

## FILE FOLDER

### DESCRIPTION ON TAB:

7542/19 P-790 Sewage

SYS Improv

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**OPENED:** Oct 1981

**CLOSED:**

PERM. SECNAVINST 5212.5D  
Part II, par 2, SSIC  
Until superseded





DEPARTMENT OF THE NAVY

PROJECT ENGINEERING DOCUMENTATION

SEWERAGE SYSTEM IMPROVEMENTS

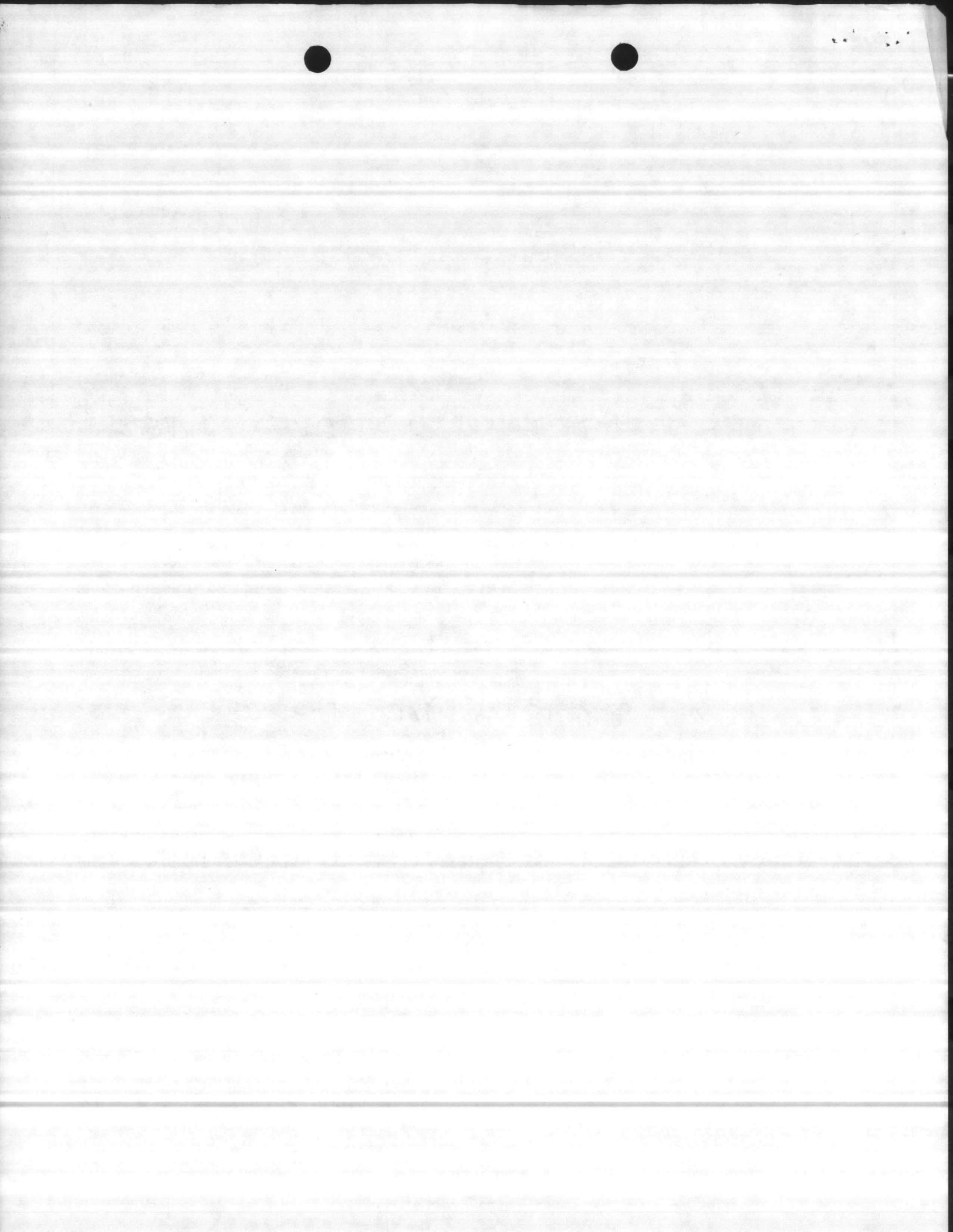
(P-790)

FY 1986 MCON

MARINE CORPS BASE  
CAMP LEJEUNE, NORTH CAROLINA

PREPARED BY:

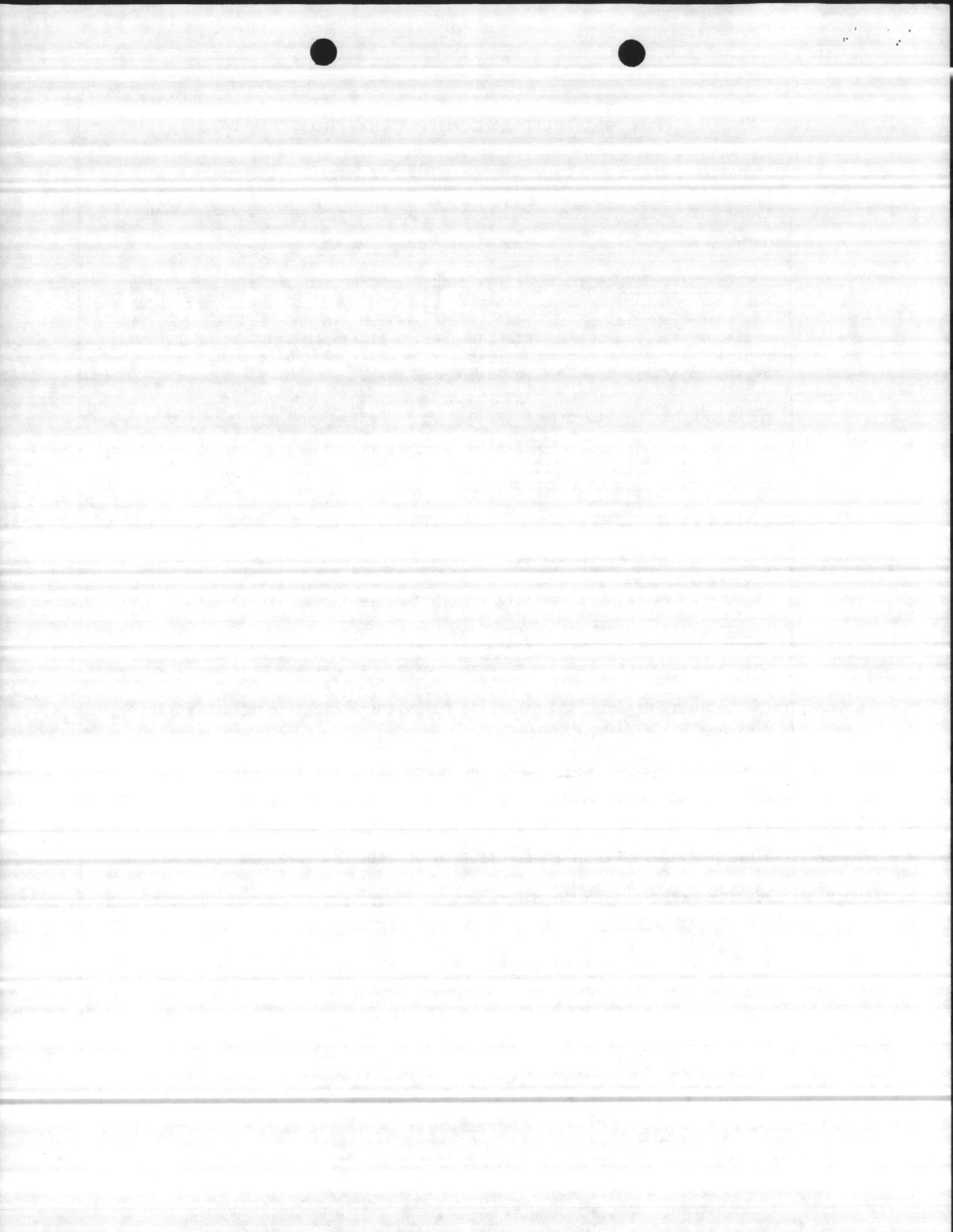
ATLANTIC DIVISION  
NAVAL FACILITIES  
ENGINEERING COMMAND  
NORFOLK, VA. 23511



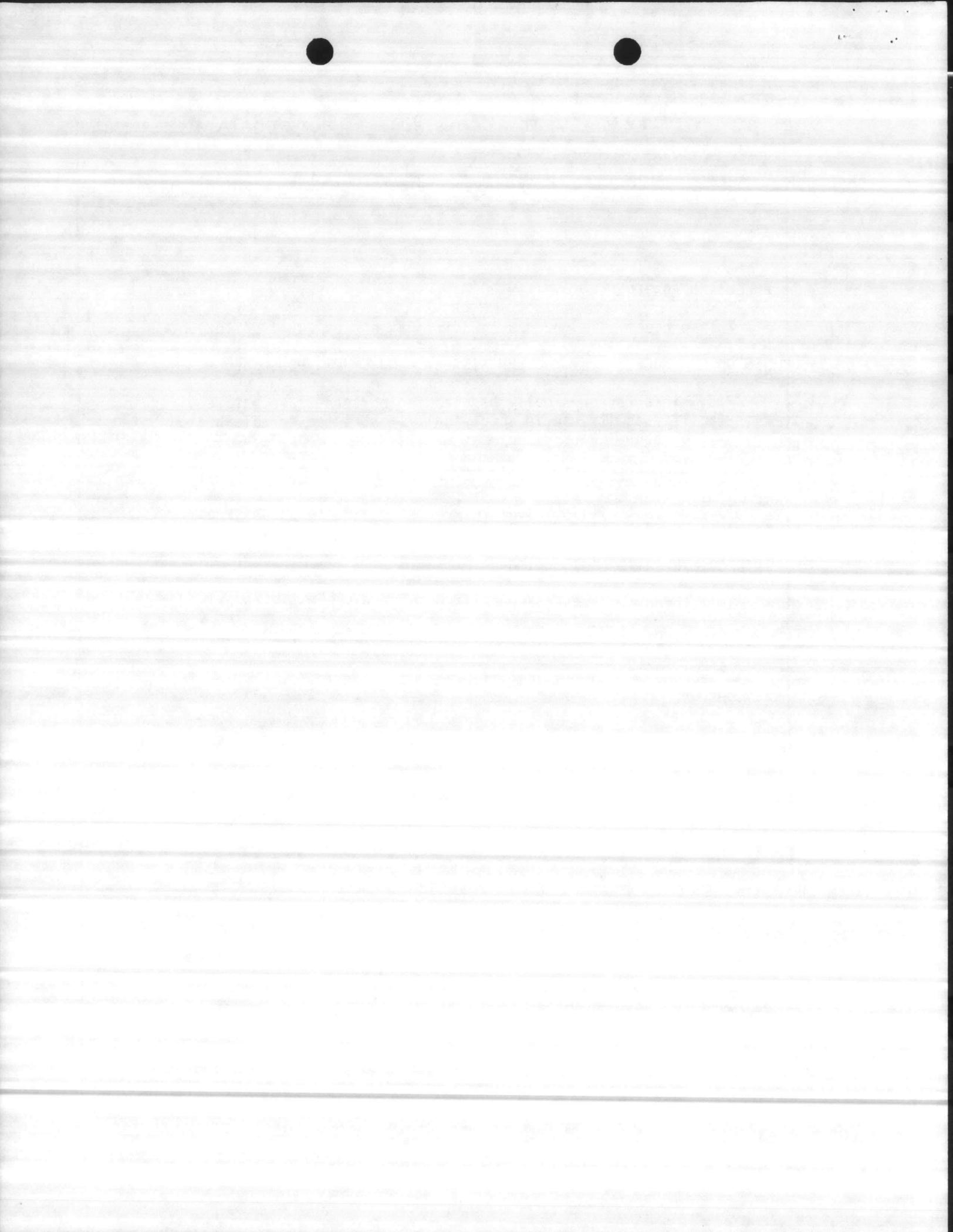
1. COMPONENT NAVY		FY 19 <u>86</u> MILITARY CONSTRUCTION PROJECT DATA			2. DATE 1 JULY 1984	
3. INSTALLATION AND LOCATION MARINE CORPS BASE CAMP LEJENUE, NORTH CAROLINA				4. PROJECT TITLE SEWERAGE SYSTEM IMPROVEMENTS		
5. PROGRAM ELEMENT		6. CATEGORY CODE 831-09	7. PROJECT NUMBER P-790		8. PROJECT COST (\$000) 800	
9. COST ESTIMATES						
ITEM				U/M	QUANTITY	COST (\$000)
SEWERAGE SYSTEMS IMPROVEMENTS						700
1. Hadnot Point STP				LS	-	(216)
2. French Creek Pump Station SFC-315				LS	-	(324)
3. Camp Geiger STP				LS	-	(160)
SUB-TOTAL						700
CONTINGENCY (10 %)						70
TOTAL CONTRACT COST						770
SUPERVISION, INSPECTION & OVERHEAD (5.5%)						42
TOTAL REQUEST						812
TOTAL REQUEST (ROUNDED)						800
EQUIPMENT PROVIDED FROM OTHER APPROPRIATIONS						0
10. DESCRIPTION OF PROPOSED CONSTRUCTION						
<p>This project will Provide:</p> <p>A. At Hadnot Point STP - 8 new sludge drying beds; replace two pumps and electrical control, disconnects, etc. at main pump station; replace one grit pump and provide 150' of 4" force main; and demolish <del>chlorine contact chamber</del> and grit drying beds.</p> <p>B. At Pump Station SFC-315 - A new pump station with 2-3000 gpm pumps and approximately 3700' of 14" force main from pump station to Hadnot Point STP.</p> <p>C. At Camp Geiger STP - 8 new sludge drying beds.</p>						
11. REQUIREMENT: <u>N/A</u> Adequate: <u>N/A</u> Substandard: <u>N/A</u>						
PROJECT: Upgrade and expand the sewage collection system and treatment facilities. Provide new construction, alterations, and improvements.						
REQUIREMENTS: To provide adequate sewage disposal and treatment facilities for the Base to comply with statutory regulations of the Federal Water Pollution Control Act.						



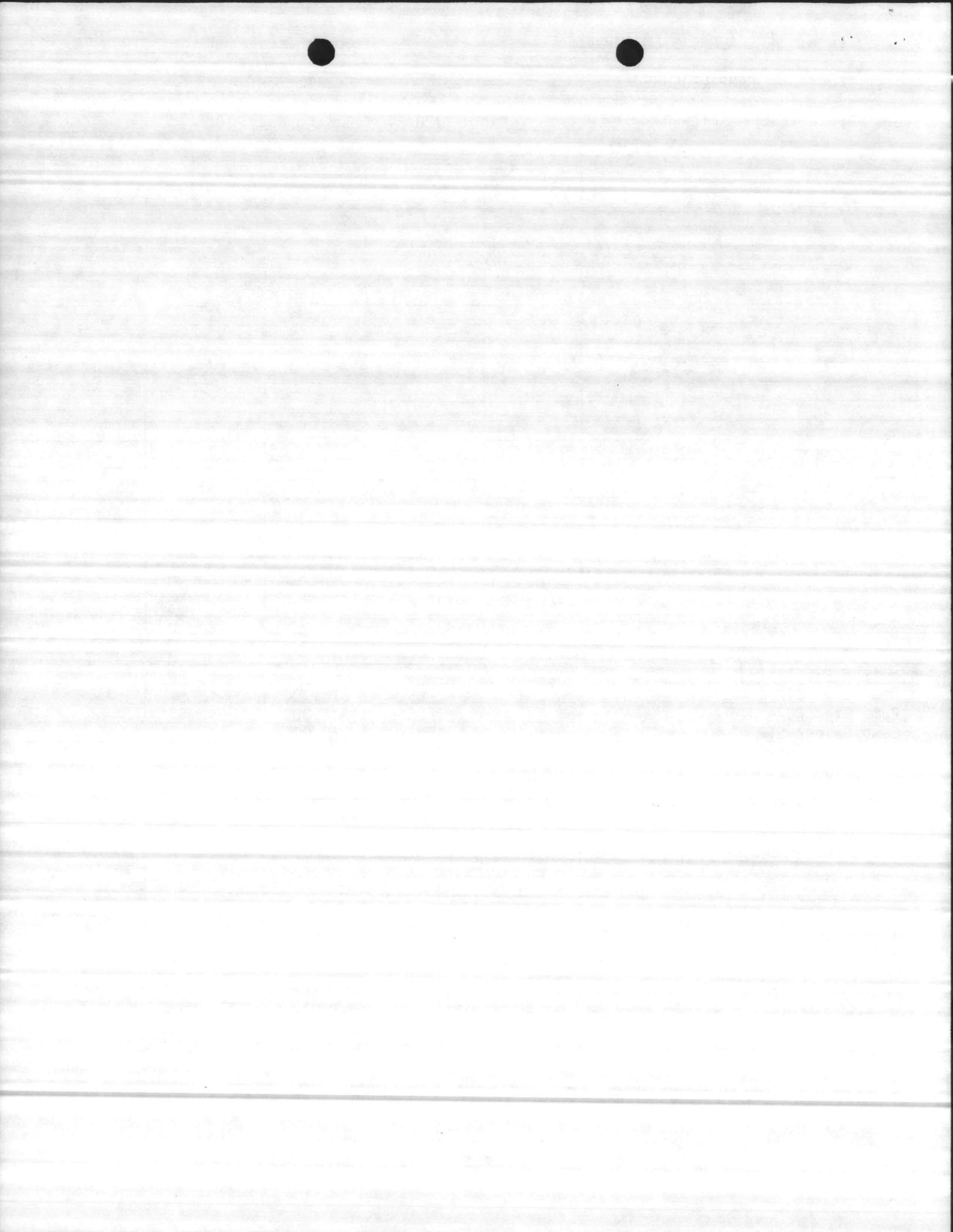
1. COMPONENT NAVY	FY 19 <u>86</u> MILITARY CONSTRUCTION PROJECT DATA	2. DATE 1 JULY 1984
3. INSTALLATION AND LOCATION MARINES CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA		
4. PROJECT TITLE SEWERAGE SYSTEM IMPROVEMENTS		5. PROJECT NUMBER P-790
<p><b>CURRENT SITUATION:</b> The existing sludge drying beds at Camp Geiger and Hadnot Point STP's are inadequate. The grit pump and two of the pumps at the main pump station at Hadnot Point STP are old and require replacement. Sewage pump station SFC-315 at French Creek is operating at capacity and in urgent need of larger capacity station due to the planned expansion in the near future at French Creek.</p> <p><b>IMPACT IF NOT PROVIDED:</b></p> <p>Inadequate and/or malfunctioning equipment could result in surcharging and/or flooding of facilities which could create a potential health hazard and damage to the facilities.</p> <p><b>ENVIRONMENTAL PROTECTION</b></p> <p>The project Environmental Assessment has been reviewed, and where required, the design concepts give consideration to eliminating adverse environmental effects consistent with applicable directives.</p> <p><b>PRESERVATION OF HISTORICAL SITES AND STRUCTURES</b></p> <p>The project facilities do not directly or indirectly affect a district, site, building, structure, object or setting which is listed in the National Register or otherwise possesses a significant quality of American history.</p> <p><b>FLOODPLAIN MANAGEMENT AND WETLANDS PROTECTION</b></p> <p><b>FLOOD HAZARDS EVALUATION</b></p> <p>Requirements of Executive Order No. 11988 (Floodplain Management) and Executive Order No. 11990 (Protection of Wetlands) are not applicable.</p> <p><b>COASTAL ZONE MANAGEMENT</b></p> <p>In accordance with the Coastal Zone Management Act of 1972 (as amended), this project will not directly affect the coastal zone and a coastal consistency determination is not required.</p>		



1. COMPONENT NAVY	FY 1986_MILITARY CONSTRUCTION PROJECT DATA	2. DATE 1 JULY 1984
3. INSTALLATION AND LOCATION MARINES CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA		
4. PROJECT TITLE SEWERAGE SYSTEM IMPROVEMENTS	5. PROJECT NUMBER P-790	
<p><u>POLLUTION ABATEMENT</u></p> <p>This project will not cause additional air or water pollution.</p> <p><u>DESIGN FOR ACCESSIBILITY OF PHYSICALLY HANDICAPPED PERSONNEL</u></p> <p>Provisions for physically handicapped personnel are not required in this facility as its use is specifically restricted to able-bodied personnel.</p> <p><u>ENDANGERED SPECIES PROTECTION</u></p> <p>This project will not jeopardize conservation of endangered or threatened species.</p> <p><u>INTERGOVERNMENTAL COORDINATION</u></p> <p>No Intergovernmental coordination is required for this project.</p> <p><u>ECONOMIC ANALYSIS</u></p> <p>A secondary economic analysis was not prepared for this project at 35% design.</p>		







COLLATERAL EQUIPMENT REQUIREMENTS (Initial Outfitting)  
 LANTDIV NQRVA 4-11010/6 (Rev.11/81)

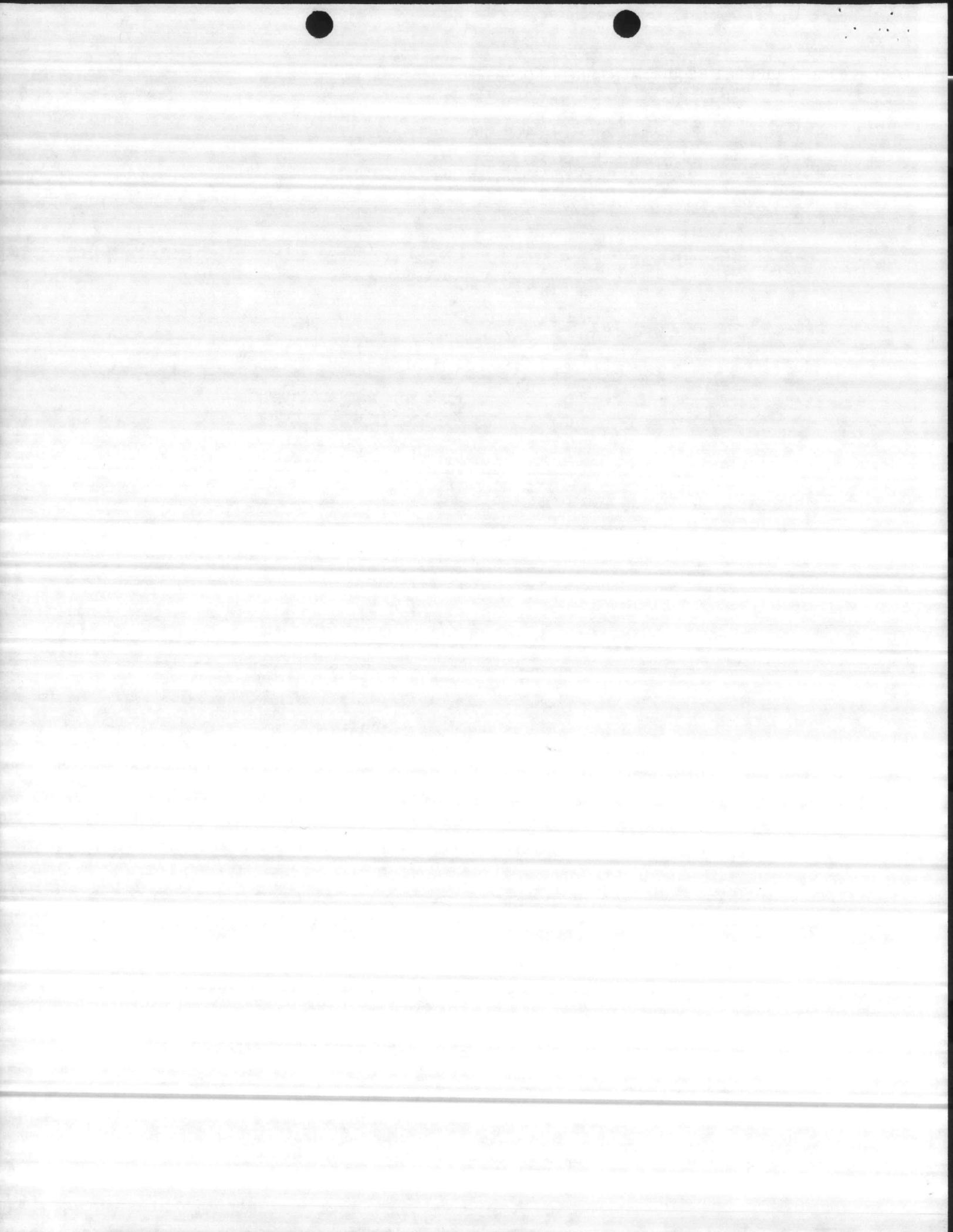
DATE 1 July 1984

1. ACTIVITY (Name and Location)  
 MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA

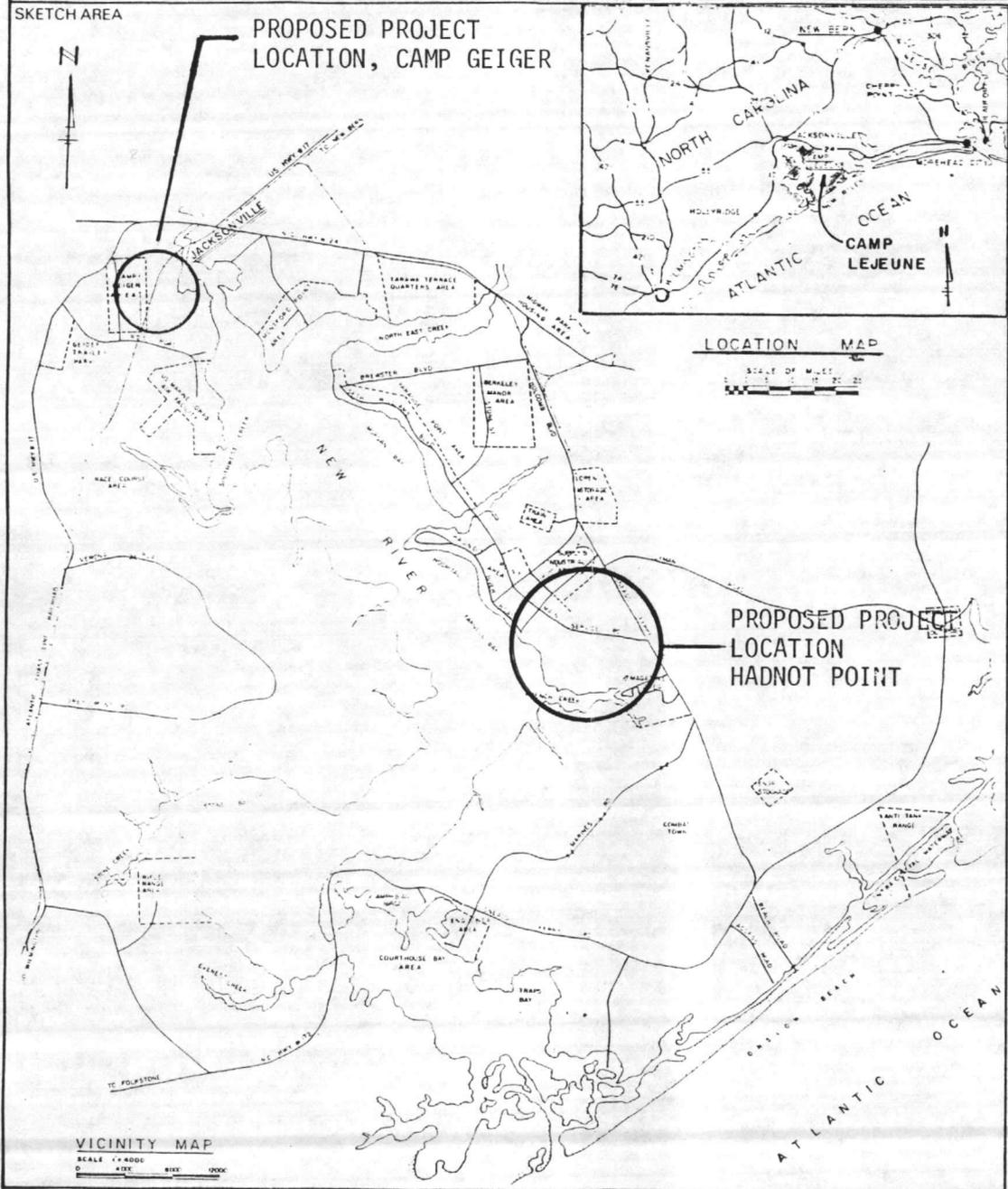
2. PROJECT TITLE  
 SEWERAGE SYSTEM IMPROVEMENTS

P NO. P-790

COG. SYMBOL AND FED. STOCK NO. OR OTHER SOURCE	ITEM/EQUIPMENT DESCRIPTION	QUAN- TITY	UNIT OF ISSUE	UNIT PRICE	TOTAL COST
No Collateral Equipment Required in support of this project.					



