AD NUMBER
AD510865
CLASSIFICATION CHANGES
TO: unclassified
FROM: confidential
LIMITATION CHANGES
TO: Approved for public release, distribution unlimited
FROM: Controlling DoD Organization. Assistant Chief of Staff for Force Development [Army], Washington, DC 20310.
AUTHORITY
AGO D/A ltr, 29 Apr 1980; AGO D/A ltr, 29 Apr 1980

DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL
WASHINGTON, D.C. 20310

IN REPLY REFER TO

AGDA (M) (11 Aug 70) FOR OT UT 702034 18 August 1970

SUBJECT: Operational Report - Lessons Learned, Headquarters, 39th Engineer Battalion (Combat) for Period Ending 30 April 1970 (U)

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BY ORDER OF THE SECRETARY OF THE ARMY:

Kenneth G. Wickham

KENNETH G. WICKHAM
Major General, USA
The Adjutant General

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DEPARTMENT OF THE ARMY
HEADQUARTERS 39TH ENGINEER BATTALION (COMBAT)
APO San FRANCISCO 96325

30 April 1970

SUBJECT: Operational Report of 39th Engineer Battalion (Combat) for Period Ending 30 April 1970, RCS CSFOR-65 (RI)

THRU: Commanding Officer
45th Engineer Group
ATTN: S-3
APO 96308

Commanding General
18th Engineer Brigade
ATTN: AVBC-C
APO 96377

Commanding General
United States Army, Vietnam
ATTN: AVHGC-DST
APO 96375

Commander in Chief
United States Army, Pacific
ATTN: GPOP-DT
APO 96558

TO: Assistant Chief of Staff for Force Development
Department of the Army (ACSFOR DA)
Washington, D.C. 20310

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(C) SECTION I

A. (C) GENERAL:

1. (U) Organization:

During the report period, the 39th Engineer Battalion (Combat) consisted of Headquarters and Headquarters Company and four lettered line companies. The 511th Engineer Company (Panel Bridge) and the 137th Engineer Company (Light Equipment) remained attached to the Battalion throughout the report period. The 39th Engineer Battalion Provisional Land Clearing Platoon remained assigned to Headquarters and Headquarters Company and under the operational control of the Land Clearing Company of the 9th Fleet Marine Force Engineer Battalion.

2. (U) Command:

The 39th Engineer Battalion (Combat) remained under the command of the Commanding Officer, 45th Engineer Group (Construction). The Battalion remained in support of the Americal Division throughout the reporting period, with Headquarters and Headquarters Company located within the CHU LAI Base (BT 534036). Incumbent commanders at the close of the report period were as follows:

CO, 39th Engr Bn	LTC Hugh G. Robinson
CO, HHC, 39th Engr Bn	CPT James W. Neuhaus
CO, Co A, 39th Engr Bn	CPT Bruce A. Elliott
CO, Co B, 39th Engr Bn	CPT Harry O. Taylor
CO, Co C, 39th Engr Bn	CPT David J. Wilhus
CO, Co D, 39th Engr Bn	CPT Larry W. Tidwell
CO, 137th Engr Co (LE)	CPT Luis Riveiro
CO, 511th Engr Co (PB)	CPT Perry M. Taylor

3. (C) Major Activities:

During the report period the Battalion completed the upgrade and paving of QL-1 between MO DUC (BS 740525) and DUC PHO (BS 807378). The repair of QL-1 between DUC PHO and vic. LZ DOG LE (BS 882305) was also completed. The Land Clearing Platoon contiuned land clearing for the Third Marine Amphibious Force and XXIV Corps under the operational control of the 9th FMF Engineer Battalion. The reconstruction of the SONG GO NA bridge (BS 691646) was completed on the last day of the report period while construction of the SONG VE bridge (BS 697635) was initiated in March. The T.M' QUAN bridge and causeway (BS 920101) and an 80 foot, class 60, timber pile bridge at (BS 633811) were completed. Living bunkers, fighting bunkers, powder and projectile bunkers, and gun pads were constructed at LZ BEST (AT 990250), LZ CENTER(BT 057251), FSB HAWK HILL (BT 227320), LZ LIZ (BS 752435), LZ DOTTIE (BS 627856), LZ FAT CITY (BT 435079), and LZ DRAGON (BS 725538). The LZ LIZ access road was upgraded and paved. An armored cavalry base camp was constructed. Artillery observation towers were prefabricated, air transported and emplaced on OP-1 (BS 517778) and OP-3 (BS 754435). During

the report period the upgrading to single lane all weather standards of Route 518 from CHUNG NGAI (BS 645728) to AN NY (BS 544740), Route 5B from QL-1 (BS 638758) to HA THANH (BS 390708), and Route 533 from TAM KY (BT 318221) to TIEN PHUOC (BT 120140) was initiated. The rehabilitation of the TIEN PHUOC Airfield to Type II C-123 airfield with M8A1 matting surface began during the latter part of the report period. Other projects initiated but not completed included the construction of an ASP Security Fence at LZ BRONCO (BS 915383) and the reconstruction of a Helipad at CHU LAI (BT 572034). Work continued to place the Stabilization Plant into operation at the Battalion area in CHU LAI and a primary rock crusher was placed into operation. Continuous missions throughout the report period on QL-1 included minesweeps of 71 kilometers from CHU LAI to DUC PHO, repair of enemy damage, and route maintenance which include repair of pot holes and construction of concrete headwalls.

a. The paving of the 32 lane kilometers of QL-1 from DUC PHO to MO DUC was completed on 4 February. On 24 February this section of primary LOC was officially transferred to the Government of Vietnam. In early March work began south of DUC PHO to repair approximately 10 kilometers of damaged portions of QL-1 between DUC PHO and LZ DEBBIE. This work was completed on 17 April. The overall paving operations were delayed because of break downs in the Navy operated asphalt plant and requirement to transfer some of the paving equipment to another unit.

b. The Land Clearing Platoon cleared 5560 acres at two different locations for Third Marine Amphibious Force and XXIV Corps. All land clearing operations were joint Army-Marine Corps operations as the platoon remained OPCON to the 9th FMF Engineer Battalion.

c. The reconstruction of the Song Go Ma Bridge was completed on 30 April, after being started in the previous report period. During this report period twenty-three of the twenty-nine reinforced concrete deck slabs were placed. The reinforced concrete abutment was placed and a hole caused by artillery in the original reinforced concrete deck was repaired. Six 50 foot and six 60 foot 36 WF 150 steel stringers were welded together from 40 foot stringers and placed for the two new spans. Forty steel diaphragms were welded and placed and the concrete deck slabs were welded to the stringers. The abutment was backfilled, compacted, graded and shot with soil binder.

d. On 6 March 1970 work began to prefabricate 105 reinforced concrete bridge deck slabs for the SONG VE Bridge. Concrete for the first slab was placed on 12 March. At the end of the report period 41 slabs had been placed. Work began on site in April to continue construction of the reinforced concrete fluted piles which had been started by the Vietnamese Ministry of Public Works. The 50 meter causeway leading to the south abutment was begun on 23 April.

e. The construction of a 120 foot timber pile bent bridge and 660 foot causeway at TAM QUAN was completed on 19 February. On 20 February the bridge was burned to the water level by the Viet Cong. The bridge

was reconstructed and the causeway completed on 26 March.

f. A two way, class 60, 80 foot timber pile bent bridge was constructed on QL-1 at (BS 633811). Work started on 3 February and ended on 15 March. Work was delayed several times due to lack of a crane with pile driving leads.

g. Throughout the report period a number of bunkers and gun pads were constructed for the American Division and MACV within the area of operations. At LZ WEST fourteen 10x12 living bunkers, six 12x24 living bunkers, and three 155m gun pads with powder and projectile bunkers were constructed. Thirty-two 8x12 living/fighting bunkers were also completed which had been started by infantry troops. Eighteen 8x12 living/fighting bunkers were constructed at LZ CENTER and an additional eight were reinforced. At FSB HAWK HILL twelve 12x24 bunkers, six 24x32 bunkers and eight 18x20 bunkers were constructed. Three 8x12 fighting bunkers were constructed at LZ LIZ. One 32x40 TOC bunker, one 20x32 living bunker, and two 12x24 bunkers were constructed at LZ DOTIE. At LZ DRAGON a 36x48 living/TOC bunker was constructed. A 60x32 TOC was constructed at [illegible] L.I.

h. The upgrading and paving of the LZ LIZ access road, begun during the last report period, was completed on 7 March. The project included placing, grading, and compacting 13,456 cubic yards of laterite 2011 cubic yards of base rock, and 1220 tons asphalt on the 2.4 kilometers of road.

