH	CUT TREES & CLEAR OUT STUMPS 24'CALIPER & UP	23.0	EA	0.00	0	58.69	1,350	1,350	
BFAAK	SITE GRADING BAL CUT&FILL SANDY CLAY 200FT	4,670.0	CY	0.00	0	1.56	7,285	7,285	
BFAAM	STRIP T-SOIL OR SHALLOW EXCAV&PILING IN PILES	6,070.0	CY	0.00	0	1.34	8,134	8,134	
	SUB-TOTAL				0		18,363	18,363	
	MARK-UP (SUBCONTRACTOR)	%	40.0		0	58.0	10,650	10,650	
	SUB-TOTAL				0		29,013	29,013	
	ESCALATION	%	7.0		0	7.0	2,030	2,030	
	SUB-TOTAL, SITE EARTHWORK				0		31,043	31,043	
							ROUNDED:	31,000	

MATERIAL & LABOR COST ESTIMATE

LANTDIV NORVA 4-11012/5(REV. 12/80)

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND

NORFOLK, VIRGINIA

SHEET 60 of _____

PREPARED BY _____

Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000

DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 | LOCATION MCB, Camp Lejeune, N.C. | [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
80 BORROW									
BFCBL	BORROW FILL IN PLACE W/ 10 MI HAUL	11,150.0	CY	1.13	12600	2.70	30,105	42,705	
BFCBLZ	OPEN/CLOSE BORROW PIT	1.0	EA	220.00	220	560.00	560	780	
	SUB-TOTAL				12,820		30,665	43,485	
	MARK-UP (SUBCONTRACTOR)		%	40.0	5,128	58.0	17,785	22,913	
	SUB-TOTAL				17,948		48,450	66,398	
	ESCALATION		%	7.0	1,256	7.0	3,391	4,647	
	SUB-TOTAL, BORROW				19,204		51,841	71,045	
							ROUNDED:	71,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 61 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
81 TOPSOIL, SEED									
DBAA	SEED FERTILIZE LIME AND FINE GRADE W/EQUIP	55,150.0	SY	0.11	6067	0.13	7,170	13,237	
DBAAA	EAREA PREPARATION FOR SEEDING (GR,RAKE,CLEAN)	55,150.0	SY	0.00	0	0.02	1,103	1,103	
DBAAR	RESEED DISTURBED AREAS	750.0	SY	0.02	15	0.01	8	23	
BFAAN	RESPREAD T-SOIL TO 4'DEEP FROM PILES ON SITE	6,070.0	CY	0.18	1,093	1.20	7,284	8,377	
	SUB-TOTAL				7,175		15,565	22,740	
	MARK-UP (PRIME)		%	20.0	1,435	36.0	5,603	7,038	
	SUB-TOTAL				8,610		21,168	29,778	
	ESCALATION		%	7.0	602	7.0	1,481	2,083	
	SUB-TOTAL, TOPSOIL, SEED				9,212		22,649	31,861	
							ROUNDED:	32,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 62 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
82 LANDSCAPING									
DCPRA	LAGERSTROEMIA INDICA 8'-10' (CRAPEMYRTLE)	66.0	EA	66.00	4356	24.75	1,634	5,990	
DCPUO	PYRUS CALLERYANA BRADFORD 2'-2-1/2' CAL (BRADFO	37.0	EA	71.50	2,646	24.75	916	3,562	
DCOTD	ACER RUBRUM 1-3/4''-2'' (RED MAPLE)	7.0	EA	62.70	439	33.60	235	674	
DCZZZ	BETULA NIGRA (RIVER BIRCH)	29.0		27.50	798	29.60	858	1,656	
	SUB-TOTAL				8,239		3,643	11,882	
	MARK-UP (SUBCONTRACTOR)		%	40.0	3,295	58.0	2,112	5,407	
	SUB-TOTAL				11,534		5,755	17,289	
	ESCALATION		%	7.0	807	7.0	402	1,209	
	SUB-TOTAL, LANDSCAPING				12,341		6,157	18,498	
							ROUNDED:	18,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 63 of _____