INSTALLATION <b>MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA</b>	PROJECT TITLE <b>SEWERAGE SYSTEM IMPROVEMENTS</b>	P-790	DATE <b>1 JULY 1984</b>
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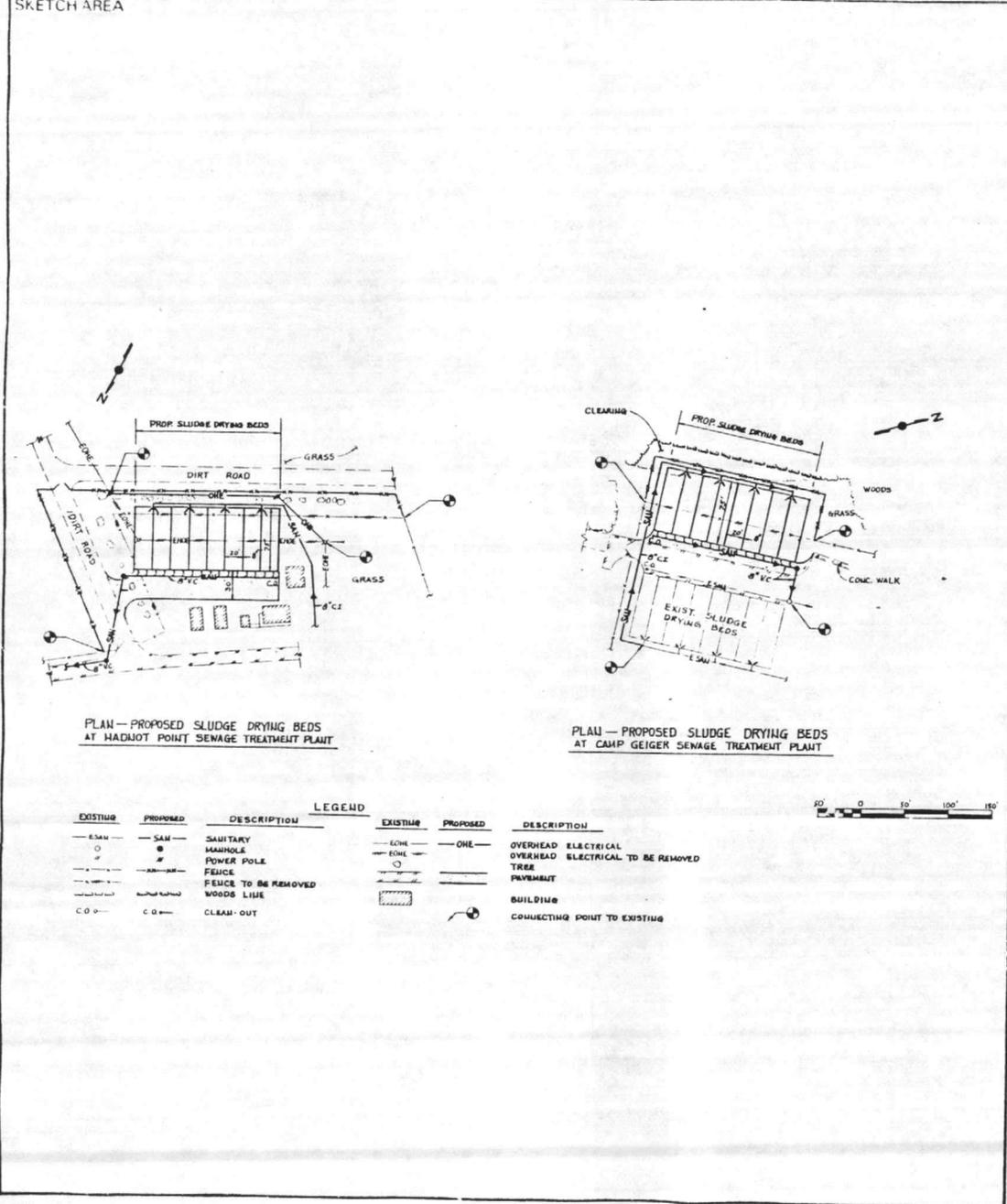
A&E/GF	PLANS AND SPECIFICATIONS	CONSTR	DESIGN PROGRESS INFO PROVIDED CONGRESS
NAME AND LOCATION	ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA 23511	AWARD DATE (Est.)	START DATE: _____
DATES	AWARD 35% COMPLETION 100% COMPLETION	MONTHS 12	COMPLETION DATE: _____
		BOD	COMPLETE 1 JAN: _____%
			COMPLETE 1 OCT: _____%

COMPARATIVE COST DATA			ENGINEERING DATA	
H	OK	L	AREA FACTOR:	UNIT COST (\$)
			DD 1391 COST PROJECTION DATA	
UNIT COST FOR THIS PROJECT ON DD 1391			INCREASE - TOTAL	PROJECTION DATES (From - To)
DOD COST REVIEW GUIDE (ADJUSTED)			%	
OTHER PROJECTS IN THIS PROGRAM (ADJUSTED)			INCREASE MONTH	INDEX SOURCE
			%	
			SITE CONDITION, SPECIAL DESIGN CONSIDERATIONS, TECHNICAL PROBLEMS, ETC. OTHER THAN SHOWN ON DD 1391	

BUILT IN EQUIPMENT; FEC DATA; SPECIAL OVERSEAS OVERHEAD COSTS; EXPLANATION OF DEMOLITION



INSTALLATION <b>MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA</b>	PROJECT TITLE <b>SEWERAGE SYSTEM IMPROVEMENTS</b>	P- 790	DATE <b>1 July 1984</b>
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AGE/GF		PLANS AND SPECIFICATIONS			CONSTR		DESIGN PROGRESS INFO PROVIDED CONGRESS	
NAME AND LOCATION		ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA 23511			AWARD DATE (Est.)		START DATE: _____	
DATES		AWARD	35% COMPLETION	100% COMPLETION	MONTHS <b>12</b>		COMPLETION DATE: _____	
					BOD		COMPLETE 1 JAN _____ %	
							COMPLETE 1 OCT _____ %	

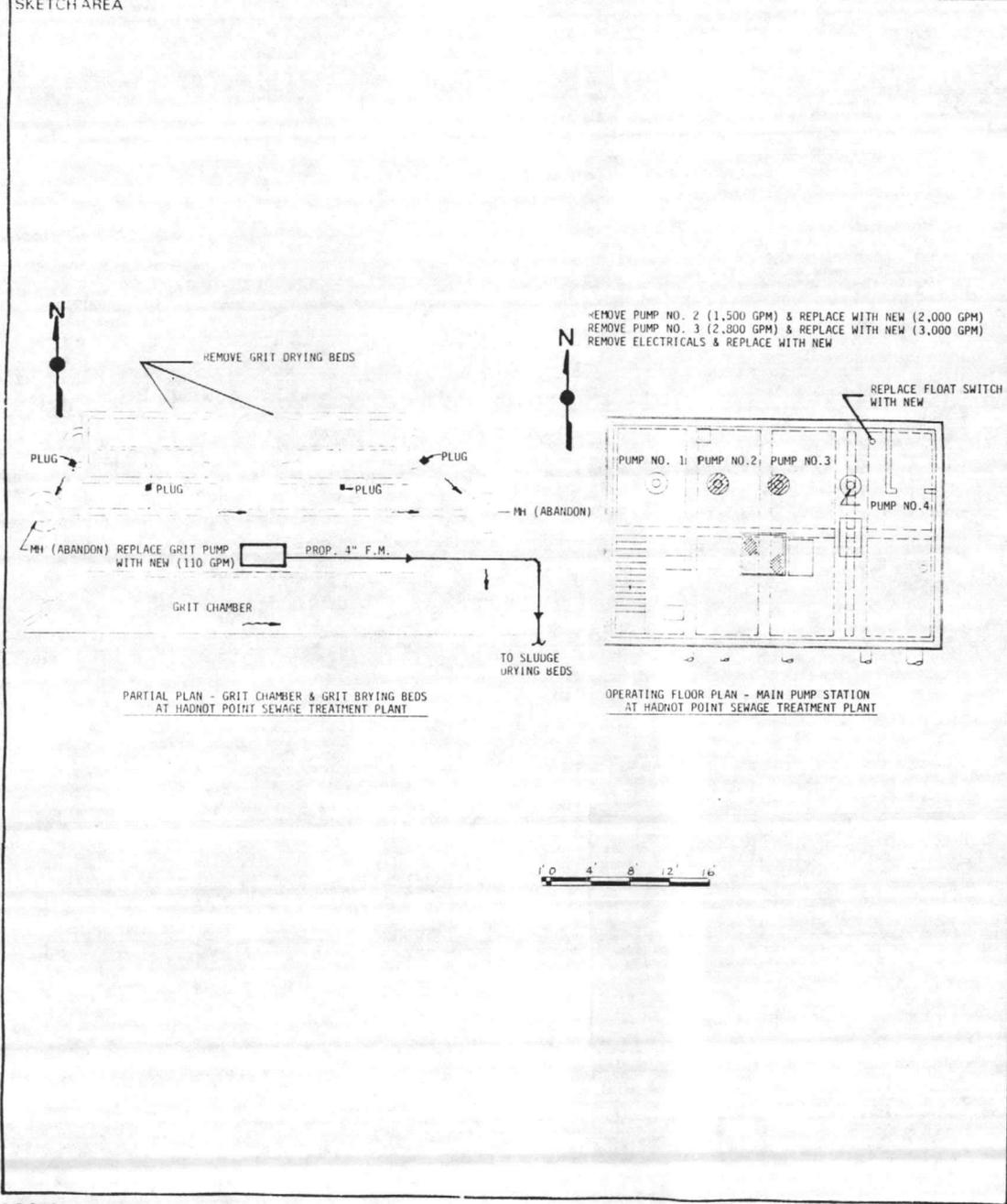
  

COMPARATIVE COST DATA			ENGINEERING DATA		
H	OK	L	AREA FACTOR:	UNIT COST (\$)	DD 1391 COST PROJECTION DATA
					INCREASE - TOTAL
					PROJECTION DATES (From - To)
					INCREASE MONTH
					INDEX SOURCE
					SITE CONDITION, SPECIAL DESIGN CONSIDERATIONS, TECHNICAL PROBLEMS, ETC. OTHER THAN SHOWN ON DD 1391

BUILT IN EQUIPMENT; FEC DATA; SPECIAL OVERSEAS OVERHEAD COSTS; EXPLANATION OF DEMOLITION



INSTALLATION <b>MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA</b>	PROJECT TITLE <b>SEWERAGE SYSTEM IMPROVEMENTS</b>	P-790	DATE <b>1 July 1984</b>
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A&E/GF	PLANS AND SPECIFICATIONS	CONSTR	DESIGN PROGRESS INFO PROVIDED CONGRESS
NAME AND LOCATION	ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA 23511	AWARD DATE (Est.)	START DATE _____
DATES	AWARD _____ 35% COMPLETION _____ 100% COMPLETION _____	MONTHS <b>12</b>	COMPLETION DATE _____
		BOD	COMPLETE 1 JAN _____ % COMPLETE 1 OCT _____ %
COMPARATIVE COST DATA		ENGINEERING DATA	
H	OK	L	AREA FACTOR:
UNIT COST FOR THIS PROJECT ON DD 1391		UNIT COST (\$)	
DOD COST REVIEW GUIDE (ADJUSTED)		DD 1391 COST PROJECTION DATA	
OTHER PROJECTS IN THIS PROGRAM (ADJUSTED)		INCREASE - TOTAL	PROJECTION DATES (From To)
		INCREASE MONTH	INDEX SOURCE
		SITE CONDITION, SPECIAL DESIGN CONSIDERATIONS, TECHNICAL PROBLEMS, ETC. OTHER THAN SHOWN ON DD 1391	

BUILT IN EQUIPMENT; FCC DATA; SPECIAL OVERSEAS OVERHEAD COSTS; EXPLANATION OF DEMOLITION

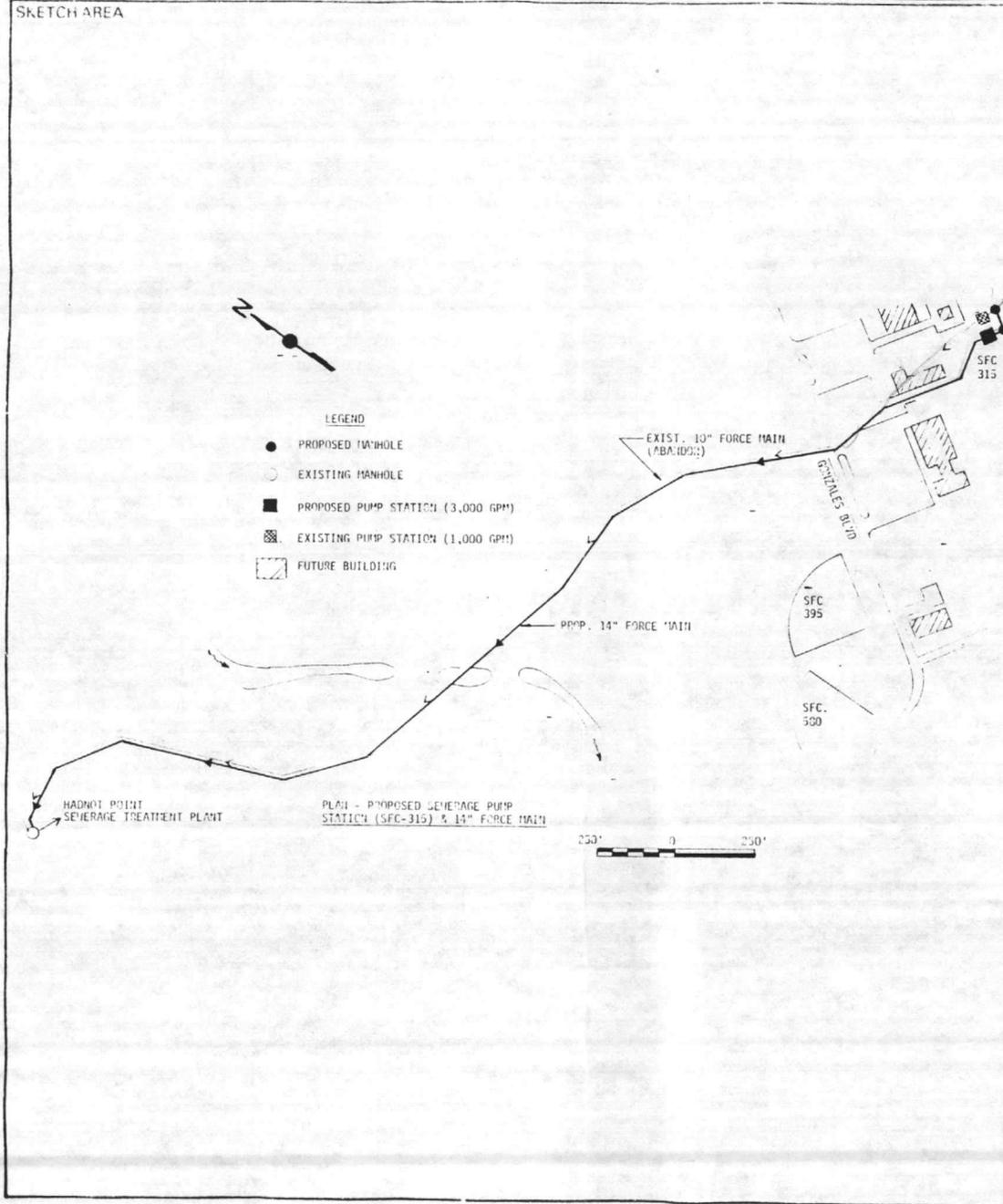


INSTALLATION  
MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA

PROJECT TITLE  
SEWERAGE SYSTEM IMPROVEMENTS

P-790

DATE  
1 July 1984



A&E/GF	PLANS AND SPECIFICATIONS		CONSTR	DESIGN PROGRESS INFO PROVIDED CONGRESS
NAME AND LOCATION	ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA 23511		AWARD DATE (Est.)	START DATE _____
DATES	AWARD	35% COMPLETION	100% COMPLETION	COMPLETION DATE _____
			BOD	COMPLETE 1 JAN _____
				COMPLETE 1 OCT _____

COMPARATIVE COST DATA			ENGINEERING DATA	
H	OK	L	AREA FACTOR:	UNIT COST (\$)
			DD 1391 COST PROJECTION DATA	
UNIT COST FOR THIS PROJECT ON DD 1391			INCREASE TOTAL	PROJECTION DATES (From - To)
DOD COST REVIEW GUIDE (ADJUSTED)			INCREASE MONTH	INDEX SOURCE
OTHER PROJECTS IN THIS PROGRAM (ADJUSTED)			SITE CONDITION SPECIAL DESIGN CONSIDERATIONS TECHNICAL PROBLEMS, ETC. OTHER THAN SHOWN ON DD 1391	

BUILT IN EQUIPMENT; FCC DATA; SPECIAL OVERSEAS OVERHEAD COSTS; EXPLANATION OF DEMOLITION



1 JAN 1986

### ROUTING SLIP

	ACTION	INFO	INITIAL
BMO		✓	W
ABMO		✓	mm
ADMIN			
F&A			
MAINT NCO			
M&R			
OPNS			
PROP			
UMACS			
UTIL		✓	CSJ
SECRETARY			

COMMENTS:

COPY TO MAC DAVIS

File in 8-790

500. wat. 1



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6280/5  
FAC  
JAN 30 1986

From: Commanding General, Marine Corps Base, Camp Lejeune  
To: Commander, Atlantic Division, Naval Facilities Engineering  
Command, Norfolk, VA 23511-6287 (Code 405)

Subj: SEWAGE FORCE MAIN CROSSING AT COGDELL'S CREEK, P-790,  
SEWAGE SYSTEM IMPROVEMENTS

Ref: (a) Onsite mtg btwn Mr. Heine, U.S. Army Corps of Engineers;  
Mr. Mercer, NC Div of Coastal Mgmt; and Mr. Alexander,  
MCB EnvEngr, of 9 Jan 86

Encl: (1) USCOE ltr SAWCO-EP dtd 14 Jan 86

1. We are forwarding the enclosure for your use in designing the subject project. As indicated by Messrs. Mercer and Heine, a more favorable construction method would be to lay the pipe on the stream bottom. This practice would avoid undue bottom disturbance and sedimentation.

2. We request you forward final construction drawings to the above agencies for their concurrence. For further information, please contact Mr. Bob Alexander, AV 484-3034.

R. A. TIEBOUT  
By direction

Blind copy to:  
BMO  
EnvEngr

Copy to: Mack Davis  
2/3/86  
R

JAN 30 1950

Faint, mostly illegible typed text, possibly a letter or report, with several lines of text visible but difficult to decipher due to low contrast and noise.

100-1000-1000  
ONE  
FIVE

*Handwritten notes or scribbles in the bottom left corner, including what appears to be the number '100' and some illegible marks.*



DEPARTMENT OF THE ARMY  
WILMINGTON DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 1890  
WILMINGTON, NORTH CAROLINA 28402-1890

SAWCO-EP

IN REPLY REFER TO

14 January 1986

SUBJECT: Department of the Army Permits Nos. SAWC086-N-067-0023 and  
SAWC082-N-067-0170

Commanding General  
Marine Corps Base  
ATTN: Assistant Chief of Staff,  
Facilities  
Camp Lejeune, NC 28542

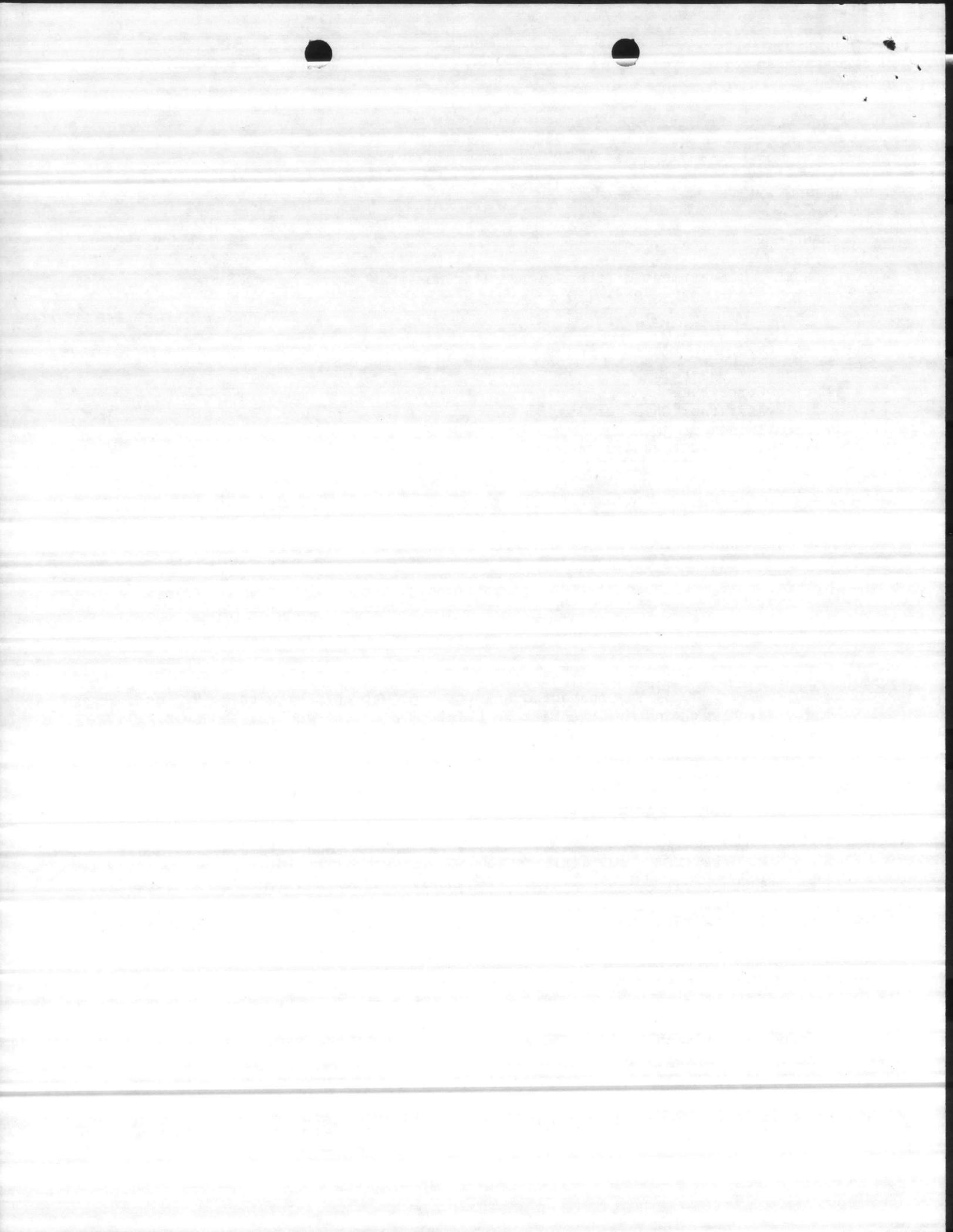
1. On 9 January 1986 Mr. Robert Alexander, Marine Corps Base Environmental Engineer and other members of your staff met with Mr. Hugh Heine of the Corps of Engineers regarding several projects within the Marine Corps Base, Camp Lejeune, Onslow County, North Carolina.

2. During this meeting the following sites were visited:

a. The lift station adjacent to Cogdell's Creek (after-the-fact permit SAWC086-N-067-0023) was inspected and Lt. Ham, Warren Cook with J. W. Cook, Inc., Mr. Black, and Mr. Vic Yeck were informed of the general and special conditions of the Federal permit. As indicated, all fill material (except the area directly adjacent to the lift station) is to be removed from the wetlands. No parking or any other fill material is to be placed and retained in any wetland area. Also, once construction has been completed, the previously filled wetlands will be restored to their elevation and contour.

b. The proposed force main crossing (P-790) of Cogdell's Creek adjacent to the existing sewer treatment plant. The pipeline would cross a 10- to 20-foot wide nontidal creek. As indicated, a pile supported pipeline crossing of the creek would not require a Department of the Army permit. Also, if the pipeline is to be placed below the creek bed, this construction technique may require a Department of the Army permit. Before any work is initiated, please provide us with a copy of the construction plans.

c. The bank stabilization project (Department of the Army permit SAWC082-N-067-0170) site off the New River was also visited. Your staff was informed that no rock riprap is to be pushed from the top of the bank into the water below. All riprap material will consist of rock, concrete, or other clean



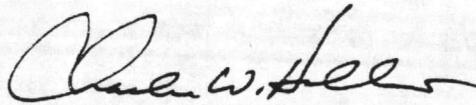
SAWCO-EP

SUBJECT: Department of the Army Permits Nos. SAWC086-N-067-0023 and  
SAWC082-N-067-0170

building rubble. No asphalt is to be used and no marsh or wetlands will be filled as a result of this work. As indicated, the toe of the riprap will not extend any further than 15 feet waterward of the mean high water (MHW) contour. Where the bank subsided and the river material extends further than 15 feet waterward of the MHW contour, the excess riprap material (further out than 15 feet) will be removed. Also, before any new areas are riprapped, the alignment will be delineated by a representative of the Corps of Engineers.

3. If you have any further questions or comments, please contact Mr. Heine at telephone (919) 343-4725 or FTS 671-4725.

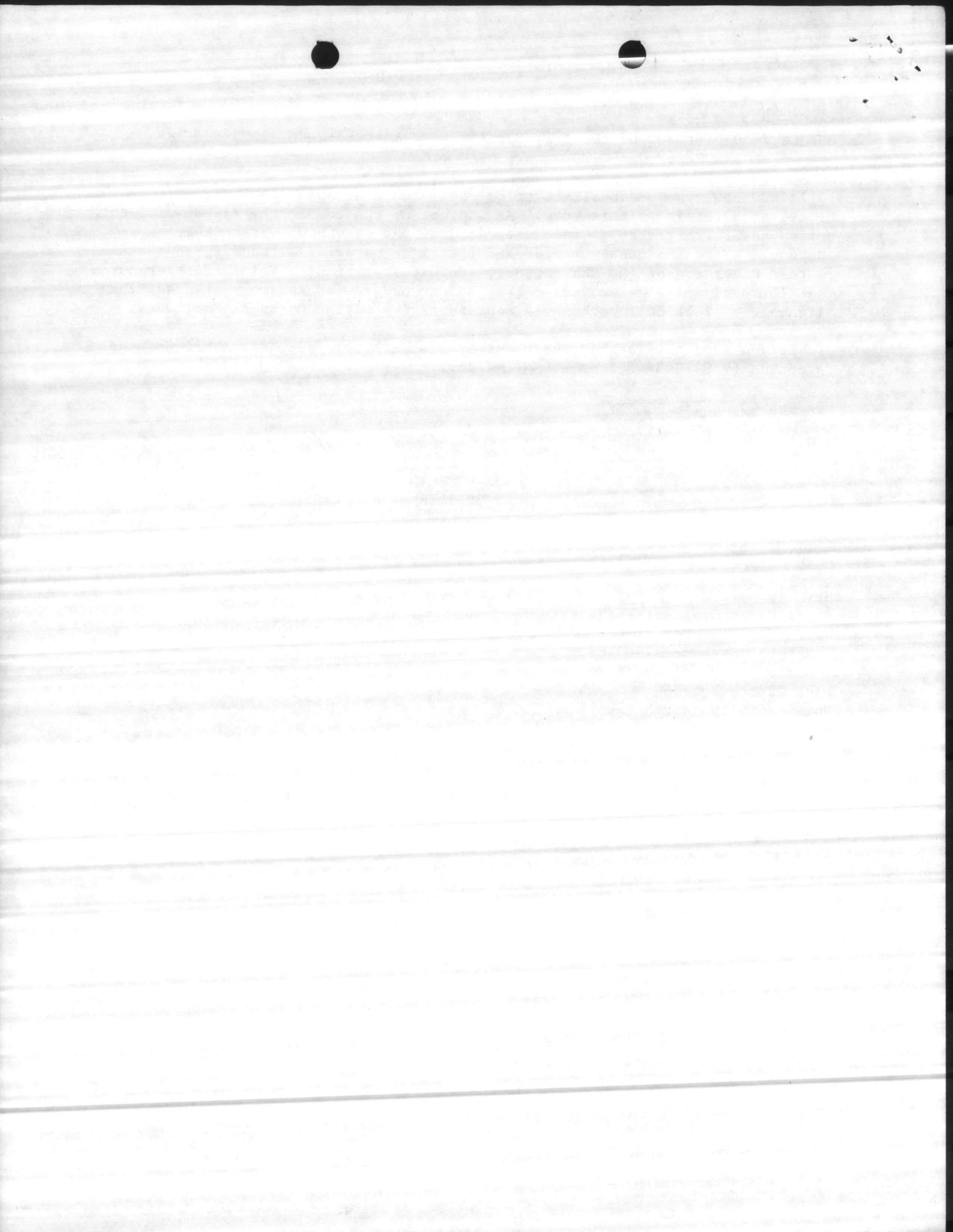
FOR THE COMMANDER:



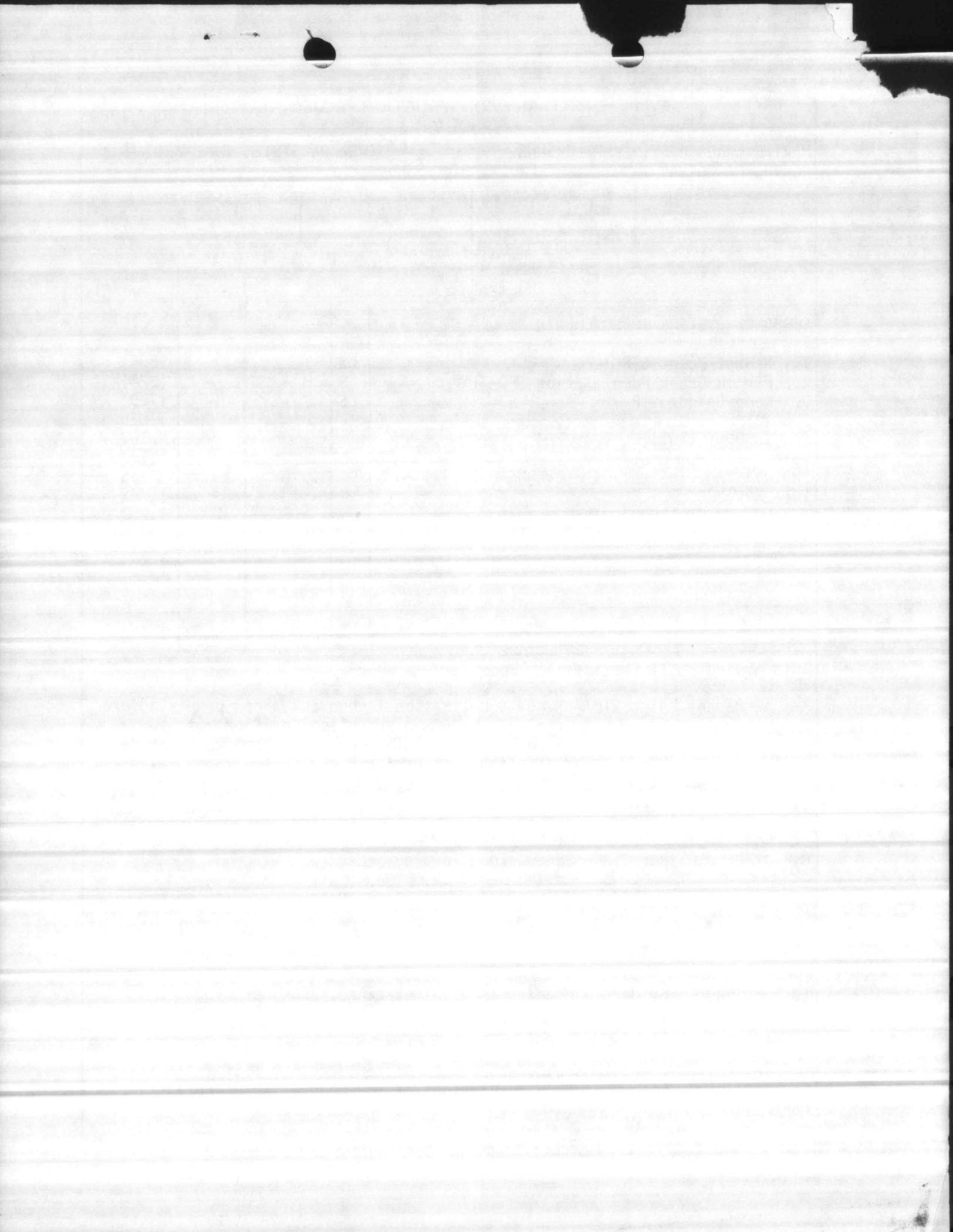
CHARLES W. HOLLIS  
Chief, Regulatory Branch

CF:

Mr. Jim Mercer  
Division of Coastal Management  
North Carolina Department of  
Natural Resources and  
Community Development  
Post Office Box 769  
Morehead City, North Carolina 28557

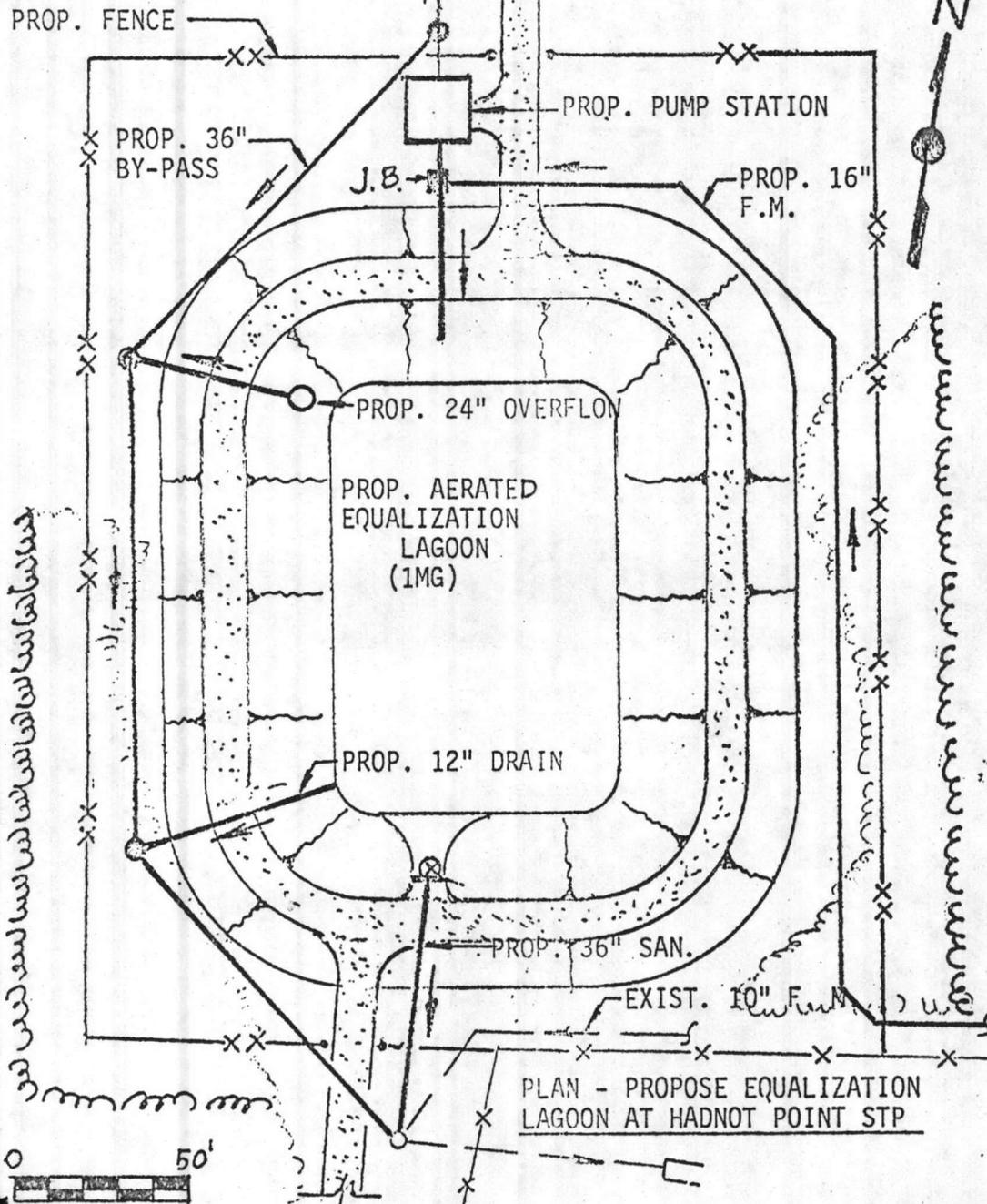


1. COMPONENT NAVY		FY 19 <sup>86</sup> MILITARY CONSTRUCTION PROJECT DATA		2. DATE 1 JULY 1984	
3. INSTALLATION AND LOCATION MARINE CORPS BASE, CAMP LEJEUNE NORTH, CAROLINA			4. PROJECT TITLE SEWERAGE SYSTEM IMPROVEMENTS		
5. PROGRAM ELEMENT		6. CATEGORY CODE 831-09	7. PROJECT NUMBER P-790	8. PROJECT COST (\$000) 1,200	
9. COST ESTIMATES					
ESCALATION 9%		ESCALATED TO ITEM 1 APR 1986		U/M	QUANTITY
				UNIT COST	COST (\$000)
SEWERAGE SYSTEMS IMPROVEMENTS					1,070
1. Hadnot Point STP		LS	-	-	(586)
2. French Creek Pump Station SFC-315		LS	-	-	(324)
3. Camp Geiger STP		LS	-	-	(160)
SUB-TOTAL					1,070
CONTINGENCY (10%)					107
TOTAL CONTRACT COST					1,177
SUPERVISION, INSPECTION & OVERHEAD (5.5%)					65
TOTAL REQUEST					1,242
TOTAL REQUEST (ROUNDED)					1,200
EQUIPMENT PROVIDED FROM OTHER APPROPRIATIONS					0
10. DESCRIPTION OF PROPOSED CONSTRUCTION					
This project will Provide:					
A. At Hadnot Point STP - A new equalization lagoon and a new pump station; 8 new sludge drying beds; replace two pumps and electrical control, disconnects, etc. at main pump station; replace one grit pump and provide 150' of 4" force main; and demolish grit drying beds.					
B. At Pump Station SFC-315 - A new pump station with 2-3000 gpm pumps and approximately 3700' of 14" force main from pump station to Hadnot Point STP.					
C. At Camp Geiger STP - 8 new sludge drying beds.					
11. REQUIREMENT: <u>N/A</u> ADEQUATE: <u>N/A</u> SUBSTANDARD: <u>N/A</u>					
PROJECT:					
Upgrade and expand the sewage collection system and treatment facilities. Provide new construction, alterations, and improvements.					
REQUIREMENT:					
To provide adequate sewage disposal and treatment facilities for the Base to comply with statutory regulations of the Federal Water Pollution Control Act.					