i. At CHU L.I a base camp was constructed for the 1st Squadron, 1st Cavalry. Among the facilities constructed were 50 SEA Huts, three 100 man mess halls, eight latrines, and three showers. Construction began during the last report period and was completed on 15 March.

j. Two observation towers, on 25 feet high and on 20 feet high, were constructed for American Division Artillery. The towers were prefabricated, airlifted, and cemented into place on OP-1 and OP3. Work began on 1 February and was completed on 12 February.

k. The Secondary LOC program began on 12 February with engineer recons of Routes 5B and 518. The recon party on 5B was ambushed vic. BS 537775 and suffered 2 WIA, 2 PF's KIA, but six Viet Cong were KIA and 2 prisoners captured. On 21 April work began on Route 533 with an engineer recon. All roads are to be 4 meters wide with 1 meter shoulders, a six inch wearing surface of compacted rock and turnouts every 500 meters. At the end of the report period 17,730 cubic yards of laterite had been placed on Rt 5B, and 43,467 cubic yards of laterite had been placed on Rt 518.

l. On 5 April a work force moved to TIEN PHUOC to upgrade the existing runway to Type II C-123 specifications. The air field was closed on 19 April and within two days the existing M8A1 matting had been removed. New elevations and a drainage system were established on the runway, soft spots were removed, and new fill placed and compacted. Work was temporarily suspended on the runway during 20-22 April, 25-26 April, and 28 April so that it could be used for tactical operations.

a helicopeter refueling area and a chinook pad were also constructed.

m. On 15 March work began at LZ BROADCC to construct 6500 liner feet of chain link security fence around an ammunition supply point. Actual work includes placing steel pipe in concrete at 10 foot intervals, stringing chain link fence, welding angle iron to the pipe and stringing three strands of barbed wire on the angle iron.

n. A helipad renovation project began on 30 March for the Americal Division at CHU LAI. The scope of the work required includes the removal of approximately 66,000 square feet of M8A1 matting which had been badly damaged, reshaping and recompacting the landing area, spraying the landing area with MC-250, and re-laying M8A1 matting for a new landing pad.

o. A continuous effort during the entire report period was devoted to placing the stabilization plant into operation. A 300m water distribution system was constructed with a 5000 gallon tank placed on a tower to feed the plant. The plant was placed into operation on 3 April after being deadlined for a considerable period of time due to a damaged circuit breaker. However, on 6 April the plant was deadlined again with a torn feeder belt after being in operation for only 2 days. The sand cement product is to be used on the secondary LOC's.

p. The 75 TPH primary rock crusher was placed into operation on 24 March. The crusher was deadlined for eight days while a Pitman bearing was being replaced. Inspite of this the crusher produced over 7000 cubic yards during the report period.

4. (C) Activities of Headquarters Company:

Throughout the report period, Headquarters Company, 39th Engineer Battalion was located at CHU LAI (BT 534036). Headquarters Company continued its mission of supporting the line companies with heavy equipment, accomplishing engineer support tasks for the Americal Division within the CHU LAI Base area, and land clearing for III Marine Amphibious Force and XXIV Corps. Headquarters Company supported Company D for messing throughout the report period.

Throughout the period, the Heavy Equipment Platoon was employed assisting the line companies as needed. A 20 ton rough terrain crane was placed OPCON to Company B for driving piles, placing bents, and laying stringers for the TAM QUAN Bridge (BS 920101). A sheepsfoot roller and 13 wheel rubber tired roller were attached to Company C and B for the construction of Route 518 and Route 5B respectively. When available, Company A used a crane from the Heavy Equipment Platoon for moving precast reinforced concrete slabs within the pre-fabrication yard and to the SONG GO #1 Bridge site (BS 691646). The crane was also used to place steel stringers on the SONG GO #1 Bridge. The Heavy Equipment Platoon supported other units within the Americal AO with bulldozers, front loaders, and low bed trailers throughout the report period.

At the begining of the report period the Land Clearing Platoon was clearing the Da Nang Rocket Belt south of the city of DA NANG (BT 005755).

During this operation a total of 2123 acres were cleared during this report period. After a fifteen day maintenance stand down from 3 - 18 March the platoon moved by road and began clearing an area east of LZ BALDY (BT 132453). At the end of this report period over 3500 acres had been cleared during this operation. The platoon found and destroyed 92 artillery rounds, mortar rounds, and mines, and captured 5 individual weapons. The platoon destroyed 514 bunkers and 1766 feet of trenches and tunnels. The platoon was credited with killing 1 NVA.

Headquarters Company continued working on improving Battalion defenses at CHU LAI. The bunker line was strengthened and reinforced and individual foxholes were installed. Under the selfhelp program all buildings at Battalion Headquarters were painted and the mess hall was extended.

4. (C) Activities of Company A:

At the begining of the report period, Company A Headquarters, First, and Second Platoons were located at CHU LAI (BT 534036). The Third Platoon was located at LZ SNOOPY (BS 700607). Assigned missions included reconstruction of the SONG GO MA Bridge (BS 619646), installation of a water system for the stabilization plant located at CHU LAI, minesweep of QL-1 from LZ SNOOPY to the bridge at (BS 659700), and support of the 511th Engineer Company (PB) with dump trucks and security for the rock and asphalt haul. Projects initiated during the report period were construction of a 32'x60' TOC bunker for the 1st Squadron, 1st Armored Cavalry at CHU LAI, completion of the SONG VE Bridge (BS 696635), and minesweep of QL-1 from CHU LAI to LZ DOTTIE (BS 627656).

Reconstruction of the SONG GO MA Bridge consisted of the prefabrication of 29 reinforced concrete slabs for the required 110 feet of decking, removal of 140' of temporary Bailey Bridge, construction of a reinforced concrete abutment, removal of the two damaged spans of reinforced concrete T beam construction, placement of 12 steel stringers and the prefabricated concrete decking, and repair of the southern span that had been damaged by an artillery round. The First Platoon with one squad from the Second Platoon had the mission of constructing the reinforced concrete deck slabs at CHU LAI. Six slabs were placed during the previous report period and the remaining twenty-three were completed by 5 March. The Third Platoon started on site work on 1 February by clearing a minefield and preparing approaches for a float bridge bypass. A 250 foot M4T6 float bridge bypass was then constructed by the 26th Engineer Battalion, Americal Division. Once the float bridge was constructed, the Bailey Bridge was removed and work began to remove the destroyed spans. Removal of the damaged spans proceeded rapidly, but with care so that the existing piers would not be damaged. Using a combination of interval charges, cap muff charges, cutting torches, and air hammers, the damaged spans were removed by 25 February. At the same time the damaged southern span was being repaired. Concrete for this damaged span was placed on 9 March. The footing for the reinforced concrete abutment was placed on 16 March over the four existing piles. On 23 March concrete for the remaining sections of the abutment and

wingwalls were placed. In the meantime masonry plates were placed on the existing two piers and then on the abutment. Stringers were placed on the first span on 6, 7, and 8 April and on the second span on 16 and 17 April. Previously prepared diaphragms were welded between the stringers and the concrete decks were all placed and welded by 26 April. On 30 April the last hand rails had been installed and the bridge was complete.

On 2 February the Second Platoon began installing a water system for the stabilization plant located at CHU L.I. The mission included installing one 36" culvert, 1800 feet of 4" pipe and construction of a timber tower to hold a 5000 gallon tanker body. The project was completed on 2 March.

The Second Platoon began construction of a 32'x60' TOC bunker for the 1st Squadron, 1st Armored Cavalry Regiment at CHU L.I on 20 February. The bunker was a standard TSFC design bunker with a concrete floor, modified to make the ceiling one foot higher. The bunker was completed on 12 March.

On 7 March work began on the SONG Vu Bridge, a 600 foot reinforced concrete bridge which had been started by the Vietnamese Ministry of Public Works in 1965. The existing bridge consisted of two 60 foot reinforced concrete T beam spans, four completed piers with caps, on pier without cap, and three piers requiring extension of the piles, reinforcing bar, and concrete. Work to be done includes completing the four unfinished piers, constructing a 180 foot causeway leading to the south abutment, constructing the south abutment, precasting 480 feet of reinforced concrete decking, fabricating 48 steel stringers, and placing the superstructure. The estimated time of completion of this project is 31 October 1970. On 7 March, the Second Platoon supported by the Third Squad, First Platoon started precasting the slabs for the decking in CHU L.I. By the end of the report period 41 of the 106 required slabs were placed. On 16 March the Second Squad of the First Platoon relocated to LZ SNOOPY and began work on site. By 30 April the river had been rechannled under the two existing spans, an access road to all piers requiring work had been constructed, and all piling had been completed on two piers. Masonry plates had been placed on the existing caps and the first stringers had been welded.