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
85 FENCING									
CPBAQ	3 IN CORNER GATE POST GALV STEEL	36.0	LF	3.68	132	0.00	0	132	
CPBAX	LINE POST FOR FENCE (MATERIAL ONLY)	99.0	LF	1.04	103	0.00	0	103	
CPBAY	HANG CHAIN LINK FENCE FABRIC	798.0	SF	0.00	0	0.08	64	64	
CPBAZ	CHAIN LINK FENCE FABRIC 9GA GALV STEEL	798.0	SF	0.59	471	0.00	0	471	
CPBA1	COIL WIRE FOR CHAIN LINK FENCE	840.0	LF	0.08	67	0.03	25	92	
CPBA2	TOP RAIL FOR CHAIN LINK FENCE (GALV STL 9GA)	133.0	LF	0.83	110	0.00	0	110	
CPBA3	MID-RAIL FOR CHAIN LINK FENCE (GALV STEEL 9GA	65.0	LF	0.61	40	0.00	0	40	
CPBA4	INSTALL TOP OR MID RAIL ON CHAIN LINK FENCE	198.0	LF	0.00	0	0.25	50	50	
CPCAE	6FT HIGH 9GA GALV STEEL GATE W/GATE POSTS	5.0	LF	20.82	104	5.98	30	134	
	SUB-TOTAL				1,027		169	1,196	
	MARK-UP (SUBCONTRACTOR)		%	40.0	410	58.0	98	508	
	SUB-TOTAL				1,437		267	1,704	
	ESCALATION		%	7.0	100	7.0	18	118	
	SUB-TOTAL, FENCING				1,537		285	1,822	
							ROUNDED:	2,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 64 of

PREPARED BY — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

ITEMS		QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
86 DEMOLITION									
BCEE	DEMOLITION OF STL FRAME BLDG COMPLT W/DISPOSA	80,000.0	CF	0.00	0	0.12	9,600	9,600	
BDAA	REMOVAL OF BIT PAVING UP TO 3IN W/DISPOSAL	4,980.0	SY	0.00	0	1.36	6,773	6,773	
BDAB	REMOVAL OF BITUMINOUS PAVING FOR PIPE TRENCH	100.0	SY	0.00	0	2.68	268	268	
BDAL	REMOVAL OF CONC SIDEWALK 4'THICK W/DISPOSAL	4,240.0	SY	0.00	0	1.41	5,978	5,978	
BDHH	SAW CUTTING BIT PAVING PER INCH OF DEPTH	4,500.0	LF	0.04	180	0.36	1,620	1,800	
BDHK	SAW CUTTING CONCRETE PAVING PLAIN	200.0	LF	0.19	38	0.45	90	128	
BDDW	REMOVE CONC HEADWALL	24.0	EA	0.00	0	145.32	3,488	3,488	
BDEA	REMOVE FIRE HYDRANT	2.0	EA	0.00	0	81.93	164	164	
BDEC	REMOVE UP TO 12'STORM OR SEWER PIPE W/O EXCAV	85.0	LF	0.00	0	2.13	181	181	
BDEE	REMOVE 24'STORM OR SEWER PIPE W/O EXCAVATION	200.0	LF	0.00	0	2.88	576	576	
RTBAB	REMOVE 4'DUCTILE IRON PIPE CEMENT LINED CLS52	700.0	LF	3.45	2,415	1.09	763	3,178	
RTBAC	REMOVE 6'DUCTILE IRON PIPE CEMENT LINED CLS52	50.0	LF	5.18	259	1.14	57	316	
RTBAD	REMOVE 8'DUCTILE IRON PIPE CEMENT LINED CLS52	565.0	LF	10.38	5,865	1.14	644	6,509	
BDEK	REMOVE UP TO 4'' WELDED PIPE	790.0	LF	0.00	0	2.08	1,643	1,643	
BDEL	REMOVE 5'' TO 10 '' WELDED PIPE	790.0	LF	0.00	0	3.59	2,836	2,836	
BDDJZZ	REMOVE PIPING FROM EXIST STEAM MANHOLE	5.0	EA	0.00	0	800.00	4,000	4,000	
WAXXPZ	REMOVE OVERHEAD 15 KV PRI,4 WIRE CKT NO 4 CU	380.0	LF	0.00	0	0.40	152	152	
WAXXQZ	REMOVE O-HEAD 2ND SER DROPS QUADRAPLEX 225 AM	80.0	LF	0.00	0	0.40	32	32	
WAXXTZ	REMOVE O-HEAD 2ND SER DROPS TRIPLEX 100TO200	230.0	LF	0.00	0	0.16	37	37	
YXXXTZ	REMOVE 10 OIL FILLED POLE MTD TRANSFORMER	3.0	EA	0.00	0	24.00	72	72	
ZCXXLZ	REMOVE COBRA HEAD STREET LIGHT AND ARM	3.0	EA	0.00	0	2.80	8	8	
ZUXXSZ	REMOVE O-HEAD TELE SERV DROP 1 TO 10 SGL PAIR	960.0	LF	0.00	0	0.04	38	38	
ZUXXTZ	REMOVE O-HEAD TELE TRUNK LINE 25TO100 PR CABL	380.0	LF	0.00	0	0.24	91	91	
ZHA	REMOVE POLE LINE/BUCKET TRUCK	16.0	HR	0.00	0	22.40	358	358	
	SUB-TOTAL				8,757		39,469	48,226	
	MARK-UP (PRIME)		%	20.0	1,751	36.0	14,208	15,959	
	SUB-TOTAL				10,508		53,677	64,185	
	ESCALATION		%	7.0	735	7.0	3,757	4,492	
	SUB-TOTAL, DEMOLITION				11,243		57,434	68,677	
							ROUNDED:	69,000	

MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 65 of

PREPARED BY

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

	ITEMS	QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
88 LAND PILING									
BHABC	TREATED WOOD PILES 40'-50'	29,040.0	LF	3.13	90895	1.08	31,363	122,258	
BHACA	TREATED WOOD PILES MOBILIZE AND DEMOBILIZE	1.0	EA	579.70	580	516.00	516	1,096	
BHADA	LOAD TEST 25,000 LBS	22.0	EA	0.00	0	1600.00	35,200	35,200	
	SUB-TOTAL				91,475		67,079	158,554	
	MARK-UP (SUBCONTRACTOR)	%	40.0		36,590	58.0	38,905	75,495	
	SUB-TOTAL				128,065		105,984	234,049	
	ESCALATION	%	7.0		8,964	7.0	7,418	16,382	
	SUB-TOTAL, LAND PILING				137,029		113,402	250,431	
							ROUNDED:	250,000	

BUDGET ESTIMATE SUMMARY SHEET FOR P-624

Title: UNACCOMPANIED ENLISTED PERSONNEL HOUSING (UEPH) Costs Escalated to: 1 APR 85

Location: MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA Escalation: 7%

Prepared by: MBTB ARCHITECTS-ENGINEERS Date: 10 NOV 83 Contingency: 5%

	PRIMARY FACILITY	$/SF	$/SYS	SYS QUAN	TOTAL	BUILDING	BUILT-IN EQUIP.
01	FOUNDATION	1.31	3.91	102,210 GFSF	400,000	400,000	
02	SLAB ON GRADE	3.15	11.63	82,720 SGSF	962,000	962,000	
03	STRUCTURAL FRAME	1.88	1.88	305,244 GBASF	573,000	573,000	
04	SUPPORTED FLOORS	3.75	5.66	202,596 SFSF	1,146,000	1,146,000	
05	STAIRS	0.31	5.21	18,432 NREA	96,000	96,000	
06	ROOF SYSTEM	4.83	13.21	111,514 RASF	1,473,000	1,473,000	
07	EXTERIOR WALLS	3.55	19.49	55,560 EWASF	1,083,000	1,083,000	
08	INTERIOR WALLS	4.67	5.07	281,520 ASF	1,426,000	1,426,000	
09	INTERIOR FINISHES	2.13	2.13	305,244 GBASF	651,000	651,000	
10	DOORS & WINDOWS	5.16	27.36	57,520 DWSASF	1,574,000	1,573,000	1,000
11	SPECIALTIES	1.93	1.93	305,244 GBASF	589,000	262,000	327,000
12	PLUMBING	5.89	1,022.18	1,758 NFEA	1,797,000	1,788,000	9,000
13	DRAINAGE	0.12	750.00	48 NDEA	36,000	36,000	
15	HVAC	4.15	3,622.86	350 CTN	1,268,000	1,268,000	
28	FIRE ALARM SYSTEM	0.45	0.45	305,244 GBASF	138,000	100,000	38,000
31	POWER	1.60	226.77	2,152 CLKW	488,000	488,000	
32	LIGHTING SYSTEM	2.42	2.42	305,244 GBASF	739,000	739,000	
39	EMCS	0.85	370.37	702 NPCEA	260,000	260,000	
41	TELEPHONE SYSTEM	0.06	0.06	305,244 GBASF	19,000	0	19,000
42	INTERCOMMUNICATION SYSTEM	0.21	0.21	305,244 GBASF	65,000	0	65,000
43	TV SYSTEM	0.21	0.21	305,244 GBASF	63,000	0	63,000
	SUB-TOTAL BUILDING	$48.64			$14,846,000	14,324,000	522,000
	SUPPORTING FACILITIES						
50	ELECTRICAL DISTRIBUTION		50.83	4,840 LRLF	246,000		
52	AREA LIGHTING		1,000.00	32 NFEA	32,000		
54	COMMUNICATION		11.15	2,600 LRLF	29,000		
55	FIRE ALARM		7.14	700 LRLF	5,000		
58	HEAT DISTRIBUTION		246.92	1,300 LRLF	321,000		
59	CHILLED WATER DISTRIBUTION		81.82	1,540 LRLF	126,000		
60	SANITARY SEWERS		15.77	2,283 LRLF	36,000		
62	WATER DISTRIBUTION		27.26	3,411 LRLF	93,000		
71	MECHANICAL EQUIPMENT BUILDING		613.89	360 GBASF	221,000	1,109,000	
72	RELOCATE AIR HAND UNITS		635.80	162 TNS	103,000	103,000	
73	ROADS		14.65	4,369 PASY	64,000		
74	PARKING		12.72	3,380 PASY	43,000		
75	SIDEWALKS		19.40	4,640 PASY	90,000	197,000	
78	STORM DRAINAGE		30.60	6,733 LRLF	206,000		
79	SITE EARTHWORK		2.89	10,740 VCY	31,000		
80	BORROW		6.37	11,150 VCY	71,000		
81	TOPSOIL, SEED		0.58	55,150 AGSY	32,000		
82	LANDSCAPING		0.33	55,150 APSY	18,000		
85	FENCING		2.51	798 LFLF	2,000	360,000	
86	DEMOLITION		69,000.00	1 LS	69,000	69,000	
88	LAND PILING		8.61	29,040 LF	250,000	250,000	
	SUB-TOTAL SUPPORTING FACILITITIES				$2,088,000		