INSTALLATION **MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA** PROJECT TITLE **SEWERAGE SYSTEM IMPROVEMENTS** P- 79

SKETCH AREA

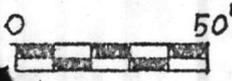


A&E/GF		PLANS AND SPECIFICATIONS	
NAME AND LOCATION	ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND, NORFOLK, VIRGINIA 23511-		
DATES	AWARD	35% COMPLETION	100% COMPLETION

COMPARATIVE COST DATA				
H	OK	L	AREA FACTOR:	UNIT COST (\$)
UNIT COST FOR THIS PROJECT ON DD 1391				
DOD COST REVIEW GUIDE (ADJUSTED)				
OTHER PROJECTS IN THIS PROGRAM (ADJUSTED)				

BUILT-IN EQUIPMENT; FEC DATA; SPECIAL OVERSEAS OVERHEAD COSTS; EXPLAN

PLAN - PROPOSE EQUALIZATION LAGOON AT HADNOT POINT STP



PREPARED BY: Name \_\_\_\_\_ Extension \_\_\_\_\_

APPROVED BY ASSISTANT DIVISION DIRECTOR: CODE \_\_\_\_\_

WILSON  
BACKWASH



DEPARTMENT OF THE NAVY  
ATLANTIC DIVISION  
NAVAL FACILITIES ENGINEERING COMMAND  
NORFOLK, VIRGINIA 23511

TELEPHONE NO.  
444-9670  
IN REPLY REFER TO:

11010  
09A21B3

25 AUG 1984

From: Commander, Atlantic Division, Naval Facilities Engineering Command  
To: Commander, Naval Facilities Engineering Command (Code 05)

Subj: FY 1986 PROJECT ENGINEERING DOCUMENTATION (PED) FOR PROJECT P-790,  
SEWAGE SYSTEM IMPROVEMENTS, MARINE CORPS BASE, CAMP LEJEUNE, NORTH  
CAROLINA

Ref: (a) NAVFACENGCOM ltr 0512A1/AGT of 13 Oct 1983  
(b) NAVFACINST 11010.14N of 4 May 1983  
(c) NAVFACINST 11010.32

Encl: (1) Subject PED with Witness Data Sketch (5 copies)  
(2) Detailed Engineering Cost Estimate (2 copies)  
(3) Project Design and Construction Data

1. As requested by reference (a), enclosures (1), (2), and (3), prepared in accordance with reference (b), are submitted.

2. It is certified that: (a) the PED has been prepared in accordance with reference (b); (b) project scope and cost are the minimum required to satisfy the operational requirements and are supported by current SFPS documentation in accordance with reference (c); (c) the utilities are adequate to support the additional load imposed by the project (d) the facility design is generally acceptable to the Activity Commanding Officer, and satisfies the Activity's requirements; and (e) the DD Form 1391 has been reviewed by both the Activity and LANTNAVFACENGCOM.

3. The budget cost of this project has been reduced to \$800,000 as a result of deleting the Automatic Oil Process Skimming Tank from the scope. Activity concurs that provision of oil separators at pollutant source is a better technical and more economical solution.

4. By copy of this letter, the Commandant of the Marine Corps (Code LFF-1); and the Commanding General, Marine Corps Base, Camp Lejeune; are requested to provide any comments directly to NAVFACENGCOM (attention Code 05) with a copy to LANTNAVFACENGCOM (attention Code 09A2). If no comments are submitted within 30 days, concurrence will be assumed.

E. W. ATKINSON, P. E.  
By direction

Copy to: (w/2 copies encl (1))  
CMC WASHINGTON  
MCB CAMP LEJEUNE

25 AUG 1984



Subj: FY 1986 MCON Project Design and Construction Data; submission of

1. The following information is submitted for MCON Project:

<u>P-790</u> P-No.	<u>SEWAGE SYSTEM IMPROVEMENTS</u> Title	<u>MCB CAMP LEJEUNE NC</u> Activity
-----------------------	--------------------------------------------	----------------------------------------

a. Design dates: (Express date as month-year, i.e. 1-83)

Start Date 11-83 (Actual A/E contract date or in-house work start date)

% as of 1 Jan 60 % (anticipated % complete upon congressional submission; if less than 35%, provide statement on reverse side)

% as of 1 Oct 100 % (anticipated % complete at beginning of fiscal year of execution)

Complete date 4-84 (p&s complete and ready to reproduce for advertisement, actual or scheduled date)

35% submit date 8-84 (actual or scheduled date)

b. Design type

Unique design for this job only, or

"Standard" design.

If standard design, indicate type and identify:

Conceptual Definitive (P-272, Part I) \_\_\_\_\_

Detailed Definitive (P-272, Part II) \_\_\_\_\_

Standard Construction Drawing/Specification (P-34) \_\_\_\_\_

Site Adaptation

(Identify specific definitive or standard as listed in applicable publication, or identify project and location of site adapted design.)

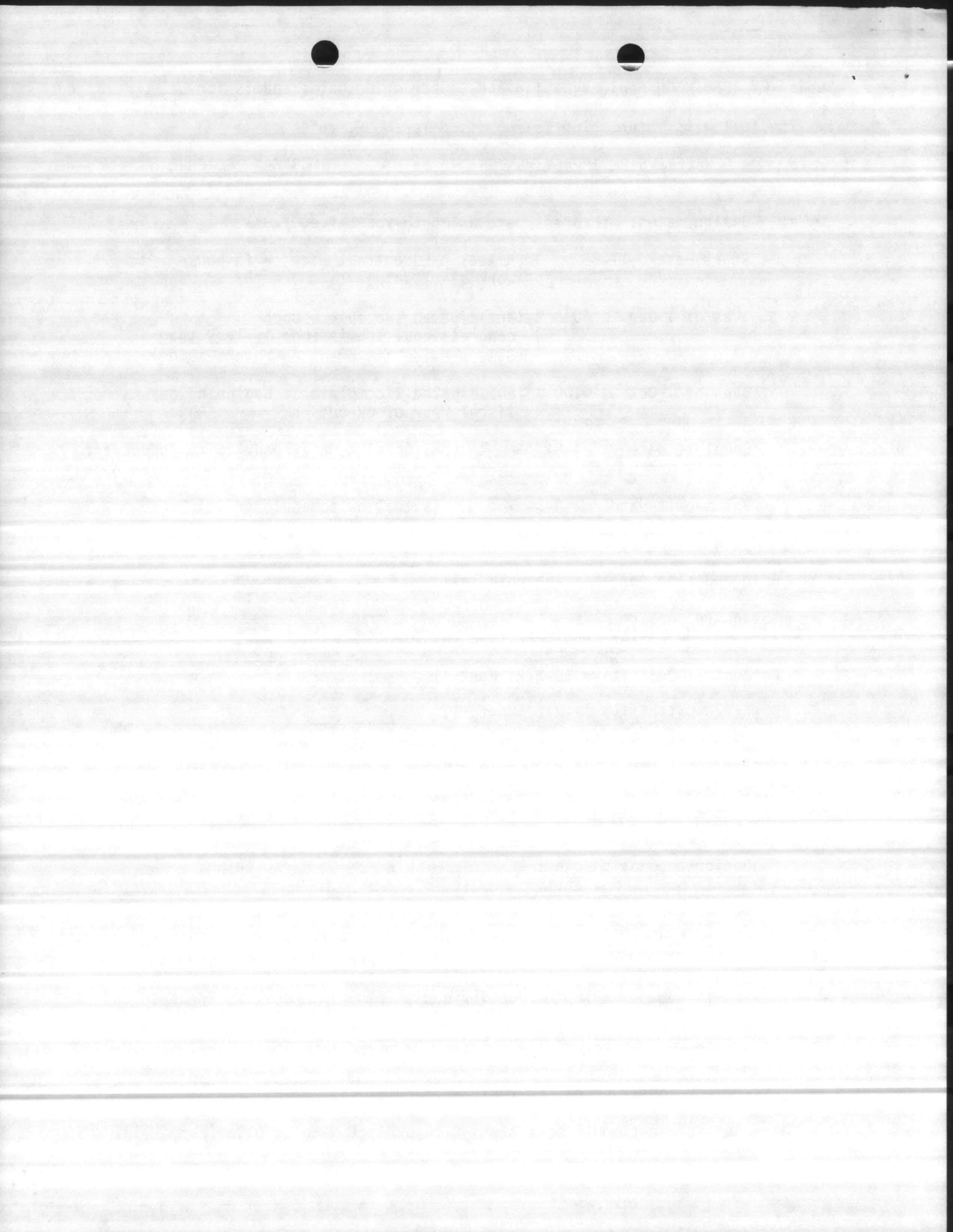
c. Design accomplished by:  A/E  In-house

d. Design Cost (\$000):

- 29,000 Production of plans and specs (costs included within the six percent statutory cost limitations).
- 14,000 All other design costs (other A/E costs & In-house costs)
- 43,000 Total (1) + (2) which also equals (4) + (5)
- 0- All contract costs
- 43,000 All In-house costs

e. Project construction contract award date: 12-85

2. The above information is consistent with project Witness Data (Form W-1).



DEPARTMENT OF THE NAVY

PROJECT ENGINEERING DOCUMENTATION

SEWERAGE SYSTEM IMPROVEMENTS

(P-790)

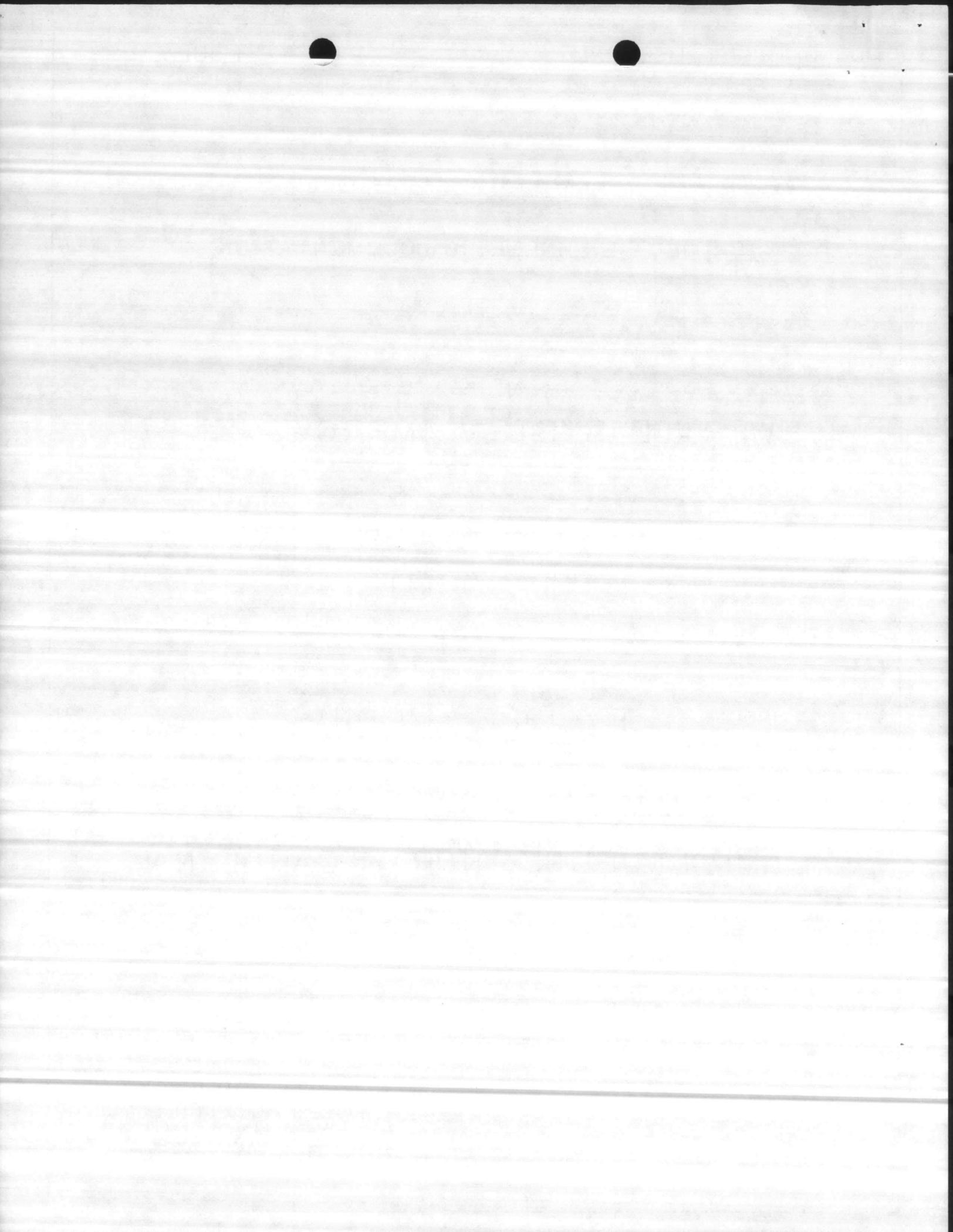
FY 1986 MCON

MARINE CORPS BASE

CAMP LEJEUNE, NORTH CAROLINA

PREPARED BY:

ATLANTIC DIVISION  
NAVAL FACILITIES  
ENGINEERING COMMAND  
NORFOLK, VA. 23511



1. COMPONENT NAVY	FY 19 <u>86</u> MILITARY CONSTRUCTION PROJECT DATA	2. DATE 1 JULY 1984
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3. INSTALLATION AND LOCATION MARINE CORPS BASE CAMP LEJENUE, NORTH CAROLINA	4. PROJECT TITLE SEWERAGE SYSTEM IMPROVEMENTS
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5. PROGRAM ELEMENT	6. CATEGORY CODE 831-09	7. PROJECT NUMBER P-790	8. PROJECT COST (\$000) 800
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9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
SEWERAGE SYSTEMS IMPROVEMENTS				700
1. Hadnot Point STP	LS	-	-	(216)
2. French Creek Pump Station SFC-315	LS	-	-	(324)
3. Camp Geiger STP	LS	-	-	(160)
SUB-TOTAL				700
CONTINGENCY (10 %)				70
TOTAL CONTRACT COST				770
SUPERVISION, INSPECTION & OVERHEAD (5.5%)				42
TOTAL REQUEST				812
TOTAL REQUEST (ROUNDED)				800
EQUIPMENT PROVIDED FROM OTHER APPROPRIATIONS				0

10. DESCRIPTION OF PROPOSED CONSTRUCTION

This project will Provide:

A. At Hadnot Point STP - 8 new sludge drying beds; replace two pumps and electrical control, disconnects, etc. at main pump station; replace one grit pump and provide 150' of 4" force main; and demolish chlorine contact chamber and grit drying beds.

B. At Pump Station SFC-315 - A new pump station with 2-3000 gpm pumps and approximately 3700' of 14" force main from pump station to Hadnot Point STP.

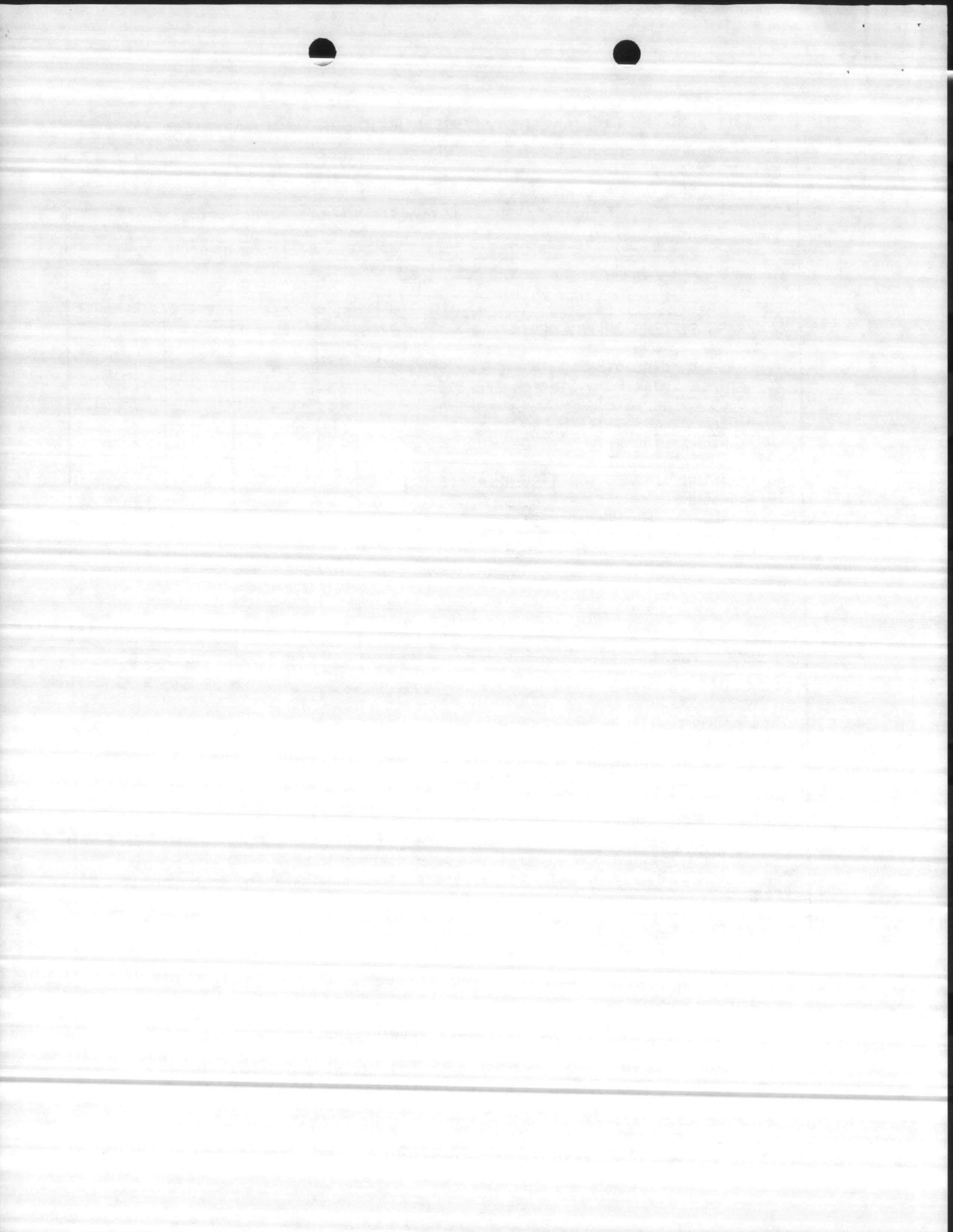
C. At Camp Geiger STP - 8 new sludge drying beds.

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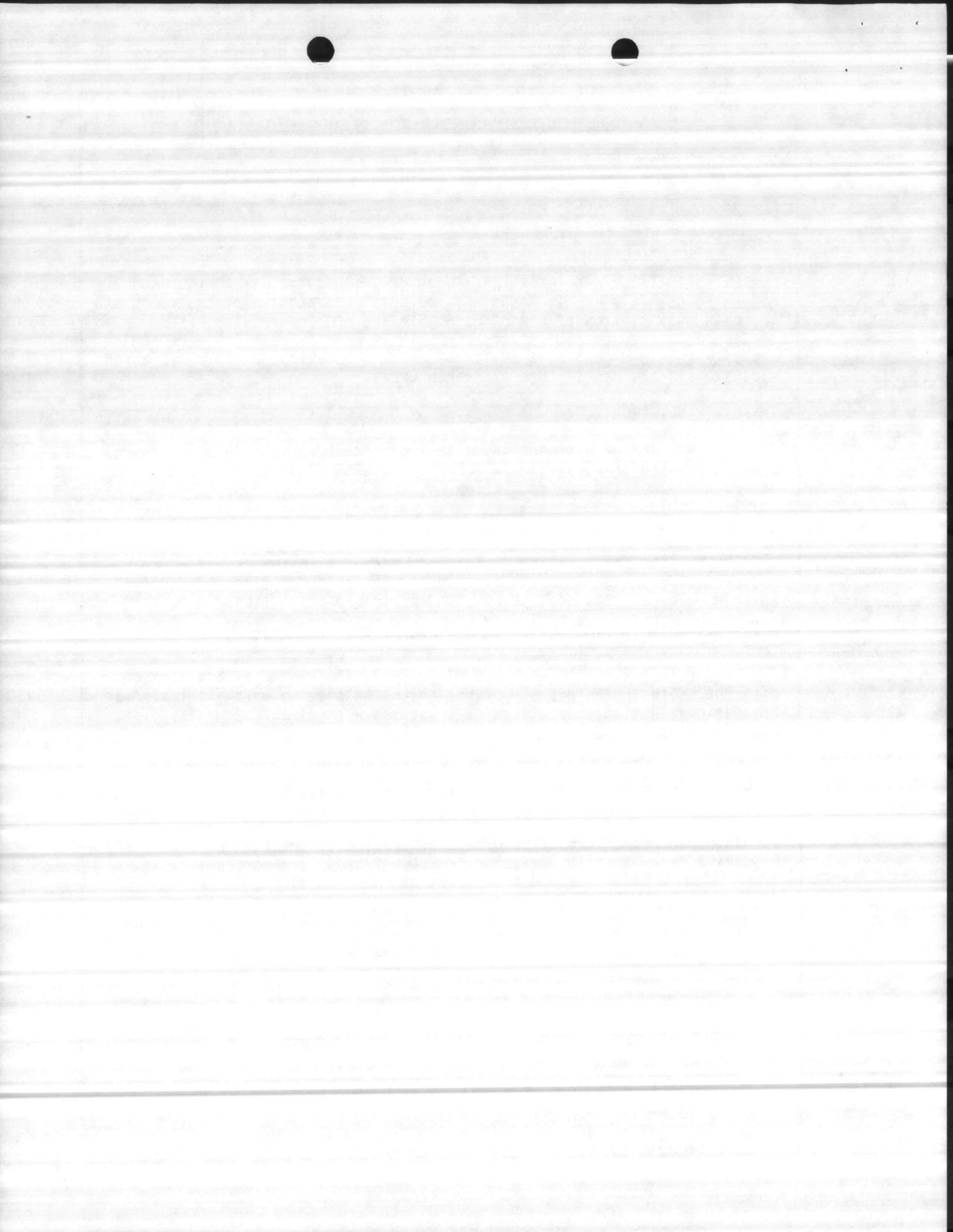
11. REQUIREMENT: N/A Adequate: N/A Substandard: N/A

PROJECT: Upgrade and expand the sewage collection system and treatment facilities. Provide new construction, alterations, and improvements.

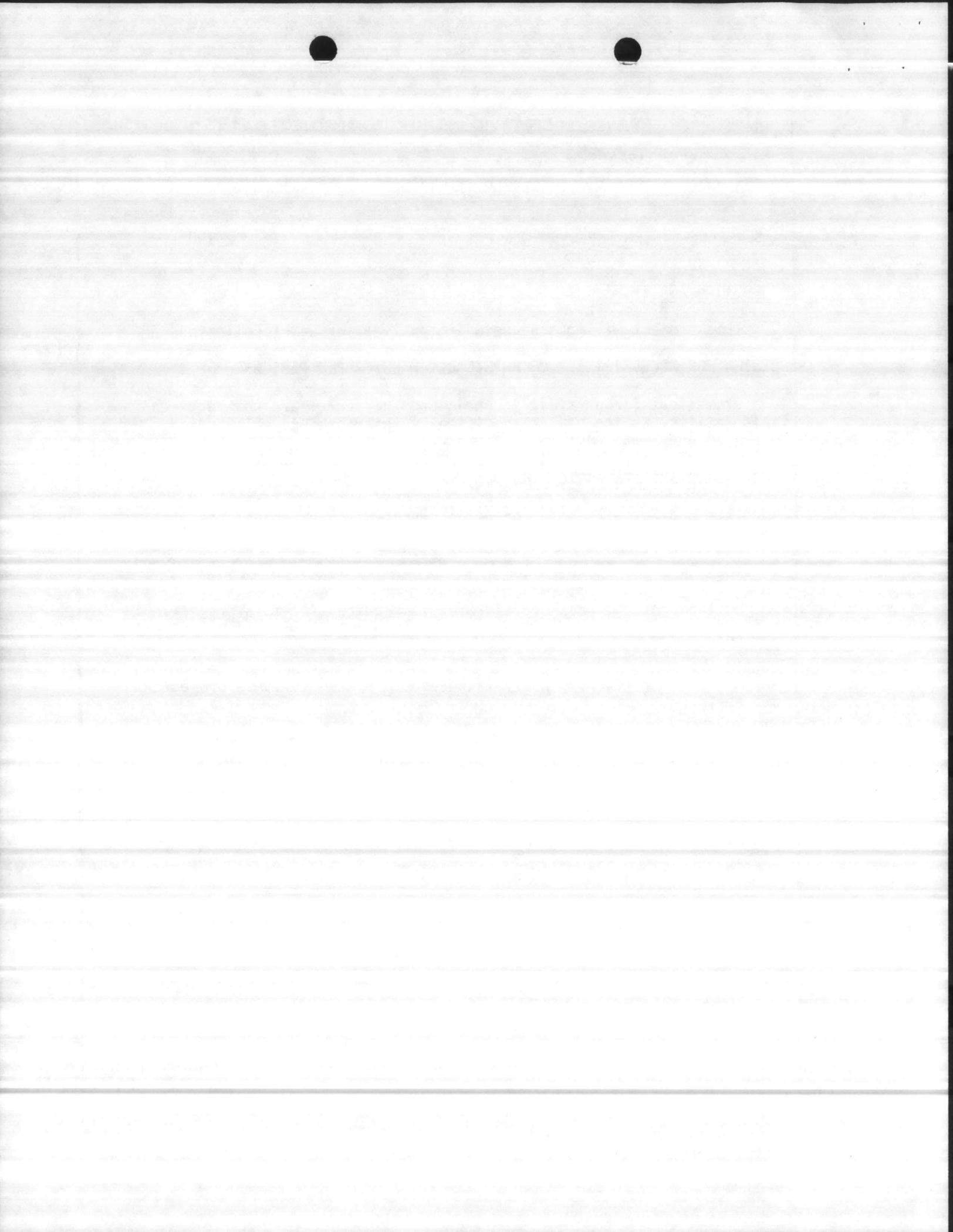
REQUIREMENTS: To provide adequate sewage disposal and treatment facilities for the Base to comply with statutory regulations of the Federal Water Pollution Control Act.