On 3 April Company A assumed minsweep responsibility of QL-1 from CHU L.I to LZ DOTTIE from Company D.

Company A provided dump trucks under the operational control of the 511th Engineer Company (PB) for rock and asphalt haul from CHU L.I to various work sites throughout the report period. Security and control for asphalt haul was also provided by vehicle mounted patrols.

Enemy activity was extremely light during the report period. At 0400 hours on 15 April LZ SNOOPY was hit with ten 60mm mortar rounds. Company A received no casualties or damage.

During the report period, Company A constructed 23 concrete slabs for the SONG GO MA Bridge; outside to outside curb dimension - 29.42'; roadway width, 24.67'; slab length 5.0' and slab thickness - 0.71'; 41 concrete slabs for th SONG VE Bridge; outside to outside curb dimension 31.45'; roadway width 24.67'; slab length 5.0' and slab thickness - 0.71' and spliced 12 on - 36WF150 steel stringers. A water system for the stabilization plant, a 32'x60' TOC bunker and a living bunker at LZ Snoopy were also constructed. Company A conducted minesweeps on 30 Km of QL-1 daily, as well as job site and sand pit minesweeps.

6. (C) Activities of Company B:

At the start of the report period, Company B, was located at LZ DOTTIE (BS 627856) with the mission to maintain and upgrade the bridges, drainage structures, and roadway of QL-1 from BINH SON (BS 601922) to the north bend of the SONG VE River (BS 694636), approximately 28 kilometers. Second Platoon, Company B, was located at LZ NORTH ENGLISH with the mission to construct a 660 foot causeway and a 120 foot bridge at TAM QUAN (BS 920101). In addition, Company B conducted a daily minesweep of QL-1 between LZ DOTTIE and QUANG NGAI (BS 624747).

Projects under construction at the start of the report period were as follows: asphalt and rock haul from CHU LAI (BT 534036) to the laydown site vic DUC PHO (BS 807378), construction of a 6 span, 120 foot timber pile bent bridge and 660 foot causeway at TAM QUAN, the construction of two observation towers for the Americal Division, and the construction of a two way, class 60 timber pile bridge at (BS 633811) on QL-1.

Company B trucks hauled 980 tons of asphalt and 940 cubic yards of base rock in support of the battalion's paving operations and QL-1 upgrade vic. DUC PHO. Company B trucks only hauled on days when maximum effort was required to complete large unpaved portions of QL-1. The majority of Company B trucks remained at LZ DOTTIE AND LZ NORTH ENGLISH to support company operations.

The construction of the 6 span, 120 foot timber pile bent bridge and 660 foot causeway at TAM QUAN, which started during the last report period, was completed on 19 February 1970. On 20 February 1970, a Viet Cong force drove off the Popular Forces securing the bridge and burned the bridge to water level. To save time, the burned piles were capped at water level and a timber trestle bridge was built on top of the existing capped piles. The second bridge was started on 25 February 1970 and completed on 26 March 1970. Six thousand one hundred and eighty five cubic yards of blast rock and base rock were required to complete the 660 feet of causeway.

Two observation towers were constructed for the Americal Division. Construction of one 25 foot tower began on 1 February 1970 and ended on 17 February 1970 when the tower was airlifted by CH-54 to OP-1 (BS 517 778). The second tower, a 20 foot tower, was constructed and airlifted by CH-54 to OP-3 (BS 768386) on 23 February 1970.

... was, ... 60, 80 foot timber pile bent bridge ... constructed ... QL-1 at (... 555611). Work was begun on 3 February 1970 and ... on 15 March 1970. The project was delayed for two weeks because of ... availability of ... crane. A total of 3,750 man hours was expended ... construction of the bridge. In addition, one protective bunker was ... at the bridge for security forces.

On 6 February 1970, work began to construct one 32'x40' TOC bunker for the 1/6 ... Battalion at LZ DOTTIE. In addition, three living ..., (one ... and two 12'x24'), and one 8'x8' shower were con... All work was completed on 26 March 1970,

On 10 February 1970 work began on the upgrade and construction of Route 5B from QL-1 (BS 638758) to ... THANH (BS 393704), approximately 28 kilometers. The road is to be an all weather, one lane road, with turnouts every 500 meters. To date, 552 linear feet of culvert have been installed at 14 different culvert sites to complete all drainage structures from (BS 638752) to (BS 593762). Eighteen thousand seven hundred and thirty cubic yards of laterite have been hauled, graded ... shaped from (BS 638758) to (BS 510759) to prepare the road for base rock. Eight turnouts have been constructed.

On 31 March 1970, the second platoon redeployed from LZ NORTH ... to LZ DOTTIE. On the same day, work began on rebuilding a 200'x4... heliopad at CHU LAI. The project requires the removing of the existing ..., recompacting the sub base, and replacing the old matting with new ... steel matting. At present, the project is 45% complete.

Company B received the mission to replace all of the timber headwalls at multiple culvert sites along QL-1 between (BS 608905) and (... 786423). The old timber headwalls are to be replaced with concrete headwalls. Work began on 6 April 1970 and to date is 8% complete.

On 12 April 1970, the Third Platoon ... to LZ MAX (BS 763472) to provide additional security for the close out of the LZ and to work on concrete headwalls on that portion of QL-1. LZ MAX was closed out and the Third Platoon returned to LZ DOTTIE on 18 April 1970.

... LZ DOTTIE, two new living/fighting bunkers were constructed, an extension was put on the mess hall, and a welding shop was constructed in the motor pool, all work was completed by 25 April 1970.

In addition to these assigned projects, Company B expended 1400 man hours supporting other units in their area of operations. This included ... in ... 100'x500' area for ... Vietnamese jail, the clearing ... 1000'x... area for ... 1200 unit housing development at SON ... (... 644762), and the construction of a new market place along Route ... (... 621759).

Enemy activity during the report period was moderate. There were 4 ... mining incidents, 2 sniping incidents, one small mortar attack ... LZ DOTTIE, ... ambush, and one bridge was burned. The two ...

serious incidents were the ambush on Route 5B and the burning of the T.H OU.H bridge. On 12 February 1970, a recon team was ambushed on Route 5B approximately 11 kilometers west of QL-1. The ambush resulted in two friendly KIA's. Two infantry companies were combat assaulted into the area and the end result was 6 enemy KIA and 2 enemy WIA. On 20 February 1970, the T.H OU.H Bridge was burned to water level. The result was a platoon effort for 29 days to replace the destroyed bridge.

During the report period, Company B assembled and installed 552 linear feet of culvert, hauled 980 tons of asphalt, 18,730 cubic yards of laterite and 7,125 cubic yards of rock. Company B constructed two timber pile bridges, one TOC bunker, 5 living bunkers, two observation towers, and built 4 kilometers of road.

7. (C) Activities of Company C:

At the beginning of the report period, Company C was located at LZ HAX, (BS 763472). Projects in progress included minesweeps in the AOR; Route Maintenance and Repair on QL-1 from the SONG VE River, (BS 605635) to DUC PHO, (BS 807308); construction of culverts on the LZ LIZ access road from (BS 776449) to BS 755436); construction of a bunker at LZ DRAGON (BS 725538) for the 4th Regimental Advisory Team; Essential Facilities at Engineer Base Camps; security for 137th Engineer Company (LE) work parties on QL-1; civic actions in the AOR; and preparation for the close out of LZ HAX.

During the report period construction of an Ammo Supply Point security fence at LZ BRONCO (BS 815383); the upgrade of Route HL-518 from (BS 645728) to (BS 544740); the construction of concrete headwalls on QL-1; the preparation of potholes for paving on QL-1; the repair of the hospital roof at LZ BRONCO; and Engineer Support to units in the AOR were initiated.

Company C was responsible for minesweep operations on QL-1 from the SONG VE River to the I/II Corps Border (BS 908149) a total of 55 kilometers. On 1 March 1970, the 26th Engineer Battalion, Americal Division assumed the minesweep from DUC PHO to I/II Corps Border and on 21 February 1970, Company A assumed the minesweep from LZ SNOOPY (BS 700607) to the SONG VE River.

Construction of a 36 foot by 48 foot bunker was started during the last report period at LZ DRAGON for the HACV 4th Regimental Advisory Team. Materials were furnished by the user and the bunker was completed on 1 March 1970.

Company C was given the mission of extending the previously installed culverts on the LZ LIZ access road and installing one 48 inch culvert. This work was started on 14 February 1970 and was completed on 20 February 1970. Assistance in hauling asphalt from CHU LAI (BS 534036) to the road for paving was also provided. The paving was completed on 7 March 1970.