14283214,80

TOTAL ESTIMATED CONTRACT COST 1 APR 85:	$16,934,000
CONTINGENCY 5.0%:	$847,000
SIOH 5.5%:	$978,000
TOTAL BUDGET COST:	$18,759,000
ROUNDED:	$19,000,000

BUDGET ESTIMATE SUMMARY SHEET FOR P-624

Title: UNACCOMPANIED ENLISTED PERSONNEL HOUSING (UEPH) Costs Escalated to: 1 APR 85

Location: MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA Escalation: 7%

Prepared by: MBTB ARCHITECTS-ENGINEERS Date: 10 NOV 83 Contingency: 5%

TYPE I BUILDING (4 EA @ 48,273 SF)

		$/SF	$/SYS	SYS QUAN	TOTAL
	PRIMARY FACILITY				
01	FOUNDATION	1.31	3.91	16,168 GFSF	63,195
02	SLAB ON GRADE	3.15	11.63	13,085 SGSF	152,188
03	STRUCTURAL FRAME	1.88	1.88	48,273 GBASF	90,596
04	SUPPORTED FLOORS	3.76	5.66	32,040 SFSF	181,298
05	STAIRS	0.33	5.20	3,072 NREA	15,969
06	ROOF SYSTEM	4.83	13.21	17,640 RASF	232,944
07	EXTERIOR WALLS	3.64	19.50	9,000 EWASF	175,496
08	INTERIOR WALLS	4.70	5.07	44,770 ASF	226,774
09	INTERIOR FINISHES	2.13	2.13	48,273 GBASF	102,973
10	DOORS & WINDOWS	5.00	27.36	8,820 DWSASF	241,343
11	SPECIALTIES	1.93	1.93	48,273 GBASF	93,123
12	PLUMBING	5.87	1,022.32	277 NFEA	283,183
13	DRAINAGE	0.12	751.50	8 NDEA	6,012
15	HVAC	4.13	3,623.24	55 CTN	199,278
28	FIRE ALARM SYSTEM	0.45	0.45	48,273 GBASF	21,837
31	POWER	1.62	226.64	346 CLKW	78,416
32	LIGHTING SYSTEM	2.42	2.42	48,273 GBASF	116,812
39	EMCS	0.85	370.50	111 NPCEA	41,126
41	TELEPHONE SYSTEM	0.06	0.06	48,273 GBASF	3,068
42	INTERCOMMUNICATION SYSTEM	0.21	0.21	48,273 GBASF	10,354
43	TV SYSTEM	0.21	0.21	48,273 GBASF	9,966
	SUB-TOTAL BUILDING	$47.49			$2,345,951