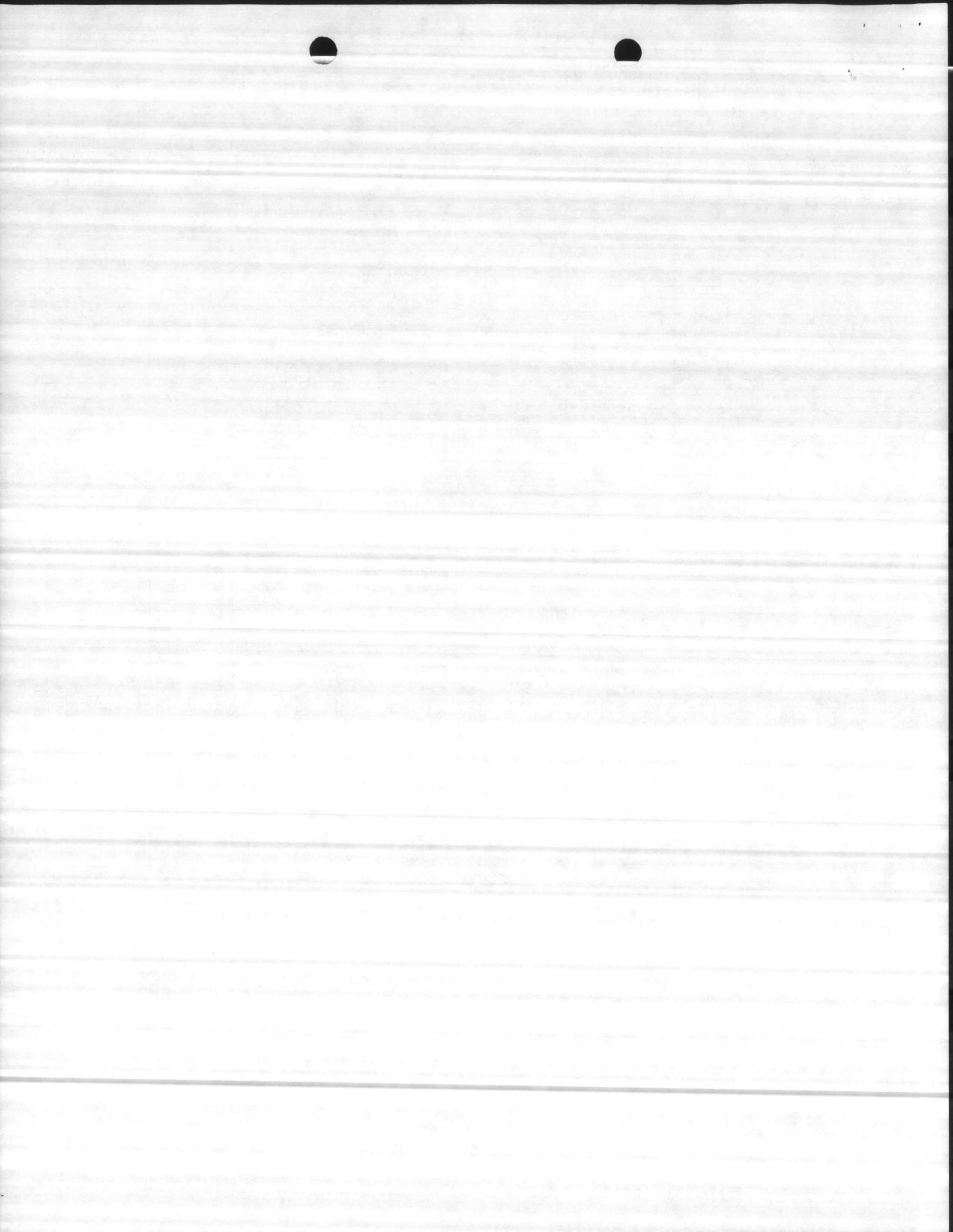
1. COMPONENT NAVY	FY 19 <u>86</u> MILITARY CONSTRUCTION PROJECT DATA	2. DATE 1 JULY 1984
3. INSTALLATION AND LOCATION MARINES CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA		
4. PROJECT TITLE SEWERAGE SYSTEM IMPROVEMENTS		5. PROJECT NUMBER P-790
<p><b>CURRENT SITUATION:</b> The existing sludge drying beds at Camp Geiger and Hadnot Point STP's are inadequate. The grit pump and two of the pumps at the main pump station at Hadnot Point STP are old and require replacement. Sewage pump station SFC-315 at French Creek is operating at capacity and in urgent need of larger capacity station due to the planned expansion in the near future at French Creek.</p> <p><b><u>IMPACT IF NOT PROVIDED:</u></b></p> <p>Inadequate and/or malfunctioning equipment could result in surcharging and/or flooding of facilities which could create a potential health hazard and damage to the facilities.</p> <p><b><u>ENVIRONMENTAL PROTECTION</u></b></p> <p>The project Environmental Assessment has been reviewed, and where required, the design concepts give consideration to eliminating adverse environmental effects consistent with applicable directives.</p> <p><b><u>PRESERVATION OF HISTORICAL SITES AND STRUCTURES</u></b></p> <p>The project facilities do not directly or indirectly affect a district, site, building, structure, object or setting which is listed in the National Register or otherwise possesses a significant quality of American history.</p> <p><b><u>FLOODPLAIN MANAGEMENT AND WETLANDS PROTECTION</u></b></p> <p><b>FLOOD HAZARDS EVALUATION</b></p> <p>Requirements of Executive Order No. 11988 (Floodplain Management) and Executive Order No. 11990 (Protection of Wetlands) are not applicable.</p> <p><b>COASTAL ZONE MANAGEMENT</b></p> <p>In accordance with the Coastal Zone Management Act of 1972 (as amended), this project will not directly affect the coastal zone and a coastal consistency determination is not required.</p>		



1. COMPONENT NAVY	FY 1986 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 1 JULY 1984
3. INSTALLATION AND LOCATION MARINES CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA		
4. PROJECT TITLE SEWERAGE SYSTEM IMPROVEMENTS	5. PROJECT NUMBER P-790	
<p><u>POLLUTION ABATEMENT</u></p> <p>This project will not cause additional air or water pollution.</p> <p><u>DESIGN FOR ACCESSIBILITY OF PHYSICALLY HANDICAPPED PERSONNEL</u></p> <p>Provisions for physically handicapped personnel are not required in this facility as its use is specifically restricted to able-bodied personnel.</p> <p><u>ENDANGERED SPECIES PROTECTION</u></p> <p>This project will not jeopardize conservation of endangered or threatened species.</p> <p><u>INTERGOVERNMENTAL COORDINATION</u></p> <p>No Intergovernmental coordination is required for this project.</p> <p><u>ECONOMIC ANALYSIS</u></p> <p>A secondary economic analysis was not prepared for this project at 35% design.</p>		







COLLATERAL EQUIPMENT REQUIREMENTS (Initial Outfitting)  
 EANTDIV NQRVA 4-11010/6 (Rev.11/81)

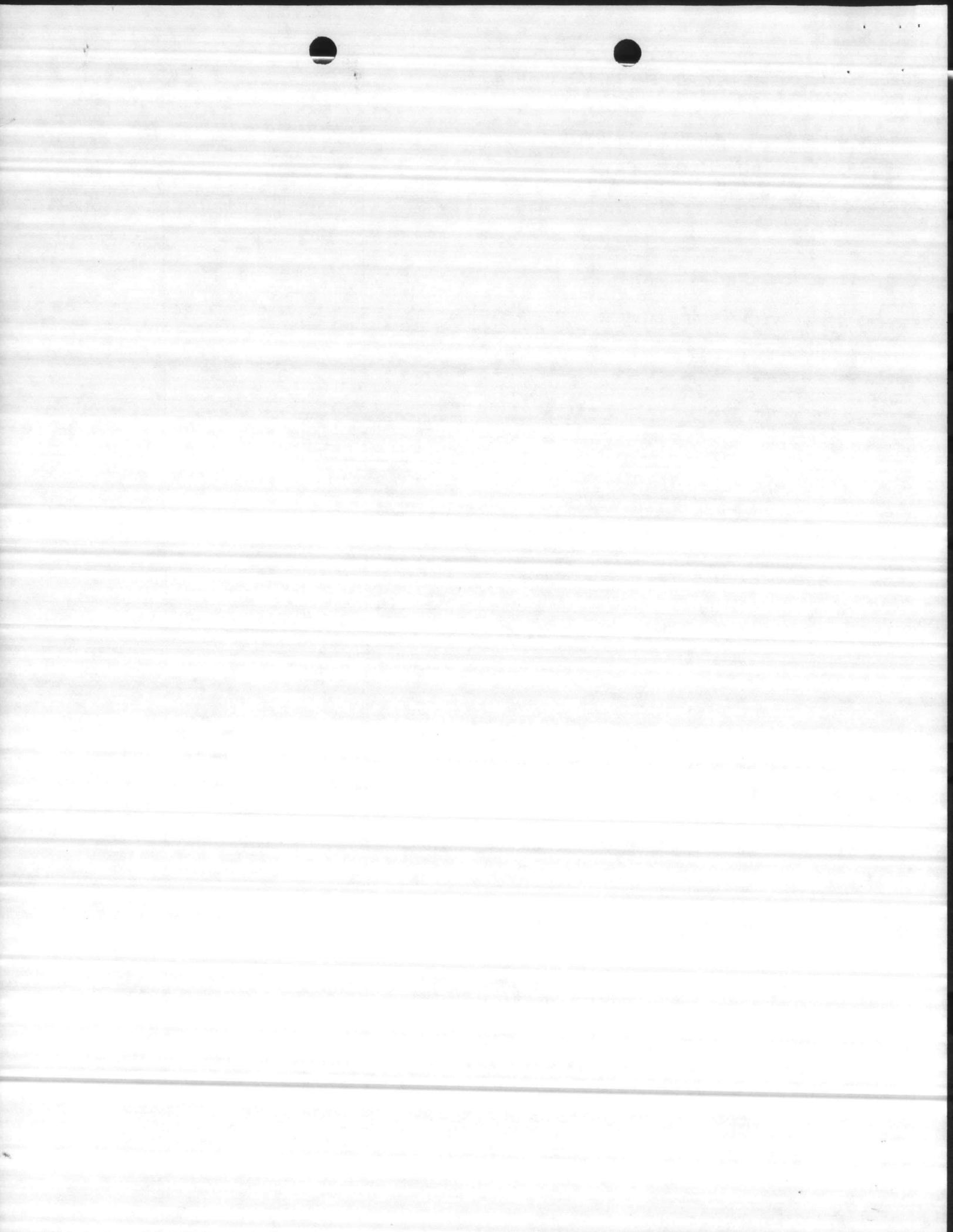
DATE 1 July 1984

1. ACTIVITY (Name and Location)  
 MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA

2. PROJECT TITLE  
 SEWERAGE SYSTEM IMPROVEMENTS

P. NO. P-790

COG. SYMBOL AND FED. STOCK NO. OR OTHER SOURCE	ITEM/EQUIPMENT DESCRIPTION	QUAN- TITY	UNIT OF ISSUE	UNIT PRICE	TOTAL COST
No Collateral Equipment Required in support of this project.					



INSTALLATION <b>MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA</b>		PROJECT TITLE <b>SEWERAGE SYSTEM IMPROVEMENTS</b>		P-790	DATE <b>1 JULY 1984</b>
SKETCH AREA 	PROPOSED PROJECT LOCATION, CAMP GEIGER		<b>A&amp;E/GF</b> NAME AND LOCATION <b>ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA 23511</b>		<b>CONSTR</b> AWARD DATE (Est.) MONTHS <b>12</b> BOD
	PROPOSED PROJECT LOCATION, HADNOT POINT		DATES AWARD      35% COMPLETION      100% COMPLETION		DESIGN PROGRESS INFO PROVIDED CONGRESS START DATE: _____ COMPLETION DATE: _____ COMPLETE 1 JAN: _____ % COMPLETE 1 OCT: _____ %
	LOCATION MAP 		<b>COMPARATIVE COST DATA</b> H    OK    L    AREA FACTOR:    UNIT COST (\$) UNIT COST FOR THIS PROJECT ON DD 1391 DOD COST REVIEW GUIDE (ADJUSTED) OTHER PROJECTS IN THIS PROGRAM (ADJUSTED)		<b>ENGINEERING DATA</b> DD 1391 COST PROJECTION DATA INCREASE - TOTAL    PROJECTION DATES (From - To) % INCREASE/MONTH    INDEX SOURCE % SITE CONDITION. SPECIAL DESIGN CONSIDERATIONS, TECHNICAL PROBLEMS, ETC. OTHER THAN SHOWN ON DD 1391
VICINITY MAP SCALE 1" = 4000' 0    4000    8000    12000					
BUILT-IN EQUIPMENT; FEC DATA; SPECIAL OVERSEAS OVERHEAD COSTS; EXPLANATION OF DEMOLITION					



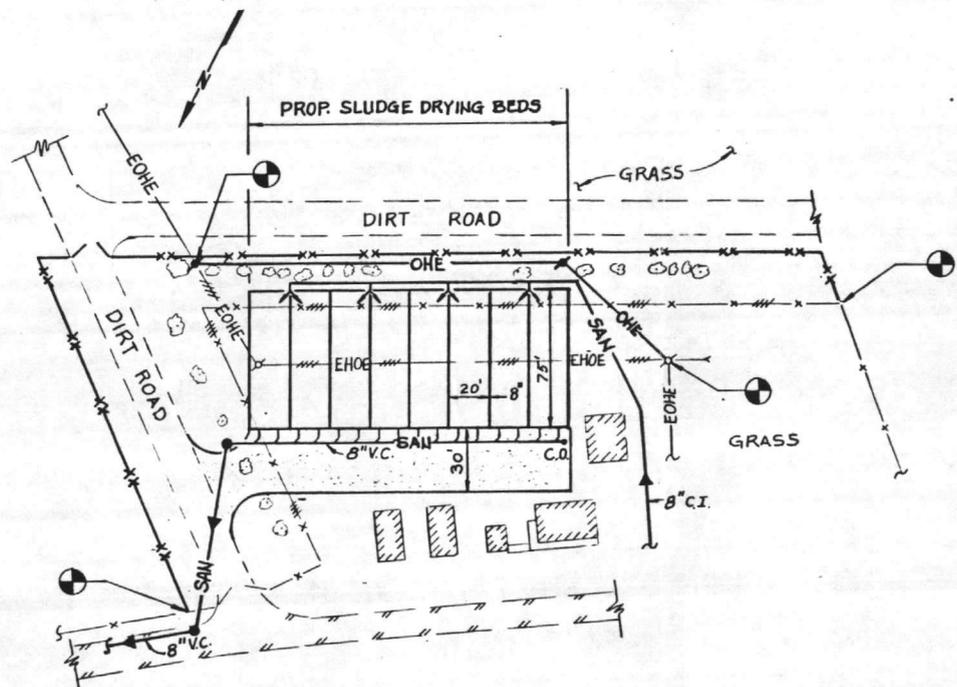
INSTALLATION  
MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA

PROJECT TITLE  
SEWERAGE SYSTEM IMPROVEMENTS

P-790

DATE  
1 July 1984

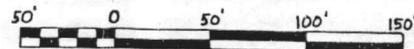
SKETCH AREA



PLAN—PROPOSED SLUDGE DRYING BEDS  
AT HADNOT POINT SEWERAGE TREATMENT PLANT

LEGEND

EXISTING	PROPOSED	DESCRIPTION
—ESAN—	—SAN—	SANITARY MANHOLE
○	●	POWER POLE
—x—x—	—xx—xx—	FENCE
—x//—x//—		FENCE TO BE REMOVED
⌒⌒⌒⌒⌒	⌒⌒⌒⌒⌒	WOODS LINE
C.O. ○	C.O. —	CLEAN-OUT
—EOHE—	—OHE—	OVERHEAD ELECTRICAL
///EOHE///		OVERHEAD ELECTRICAL TO BE REMOVED
○		TREE
▨		PAVEMENT
▨		BUILDING
	○—	CONNECTING POINT TO EXISTING



A&E/GF	PLANS AND SPECIFICATIONS	CONSTR	DESIGN PROGRESS INFO PROVIDED CONGRESS
NAME AND LOCATION	ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA 23511	AWARD DATE (Est.)	START DATE: _____
DATES	AWARD 35% COMPLETION 100% COMPLETION	MONTHS 12	COMPLETION DATE: _____
		BOD	COMPLETE 1 JAN: _____ %
			COMPLETE 1 OCT: _____ %

COMPARATIVE COST DATA			ENGINEERING DATA	
H	OK	L	AREA FACTOR:	UNIT COST (\$)
UNIT COST FOR THIS PROJECT ON DD 1391				
DOD COST REVIEW GUIDE (ADJUSTED)				
OTHER PROJECTS IN THIS PROGRAM (ADJUSTED)				
			DD 1391 COST PROJECTION DATA	
			INCREASE--TOTAL	PROJECTION DATES (From-- To)
			%	
			INCREASE-MONTH	INDEX SOURCE
			%	
			SITE CONDITION, SPECIAL DESIGN CONSIDERATIONS, TECHNICAL PROBLEMS, ETC. OTHER THAN SHOWN ON DD 1391	

BUILT-IN EQUIPMENT; FCC DATA; SPECIAL OVERSEAS OVERHEAD COSTS; EXPLANATION OF DEMOLITION



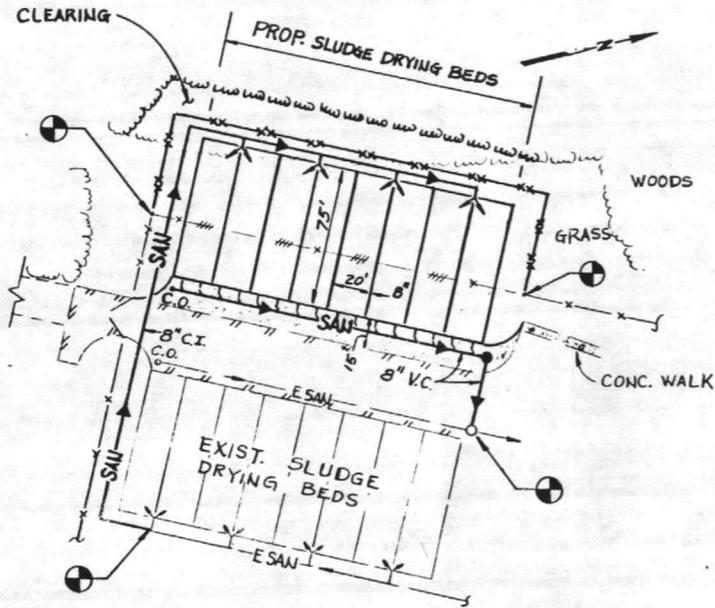
INSTALLATION  
MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA

PROJECT TITLE  
SEWERAGE SYSTEM IMPROVEMENTS

P-790

DATE  
1 July 1984

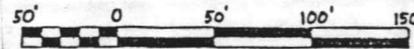
SKETCH AREA



PLAN — PROPOSED SLUDGE DRYING BEDS  
AT CAMP GEIGER SEWAGE TREATMENT PLANT

LEGEND

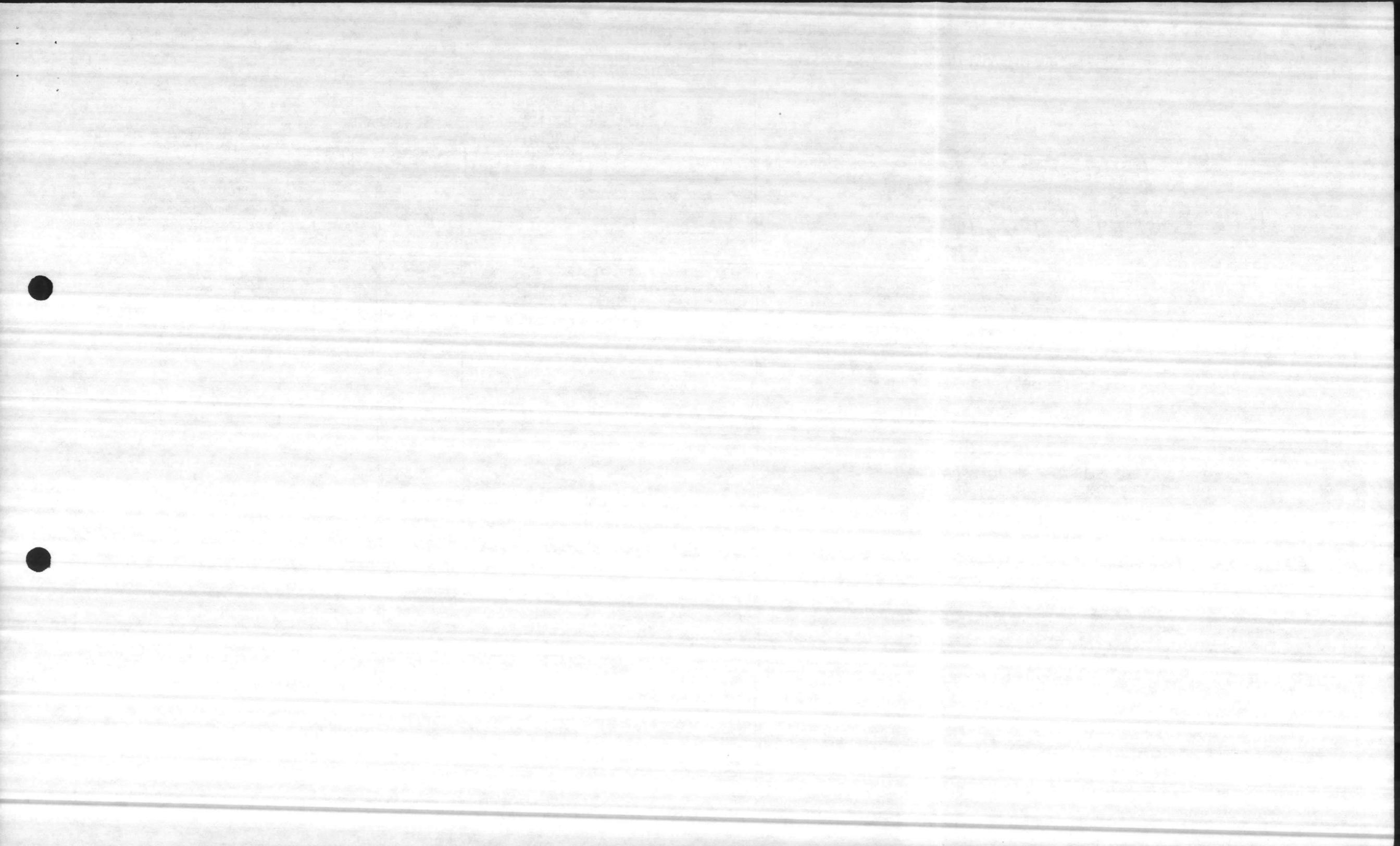
EXISTING	PROPOSED	DESCRIPTION
— ESAH —	— SAN —	SAUNTRY
○	●	MANHOLE
⊙	⊙	POWER POLE
—x—x—	—xx—xx—	FENCE
—x///x—		FENCE TO BE REMOVED
ωωωωω	ωωωωω	WOODS LINE
C.O. ○	C.O. ○	CLEAN-OUT
—EOHE—	—OHE—	OVERHEAD ELECTRICAL
—EOHE—		OVERHEAD ELECTRICAL TO BE REMOVED
⊙		TREE
		PAVEMENT
▨		BUILDING
⊕		CONNECTING POINT TO EXISTING



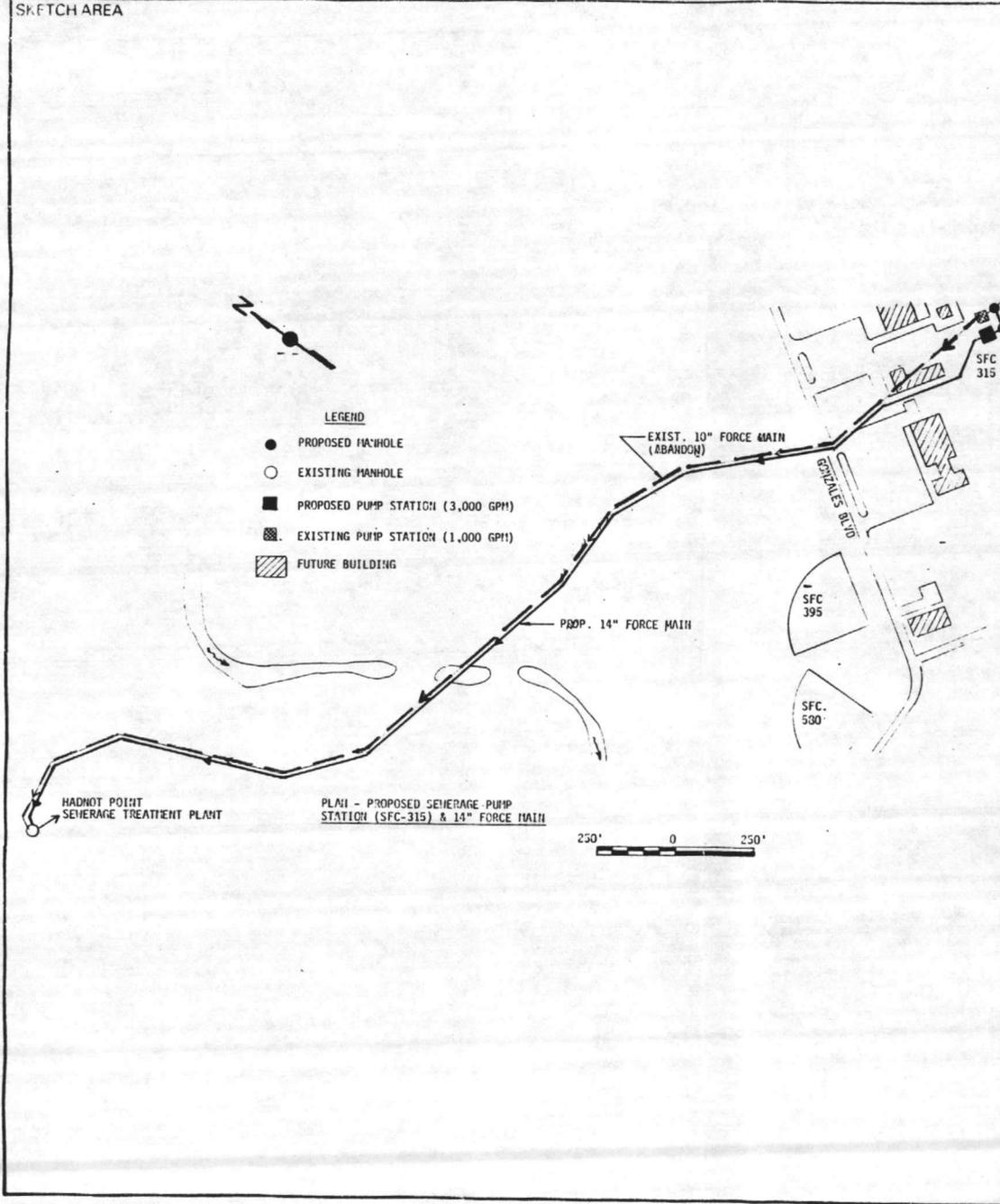
A&E/GF	PLANS AND SPECIFICATIONS			CONSTR	DESIGN PROGRESS INFO PROVIDED CONGRESS
NAME AND LOCATION	ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA 23511			AWARD DATE (Est.)	START DATE: _____
DATES	AWARD	35% COMPLETION	100% COMPLETION	MONTHS 12	COMPLETION DATE: _____
				BOD	COMPLETE 1 JAN: _____ %
					COMPLETE 1 OCT: _____ %

COMPARATIVE COST DATA			ENGINEERING DATA	
H	OK	L	AREA FACTOR:	UNIT COST (\$)
			UNIT COST FOR THIS PROJECT ON DD 1391	
			DOD COST REVIEW GUIDE (ADJUSTED)	
			OTHER PROJECTS IN THIS PROGRAM (ADJUSTED)	
			DD 1391 COST PROJECTION DATA	
			INCREASE--TOTAL	PROJECTION DATES (From-- To)
			INCREASE-MONTH	INDEX SOURCE
			SITE CONDITION. SPECIAL DESIGN CONSIDERATIONS, TECHNICAL PROBLEMS, ETC. OTHER THAN SHOWN ON DD 1391	

BUILT-IN EQUIPMENT; FEC DATA; SPECIAL OVERSEAS OVERHEAD COSTS; EXPLANATION OF DEMOLITION



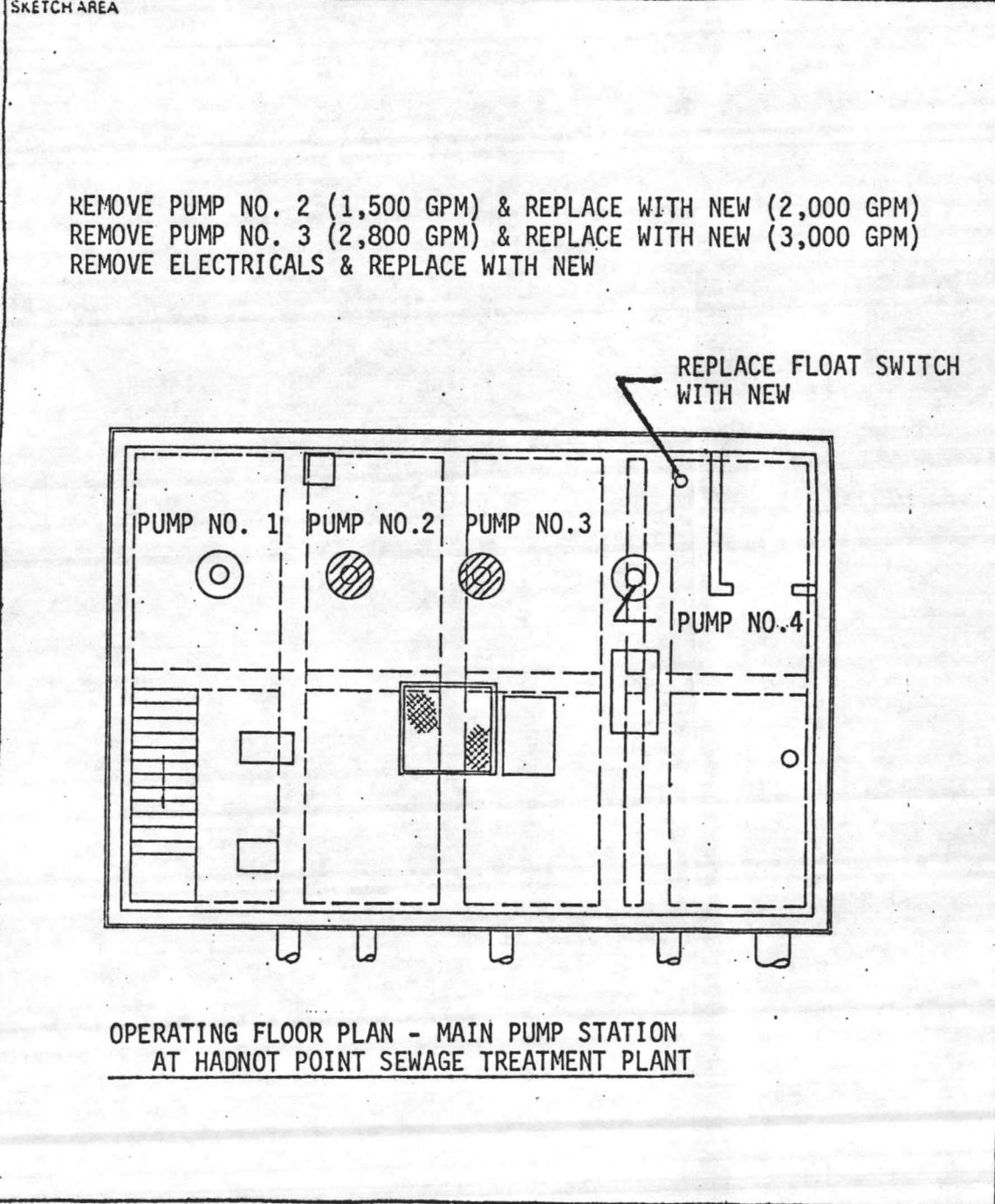
INSTALLATION <b>MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA</b>	PROJECT TITLE <b>SEWERAGE SYSTEM IMPROVEMENTS</b>	P-790	DATE <b>1 July 1984</b>
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A&E/GF	PLANS AND SPECIFICATIONS	CONSTR	DESIGN PROGRESS INFO PROVIDED CONGRESS
NAME AND LOCATION	ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA 23511	AWARD DATE (Est.) MONTHS <b>12</b>	START DATE: _____ COMPLETION DATE: _____ COMPLETE 1 JAN. _____ % COMPLETE 1 OCT. _____ %
DATES	AWARD 35% COMPLETION 100% COMPLETION	BOD	
COMPARATIVE COST DATA		ENGINEERING DATA	
H	OK	L	DD 1391 COST PROJECTION DATA
AREA FACTOR:		UNIT COST (\$)	INCREASE - TOTAL %
UNIT COST FOR THIS PROJECT ON DD 1391			PROJECTION DATES (From - To)
DOD COST REVIEW GUIDE (ADJUSTED)			INCREASE/MONTH %
OTHER PROJECTS IN THIS PROGRAM (ADJUSTED)			INDEX SOURCE
		SITE CONDITION, SPECIAL DESIGN CONSIDERATIONS, TECHNICAL PROBLEMS, ETC. OTHER THAN SHOWN ON DD 1391	
BUILT-IN EQUIPMENT; FEC DATA; SPECIAL OVERSEAS OVERHEAD COSTS; EXPLANATION OF DEMOLITION			



INSTALLATION <b>MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA</b>	PROJECT TITLE <b>SEWERAGE SYSTEM IMPROVEMENTS</b>	P-790	DATE <b>1 July 1984</b>
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A&E/GF	PLANS AND SPECIFICATIONS	CONSTR	DESIGN PROGRESS INFO PROVIDED CONGRESS
NAME AND LOCATION	ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA 23511	AWARD DATE (Est.)	START DATE: _____
DATES	AWARD      35% COMPLETION      100% COMPLETION	MONTHS <b>12</b>	COMPLETION DATE: _____
		BOD	COMPLETE 1 JAN: _____ % COMPLETE 1 OCT: _____ %

COMPARATIVE COST DATA			ENGINEERING DATA	
H	OK	L	AREA FACTOR:	UNIT COST (\$)
			UNIT COST FOR THIS PROJECT ON DD 1391	
			DOD COST REVIEW GUIDE (ADJUSTED)	
			OTHER PROJECTS IN THIS PROGRAM (ADJUSTED)	
			DD 1391 COST PROJECTION DATA	
			INCREASE--TOTAL	PROJECTION DATES (From-- To)
			%	
			INCREASE-MONTH	INDEX SOURCE
			%	
			SITE CONDITION, SPECIAL DESIGN CONSIDERATIONS, TECHNICAL PROBLEMS, ETC. OTHER THAN SHOWN ON DD 1391	