PAGES 10

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two bunkers and a generator shed, started the repair of hospital roof, moved to CHU LAI, and renovated the new company area. Potholes on QL-1 were prepared for paving and one concrete culvert headwall was constructed.

8. (C) Activities of Company D:

Throughout the report period Company D was located at CHU LAI (BS 534036). The assigned missions of the company at the start of the period included daily minesweeps of QL-1 from CHU LAI to LZ DOTTIE (BS 627-956), continuation of rock and asphalt hauls for the upgrading and paving of QL-1, construction of a headwall and other facilities for the Battalion rock crusher operations, bunker construction at LZ CENTER (BT 052-253) and LZ WEST (BT 990250), and operation of the Battalion Stabilization Plant. During the report period Company D was tasked to construct additional bunkers and 155mm gun pads at LZ WEST, construct bunkers at FSB HAWK HILL (BT 227320), move 25 SEA Huts into the company area, construct bunkers at LZ FAT CITY (BT 426089), rehabilitate the TIEN PHUOC airfield (BT 120140)and upgrade Route 533 from TAM KY (BT 318221) to TIEN PHUOC as part of the secondary LOC program.

From the start of the report period until 15 March, Company D continued to construct a peremanent base camp for the First Squadron, First Armored Cavalry Regiment at CHU LAI. During this period twenty-three SEA Huts, two 180 man mess halls, eight 4 hole latrines, and three 6 head showers were constructed. A total of 9617 man hours were expended on the project.

Work was completed at the Battalion rock crusher site on 27 February. A fifteen foot headwall was built, a 340 meter, 5 strand cattle fence was placed around the project site, and a 100KW generator hardstand and shed were constructed. A total of 1090 barrels of pereprim and 72 wide flange steel stringers had to be moved from the site.

From the start of the report period until 2 April, Company D conducted a visual minesweep of QL-1 from CHU LAI to LZ DOTTIE before initial rock or asphalt haul. The company also continued to haul rock and asphalt for QL-1 upgrading and paving. During the period, Company D hauled 1433 cubic yards of rock and 640 tons of asphalt. Until 2 April Company D provided security and control vehicles OPCON to the 511th Engineer Company (FB) for rock and asphalt convoys.

From the beginning of the report period until 16 February Company D constructed living bunkers for the 3rd Battalion, 21st Infantry at LZ CENTER and for the 4th Battalion, 31st Infantry at LZ WEST. Six 8'x12' bunkers were constructed at LZ CENTER and eight existing bunkers were rehabilitated. At LZ WEST five 8'x8' bunkers were constructed and twelve 8'x8' bunkers were repaired.

Throughout the report period Company D assisted civilian technicians from Quinton Budlong Engineers in preparing the stabilization plant for operation at CHU LAI. A generator shed was constructed and numerous calibrations were made. Initial test strips were begun on 3 April.

However, on 6 April a feeder belt was torn and the plant was once again inoperable. On 28 April the plant was once again placed into operation and test strips were placed in the battalion area.

On 19 February the First Platoon moved to LZ WEST and began construction of bunkers and gun pads for the 3rd Battalion 16th Artillery. The scope of the project included constructing one 12'x36', one 24'x24', and three 12'x24' living bunkers, six 10'x20' powder and projectile bunkers, and three timber gun pads for 155mm howitzers. Since LZ WEST is accessible only by helicopter, bad weather and non-availability of helicopter sorties because of higher priority requirements caused the project to be delayed a number of times for lack of materials. Nevertheless, by 13 April the project was completed and the platoon returned to CHU LAI.

On 20 February Company D received the mission to construct two 18'x20' living bunkers with concrete floors and one 80' long connecting passageway with an overhead covering at FSB HAWK HILL for the ARCV, 4th Regimental Advisory Team. Although all concrete mixing and excavation of approximately 20 cy of earth had to be done by hand, the project was completed by one squad on 8 March.

On 9 March, Second Platoon, D Company moved to FSB HAWK HILL to construct ten 12'x24' living bunkers, seven 24'x36' living bunkers, and six 10'x20' powder and projectile bunkers for the 3rd Battalion, 16th Artillery. The entire project was completed by 14 April.

After living in GP medium tents for six months Company D was tasked to salvage and relocate 25 SEA Huts from the 9th Engineer Battalion (FWF) cantonment area at CHU LAI to the company area. A total of 20 SEA Huts were moved intact by using a crane and low bed. Five others were disassembled and moved on 5 ton dump trucks. The relocation of SEA Huts began on 14 March and continued until 8 April.

Upon completion of bunker construction at HAWK HILL, the Second Platoon relocated directly to LZ JONIE (BT 295231) with the mission of upgrading Rt 533 to single lane all weather standards. From 14-27 April the platoon upgraded the existing facilities and repaired the perimeter wire and lights. On 28 April work began on Rt 533.

On 5 April Third Platoon, Company D moved by convoy to TIEN PHUOC with the mission of upgrading and rehabilitating the existing runway in conjuction with the 137th Engineer Company (LE) to Type II C-123 standards. From 5-15 April a base camp was established, additional equipment was moved to TIEN PHUOC, and plans were finalized on site. On 15 April the runway was closed and within two days Company D removed all existing AM-2 matting which had been placed on the first 400 feet of each end of the runway. While the 137th Engineer Company upgraded the airfield and accomplished the necessary earth work, Company D removed the matting from the parking area, preassembled culverts, and constructed fortifications at the base camp. Work was held up on three occassions as convoys continued to haul ammunition onto the airfield and the airfield was

used as a staging area for combat operations. When the earth work is completed, Company D will place M8A1 matting over the entire airfield.

On 17 April Company D began construction of six 24'x32' living bunkers and one 155mm gun pad for the 3rd Battalion, 16th Artillery at LZ EAST CITY (BT 426089). By the end of the report period two bunkers had been completed.

Enemy activity was light during the report period. One EM was cut by flying glass when the windshield of the 5 ton dump truck he was driving was struck by a sniper round on QL-1 (BS 629830). On 10 April a 25 ton lowbed trailer carrying a front loader on Rt 533 enroute to TIEN PHUOC struck an estimated 40-50 pound mine. The lowbed and front loader were both declared combat losses and 4 EM were slightly wounded.

During the report period Company D constructed a base camp consisting of 25 SEA Huts, 2 mess halls, showers, and latrines, constructed 51 bunkers of various size and three gun pads, relocated 25 SEA Huts for the company area, hauled 1433 cubic yards of rock and 650 tons of crushed lt for QL-1 upgrading and paving and began work to upgrade an airfield and a secondary LOC.

9. (C) Activities of the 137th Engineer Company (Light Equipment)

From 1 February until 18 April the 137th Engineer Company (Light Equipment) was located at LZ MAX (BS 763472). On 18 April the company moved to CHU LAI (BT 531105) when LZ MAX was transfered to the Goverment of Vietnam. The Quarry Section of the Support Platoon was located at CHU LAI throughout the report period with the mission of operating the quarry for the 39th Engineer Battalion and operating the company's 75 TPH Rock Crusher. At the beginning of the report period the primary mission of the company was the continued upgrading and paving of QL-1 from HO DUC (BS 740525) to DUC PHO (BS 807378). Later in the report period this mission was expanded to include repair of QL-1 between DUC PHO and the vicinity of LZ DEBEL (BS 852305). The Company was also tasked with the upgrading and paving of the LZ LIZ Access Road, BS 775436 to BS 776449, route maintenance and repair of QL-1 on an as required basis, and seeding of banks of QL-1 from BS 728556 to BS 805380. During the report period the 137th Engineer Company supported Company B, Company C, and Company D with engineer equipment for the secondary LOC program. In early April the Company was tasked to rehabilitate and upgrade the TIEN PHUOC airfield (BT 120140 to Type II, C-123 standards.

The primary mission of the 137th Engineer Company (LE) was the upgrading and paving of QL-1 from HO DUC to DUC PHO to CENCOM Class A Standards. At the beginning of the report period all base course had been placed, graded, and compacted and only 2.74 lane kilometers remained to be paved of the 32.0 lane kilometers between HO DUC and DUC PHO. Two thousand one hundred and ninety tons of asphalt were placed between 1-4 February to complete the paving. Base rock was then placed and compacted on the shoulders, and the shoulders were pencprimed and stabilized. On 24 February this section of QL-1 was formally transfered to

the Government of Vietnam and on 8 March the road was officially opened and dedicated in a joint Vietnamese - American ceremony.

Work then began to repair QL-1 south of DUC PHO. About 5.5 lane kilometers had to be repaired. Progress was continually slowed because of breakdowns in the Navy asphalt plant and the paving equipment in use was transferred to another unit. Delays were encountered in obtaining other paving equipment. The repair was completed on 17 April. Over 5500 cubic yards of base rock were placed, graded, and compacted and 4420 tons of asphalt were placed.