BUDGET ESTIMATE SUMMARY SHEET FOR P-624

Title: UNACCOMPANIED ENLISTED PERSONNEL HOUSING (UEPH) Costs Escalated to: 1 APR 85

Location: MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA Escalation: 7%

Prepared by: MBTB ARCHITECTS-ENGINEERS Date: 10 NOV 83 Contingency: 5%

TYPE II BUILDING (2 EA @ 56,076 SF)

		$/SF	$/SYS	SYSQUAN	TOTAL
	PRIMARY FACILITY				
01	FOUNDATION	1.31	3.91	18,769 GFSF	73,361
02	SLAB ON GRADE	3.15	11.63	15,190 SGSF	176,671
03	STRUCTURAL FRAME	1.88	1.88	56,076 GBASF	105,240
04	SUPPORTED FLOORS	3.76	5.66	37,218 SFSF	210,598
05	STAIRS	0.28	5.20	3,072 NREA	15,969
06	ROOF SYSTEM	4.82	13.21	20,477 RASF	270,408
07	EXTERIOR WALLS	3.40	19.50	9,780 EWASF	190,706
08	INTERIOR WALLS	4.63	5.07	51,220 ASF	259,445
09	INTERIOR FINISHES	2.13	2.13	56,076 GBASF	119,618
10	DOORS & WINDOWS	5.43	27.36	11,120 DWSASF	304,278
11	SPECIALTIES	1.93	1.93	56,076 GBASF	108,176
12	PLUMBING	5.93	1,022.32	325 NFEA	332,254
13	DRAINAGE	0.11	751.50	8 NDEA	6,012
15	HVAC	4.20	3,623.24	65 CTN	235,510
28	FIRE ALARM SYSTEM	0.45	0.45	56,076 GBASF	25,367
31	POWER	1.55	226.64	384 CLKW	87,028
32	LIGHTING SYSTEM	1.32	2.42	56,076 GBASF	135,694
39	EMCS	0.85	370.50	129 NPCEA	47,795
41	TELEPHONE SYSTEM	0.06	0.06	56,076 GBASF	3,564
42	INTERCOMMUNICATION SYSTEM	0.21	0.21	56,076 GBASF	12,028
43	TV SYSTEM	0.21	0.21	56,076 GBASF	11,577
	SUB-TOTAL BUILDING	47.60			2,731,299

BUDGET ESTIMATE SUMMARY SHEET FOR P-624

Title: UNACCOMPANIED ENLISTED PERSONNEL HOUSING (UEPH) Costs Escalated to: 1 APR 85

Location: MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA Escalation: 7%

Prepared by: MBTB ARCHITECTS-ENGINEERS Date: 10 NOV 83 Contingency: 5%

DIRECT COST			
Material: Use 80-85% of 1983 MEANS bare cost	%	80.00	
or 80-85% CES Data Base (27 APR 83)	%	80.00	
or Source Quote			
Labor: Use 65% of 1983 MEANS bare cost			
or 65% CES Data Base (27 APR 83)			
or Source Quote	%		65.00
	%		65.00
PRIME CONTRACTOR MARK-UP			
Sales Tax on Material	%	4.00	
Tax & Ins. on Labor	%		48.00
Prime Overhead	%	8.00	8.00
Prime Profit	%	6.00	6.00
Bond	%	0.75	0.75
TOTAL PRIME MARK-UP	%	20.00	36.00
SUBCONTRACTOR MARK-UP			
Sales Tax on Material	%	4.00	
Tax & Ins. on Labor	%		18.00
Sub Overhead	%	12.00	12.00
Sub Profit	%	8.00	8.00
Prime Overhead	%	5.00	5.00
Prime Profit	%	5.00	5.00
Bond	%	0.75	0.75
TOTAL SUB MARK-UP	%	40.00	58.00
ESCALATION			
(1 NOV 83 - 1 APR 85) 2167/2024 = 1.07	%	7.00	7.00

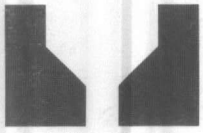
MATERIAL & LABOR COST ESTIMATE — LANTDIV NORVA 4-11012/5(REV. 12/80) — SHEET 1 of 65

PREPARED BY _____ — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — Const. Contr. No. N62470-81-B-3888