BUILT-IN EQUIPMENT; FEC DATA; SPECIAL OVERSEAS OVERHEAD COSTS; EXPLANATION OF DEMOLITION



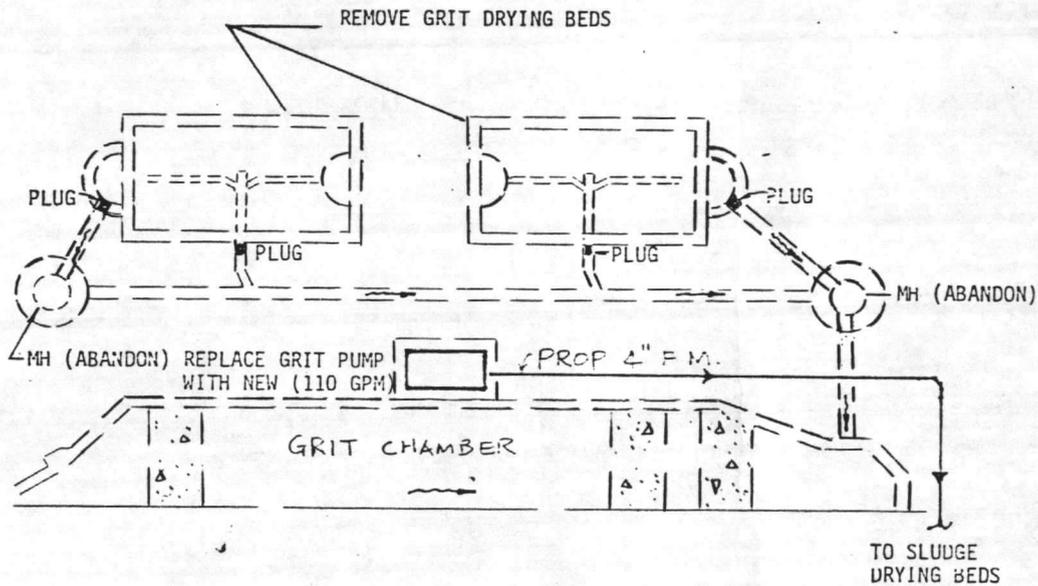
INSTALLATION  
MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA

PROJECT TITLE  
SEWERAGE SYSTEM IMPROVEMENTS

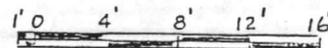
P-790

DATE  
1 July 1984

SKETCH AREA



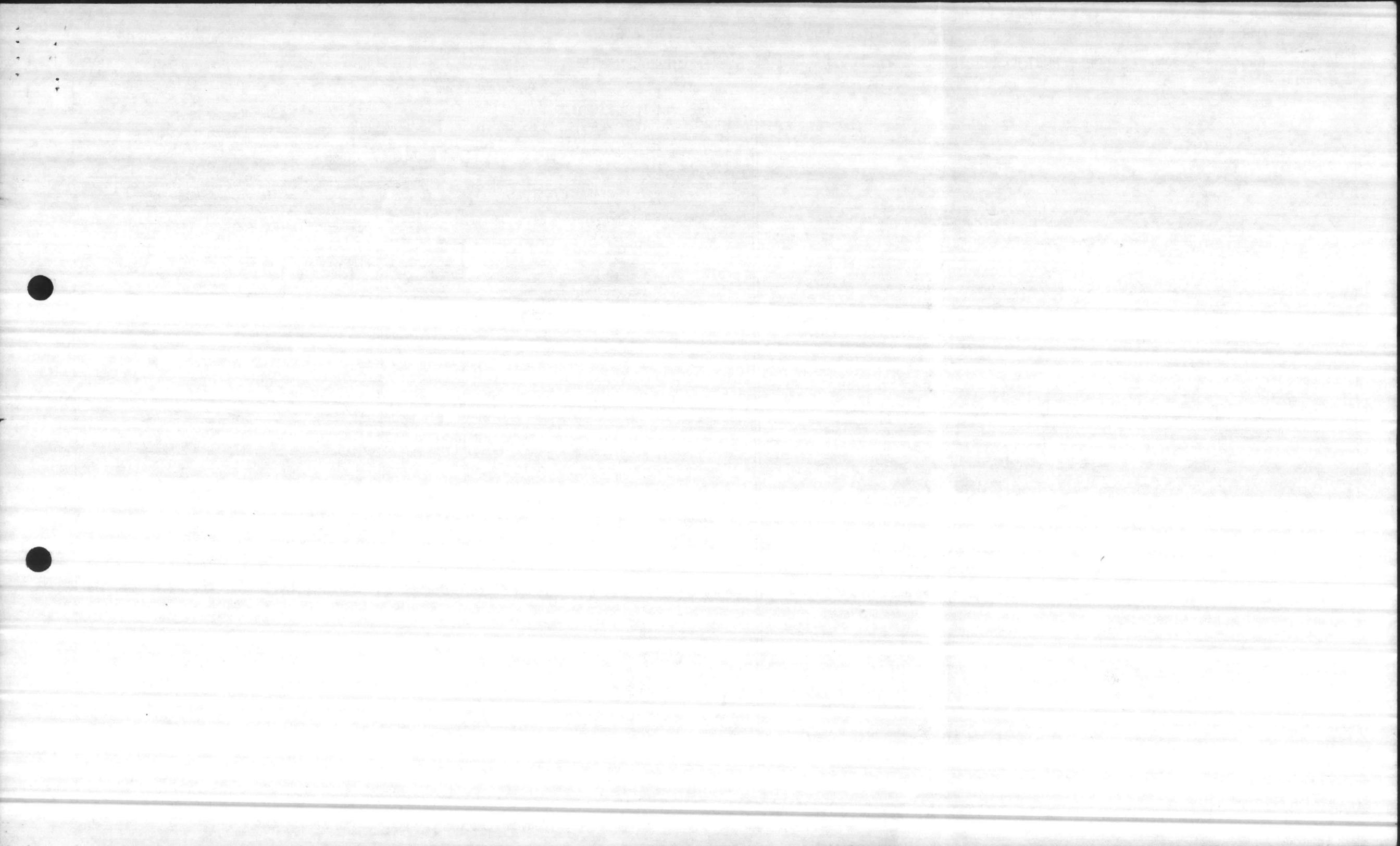
PARTIAL PLAN - GRIT CHAMBER & GRIT DRYING BEDS  
AT HADNOT POINT SEWAGE TREATMENT PLANT



A&E/GF	PLANS AND SPECIFICATIONS		CONSTR	DESIGN PROGRESS INFO PROVIDED CONGRESS
NAME AND LOCATION	ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA 23511		AWARD DATE (Est.)	START DATE: _____
DATES	AWARD	35% COMPLETION	MONTHS 12	COMPLETION DATE: _____
		100% COMPLETION	BOD	COMPLETE 1 JAN: _____ %
				COMPLETE 1 OCT: _____ %

COMPARATIVE COST DATA		ENGINEERING DATA	
H	OK	L	AREA FACTOR:
UNIT COST FOR THIS PROJECT ON DD 1391		UNIT COST (\$)	
DOD COST REVIEW GUIDE (ADJUSTED)		DO 1391 COST PROJECTION DATA	
OTHER PROJECTS IN THIS PROGRAM (ADJUSTED)		INCREASE--TOTAL	PROJECTION DATES (From - To)
		INCREASE/MONTH	INDEX SOURCE
		SITE CONDITION, SPECIAL DESIGN CONSIDERATIONS, TECHNICAL PROBLEMS, ETC. OTHER THAN SHOWN ON DD 1391	

BUILT-IN EQUIPMENT; FEC DATA; SPECIAL OVERSEAS OVERHEAD COSTS; EXPLANATION OF DEMOLITION



1. COMPONENT NAVY		FY 19 <u>86</u> MILITARY CONSTRUCTION PROJECT DATA		2. DATE 1 Aug 1983	
3. INSTALLATION AND LOCATION MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA 28542			4. PROJECT TITLE SEWAGE SYSTEM IMPROVEMENTS		
5. PROGRAM ELEMENT		6. CATEGORY CODE 831-09	7. PROJECT NUMBER P-790		8. PROJECT COST (\$000) 1,000

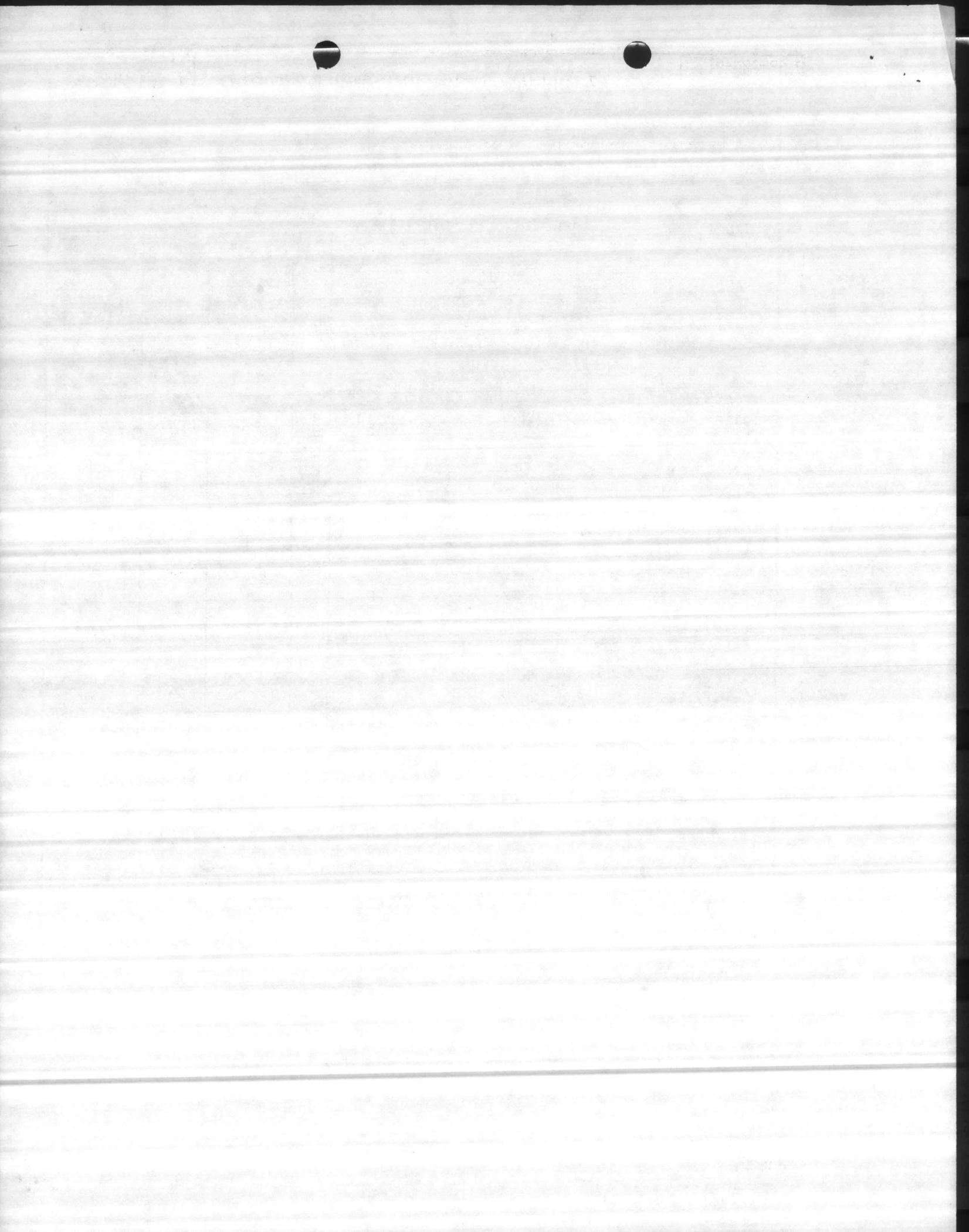
ESCALATED TO APRIL 1986 9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
SEWAGE & INDUSTRIAL WASTE TREATMENT FACILITY	-	-	-	342
SLUDGE DRYING BEDS w/APPURTENANCES	LS	-	-	(246)
GRIT & CLORINE CONTACT CHAMBERS	LS	-	-	(96)
SUPPORTING FACILITIES	-	-	-	206
PUMP STATION ALTERATIONS	EA	2	26,500	(53)
PUMP STATION ELECTRICAL CONTROL WORK	EA	8	3,000	(24)
FORCE MAIN SEWER w/APPURTENANCES	LS	-	-	(123)
SITE IMPROVEMENT AND DEMOLITION	LS	-	-	(6)
STATION FC-315	-	-	-	13
NEW PUMP w/ MOTOR/SHAFTING	LS	-	-	(9)
PIPING AND FITTINGS	LS	-	-	(1)
ELECTRICAL	LS	-	-	(3)
AUTOMATIC OIL/GREASE SKIMMING TANK	-	-	-	296
TANK (250,000 GAL)	LS	-	-	(232)
OIL/GREASE STORAGE TANK (5,000 GAL)	LS	-	-	(6)
PIPING, VALVES, OTHER MECHANICAL	LS	-	-	(41)
ELECTRICAL	LS	-	-	(17)
SUBTOTAL				857
CONTINGENCY - 10%				86
TOTAL CONTRACT COST				943
SUPERVISION, INSPECTION, & OVERHEAD - 5.5%				52
TOTAL REQUEST				995
TOTAL REQUEST (ROUNDED)				1,000
EQUIPMENT PROVIDED FROM OTHER APPROPRIATIONS				-
				1,200

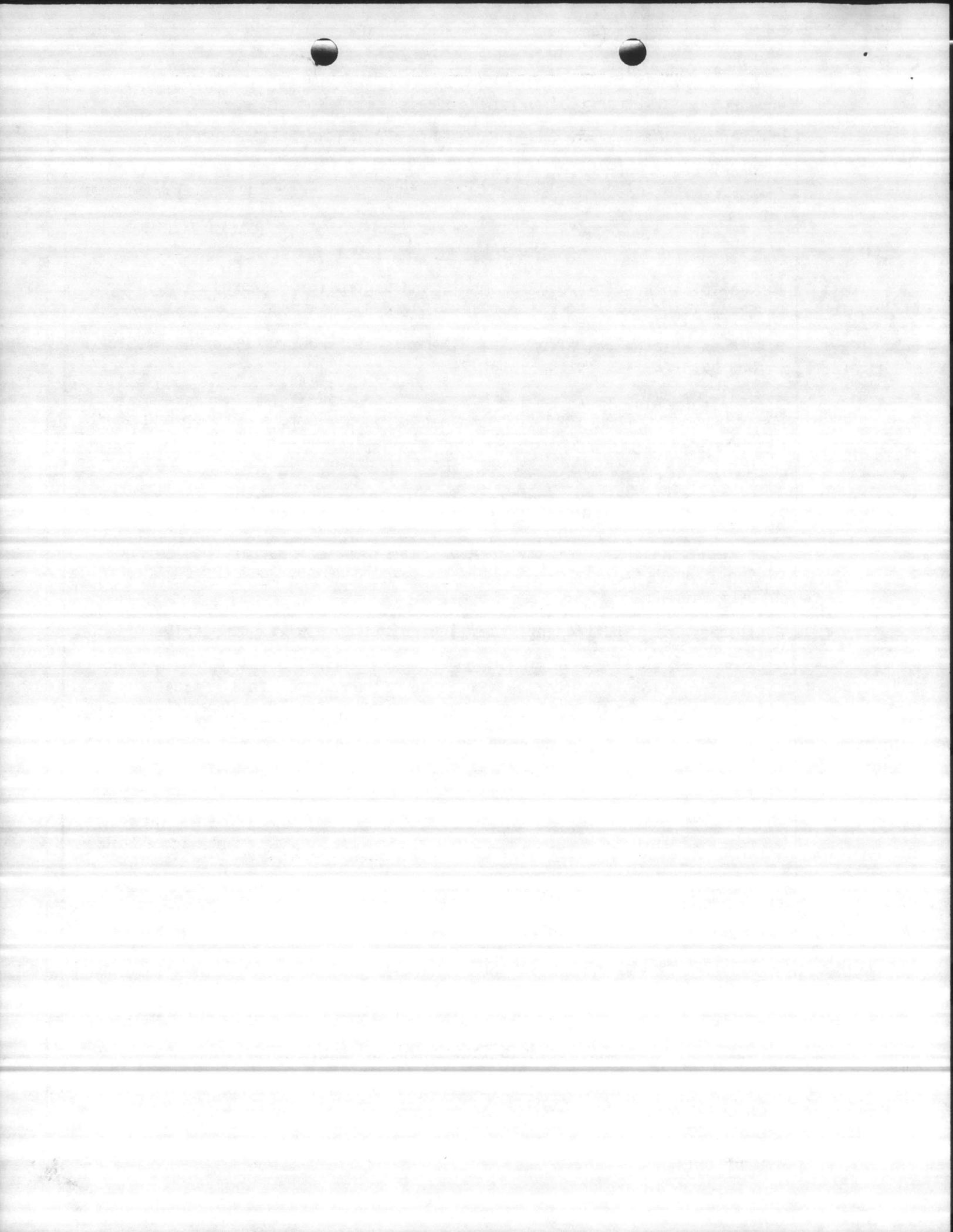
10. Description of proposed construction:  
Provide construction, alterations, minor demolition, site improvements, and related work to the Base sewage system (i.e., new sludge drying beds, grit removal equipment, modification to pumping stations, new force mains, oil/grease skimmer, electrical controls, etc.)

11. REQUIREMENTS:  
**PROJECT:** Upgrade and expand the sewage collection system and treatment facilities. Provide new construction, alterations, and improvements.  
**REQUIREMENTS:** To provide adequate sewage disposal and treatment facilities for the Base to comply with statutory regulations of the Federal Water Pollution Control Act.  
**CURRENT SITUATION:** The treatment plant requires additions and alterations to provide proper treatment of sewage waste. Existing equipment in pumping and lift stations, as well as electrical controls and/or sewer systems, needs upgrading, alterations, and other related work.  
**IMPACT IF NOT PROVIDED:** Inadequate and/or malfunctioning equipment could result in surcharging and/or flooding of the facilities which, could create a potential health hazard and damage to the facilities.

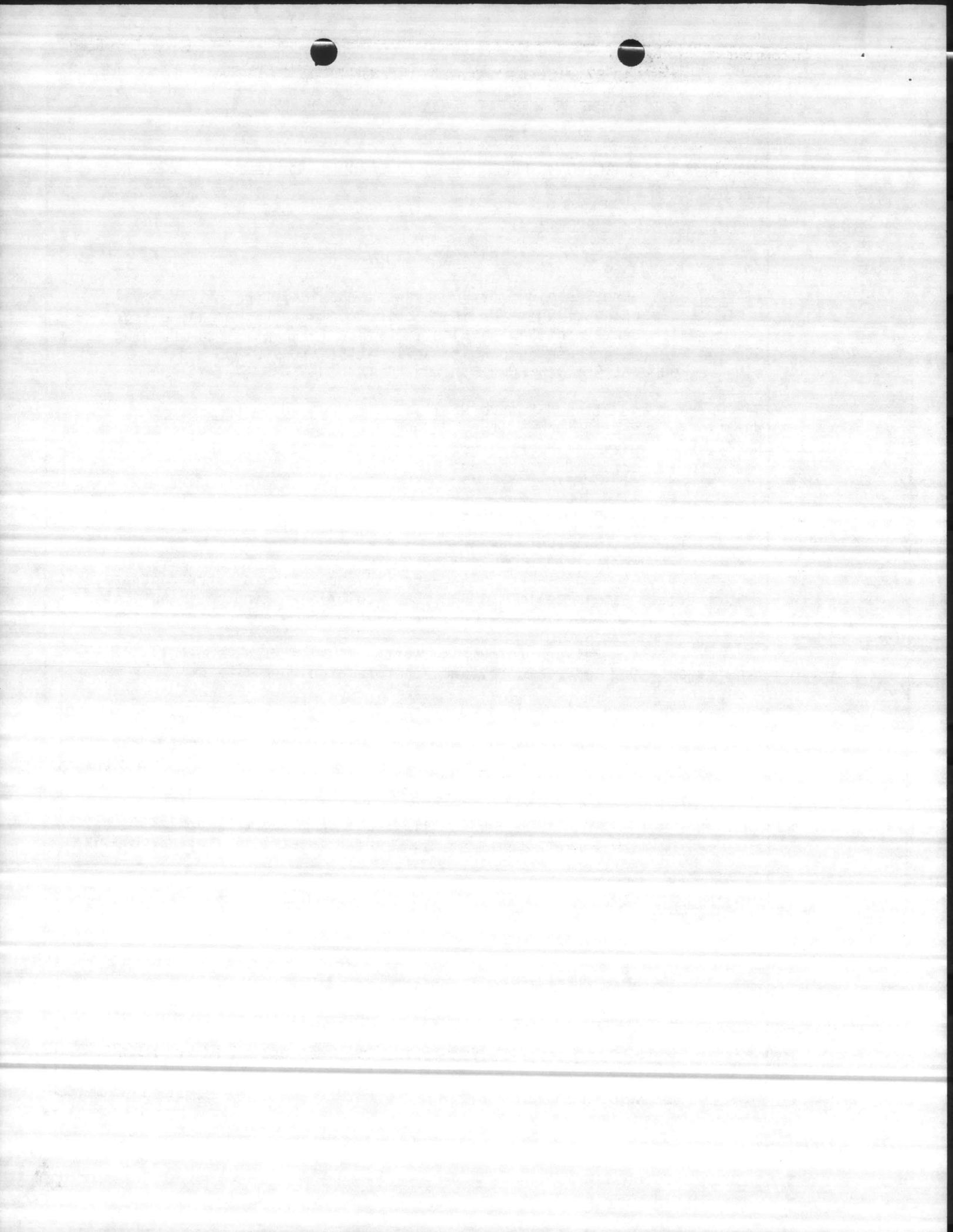
(PM) ~~16~~ NEW LIFT STATION (315) TO H.F. PLANT  
 PARALLEL EXIST 10" REQUIRE BLDG. 21 REPLACE PUMPS 2 & 3  
 4" RM FROM GRIT CHANNEL TO DRYING BEDS  
 8 NEW SLUDGE DRYING BEDS - 4P  
 8 NEW " " " - CG



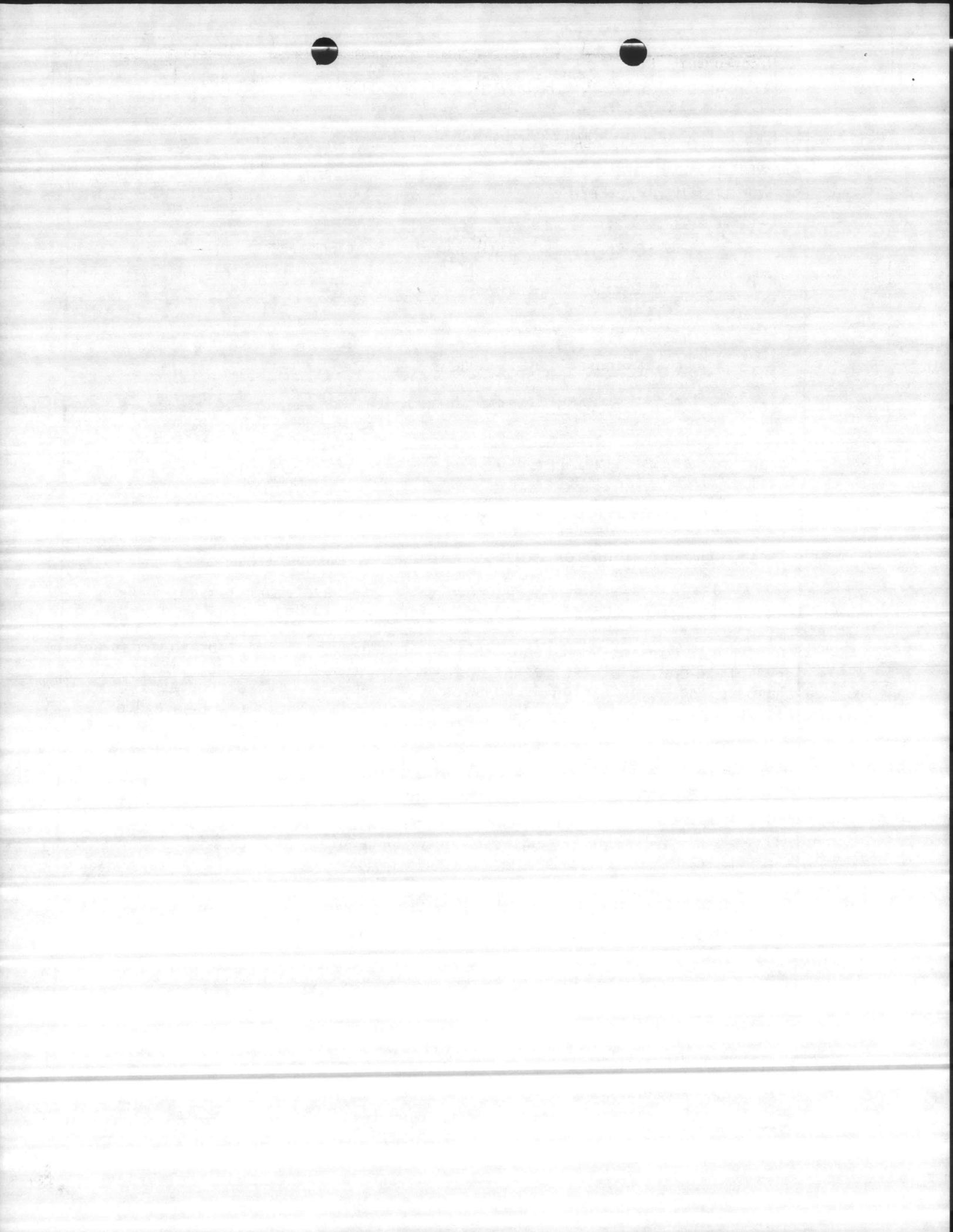
1. COMPONENT NAVY	FY 19 <u>87</u> MILITARY CONSTRUCTION PROJECT DATA	2. DATE 1 AUG 1983
3. INSTALLATION AND LOCATION MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542		
4. PROJECT TITLE SEWAGE SYSTEM IMPROVEMENTS	5. PROJECT NUMBER P-790	
<p style="text-align: center;"><u>SPECIAL CONSIDERATIONS</u></p> <ol style="list-style-type: none"> <li>1. <u>Pollution Prevention, Abatement, and Control</u>: This project will not cause additional air or water pollution.</li> <li>2. <u>Flood Hazard Evaluation</u>: Requirements of Executive Order No. 11296 (Flood Hazards) are not applicable.</li> <li>3. <u>Environmental Impact</u>: The project Environmental Impact Assessment is being written and will be processed through the local EIA Review Board. No adverse environmental impact is anticipated.</li> <li>4. <u>Fallout Shelter Construction</u>: Fallout shelter protection is not incorporated in this project.</li> <li>5. <u>Design for Accessibility of Physically Handicapped Personnel</u>: Provisions for physically handicapped personnel are not required in this project.</li> <li>6. <u>Use of Air Conditioning</u>: Ceiling "U" factors will be made to conform WITH DOD 4270.1-M.</li> <li>7. <u>Preservation of Historical Sites and Structures</u>: This project does not directly or indirectly affect a district, site, building, structure, object, or setting which is listed in the National Register or otherwise possesses a significant quality of American history.</li> <li>8. <u>"New Start" Criteria for Commercial or Industrial Activities Program (OMB Circular A-76)</u>: Not applicable.</li> </ol>		



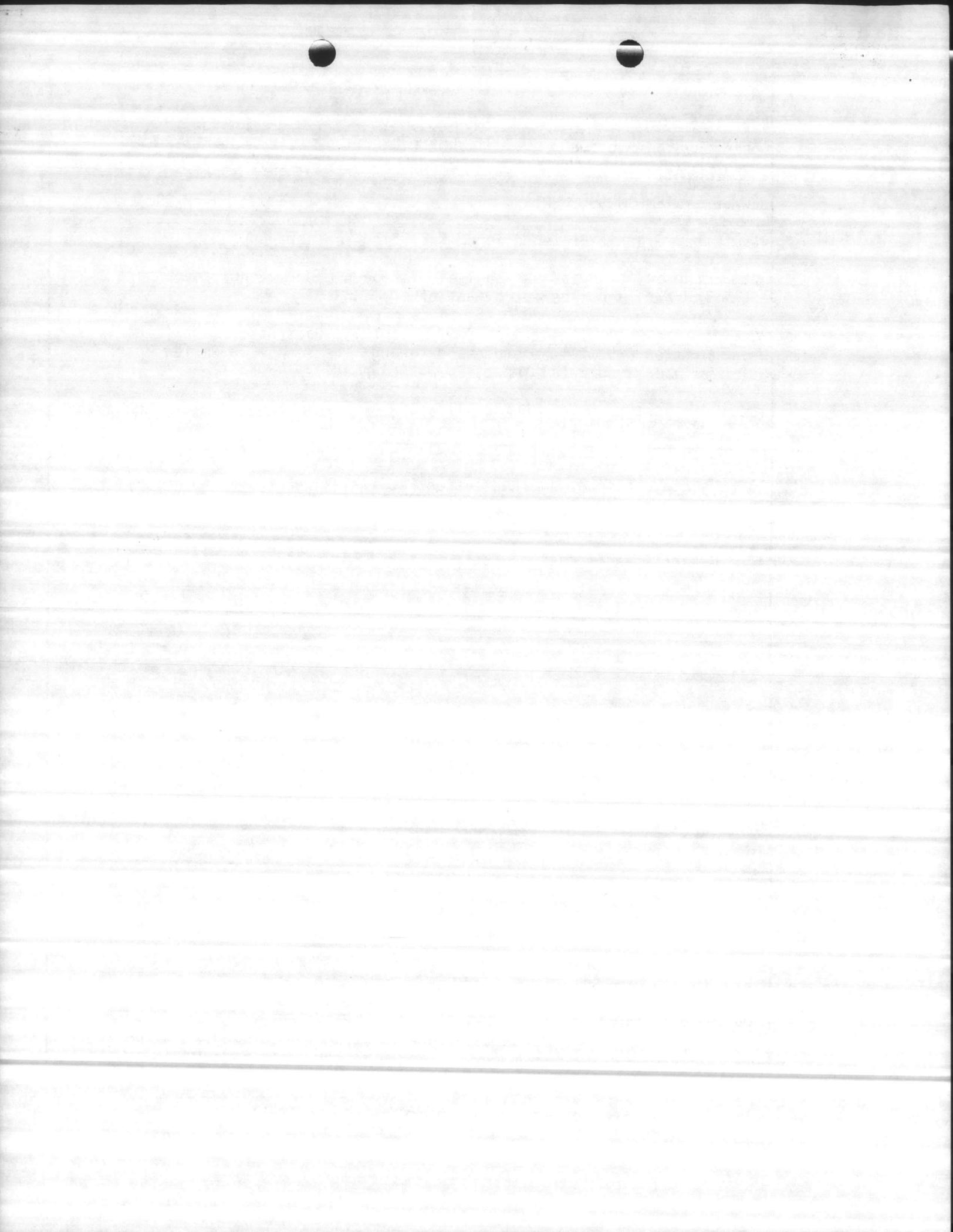
1. COMPONENT NAVY	FY 19 <u>87</u> MILITARY CONSTRUCTION PROJECT DATA	2. DATE 1 AUG 1983
3. INSTALLATION AND LOCATION MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542		
4. PROJECT TITLE SEWAGE SYSTEM IMPROVEMENTS	5. PROJECT NUMBER P-790	
<p style="text-align: center;"><u>FACILITY STUDY</u></p> <p>1. <u>Project.</u> Provide eight drying beds, mechanical-type grit removal system and mechanical agitator in chlorine contact chamber and oil/grease skimmer at Hadnot Point Sewage Plant. Extend force main from Pumping Station S-47. Increase pumping capacity at Stations S-4005 and S-2633. Provide new pump at Station FC-315.</p> <p>2. <u>Current and Planned Future Workload with Regard to this Project.</u> The duration of need is indefinite, and the facilities will be utilized 24-hours daily, seven days per week. There is no projected decrease in the requirements to be performed by the facilities.</p> <p>3. <u>Description of Proposed Construction.</u></p> <p style="padding-left: 2em;">a. <u>Type of Construction.</u></p> <p style="padding-left: 4em;">(1) Eight permanent sludge drying beds of reinforced concrete, grit removal equipment in collection chamber, chlorine mixing equipment, alterations to and construction of force mains, and oil/grease skimming tank.</p> <p style="padding-left: 4em;">(2) Alterations to pumping stations' electrical controls, minor demolition, site improvements, and other related work.</p> <p style="padding-left: 2em;">b. <u>Replacement.</u> Project consists of upgrading, expanding, and correcting deficiencies in the Base sewage collection and treatment facilities.</p> <p style="padding-left: 2em;">c. <u>Description of Work to be Done.</u></p> <p style="padding-left: 4em;">(1) <u>Primary Facility.</u> Addition of reinforced concrete sludge drying beds, grit removal equipment, oil/grease skimming tank, chlorine mixing equipment at the sewage treatment plant and pump at lift station FC-315.</p> <p style="padding-left: 4em;">(2) <u>Energy Conservation.</u> Energy-efficient equipment will be utilized.</p> <p style="padding-left: 4em;">(3) <u>Collateral Equipment.</u></p> <p style="padding-left: 6em;">(a) <u>Built-in MCON Funded.</u></p> <p style="padding-left: 8em;">* Electrical alteration control systems, with monitors.</p> <p style="padding-left: 8em;">* Chlorine agitation/mixing equipment.</p> <p>*Equipment with associated installation costs.</p>		