The upgrading and paving of the 2.4 kilometer single lane LZ LIZ Access Road initiated during the last report period was completed on 7 March. During this period 21,000 cubic yards of base rock were placed, graded, and compacted. Twelve hundred and twenty tons of asphalt were placed in two days to pave the road. The road was paved because of frequent enemy mining incidents. Since completion of the paving on 7 March no personnel or equipment have been lost on this road because of mines.

On 8 March the primary 75 TPH rock crusher arrived at CHU LAI and repairs were started immediately to place the crusher into operation. On 24 March the first 2 inch minus base rock was crushed. By the end of the report period over 7000 cubic yards of base rock had been produced. This rock will be used to provide a wearing surface for the secondary LOC's. The crusher was deadlined for eight days while the Pitman bearing was replaced.

A total of 13,900 gallons of soil binder were used to stabilize the shoulders of QL-1 between NO DUC and DUC PHO. The project was terminated on 22 April because of the non-availability of a hydroseeder to disperse grass seed.

Throughout the report period the 137th Engineer Company supported the 1st Brigade companies of the Battalion with engineer equipment for the secondary LOC program. Support was provided in the form of augmented haul capability, compaction equipment, and road graders.

The upgrade of the TIEN PHUOC Airfield was initiated during the report period. On 5 April the First Platoon moved to TIEN PHUOC to upgrade the existing airfield to Type II, C-123 specifications. The airfield was closed on 15 April and after Company D removed the existing MAT matting, the 137th Engineer Company began reshaping, grading, and compacting the runway. Numerous delays were encountered as the American Division continued to use the runway as an unloading area and as a staging area for 3 different tactical operations. A helicopter refueling pad was constructed for one such operation.

Enemy activity was light during the report period. On 10 February a grader struck a mine while working on the LZ LIZ Access Road and was destroyed. The 137th Engineer Company received several light mortar attacks at LZ HAM in early April but no casualties or damage were sustained.

During the report period the 137th Engineer Company (LE) completed paving the portion of QL-1 in I Corps for which the 18th Engineer Brigade was responsibl , completed the upgr ding nd p ving of the LZ LIZ ..ccess .o d, begin upgr ding the TIEN PHUOC ..irfield, overtod a rock crusher at CHU L.I, and provided equipment support for the construction of three secondary roads. A total of 15,850 cubic yards of base rock were placed and compacted, 9,440 tons of asphalt were placed, 7,000 cubic yards of base rock was crushed, and 29,850 gallons of asphaltic materials w re sprayed.

10. (C) ..ctivities of the 511th Engineer Comp ny (Panel Bridge):

Throughout the report period the 511th Engineer Company (Panel Bridge) was located at CHU L.I (BT 534036) with the mission of supporting the 39th Engineer Battalion. During this period the 511th Engineer Company (PB) continued its mission of organizing and supervising rock and asphalt hauls from CHU-301 in CHU L..I to the work sites on QL-1 between NO DUC (BS 740525) and DUC PHO (BS 807378) and in other locations. The company provided organizational maintenance support to all OPCON vehicles and provided security and control vehicles for asphalt and rock convoys.

On 26 March the Second Platoon was placed OPCON to Company B at TAI ..U.N (BS 920101) to haul blast rock and base rock for the construction of the causeway. Approximately 1500 cubic yards of rock were hauled from the abandoned quarry and crusher site at LZ HIBOY : (BS 913145). The mission was complete and the platoon returned to CHU L.I on 31 March.

From 2 to 10 April and from 20 to 5 April the 511th Engineer Company assisted Company B in hauling laterite for the upgrade of RT-5B. From five to ten trucks hauled each day. A total of 4500 cubic yards of laterite were hauled by trucks of the 511th Engineer Company.

From 1 February until 17 April, 6000 cubic yards of base rock and approximately 8000 tons of asphalt were hauled to complete the paving of QL-1 from NO DUC to DUC PHO and the repair of QL-1 from DUC PHO to LZ DEBBIE (BS 882305). Approximately 1500 tons of asphalt were hauled on 6-7 March to pave the LZ LIZ access Road after 3000 cubic yards of base rock had been hauled.

On 15 February the 511th Engineer Company was tasked to haul 140 feet of double single Bailey Bridge from the SONG GO N. Bridge (BS 9166) to CHU L.I. On 26 April the company provided 80 feet of double single Bailey Bridge and technical advice and assistance to Company C as Company C constructed the bridge for training.

Whenever the 511th Engineer Company hauling capability was not fully required by the 39th Engineer Battalion, the Company hauled base rock to the vicinity of FSB HAWK HILL (BT 227320) for the upgrade of QL-1 north in support of US Naval Mobile Construction Battalion Seven. On the return trip to CHU L.I sand was hauled to the CHU-301 industrial complex for use in producing ready mix concrete and asphalt. Sand was also hauled to the stabilization plant in the battalion area in CHU L.I.

No casualties or damage to equipment were sustained by the 511th Engineer Company during this report period from enemy initiated action.

In accomplishing its primary mission of rock and asphalt haul, 5 vehicles of the 511th Engineer Company (PB) drove over 102,000 miles and hauled 23,738 cubic yards of base rock, 11,560 tons of asphalt, 4,370 cubic yards of sand, 4500 cubic yards of laterite, and 1,498 cubic yards of blast rock.

B. (C) INTELLIGENCE:

1. (C) Reconnaissance:

Helicopter and ground reconnaissance missions were conducted as needed to check for enemy damage on QL-1, to evaluate proposed LOC improvement projects, and to locate possible sources of engineer construction materials. During the period, six aerial reconnaissances and fourteen ground reconnaissance were made. Included in the ground reconnaissance missions were one quarterly up date and three monthly up dates of QL-1, four bridge reconnaissances, and two route reconnaissances of secondary LOC's, Route LTL-5B and Route HL-518. Area studies initiated last quarter were completed.

2. (C) Enemy Activity:

Except for the high point of enemy activity experienced throughout the AO during the first three days of February, the months of February and March were characterized by light enemy contact. Enemy activity was mainly directed against Government of Vietnam Pacification programs/areas, and Vietnamese Army units. These activities were conducted chiefly by Local Force Units and Guerrillas. Activity directed against the Engineer effort was characterized by sniper fire against daily mine sweeps and vehicles involved in LOC operations. There were few mine/booby trap incidents reported; however, there were seven attacks for fire against LZ Max. These attacks were generally mortar fire, and never more than four rounds. During the last week of March, the Land Clearing Platoon deployed to BT 1496 an area occupied by 3 VC Battalions and 2 VC Companies. After the unit received RPG and B40 rocket fire accompanied by automatic weapons fire, the project was stopped for 3 days while Marine Security forces cleared the area. An ARVN Armored Battalion and Ranger Battalion were moved in to secure the area so the work could continue.

The end of March witnessed an increase in enemy activity to a high point on the night of 31 March - 1 April. The activity was conducted throughout the battalion AO by Local Force and Guerrilla units supported by Main Force Heavy Weapons and Sappers. This period was characterized by attacks by fire against Allied LZ's and installations, and GVN Pacification efforts. The number of sniping incidents against the Engineers along QL-1 increased and on 1 April LZ Max was again mortared. After this high peak (which is designated as the initial effort of the NVA/VC Spring/Summer Campaign) enemy activity declined to a very light

level. Activities directed against engineer effort increased disproportionally. however, sniping incidents remained the main enemy activity affecting this battalion. Since 1 Feburary 1970, 43 percent of the total sniping incidents recorded along QL-1 in the Americal Division AO were directed against the 39th Engineer Battalion (Combat) and attached companies.

a. Mines: During the reporting period 15 mines were encountered in the Battalion AO. The mines ranged in size from 4 pounds to 50 pounds, with bamboo type firing divices, electrical blasting caps and batteries. A total of four mines were detonated resulting in 6 US WIA, 0 US KIA, and 0 VN casualties during the period. The following is a break down of mines detected versus mines detonated. It is important to note that 8 of the 11 mines detonated were detonated by the Land Clearing Platoon where no effort is expended in locating mines before clearing an area.

MONTH	DETECTED	DETONATED	TOTAL
February	0	4	4
March	2	3	5
April	3	4	7

b. Booby Traps: During this period the Battalion encountered 17 booby traps. These booby traps resulted in 7 US WIA and 0 US KIA, and 0 VN casualties. The following is a break down of booby traps by months. It is important to note that all of the detonated booby traps were detonated by the Land Clearing Platoon where no effort is expended on locating booby traps before clearing an area.