FUNDS AVAI. $16,352,000 — NORFOLK, VIRGINIA — DATE 10 NOV 83

PROJECT Unaccompanied Enlisted Personnel Housing P-624 — LOCATION MCB, Camp Lejeune, N.C. — [X] PRELIM. [ ] FINAL

#	ITEMS	QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
	01 FOUNDATION (WITHOUT PILING)								
BFAAK	SITE GRAD BAL CUT&FILL SANDY CLAY 200FT HAUL	500.0	CY	0.00	0	1.26	630	630	
BFAAM	STRIP T-SOIL OR SHALLOW EXCAV&PILING IN PILES	400.0	CY	0.00	0	1.09	436	436	
BFCBWZ	LOAD,HAUL,PLACE,& COMPACT BORROW NO MATL COST	500.0	CY	0.00	0	0.32	160	160	
BFFNB	TRENCH B-FILL COMPACT VIBRATORY COMPACT TO 95	456.0	CY	0.00	0	0.42	192	192	
BFGAE	STRUCTURAL EXCAV 3/8CY B-HOE UNCLASS EARTH	1,010.0	CY	0.00	0	1.28	1,293	1,293	
EBWRC	FORM WALLS TO 4'& GRADE BEAMS PLYWD 3-USE	3,090.0	SF	0.52	1,607	0.70	2,163	3,770	
ECFPHD	EDGE FORMS SLAB ON GRD 6'TO 12'HI 4 USE	380.0	LF	0.33	125	0.64	243	368	
ECJWYD	KEYWAYS 2X4 4 USES	400.0	LF	0.09	36	0.13	52	88	
EFFD	REBAR#3-#4 FOUNDATIONS	5.9	TN	459.68	2,712	158.49	935	3,647	
EFFE	REBAR #5-#6 FOUNDATIONS	6.7	TN	416.00	2,787	133.12	892	3,679	
EFID	REBAR #3-#4 MASONRY WALLS VERT	2.3	TN	459.68	1,057	376.62	866	1,923	
EFIE	REBAR #5-#6 MASONRY WALLS VERT	1.8	TN	416.00	749	231.85	417	1,166	
EFMD	REBAR #3-#4 SLABS	3.0	TN	459.68	1,379	144.76	434	1,813	
EFME	REBAR #5-#6 SLABS	3.4	TN	416.00	1,414	133.12	453	1,867	
EKIMD	PLACE CONC 2500/3000# FTG OR PILE CAP B/CHUTE	253.0	CY	42.18	10,672	2.82	713	11,385	
EKSMP	PLACE CONC 2500/3000#SLAB ON GRD B/HAND BUGGY	68.0	CY	42.18	2,868	3.73	254	3,122	
EKWMD	PLACE CONC 2500/3000#WALLS&GRD BMS TO 4'B/CHU	41.0	CY	42.18	1,729	2.25	92	1,821	
ENHXC	CONC FILL CMU CELLS 8' WIDE 3000#	2,279.0	SF	0.50	1,140	0.40	912	2,052	
ENR-C	CONC FILL FOR PILASTERS 3000#	82.0	CF	1.87	153	1.72	141	294	
ENXJC	CONC FILLED WALL CAVITY 2'THK 3000#	214.0	SF	0.32	68	0.28	60	128	
EPKJ	FINISH CONC SLAB FLOAT	910.0	SF	0.10	91	0.03	27	118	
FEKC	BRICK,FACE,STD SIZE 4'VENEER 3/8' JOINT	754.0	SF	0.99	746	1.50	1,131	1,877	
FFFJ	CMU HOLLOW 8' LT.WT.LOAD BEARING	2,279.0	SF	0.96	2,188	1.04	2,370	4,558	
FFNFWZ	CMU SOLID 2'LT WT LOAD BEARING	186.0	SF	0.60	112	0.84	156	268	
IEOPI	INSUL RGD URETHANE PERIMETER OR WALL 2' TK	658.0	SF	0.75	494	0.09	59	553	
	SUB-TOTAL				32,127		15,081	47,208	
	MARK-UP (PRIME)		%	20.0	6,425	36.0	5,429	11,854	
	SUB-TOTAL				38,552		20,510	59,062	
	ESCALATION		%	7.0	2,698	7.0	1,435	4,133	
	SUB-TOTAL, FOUNDATION				41,250		21,945	63,195	
							ROUNDED:	63,000	



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