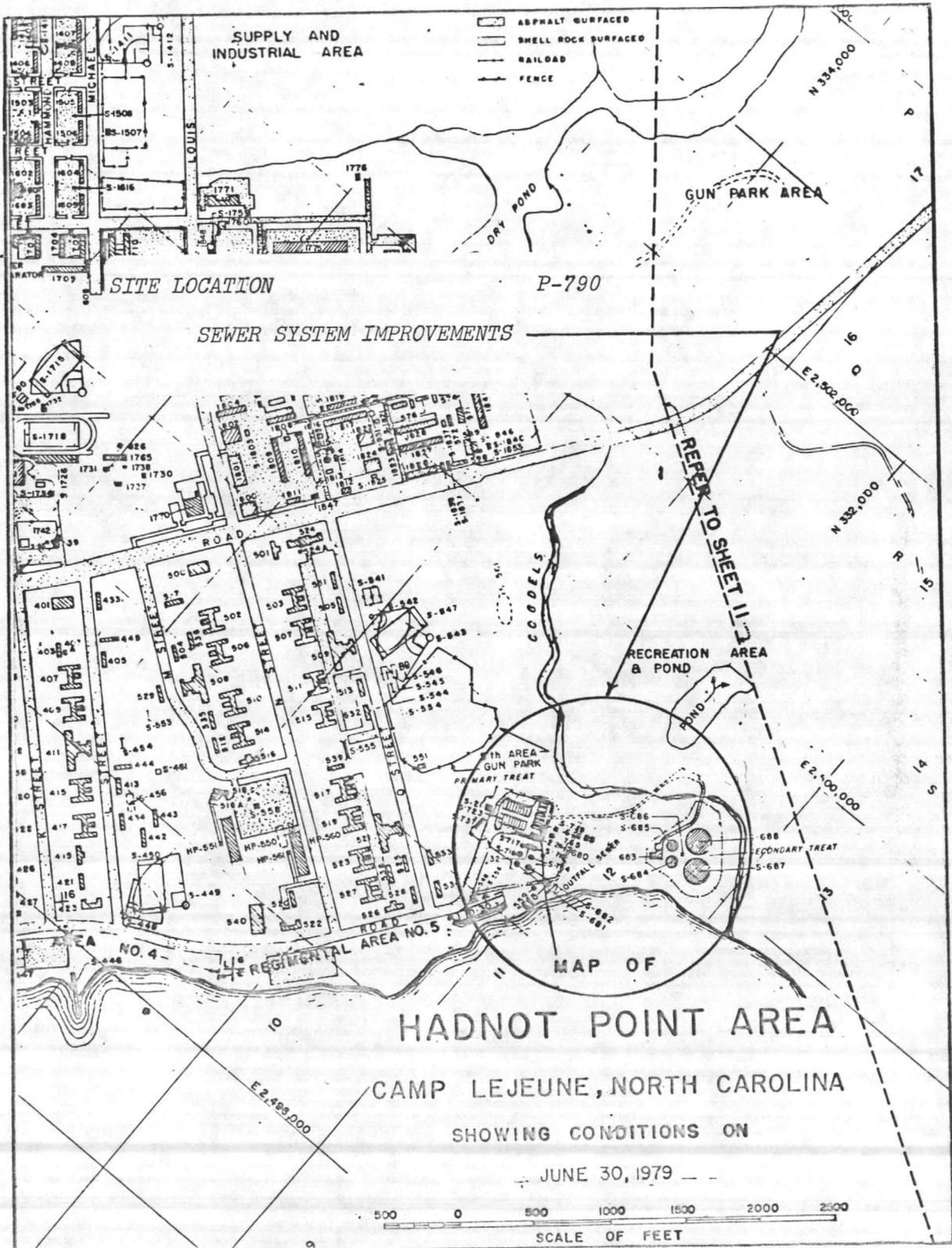


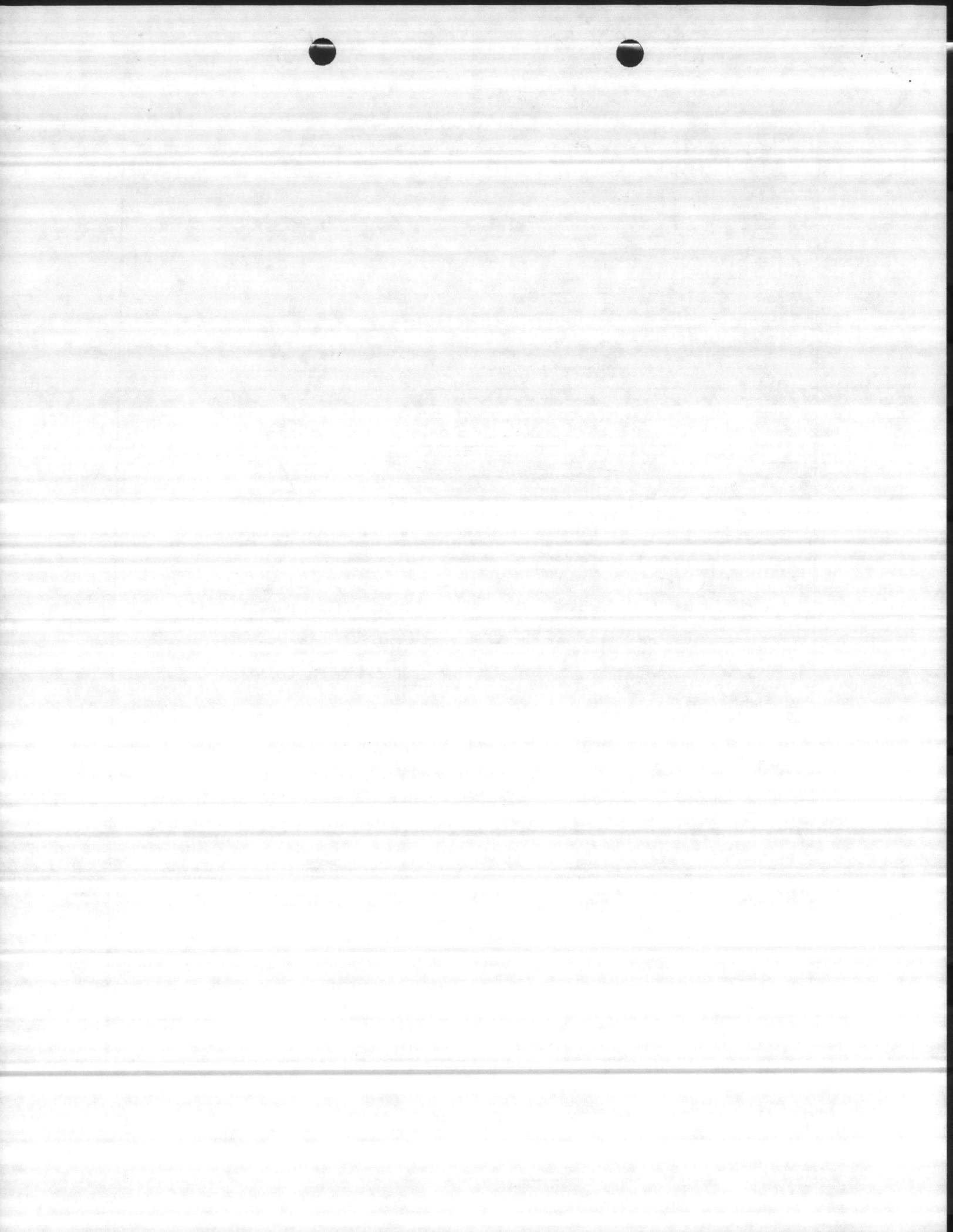
1. COMPONENT NAVY	FY 19 87 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 1 AUG 1983
3. INSTALLATION AND LOCATION MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542		
4. PROJECT TITLE SEWAGE SYSTEM IMPROVEMENTS	5. PROJECT NUMBER P-790	
<p style="text-align: center;">*Grit removal equipment for Grit Chamber</p> <p style="text-align: center;">*Sewage force mains</p> <p style="text-align: center;">*Electric force main pumps</p> <p>(b) <u>Expense Items</u>: None</p> <p>(c) <u>Investment Items</u>: None</p> <p>4. <u>Cost Estimate</u>: Area Cost Factor for Camp Lejeune, N. C. is 0.95, taken from an A&amp;E study prepared by Henry Von Olsen and Associates in April 1979 and escalated to FY-87.</p> <p>5. <u>Justification for Project and for Scope of Project</u>:</p> <p>a. <u>Justification for Project</u>:</p> <p>(1) <u>Project</u>: Proposed project is required to provide an adequate and functional sewage disposal system for the main Base areas.</p> <p>(2) <u>Current Situation</u>: Filter beds are not sufficient to treat and dry solids during winter months and periods of adverse weather. Grit chambers and chlorination processes are inadequate. Pumps require alternation controls and/or replacement. Increasing amounts of grease and oil require excessive cleaning and hinder plant operations.</p> <p>(3) <u>Impact If Not Provided</u>: Malfunction of a pumping station or overload of the sludge drying beds could result in flooding and contamination of the surrounding areas.</p> <p>b. <u>Justification for Scope of Project</u>. The project scope is the minimum that can meet the deficiencies and requirements to support existing and proposed facilities in the main Base areas.</p> <p>6. <u>Equipment Provided from Other Appropriations</u>: Not applicable.</p> <p>7. <u>Common Support Facilities</u>: Not applicable.</p> <p>8. <u>Effect on Other Resources</u>: No additional personnel will be required to operate the proposed facilities, and only a minimal increase in electricity charges will be required to operate the new facilities.</p> <p>9. <u>Siting of the Project</u>: The facilities will be located in the main Base area of Camp Lejeune. See enclosure (1).</p>		



1. COMPONENT NAVY	FY 19 <u>87</u> MILITARY CONSTRUCTION PROJECT DATA	2. DATE 1 AUG 1983
3. INSTALLATION AND LOCATION MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542		
4. PROJECT TITLE SEWAGE SYSTEM IMPROVEMENTS	5. PROJECT NUMBER P-790	
<p>10. <u>Other Graphic Presentations, including Photographs.</u> None.</p> <p>11. <u>Economic Analysis.</u> No analysis has been made. Requirements are as specified and cannot be met by any other means.</p> <p>12. <u>Environmental Impact.</u> An Environmental Impact Assessment (EIA) is being written and will be processed through the local EIA Review Board. No adverse environmental impact is anticipated.</p> <p>13. <u>Quantitative Data.</u> Not applicable.</p> <p>14. <u>Maintenance Facility.</u> Not applicable.</p> <p>15. <u>Morale, Welfare, and Recreation Facilities.</u> Not applicable.</p> <p>16. <u>Relocation Facilities.</u> Not applicable.</p> <p>17. <u>Hazard Identification, Assessment and Analysis.</u> Not applicable.</p>		







UNITED STATES MARINE CORPS  
Marine Corps Base  
Camp Lejeune, North Carolina 28542

ENVIRONMENTAL IMPACT/ENVIRONMENTAL ENHANCEMENT REVIEW BOARD MEETING OF  
13 Jan 1982.

ADDENDUM TO PRELIMINARY ENVIRONMENTAL ASSESSMENT (PEA)

SUBJ: PEA - Project P-<sup>70</sup>709, Sewage System Improvements

BOARD ACTION

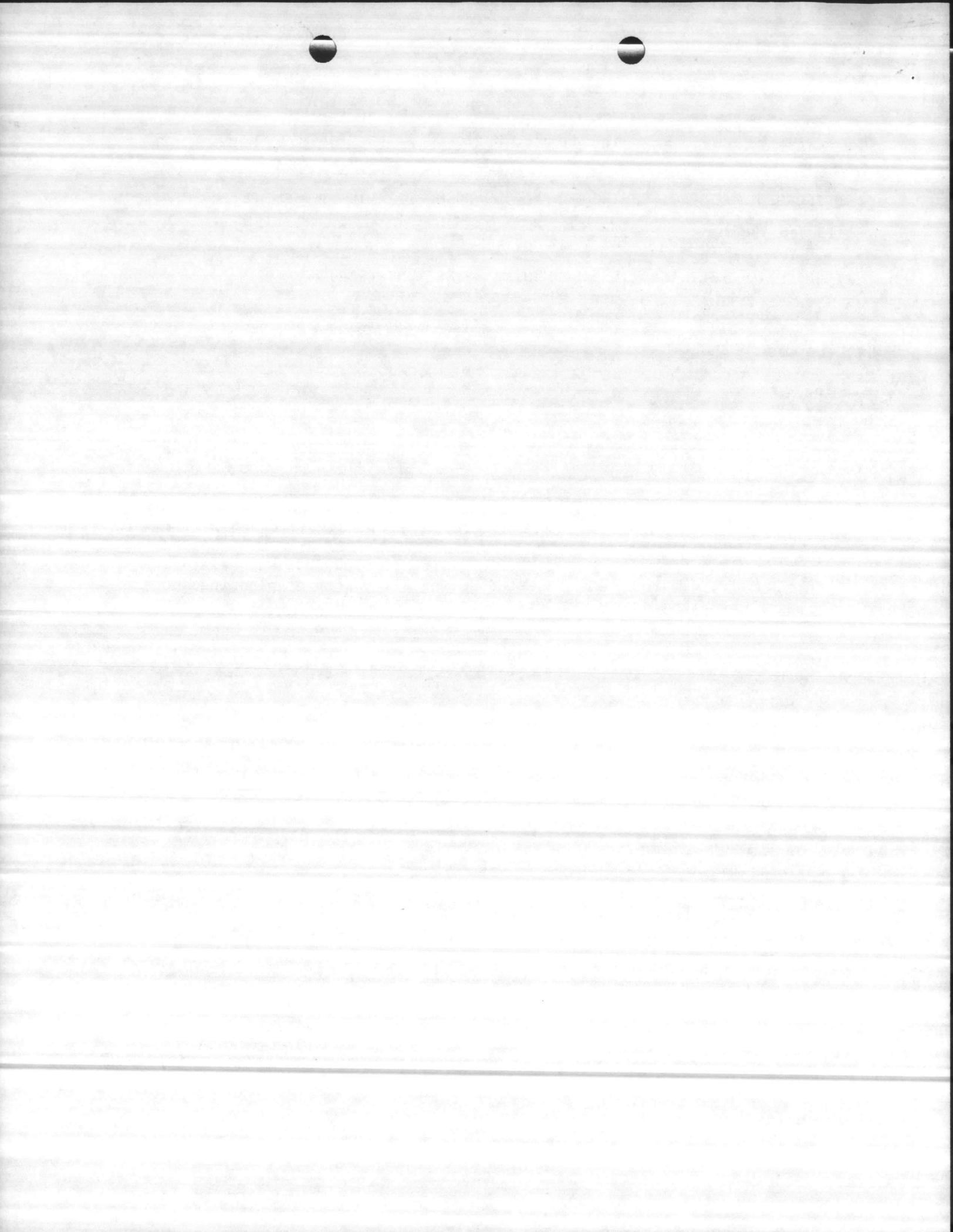
\_\_\_\_\_ The Board agreed there appears to be no significant environmental impact or controversy associated with this project.

X\_\_\_\_\_ The Board agreed there appears to be no significant environmental impact or controversy associated with this project provided:  
The requirements of NPDES Permit No. NC0003239 and related regulations are addressed during all phases of planning and design for the project.

\_\_\_\_\_ The Board agreed there is potential environmental impact with the project and recommends the following:

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EIA File  
PWO  
BMO

ENC 134

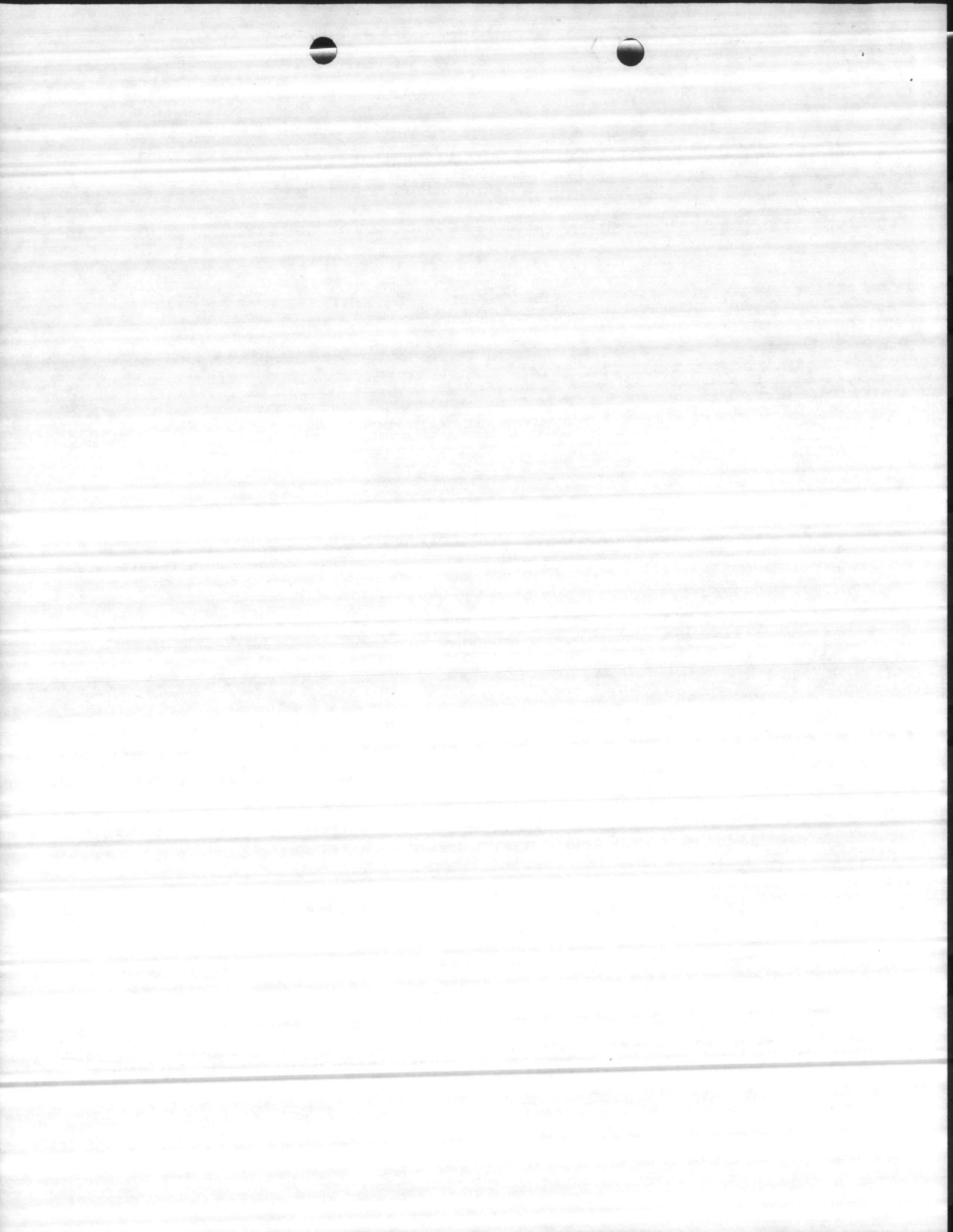


PRELIMINARY ENVIRONMENTAL IMPACT ASSESSMENT  
MCON PROJECT P-790, SEWAGE SYSTEM IMPROVEMENTS

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Prepared by:

F. E. CONE  
Utilities Branch  
Base Maintenance Division  
6 October 1981



1. Action/Project Description. This project will upgrade and expand sewage collection system and treatment facilities. The project will provide eight drying beds, mechanical-type grit removal and mechanical agitation in chlorine contact chamber and oil/grease skimmer at the Hadnot Point Sewage Plant. In addition, the project will extend the force main from Pumping Station S-47, increase the pumping capacity at stations S-4005 and S-2633, and provide a new pump at station FC-315.

2. Consideration of Alternatives and Site Selection. Construction will be accomplished at existing plant and pumping stations. Alternative sites do not apply.

3. Compliance with Federal, State, and Local Environment Regulations and Guidelines

a. Endangered Species. Not Applicable.

b. Clean Water Act. The proposed changes will provide a beneficial impact on sewage treatment at the Hadnot Point Plant. Proposed construction should be reviewed with EPA representatives relative to the NPDES Permit.

c. Clean Air Act. Not Applicable.

d. Coastal Zone Management Act. The proposed construction will not enlarge the plant capacity. Existing permit limitations will not be exceeded. Therefore, the proposed construction does not appear to be applicable.

e. Archaeological and Historical Preservation Act. Not Applicable. Construction is planned for existing sites.

f. North Carolina Erosion and Sedimentation Regulations. An erosion control plan will be included in the plans and specifications.

g. Hazardous Materials and Hazardous Waste Disposal. Oil and grease will be collected by the oil/grease skimmer. Design should address disposal of the oil and grease collected.

h. Protection of Wetlands, Executive Order 11990. This issue should be addressed in discussions with EPA representatives on NPDES Permit.

i. Sanitary Waste and Refuse Disposal. Not Applicable.

j. Discuss Other Regulations Applicable. None

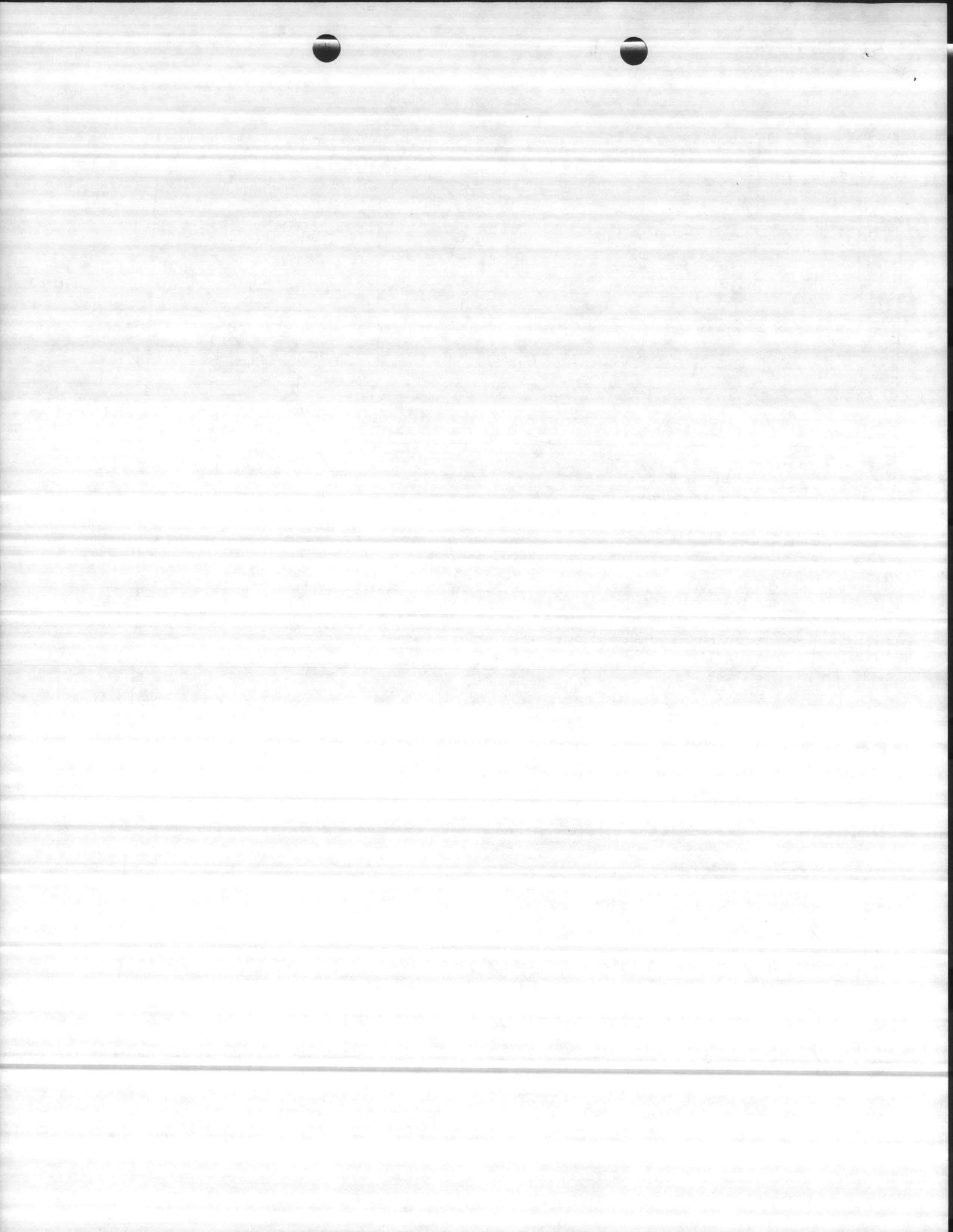
k. Permit Requirements. Existing permit limitations will not be exceeded. Proposed construction should be reviewed with EPA.

l. Site Map. See Enclosure (1).

4. How does the Proposed Action Impact on the Other Base Functions and Missions? Proposed construction is consistent with the Camp Lejeune Master Plan. Other base functions should not be affected.







1) REPLACE TWO WRT WELL PUMPS

A) Pump # 2	(EXIST.)	1500 gpm	(New) 2000 gpm
B) Pump # 3	( " )	2800 gpm	( " ) 3000 gpm

2) REMOVE EXISTING DRYING BEDS — INSTALLED 1945

REPLACE WITH NEW PUMP w/ NEW 4" FORCE MAIN TO DRYING BEDS

3) BUILD NEW LIFT STATION FC 315 TO PARALLEL EXIST. FC 315 LIFT STATION  
ABANDON EXIST. 10" ASBESTOS CEMENT LINE & INSTALL NEW 16" FM

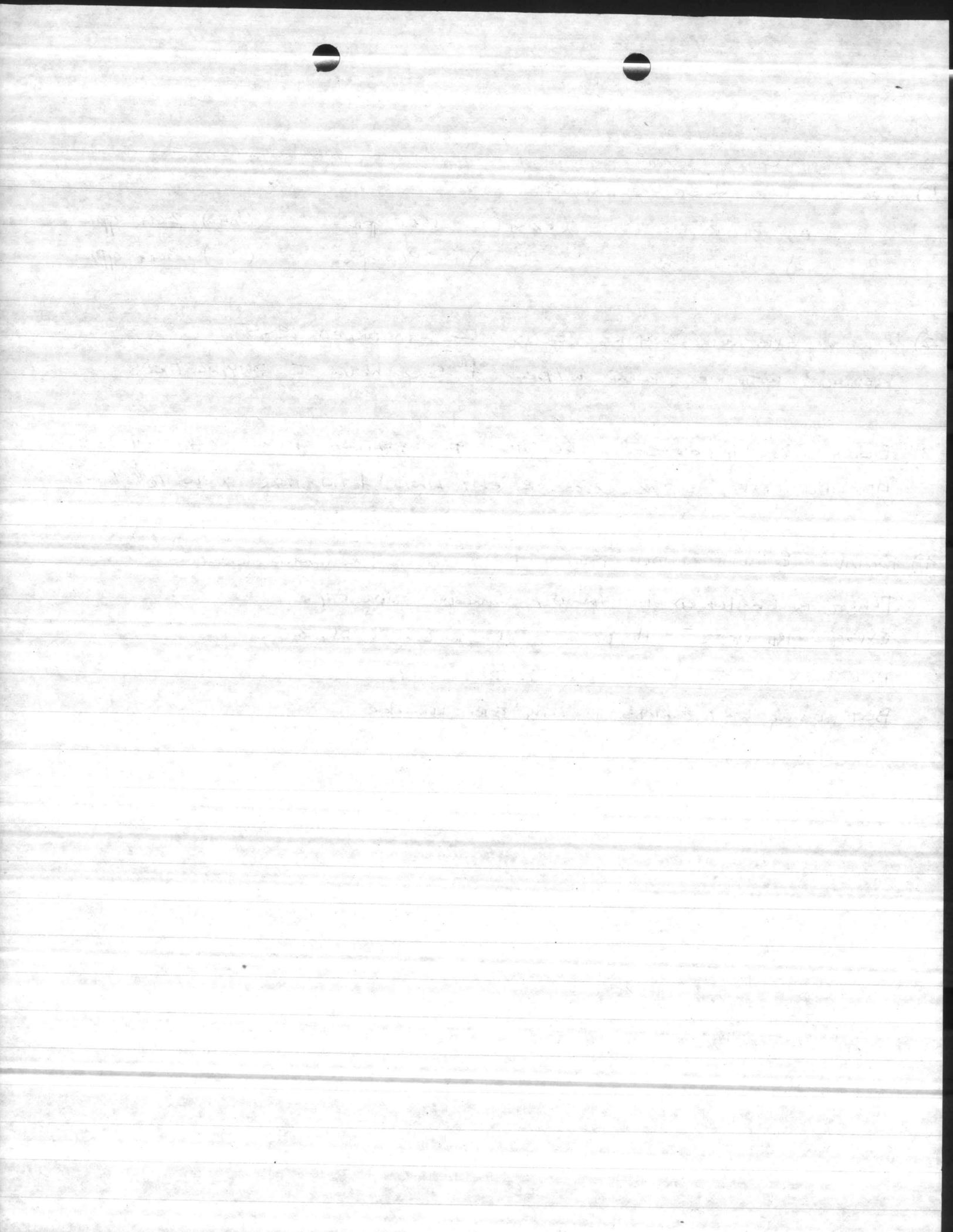
4) PROVIDE 8 NEW SLUDGE DRYING BEDS BEHIND MECHANICAL BUILDING

PLANT IS DESIGNED TO HANDLE 8 MGD CAPACITY.