MONTH	DETECTED	DETONATED	TOTAL
February	2	6	8
March	0	7	7
April	4	1	5

c. Other initated activities during the report period were as follow:

TYPE	FEBRUARY	MARCH	APRIL	TOTAL
Ambushes	1	2	0	3
Culverts Blown	0	0	2	2
Road Obstacles	0	0	0	0
Sniper Attacks	6	16	5	27
Bridges Blown	0	0	0	0

3. (U) Weather Data:

MONTH	RAINFALL
February	2.05"
March	.13"
April	1.63"
TOTAL	3.81"

C. (C) CASUALTIES:

During the report period, the battalion suffered the following casualties:

COMPANY	KIA	WIA	KNH	MNH
HHC	0	8	0	0
Co A	0	0	0	0
Co B	0	2	0	0
Co C	0	0	0	0
Co D	0	5	0	0
137th (LE)	0	0	0	1
511th (PB)	0	1	0	0
TOTAL	0	16	0	1

Of the 16 WIA casualties suffered none was serious enough to require evacuation out of Vietnam.

D. (U) OPERATIONS AND TRAINING:

1. (U) Operations:

The Battalion continued to operate on a seven day work week with Sunday afternoon normally used for maintenance, training, Command Information, and when possible, Commander's Time.

a. The combat and operational support missions were conducted in coordination with the Americal Division, providing support in southern I Corps Tactical Zone. Mineswoops and Operational Support missions accounted for approximately 58% of the effort expended by the Battalion during the period.

b. LOC upgrading projects originally assigned by USACV as part of the overall MACV-LOC Program were continued. Major sub-projects of the primary LOC Program were completed including the upgrading and paving of QL-1 and the construction of the Song Go Ma Bridge. Construction of the Song Ve Bridge was initiated. During the period approximately 34% of the Engineer effort of the Battalion was devoted to LOC Programs.

c. Land clearing missions were coordinated initially through III Marine Amphibious Force and later through XXIV Corps. The Provisional Land Clearing Company, composed of personnel and equipment of the 9th FMF Engineer Battalion and the 39th Engineer Battalion, cleared in support of the Americal Division and 1st Marine Division tactical operations. This accounted for approximately 5% of the Engineer effort expended.

b. Base construction, Civic action and other projects accounted for the remaining 3% of the engineer effort expended by the Battalion.

2. (U) Training:

Regularly scheduled weekly training was conducted throughout the period. Additionally, the remainder of Consolidation Month Training, in accordance with 18th Engineer Letter, was conducted. Training was also conducted on special mandatory subjects directed by higher Headquarters.

E. (U) MOVEMENTS:

1. (U) Company Moves:

a. 18 April 1970 - Company C (-) relocated from LZ MAX (BS 763472) to CHU LAI (BT 534036)

b. 18 April 1970 - 137th Engineer Company (LE) (-) relocated from LZ MAX (BS 763472) to CHU LAI (BT 534036)

2. (U) Platoon Moves:

a. 17 March 1970 - Land Clearing Platoon (P) relocated from CHU LAI (BT 534036) to new operations area (BT 191420).

b. 26 March 1970 - 2/511th (PB) relocated from CHU LAI (BT 534036) to LZ NORTH ENGLISH (BS 880049)

c. 31 March 1970 - 2/511th (PB) relocated from LZ NORTH ENGLISH (BS 880049) to CHU LAI (BT 534036)

d. 1 April 1970 - 2/B/39 relocated from LZ NORTH ENGLISH (BS 880049) to LZ DOTTIE (BS 627856)

e. 6 April 1970 - 3/D/39 relocated from CHU LAI (BT 534036) to TIEN PHUOC (BT 115135)

f. 6 April 1970 - 1/137th (LE) relocated from CHU LAI (BT 534036) to TIEN PHUOC (BT 115135)

g. 8 April 1970 - 2/A/39 relocated from LZ SNOOPY (BS 700607) to LZ MAX (BS 763472)

h. 12 April 1970 - 3/B/39 relocated from LZ DOTTIE (BS 627856) to LZ HAWK (BS 763472)

i. 13 April 1970 - 1/A/39 relocated from LZ HAWK (BS 763472) to LZ SNOOPY (BS 700607)

j. 14 April 1970 - 1/D/39 relocated from LZ WEST (AT 990250) to CHU LAI (BT 534036)

k. 18 April 1970 - 3/B/39 relocated from LZ HAWK (BS 763472) to LZ DOTTIE (BS 627856)

l. 18 April 1970 - 2/C/39 relocated from LZ HAWK (BS 763472) to LZ BRONCO (BS 807378)

m. 18 April 1970 - 2/137th (LE) relocated from LZ HAWK (BS 763472) to LZ BRONCO (BS 807378)

3. (U) Sound Moves:

a. 1 February 1970 - 1/3/A/39 relocated from CHU LAI (BT 534036) to LZ SNOOPY (BS 700607)

b. 14 February 1970 - 1/3/D/39 relocated from LZ CENTER (BT [illegible]) to CHU LAI (BT 534036)

c. 17 February 1970 - 3/3/D/39 relocated from LZ WEST (AT 990250) to CHU LAI (BT 534036)

d. 19 February 1970 - 1&3/1/D/39 relocated from CHU LAI (BT 534036) to LZ WEST (AT 990250)

e. 19 February 1970 - 2/1/D/39 relocated from CHU LAI (BT 534036) to LZ HAWK HILL (BT 227320)

f. 9 March 1970 - 2/1/D/39 relocated from LZ HAWK HILL (BT 227320) CHU LAI (BT 534036)

g. 9 March 1970 - 2&3/2/D/39 relocated from CHU LAI (BT 534036) to LZ HAWK HILL (BT 227320)

h. 17 March 1970 - 3/3/C/39 relocated from LZ HAWK (BS 763472) to CHU LAI (BT 534036)

i. 6 April 1970 - 1&3/1/A/39 relocated from CHU LAI (BT 534036) to LZ SNOOPY (BS 700607)

j. 10 April 1970 - 1/2/D/39 relocated from CHU LAI (BT 534036) to TAM KY (BT 325215)

k. 12 April 1970 - 2&3/2/D/39 relocated from LZ HAWK HILL (BT 227320) to TAM KY (BT 325215)

1. 25 April 1970 - 1/3/137th (LE) relocated from CHU LAI (BT 534036) to NUI KI (BT 525215)

F. (C) SUPPLY:

1. (U) General:

All companies continued to receive Class II and IV support from CHU LAI (BT 534036). All companies, with the exception of C Company and 137th Engineer Company (LE), received Class I, III, and V from CHU LAI while C Company and 137th Engineer Company (LE) received Class I, III, and V support out of LZ BRONCO (BS 815383), until the evacuation of LZ NIX, at which time support was received from CHU LAI.

2. (U) Logistics Support:

Logistics support was provided by the following organizations:

a. 23rd Supply and Transportation Battalion, located at CHU LAI, organic to Americal Division.

b. 596th Light Maintenance Company, organic to 90th General Support Group.

c. 661st Ordnance Company (Ammo), located in CHU LAI and LZ NIX CO, organic to 528th Ordnance Battalion, DA NANG (BT 0275).

3. (C) Equipment Status:

The transfer of equipment to the 805th ARVN Engineer Company, combat losses and the retrograde of equipment has considerably changed the equipment status during the reporting period. The following items are now critically short:

NOMENCLATURE	AUTH QTY	O/H QTY	SHORTAGE
Semi-trailer, 25 ton	23	14	9
Truck, Dump, 5ton	100	90	10
Crane, 20 ton	8	6	2
Grader, Road, Motorized	13	8	5

4. (C) Combat Losses:

Combat losses during the report were as follows:

FSN	NOMENCLATURE	USA#	QTY	DATE
2330-317-6448	Semitrailer, Lowbed, 25 ton	5F5999	1	1 Feb 70

FSN	NOMENCLATURE	US.#	QTY	DATE
1005-073-9421	Rifle, 5.56MM, M-16	577696	1	10 Feb 70
3805-931-7081	Grader, Road, Motorized	08C94967	1	10 Feb 70
4930-752-9983	Tank, Liquid, Storage	1399	1	7 Mar 70
2410-782-1130	Tractor, Tracked, D7L	8D5499	1	29 Mar 70
2410-782-1130	Tractor, Tracked, D7E	09382168	1	1 Apr 70
2330-317-6488	Semitrailer, Lowbed, 25 ton	7D8010	1	10 Apr 70
3805-051-9359	Loader, Scoop	08458569	1	10 Apr 70
1005-073-9421	Rifle, 5.56MM, M-16	1064937	1	10 Apr 70

5. (C) RVN Modernization and Improvement Program (Switch Four)

During the reporting period, no transfers of equipment were made under this program.