EXIST. — 10 BEDS, HOLDING 8 BEDS TO EMPTY DIGESTOR

NORMALLY IT TAKES ~ 6 WKS TO PRY OUT

BUT DURING WET PERIODS IT MAY TAKE LONGER



MAIN/FEC/rn  
11000  
6 Oct 1981

From: Base Maintenance Officer  
To: Public Works Department (Planning Branch)

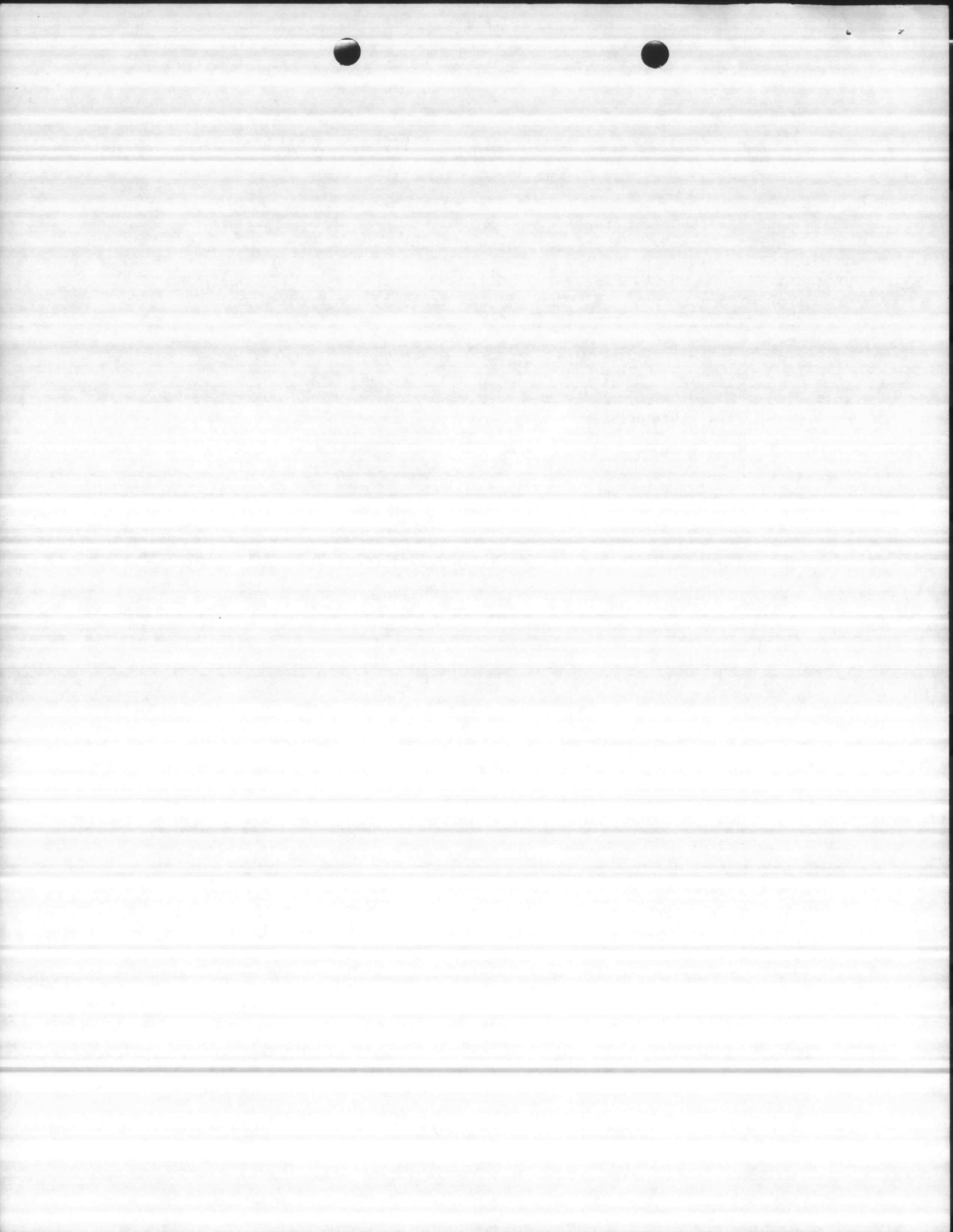
Subj: FY-84 through FY-88 Five-Year Military Construction (MILCON) Program  
for Marine Corps Base, Camp Lejeune; request for Preliminary  
Environmental Assessments (PEAs)

Ref: (a) CG ltr PMO:403:VM:bjd 11000 of 6 Aug 1981

Encl: (1) Preliminary Environmental Assessment (PEA), MCON Project P-786,  
Cold Storage  
→ (2) Preliminary Environmental Assessment (PEA), MCON Project P-790,  
Sewage System Improvements

1. As requested in reference (a), enclosures (1) and (2) are provided.

F. E. CONE  
By direction



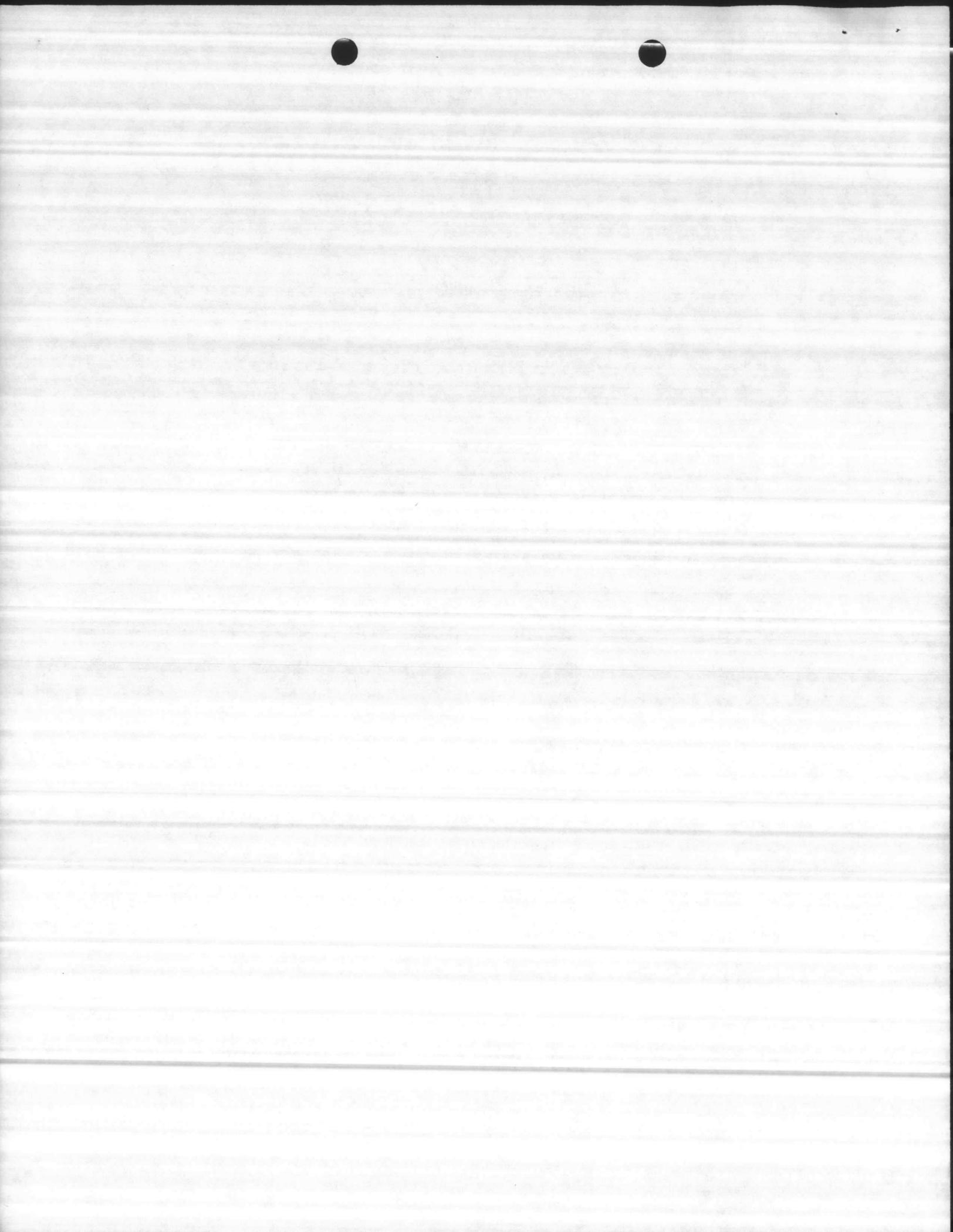
PRELIMINARY ENVIRONMENTAL IMPACT ASSESSMENT  
MCON PROJECT P-790, SEWAGE SYSTEM IMPROVEMENTS

*Charlie Shue*

*804-444-9937*

Prepared by:

F. E. CONE  
Utilities Branch  
Base Maintenance Division  
6 October 1981



1. Action/Project Description. This project will upgrade and expand sewage collection system and treatment facilities. The project will provide eight drying beds, mechanical-type grit removal and mechanical agitation in chlorine contact chamber and oil/grease skimmer at the Hadnot Point Sewage Plant. In addition, the project will extend the force main from Pumping Station S-47, increase the pumping capacity at stations S-4005 and S-2633, and provide a new pump at station FC-315.

2. Consideration of Alternatives and Site Selection. Construction will be accomplished at existing plant and pumping stations. Alternative sites do not apply.

3. Compliance with Federal, State, and Local Environment Regulations and Guidelines

a. Endangered Species. Not Applicable.

b. Clean Water Act. The proposed changes will provide a beneficial impact on sewage treatment at the Hadnot Point Plant. Proposed construction should be reviewed with EPA representatives relative to the NPDES.

c. Clean Air Act. Not Applicable.

d. Coastal Zone Management Act. The proposed construction will not enlarge the plant capacity. Existing permit limitations will not be exceeded. Therefore, the proposed construction does not appear to be applicable.

e. Archaeological and Historical Preservation Act. Not Applicable. Construction is planned for existing sites.

f. North Carolina Erosion and Sedimentation Regulations. An erosion control plan will be included in the plans and specifications.

g. Hazardous Materials and Hazardous Waste Disposal. Oil and grease will be collected by the oil/grease skimmer. Design should address disposal of the oil and grease collected.

h. Protection of Wetlands, Executive Order 11990. This issue should be addressed in discussions with EPA representatives on NPDES Permit.

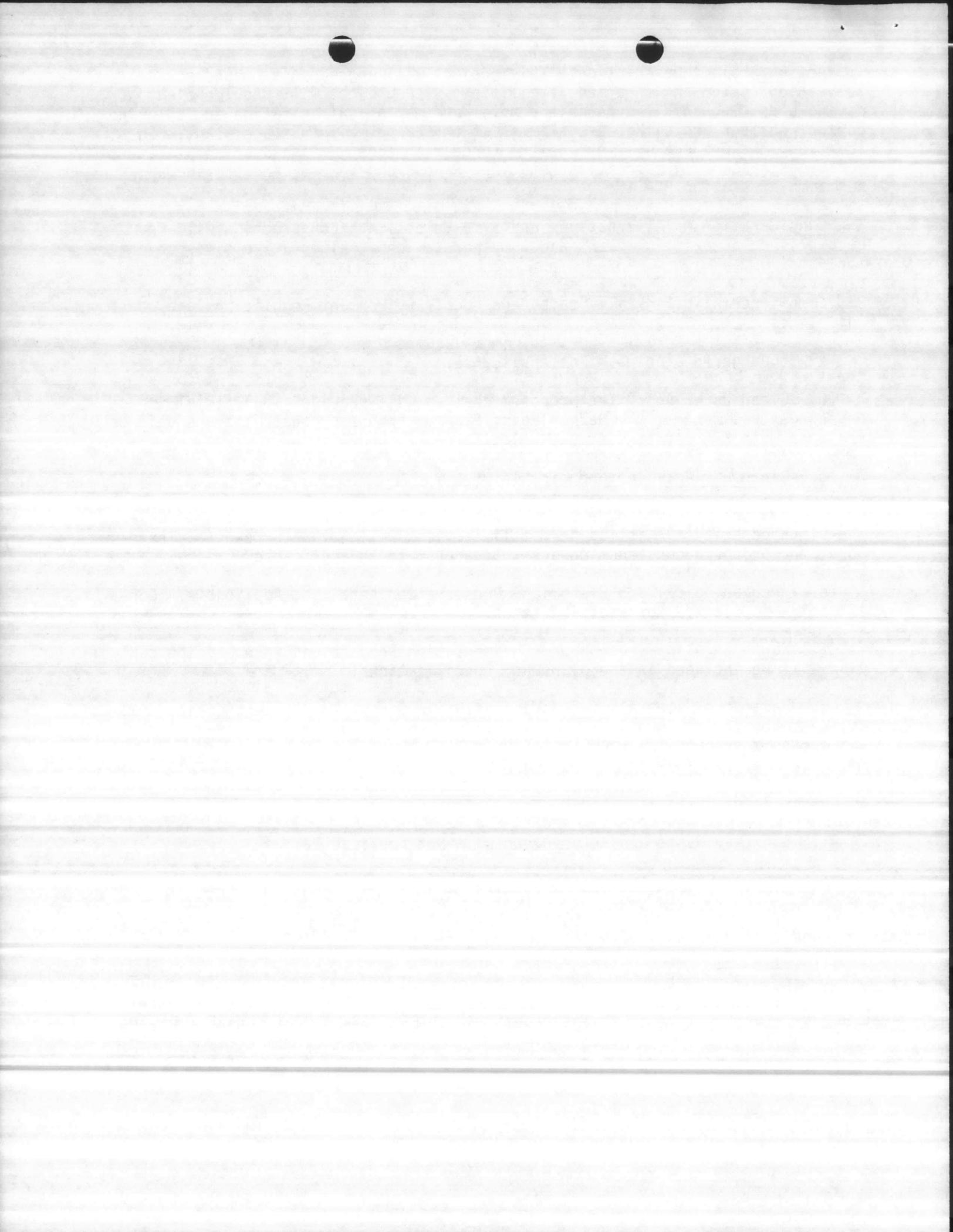
i. Sanitary Waste and Refuse Disposal. Not Applicable.

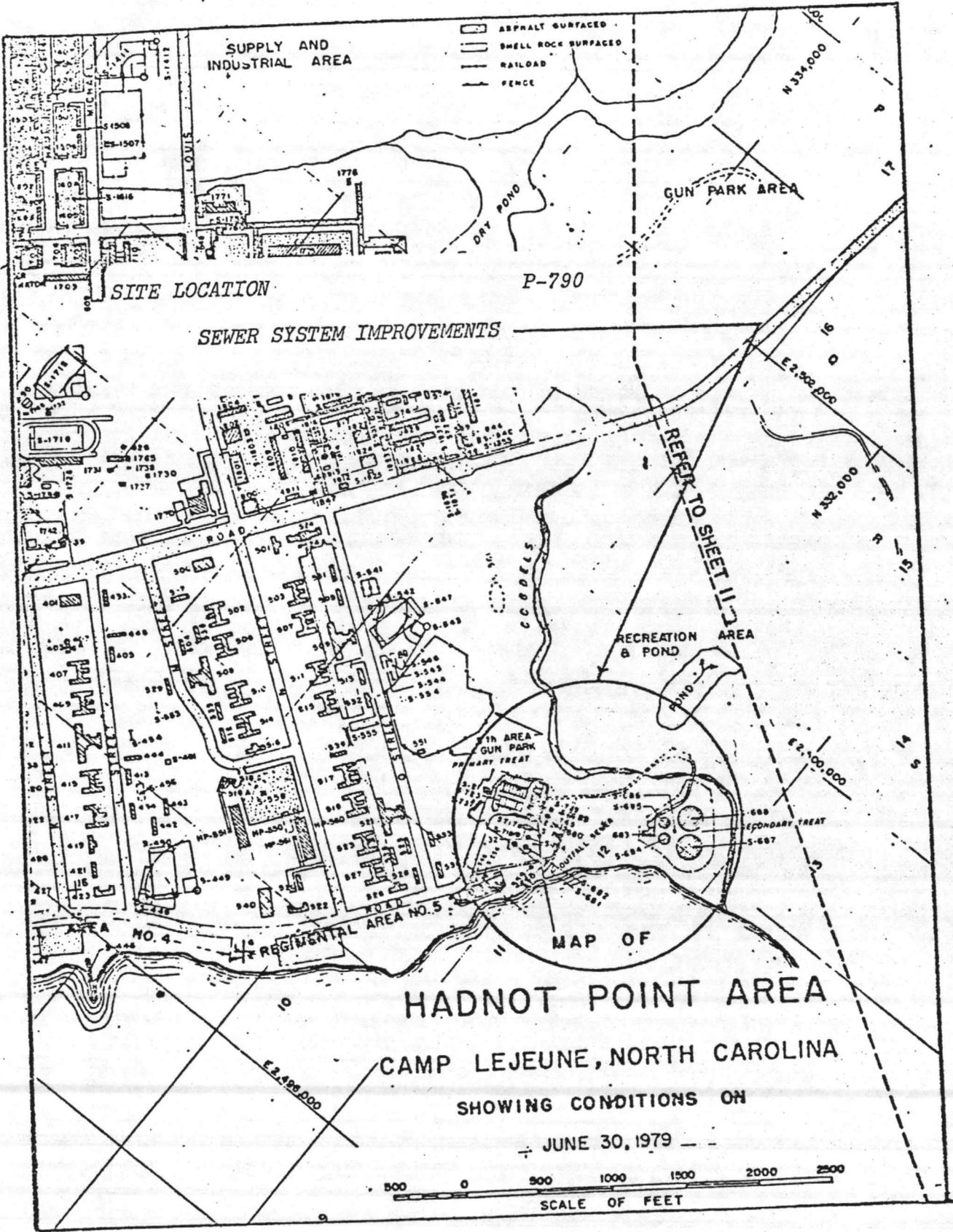
j. Discuss Other Regulations Applicable. None

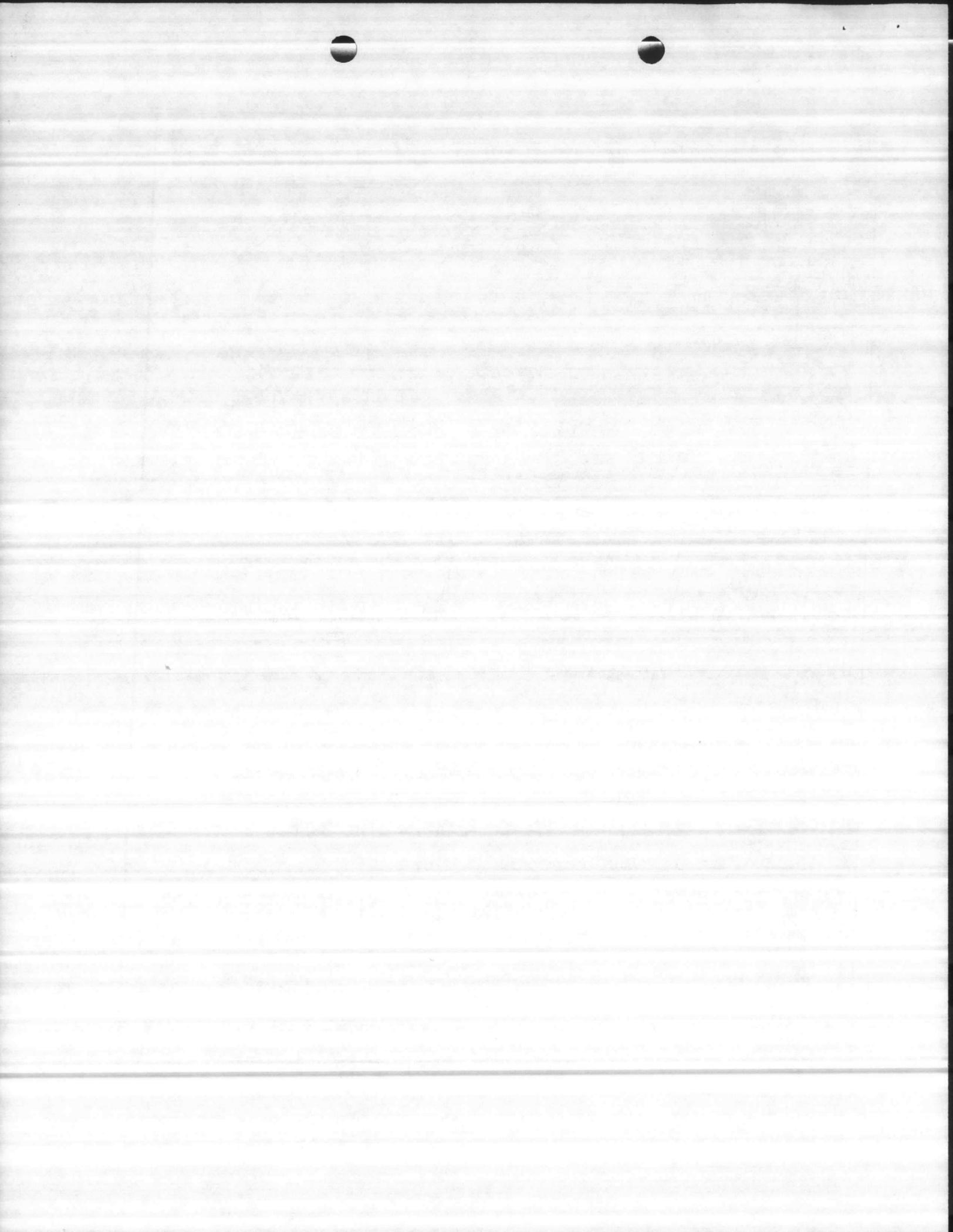
k. Permit Requirements. Existing permit limitations will not be exceeded. Proposed construction should be reviewed with EPA.

l. Site Map. See Enclosure (1).

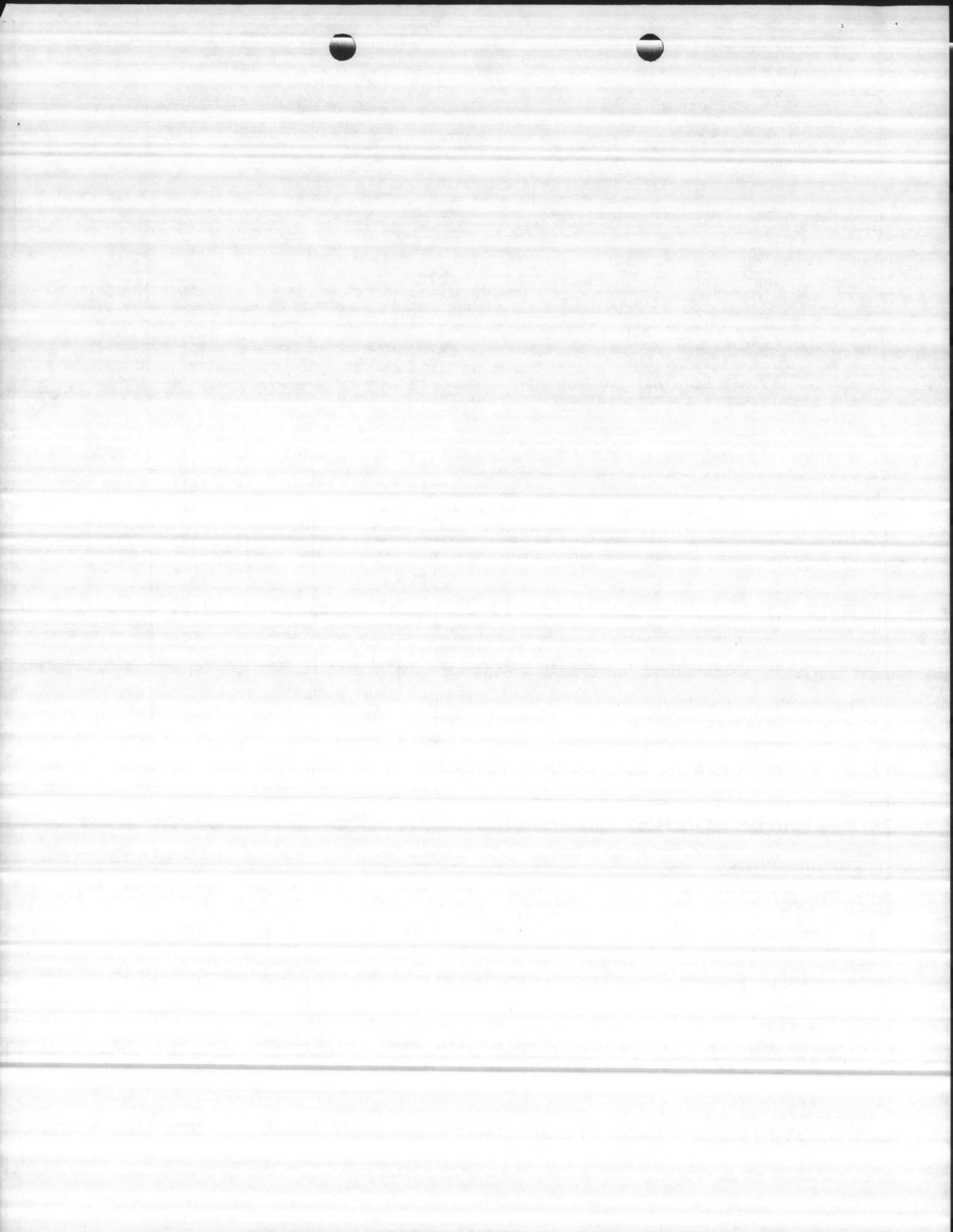
4. How does the Proposed Action Impact on the Other Base Functions and Missions? Proposed construction is consistent with the Camp Lejeune Master Plan. Other base functions should not be affected.



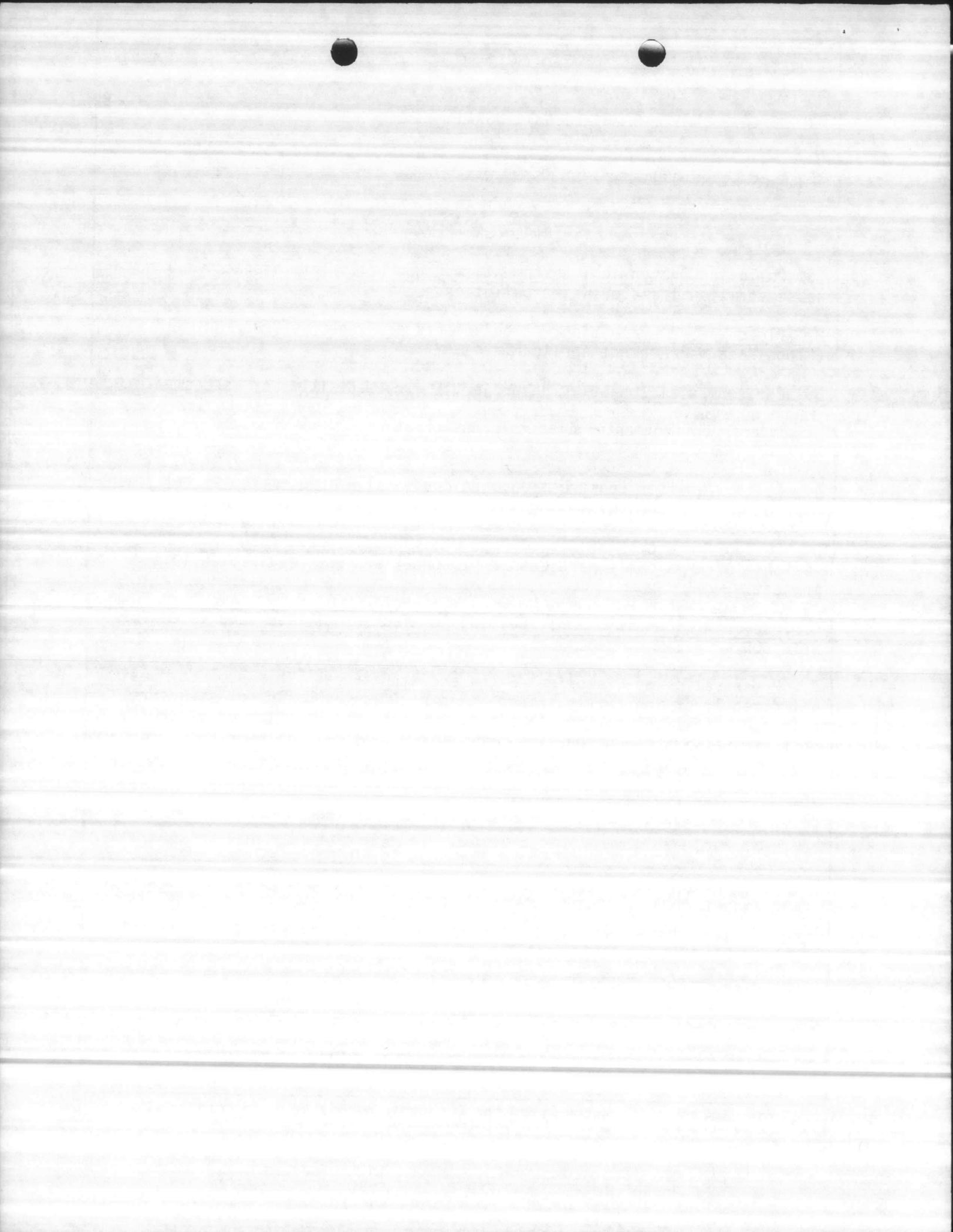




1. COMPONENT NAVY		FY 19 85 MILITARY CONSTRUCTION PROJECT DATA				2. DATE 1 Aug 1981	
3. INSTALLATION AND LOCATION MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA 28542			4. PROJECT TITLE SEWAGE SYSTEM IMPROVEMENTS				
5. PROGRAM ELEMENT		6. CATEGORY CODE 831-09	7. PROJECT NUMBER P-790		8. PROJECT COST (\$000) 850		
9. COST ESTIMATES							
ITEM		U/M	QUANTITY	UNIT COST	COST (\$000)		
SEWAGE & INDUSTRIAL WASTE TREATMENT FACILITY		-	-	-	295		
SLUDGE DRYING BEDS W/APPURTENANCES		LS	-	-	(212)		
GRIT & CHLORINE CONTACT CHAMBERS		LS	-	-	(83)		
SUPPORTING FACILITIES		-	-	-	178		
PUMP STATION ALTERATIONS		EA	2	23,100	(46)		
PUMP STATION ELECTRICAL CONTROL WORK		EA	8	2,600	(21)		
FORCE MAIN SEWER W/APPURTENANCES		LS	-	-	(106)		
SITE IMPROVEMENT AND DEMOLITION		LS	-	-	(5)		
STATION FC-315		-	-	-	11		
NEW PUMP W/MOTOR/SHAFTING		LS	-	-	(8)		
PIPING AND FITTINGS		LS	-	-	(1)		
ELECTRICAL		LS	-	-	(2)		
AUTOMATIC OIL/GREASE SKIMMING TANK		-	-	-	255		
TANK (250,000 GAL)		LS	-	-	(200)		
OIL/GREASE STORAGE TANK (5,000 GAL)		LS	-	-	(5)		
PIPING, VALVES, OTHER MECHANICAL		LS	-	-	(35)		
ELECTRICAL		LS	-	-	(15)		
SUBTOTAL					739		
CONTINGENCY - 10%					74		
TOTAL CONTRACT COST					813		
SUPERVISION, INSPECTION, & OVERHEAD - 5.5%					45		
TOTAL REQUEST					858		
TOTAL REQUEST (ROUNDED)					850		
EQUIPMENT PROVIDED FROM OTHER APPROPRIATIONS					-		
10. DESCRIPTION OF PROPOSED CONSTRUCTION							
Provide construction, alterations, minor demolition, site improvements, and related work to the Base sewage system (i.e., new sludge drying beds, grit removal equipment, modification to pumping stations, new force mains, oil/grease skimmer, electrical controls, etc.							
11. REQUIREMENTS:							
PROJECT: Upgrade and expand the sewage collection system and treatment facilities. Provide new construction, alterations, and improvements.							
REQUIREMENTS: To provide adequate sewage disposal and treatment facilities for the Base to comply with statutory regulations of the Federal Water Pollution Control Act.							
CURRENT SITUATION: The treatment plant requires additions and alterations to provide proper treatment of sewage waste. Existing equipment in pumping and lift stations, as well as electrical controls and/or sewer systems, need upgrading, alterations, and other related work.							
IMPACT IF NOT PROVIDED: Inadequate and/or malfunctioning equipment could result in surcharging and/or flooding of the facilities, which could create a potential health hazard and damage to the facilities.							



1. COMPONENT NAVY	- FY 85 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 1 AUG 1981
3. INSTALLATION AND LOCATION MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542		
4. PROJECT TITLE SEWAGE SYSTEM IMPROVEMENTS		5. PROJECT NUMBER P-790
<p style="text-align: center;"><u>SPECIAL CONSIDERATIONS</u></p> <ol style="list-style-type: none"> <li>1. <u>Pollution Prevention, Abatement, and Control</u>: This project will not cause additional air or water pollution.</li> <li>2. <u>Flood Hazard Evaluation</u>: Requirements of Executive Order No. 11296 (Flood Hazards) are not applicable.</li> <li>3. <u>Environmental Impact</u>: The project Environmental Impact Assessment is being written and will be processed through the local EIA Review Board. No adverse environmental impact is anticipated.</li> <li>4. <u>Fallout Shelter Construction</u>: Fallout shelter protection is not incorporated in this project.</li> <li>5. <u>Design for Accessibility of Physically Handicapped Personnel</u>: Provisions for physically handicapped personnel are not required in this project.</li> <li>6. <u>Use of Air Conditioning</u>: Ceiling "U" factors will be made to conform WITH DOD 4270.1-M.</li> <li>7. <u>Preservation of Historical Sites and Structures</u>: This project does not directly or indirectly affect a district, site, building, structure, object, or setting which is listed in the National Register or otherwise possesses a significant quality of American history.</li> <li>8. <u>"New Start" Criteria for Commercial or Industrial Activities Program (OMB Circular A-76)</u>: Not applicable.</li> </ol>		



1. COMPONENT NAVY	FY 1985 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 1 AUG 1981
3. INSTALLATION AND LOCATION MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542		
4. PROJECT TITLE SEWAGE SYSTEM IMPROVEMENTS	5. PROJECT NUMBER P-790	

FACILITY STUDY

1. Project. Provide eight drying beds, mechanical-type grit removal system and mechanical agitator in chlorine contact chamber and oil/grease skimmer at Hadnot Point Sewage Plant. Extend force main from Pumping Station S-47. Increase pumping capacity at Stations \$4005 and \$2633. Provide new pump at Station FC-315.

2. Current and Planned Future Workload with Regard to this Project. The duration of need is indefinite, and the facilities will be utilized 24-hours daily, seven days per week. There is no projected decrease in the requirements to be performed by the facilities.

3. Description of Proposed Construction.

a. Type of Construction.

(1) Eight permanent sludge drying beds of reinforced concrete, grit removal equipment in collection chamber, chlorine mixing equipment, alterations to and construction of force mains, and oil/grease skimming tank.

(2) Alterations to pumping stations' electrical controls, minor demolition, site improvements, and other related work.

b. Replacement. Project consists of upgrading, expanding, and correcting deficiencies in the Base sewage collection and treatment facilities.

c. Description of Work to be Done.

(1) Primary Facility. Addition of reinforced concrete sludge drying beds, grit removal equipment, oil/grease skimming tank, chlorine mixing equipment at the sewage treatment plant and pump at lift station FC-315.

(2) Energy Conservation. Energy-efficient equipment will be utilized.

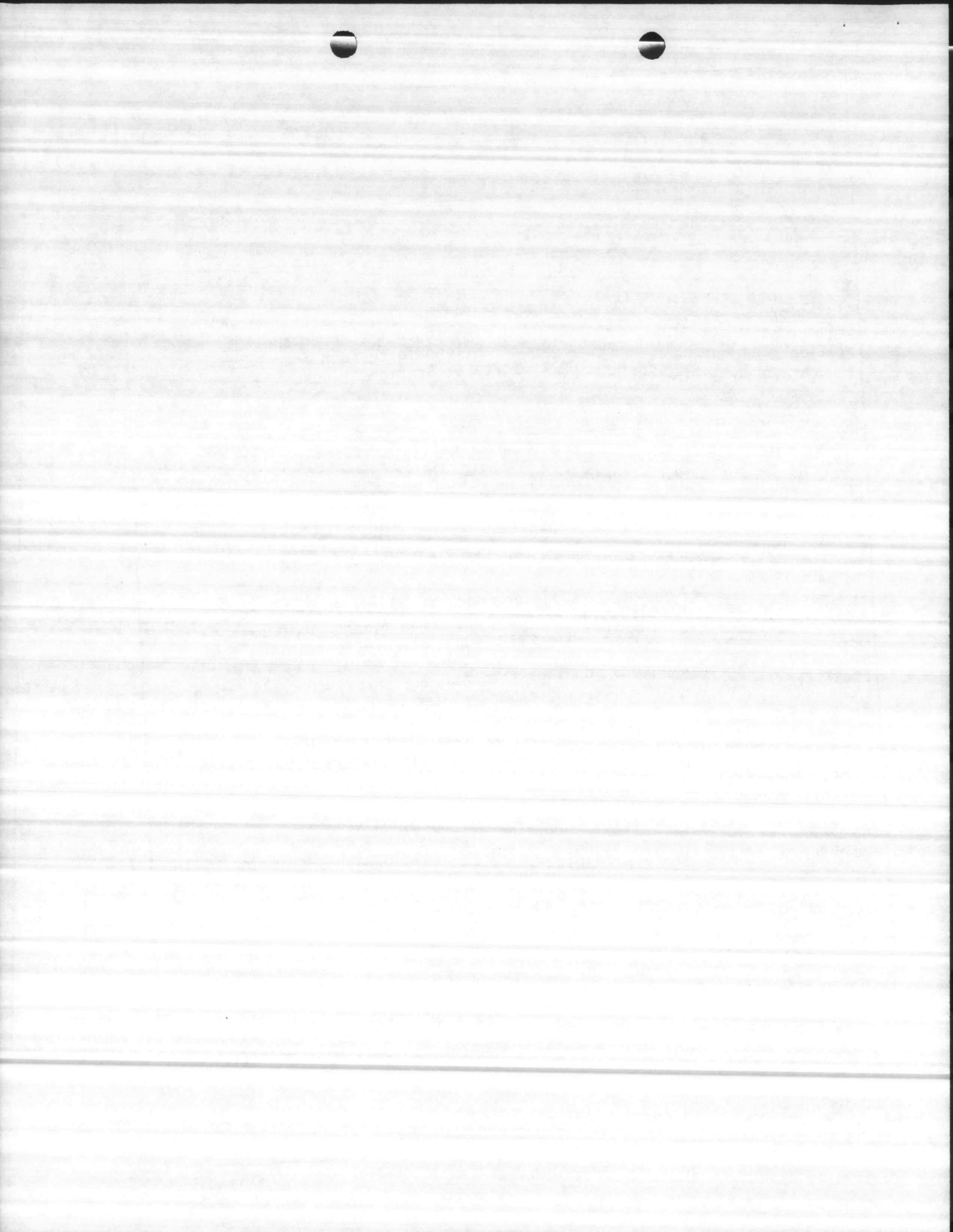
(3) Collateral Equipment.

(a) Built-in MCON Funded.

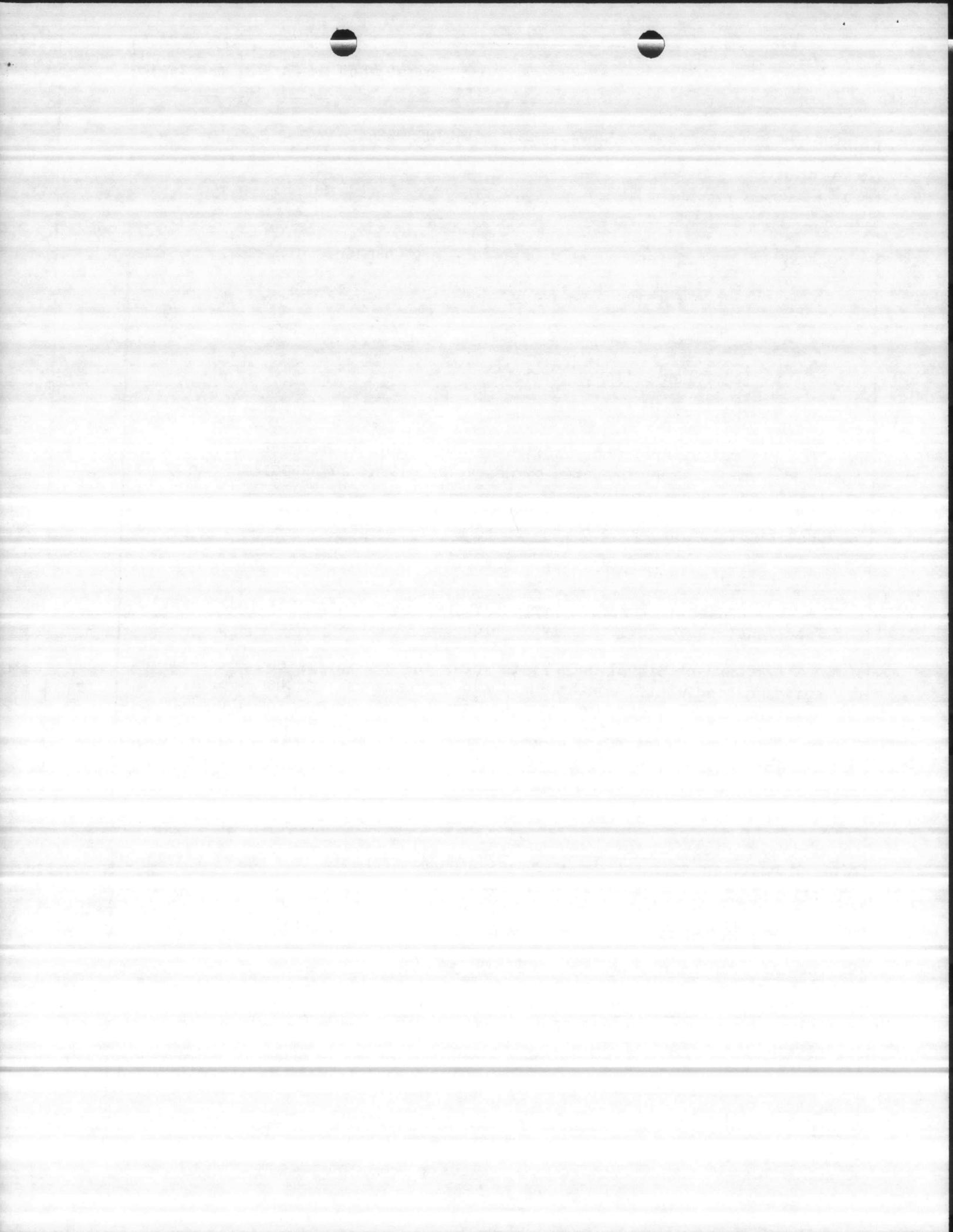
\* Electrical alteration control systems, with monitors.

\* Chlorine agitation/mixing equipment.

\*Equipment with associated installation costs.



1. COMPONENT NAVY	FY 19 85 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 1 AUG 1981
3. INSTALLATION AND LOCATION MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542		
4. PROJECT TITLE SEWAGE SYSTEM IMPROVEMENTS	5. PROJECT NUMBER P-790	
<p>*Grit removal equipment for Grit Chamber</p> <p>*Sewage force mains</p> <p>*Electric force main pumps</p> <p>(b) <u>Expense Items</u>: None</p> <p>(c) <u>Investment Items</u>: None</p> <p>4. <u>Cost Estimate</u>: Area Cost Factor for Camp Lejeune, N. C. is 0.95, taken from an A&amp;E study prepared by Henry Von Olsen and Associates in April 1979 and escalated to FY-83.</p> <p>5. <u>Justification for Project and for Scope of Project</u>:</p> <p>a. <u>Justification for Project</u>:</p> <p>(1) <u>Project</u>: Proposed project is required to provide an adequate and functional sewage disposal system for the main Base areas.</p> <p>(2) <u>Current Situation</u>: Filter beds are not sufficient to treat and dry solids during winter months and periods of adverse weather. Grit chambers and chlorination processes are inadequate. Pumps require alternation controls and/or replacement. Increasing amounts of grease and oil require excessive cleaning and hinder plant operations.</p> <p>(3) <u>Impact If Not Provided</u>: Malfunction of a pumping station or overload of the sludge drying beds could result in flooding and contamination of the surrounding areas.</p> <p>b. <u>Justification for Scope of Project</u>. The project scope is the minimum that can meet the deficiencies and requirements to support existing and proposed facilities in the main Base areas.</p> <p>6. <u>Equipment Provided from Other Appropriations</u>: Not applicable.</p> <p>7. <u>Common Support Facilities</u>: Not applicable.</p> <p>8. <u>Effect on Other Resources</u>: No additional personnel will be required to operate the proposed facilities, and only a minimal increase in electricity charges will be required to operate the new facilities.</p> <p>9. <u>Siting of the Project</u>: The facilities will be located in the main Base area of Camp Lejeune. See enclosure (1).</p>		

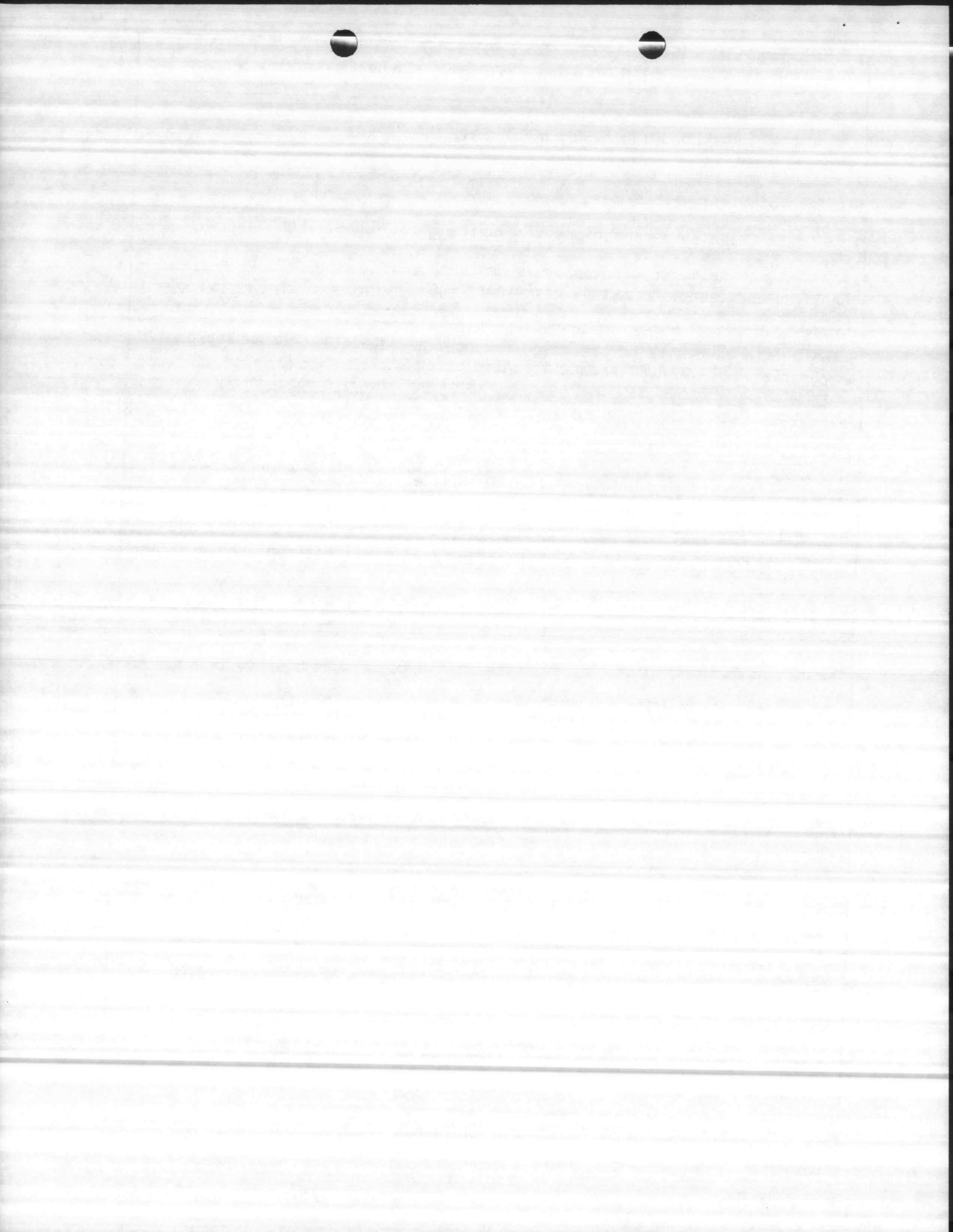


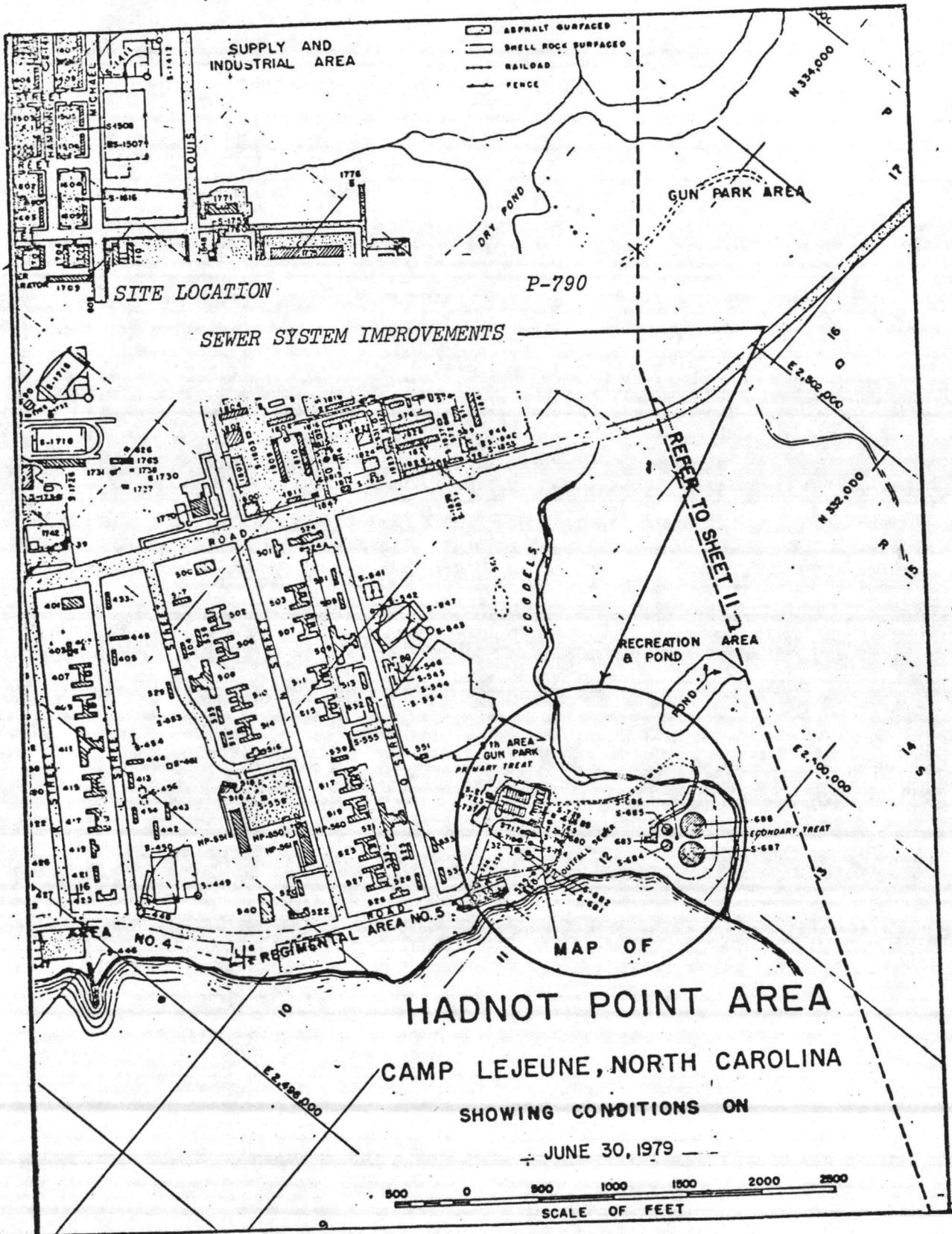
1. COMPONENT NAVY	FY 19 85 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 1 AUG 1981
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3. INSTALLATION AND LOCATION  
MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE SEWAGE SYSTEM IMPROVEMENTS	5. PROJECT NUMBER P-790
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- 10. Other Graphic Presentations, including Photographs. None.
- 11. Economic Analysis. No analysis has been made. Requirements are as specified and cannot be met by any other means.
- 12. Environmental Impact. An Environmental Impact Assessment (EIA) is being written and will be processed through the local EIA Review Board. No adverse environmental impact is anticipated.
- 13. Quantitative Data. Not applicable.
- 14. Maintenance Facility. Not applicable.
- 15. Morale, Welfare, and Recreation Facilities. Not applicable.
- 16. Relocation Facilities. Not applicable.
- 17. Hazard Identification, Assessment and Analysis. Not applicable.







T-11300/13  
MAIN/TH/rn  
11300

JUN 0 2 1981

From: Base Maintenance Officer  
To: Assistant Chief of Staff, Facilities

Subj: Modifications/Additions to Military Construction Program

Ref: FOHECON btwn T. Hatcher, BMaintDept, and Al Austin, Fac, on 8 May 1981

Encl: (1) Expansion of Well Field, Hadnot Point Water Treatment Plant  
(2) Water Trunk Main, Holcomb Boulevard and Hadnot Point Water Treatment Plants  
(3) Additions to MCON Project P-790, Hadnot Point Sewage Treatment Plant  
(4) French Creek Utility Distribution System Expansion

1. As discussed during reference (a), there are a number of utilities projects that need to be added to the subject Military Construction Program:

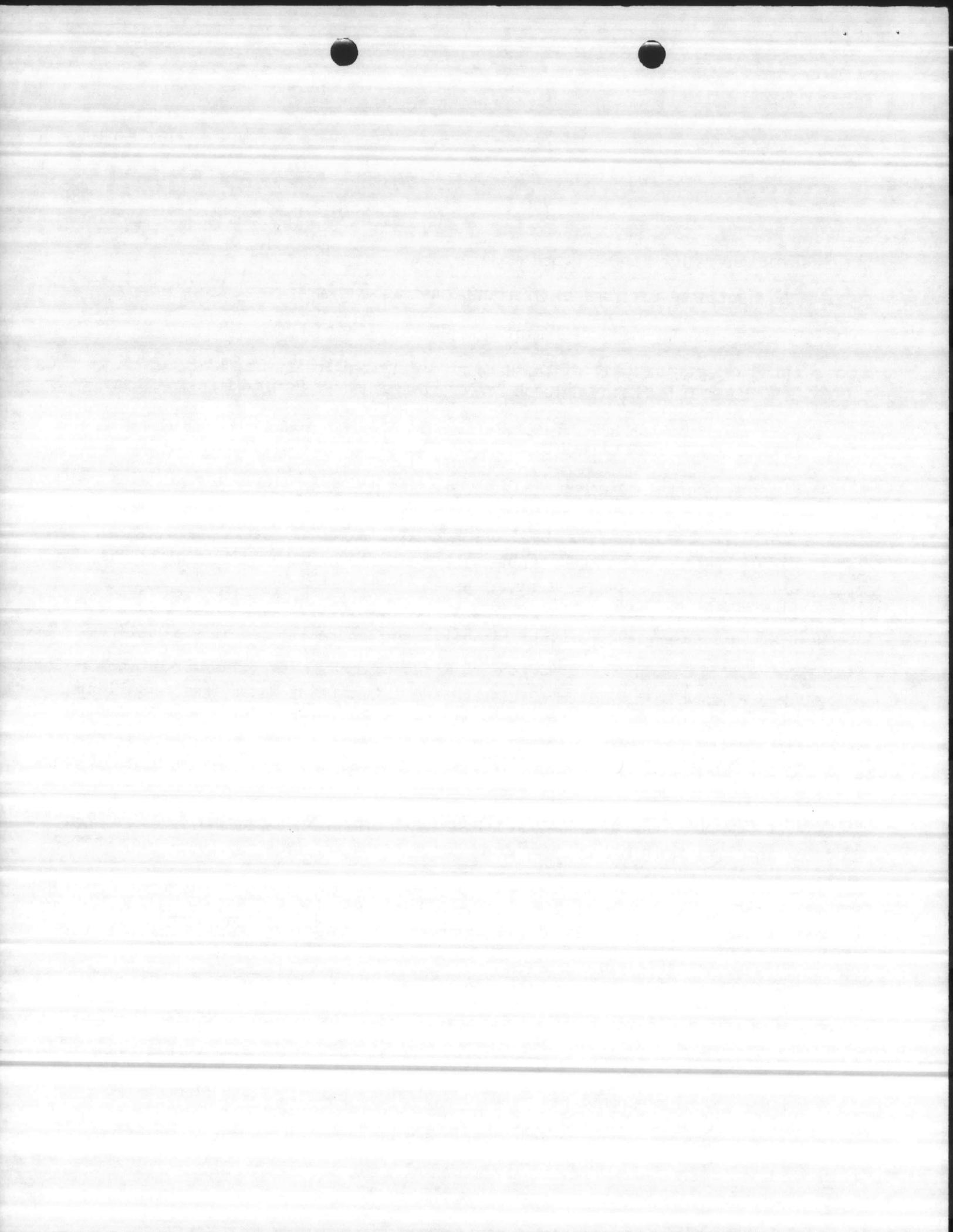
a. Expansion of Well Field, Hadnot Point Water Treatment Plant. A rapid decline in production from the existing well field at the Hadnot Point plant has resulted in significant reduction in raw water availability and the over-pumping of existing producing wells. Approximately 10 new wells, along with associated transport lines, will be required to restore the well field to an acceptable capacity of 150 percent of the plant capacity. Enclosure (1) contains a listing of the elements and associated FY-81 costs for this project.

b. Water Trunk Main, Holcomb Boulevard and Hadnot Point Water Treatment Plants. The trunk main system between the two plants needs to be reinforced. Due to the congested condition and lack of space in the vicinity of the Hadnot Point plant, no major expansion of this plant can occur. Accordingly, all future increases in water requirements for the Hadnot Point area will have to occur at the Holcomb Boulevard plant, which is scheduled for expansion in MCON Project P-785. The trunk system should be sized to allow delivery of approximately 5 million gallons per day from either area to the other in emergency conditions. This can be accomplished by one 24-inch line laid along Holcomb Boulevard. Enclosure (2) contains an element breakdown of the project along with FY-81 costs.

Either of the two water system upgrade projects can stand alone as MCON projects. However, combined with MCON Project P-785, Expansion of Holcomb Boulevard Water Treatment Plant, all of the present and future needs of the Hadnot Point area water supply will be satisfied in one project.

2. An update review of MCON Project P-790, Upgrade of the Hadnot Point Sewage Treatment Plant, indicates the need for several additions to the project:

a. Lift Station FC-315 receives sanitary waste from the entire French Creek Area and pumps it directly to the Hadnot Point Sewage Treatment Plant. Both of the 1000 gallons per minute pumps are required to handle peak influent flows into the station. A third 1000 gallons per minute pump is needed to serve as an alternate and as a reserve during periods when the other pumps are down for maintenance or repair.



b. Increasing amounts of grease and oil coming into the Hadnot Point Sewage Treatment Plant is creating operational problems at the plant. Under the present system, the oil and grease that can be skimmed from the primary tanks are pumped into the digesters. The growing volumes of grease and oil have created a requirement for frequent pumping of the digesters, and the increasing presence of oil and grease in other parts of the plant has further hindered plant operation. Project P-996, presently under construction, provides for collection of runoff from various areas of the base, with delivery to the sanitary sewer system. Although oil/water separators are being installed as a part of this project, additional oil residue can be expected to appear at the plant. In order to maintain satisfactory operation of the plant, an oil grease/skimming tank, with automatic skimmers, and a holding tank will be required.

Enclosure (3) contains an element listing of the project along with FY-81 costs.

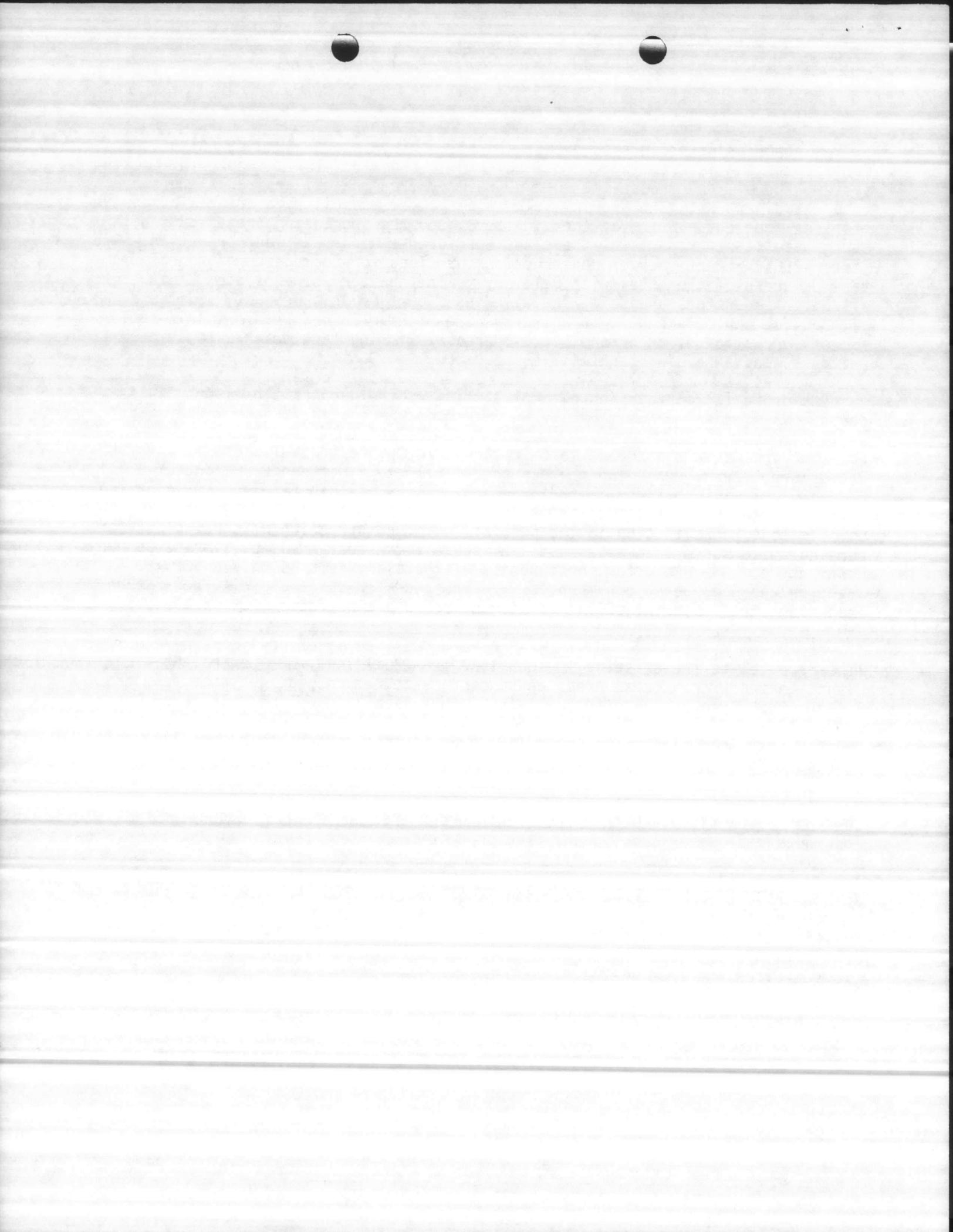
4. The final area that needs to be reviewed for project development is the French Creek Area. Based on the proposed development between FY-82 and FY-87, 21 buildings will be added to the existing utility distribution system, creating a level of demand that cannot be met by the existing distribution system. Further complicating the situation is the possibility of construction of a new plant for burning solid waste and waste wood. A feasibility study by J. E. Sirrine Company, Contract No. 80-3-3801, for construction of the plant is presently underway. Based on known proposed construction and the need for spare capacity for future expansion, the following utility system upgrades are needed:

a. Steam Distribution System. Provision must be made for a new 10-inch steam line parallel to the existing 10-inch line from Building 1700, Central Heating Plant, to the French Creek Area, and a condensate return piping system from the French Creek Area to the existing 6-inch condensate return line. In order to provide utility service to the proposed development between Main Service Road and Sneads Ferry Road, an 8-inch steam line and a 4-inch condensate return line will be required.

b. Water Distribution System. The existing water distribution system should be expanded and looped within the French Creek Area to provide adequate domestic and industrial water supply, and fire protection.

c. Sanitary Sewer System. Gravity sewage collection systems for each of the French Creek areas where construction is to occur will be required. To meet the future growth, three new lift stations must be constructed, and the capacity of existing station FC-203 must be increased to handle the increased flow. A new combination 6-inch, 10-inch gravity line to existing FC-315 will be required to provide discharge from FC-203.

Enclosure (4) contains an element breakdown of the project along with FY-81 costs.



5. For additional information on subject additions to the MCOM Program, contact Terry Hatcher, Director, Utilities Division, ext. 5151.

F. H. MOUNT



Additions to MCON P-790 - Hadnot Point Sewage Treatment Plant

Station FC 315

New Pump with Motor/shafting	\$ 8,000
Piping and Fittings	1,500
Electrical	1,700
Total Construction	<u>\$11,200</u>
SIOH (5.5%)	616
Contingency (10%)	<u>1,182</u>
Total CWE	\$12,998
Design (6%)	780
Total	<u>\$13,778</u>

Automatic Oil/Grease Skimming Tank

Tank (250,000 gal)	\$200,000
Oil/Grease Storage Tank (5000 gal)	5,200
Piping, valves, other mechanical	35,000
Electrical	15,000
Total Construction	<u>\$255,200</u>
SIOH (5.5%)	14,036
Contingency (10%)	<u>26,924</u>
Total CWE	\$296,160
Design (6%)	17,769
Total	<u>\$313,929</u>