6. (U) Water Supply:

With the evacuation of LZ N.X, the water point was moved to the new C Company area located in CHU L.I. Presently the battalion is operating three (3) water purification vans in CHU L.I, one (1) at LZ DOTTIE (BS 627856), and preparing to open one (1) at TAM KY (ST 325215). The present output is 50,000 gallons of water a day.

G. (U) MAINTENANCE:

1. General:

The maintenance program showed increased effectiveness throughout the report period. The Battalion Maintenance section continued to operate as a separate section at CHU L.I with Headquarters Company motor pool personnel and equipment incorporated into the section. The average overall deadline rate was 7.61%; the average OCR Deadline Rate was 8.51%.

The TOE fill of maintenance personnel has decreased to a low of 70% from a high of 96% at the beginning of the period.

Repair parts for the 20 Ton (RT) Cranes and Motorized Road Graders still remain a critical shortage. Additionally, repair parts for Steel Wheeled rollers and Rock Crushers are in critically short supply. All of the above end items are critical due to the effort on LOC's scheduled for this Battalion.

2. (U) Support:

The 596th Maintenance Company (DS) located at CHU LAI provided direct support maintenance to the battalion through the reporting period. Assisting the battalion with regard to special pieces of equipment, bridge construction, and industrial plants were civilian technical representatives from HECORN, Ounton-Budlong, and Dynaectron Corporations.

A total of 153 items of equipment were job ordered to support maintenance, of which 72 items were retrograded. Ninety-nine pieces of ordnance equipment and 54 pieces of engineer equipment were job ordered to support maintenance. Of the 81 pieces of equipment job ordered to support maintenance and returned to unit, the average deadline time of each piece of equipment was 5.4 days. Trailers, generators, cranes and 5 ton dump trucks have had the highest retrograde attrition rate throughout the report period.

3. (U) Prescribed Load List (PLL) and Repair Parts:

The Zero Balance of repair parts in the battalion rose to 31 percent. This figure is only a slight increase from the 27% Zero balance of the last report period.

H. (U) MEDICAL:

During the report period there was a marked increase in upper respiratory tract infections, to a total of 92 cases. This was attributed to the change of season from monsoon to summer. The number of skin infections (orthopyogenic and mycotic) rose to 41 cases. During March, 3 cases of malaria and 2 cases of hepatitis were experienced and positive preventive measures were taken. There were no fatalities within the battalion during the reporting period. Behavioral and psychiatric disorders did not show a significant trend with 9 cases of psychiatric disorders and 21 cases of behavioral disorders. Most of these cases indicated disorders before entry into the Armed Forces.

I. (C) CIVIC ACTION/PSYOPS/VIP

1. Civic Actions:

During this period company MEDCAP teams accompanied the minesweep teams on daily minesweeps of QL-1 and secondary LOC's. Local Vietnamese were treated and MEDCAPS were coordinated when necessary. Two Battalion MEDCAPS, one of which was conducted on Route 5B, and the other conducted at CHAU ME (BS 757518) were accomplished with the assistance of the 2d ARVN Division, G5 Medical and Armed Propaganda Team which provided five (5) medics and the necessary security. A total of 529 Vietnamese civilians were treated and/or evacuated during the period, with an expenditure of 1295 man hours.

Materials and equipment were also provided to assist MACV Civic Action Projects: 30 cubic yards of gravel and 591 cubic yards of

laterite were hauled for RD CV and market pl ce improvement projects, and 10 tons of scrap lumber were donated th M..CV for TRACH TRU Village (BS 770466). A crane was furnished to assist the QUANG NGAI Ministry of Public Work erect a sugar mill smoke stack near QUANG NGAI. A total of 168 equipment hours were expended during the period. Coordination is being effected with the 2nd ARVN Division, QUANG NGAI, to further th development of ARVN/American Affiliation Program.

2. (U) Psyops:

A ground Psyops team conducted a campaign on Route 5B, from its juction at QA-1 to BS 619760 to explain GVN policy and the presence of the American Engineers, road safety and the Voluntary Informant Program.

3. (C) Voluntary Informant Program

TYPE	February	March	April	TOTAL
Grenades	26	16	98	140
60mm rounds	55	99	91	245
81mm rounds	38	32	12	82
4.2 rounds	4	5	0	9
90mm rounds	3	2	0	5
105mm rounds	19	52	53	124
155mm rounds	14	6	5	25
RPG-2	6	7	1	14
Mines	81	3	0	84
Piaster Paid	66,450$VN	56,750$VN	38,660$VN	161,860$VN

(U) SECTION II. Lessons Learned: Commanders Observations, Evaluations and Recommendations:

A. (U) Personnel: None

B. (U) Operations:

1. (U) Improved Bolster Design

a. Observation: During the placement of concrete, the impact the concrete has on rebar in the form tends to force the rebar down to the bottom of the form.

b. Evaluation: Bolsters, used to support the rebar, are often not sturdy enough, to take the impact of the concrete.

c. Recommendation: That a rebar frame, constructed of #5 rebar, be used instead of bolsters. (See Inclosure 1)

2. (U) Pile Driving Template

a. Observation: Much time is wasted finding the proper alignment and spacing for each pile when driving piles.

b. Evaluation: By constructing a template with the proper spacing, the efficiency of pile driving operations can be increased.

c. Recommendation: Construct a template with appropriate pile spacing before driving piles. It will save time in the end. (See inclosure 2)

3. (U) Recapping Partially Destroyed Pile Bents:

a. Observation: When building timber pile bent bridges, the most time consuming activity is driving piles. Recently a timber pile bent bridge was destroyed by fire and a time saving technique was employed.

b. Evaluation: The existing burned piles can be capped just below water level or ground level and a timber trestle bridge built on the capped piles.

c. Recommendation: Cap burned piles below water level or ground level and build a normal timber trestle bridge on the capped piles using the caps as footers. (See Inclosure 3)

4. (U) Improved Buffer Design Saves Pile Caps

a. Observation: Usually, when driving piles, the buffer between the hammer and cap has to be replaced after two or three piles have been driven. If no buffer is used, the cap usually becomes damaged.

b. Evaluation: By placing two pieces of 3/4" plywood between the hammer and cap, the above problem can be eliminated. The plywood is compressed and will not shatter. Recent tests have proven that this type of buffer will last for more than 30 piles driven to refusal.

c. Recommendation: Construct pile cap buffers out of 3/4" plywood. (See Inclosure 4)

5. (U) Prefabricated Cable Cutter:

a. Observation: When cutting large amounts of cable, cable cutters tend to wear out rapidly and are very difficult to replace.

b. Evaluation: Valuable time could be saved by prefabricating an efficient cable cutter.

c. Recommendation: That a cable cutter be made by placing an axe

head in a wooden or metal frame. It is utilized in the same manner as a normal cable cutter.

6. (U) Stretching Chain Link Fence:

a. Observation: When installing chain link fence, it is imperative that it be as tight as possible.

b. Evaluation: The fence should be tightened evenly to provide maximum protection. It can be done by hand but is difficult and inefficient.

c. Recommendation: That a simple device be constructed using a seven foot length of 2 inch pipe. Five hooks are welded evenly spaced, on one side of the pipe. Two hooks are welded on the opposite sidd of the pipe. One end of the fence to be stretched is secured to a previously erected section of fence or a fence post at which fence construction starts. The opposite end is attached to the 2" pipe by the five hooks which have been welded on. A chain or light cable is hooked from two hooks on the opposite side of the 2" pipe to a ¼ ton or 3/4 ton truck and the vehicle is used to stretch the fence. Care must be taken not to over stretch the fence.

7. (U) Security Fence Construction:

a. Observation: Uniformity is necessary when welding angle iron to the top of fence post during chain link fence construction.

b. Evaluation: A bracket or form would allow for maximum speed and uniformity.

c. Recommendation: That a two foot length of 2x4 cut at the desired angle on one end be held next to the verticle post. The angle iron can then rest on the 2x4 and be welded easily. (See Inclosure 5)

8. (U) Salvage of SEA Huts:

a. Observation: Salvage or relocation of SEA Huts involves a considerable expenditure of man and equipment hours.

b. Evaluation: Salvaging or relocating SEA Huts by disassembling the buildings, sorting materials, transporting materials to the new location and reconstruction of the buildings consumes many valuable man hours and waste of construction materials. Movement of the buildings intact is the desirable solution.

c. Recommendations: The following methods are recommended for moving SEA Huts intact:

(1) In sandy areas where movement distances are relative short (¼-½ mile). A skid is first constructed as shown in Inclosure 6. All

supports were removed except those on the two longitudinal sides. The skid is then pushed under the hut with a dozer blade. If the hut is very low, the building is first raised (4 jacks on each side): If clearance is sufficient to accept the skids, jacks are placed after it is inserted. Remaining supports are removed and the building jacked down until it rests on the skid. A heavy chain is then tied to the skid, attached to the dozer and is ready to be moved. The process is reversed when hut is emplaced in new location. Skids are reusable.

(2) In other areas where the buildings must be transported greater distances the buildings are jacked up and transoms or I-beams are laid underneath for support. Crane cables are then attached to the transoms or I-beams and the building is lifted onto a low bed and hauled to the new location. The process is reversed for unloading. The building is let down on jacks, leveled, and foundation supports are built underneath.

9. (U) New Bunker Design:

a. Observation: A new living bunker design is recommended for improved perimeter defense.

b. Evaluation: The improved bunker design with adjoining fighting positions allows for quick response in a defensive mission, thus strengthening perimeter defense.

c. Recommendation: The new living bunker design for L2 perimeter defense utilizes a 10'x8'x8' size bunker with the 8' axis parallel to the perimeter line. The front (enemy) side of the living bunker has two doors which exist perpendicular to the perimeter. To either side of the living bunker are fighting positions with a communication trench connecting them and running in front of the bunker. A four foot overhang of bunker roof protects the communication trench. The roof is sloped down hill to facilitate drainage and prevent leakage.

C. (U) Training: None

D. (U) Intelligence: None

E. (U) Logistics: None

F. (U) Organization: None

6 Incl
as

HUGH G. ROBINSON
LTC, CE
Commanding

AGDB-3 (30 Apr 70) 1st Ind
SUBJECT: Operational Report of 39th Engineer Battalion (Combat) for Period Ending 30 April 1970, (RCS CSFOR-65) (R1)

DA, HEADQUARTERS, 45TH ENGINEER GROUP (CONSTRUCTION), APO 96308 15 May 1970

TO: Commanding General, 18th Engineer Brigade, ATTN: AVBC-C, APO 96377

1. This Headquarters has reviewed the Operational Report - Lessons Learned of the 39th Engineer Battalion (Combat) and considers it to be an accurate account of the Battalion's activities during the reporting period.

2. This Headquarters concurs with the observations and recommendations of the Battalion Commander.

WILLIAM R. WRAY
Colonel, CE
Commanding

AVBC-CG (30 Apr 70) 2nd Ind
SUBJECT: Operational Report - Lessons Learned, 39th Engineer Battalion (Combat), for the period ending 30 April 1970, RCS CSFOR-65 (R1)

DA, HEADQUARTERS, 18TH ENGINEER BRIGADE, APO 96377 15 JUN 1970

TO: Commanding General, U.S. Army Vietnam, ATTN: AVHGC-DST, APO 96375

1. This Headquarters has reviewed the Operational Report - Lessons Learned for the 39th Engineer Battalion (Combat) as indorsed by the 45th Engineer Group (Construction). The report is considered to be an accurate account of the Battalion's activities during the reporting period.

2. This Headquarters concurs with the observations and recommendations of the Battalion and Group Commanders.

H.C. SCHRADER
Brigadier General, USA
Commanding

CF:
CC, 45th Engr Gp
CO, 39th Engr Bn

AVHGC-DST (30 Apr 70) 3d Ind
SUBJECT: Operational Report of 39th Engineer Battalion (Combat) for Period Ending 30 April 1970, RCS CSFOR-65 (RI)

Headquarters, United States Army Vietnam, APO San Francisco 96375 30 JUN 1970

TO: Commander in Chief, United States Army Pacific, ATTN: GPOP-DT, APO 96558

1. This Headquarters has reviewed the Operational Report-Lessons Learned for the quarterly period ending 30 April 1970 from Headquarters, 39th Engineer Battalion and concurs with comments of indorsing headquarters.

2. Reference item concerning "Maintenance", page 22, paragraph G1: concur. Projects IME and IMG were initiated to improve the stockage of repair parts to support engineer construction equipment. Project IME, of which 90% of the parts have been received, was implemented to support higher density engineer equipment. Project IMG, of which 50% of the parts have been received, was implemented to support low density engineer equipment (rock crushers, asphalt plants, quarry equipment, and pavers). Recently Department of the Army initiated a special Red Ball Program to improve the support of key mission essential construction equipment. To effectively monitor the repair parts support, Department of the Army receives weekly operational readiness reports reflecting the status of engineer construction equipment. The percentage of zero balances of repair parts lines in the prescribed load lists should be reduced as a result of the special Red Ball Program. No action by USARPAC is recommended. It is recommended that DA continue to monitor the weekly operational readiness reports for key mission essential construction equipment.

FOR THE COMMANDER:

Clark W. Stevens Jr.
Captain AGC
Assistant Adjutant General

Cy furn:
18th Engr Bde
39th Engr Bn

GPOP-DT (30 Apr 70) 4th Ind (U)
SUBJECT: Operational Report of HQ, 39th Engineer Battalion (Combat) for Period Ending 30 April 1970, RCS CSFOR-65 (R2) (U)

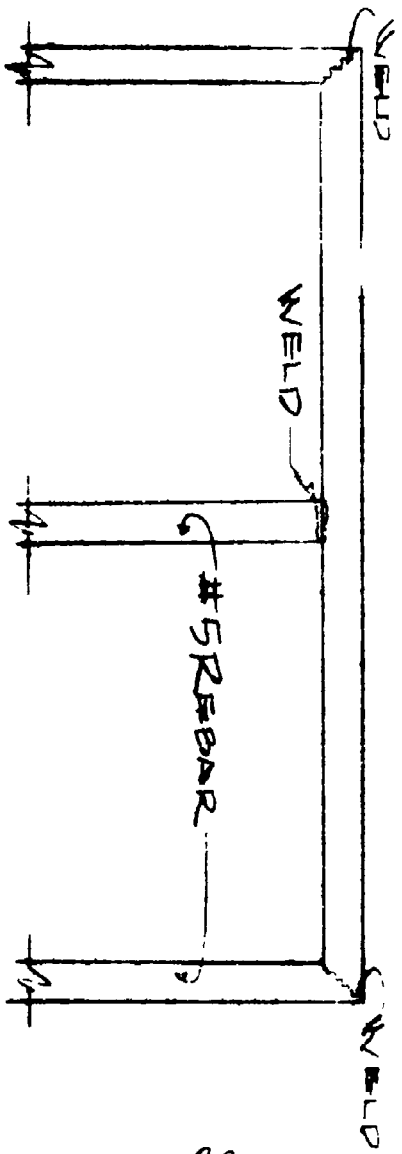
HQ, US Army, Pacific, APO San Francisco 96558 22 JUL 70

TO: Assistant Chief of Staff for Force Development, Department of the Army, Washington, D. C. 20310

This headquarters concurs in subject report as indorsed.

FOR THE COMMANDER IN CHIEF:

L.M. OZARY
CPT, AGC
Asst AG



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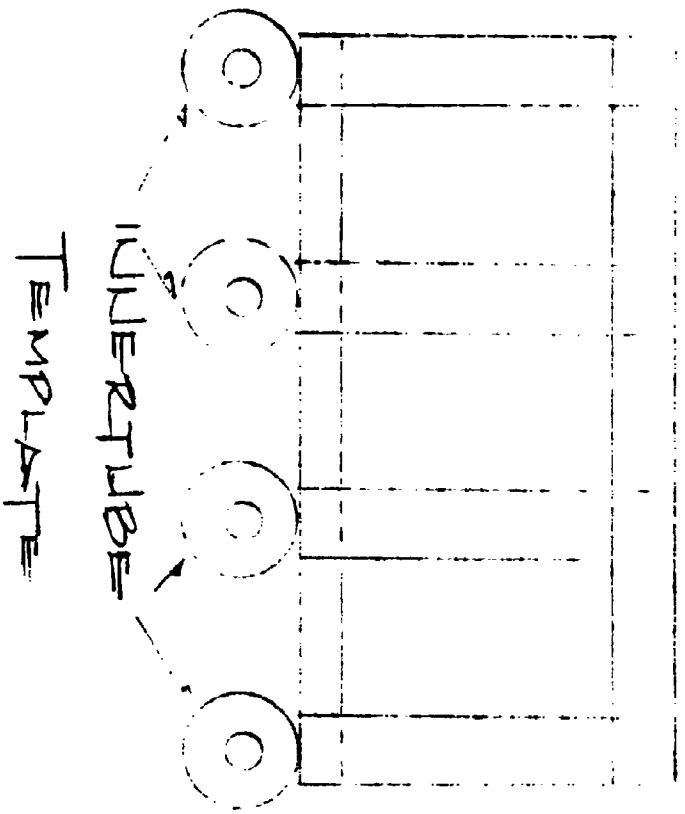
INCL 1



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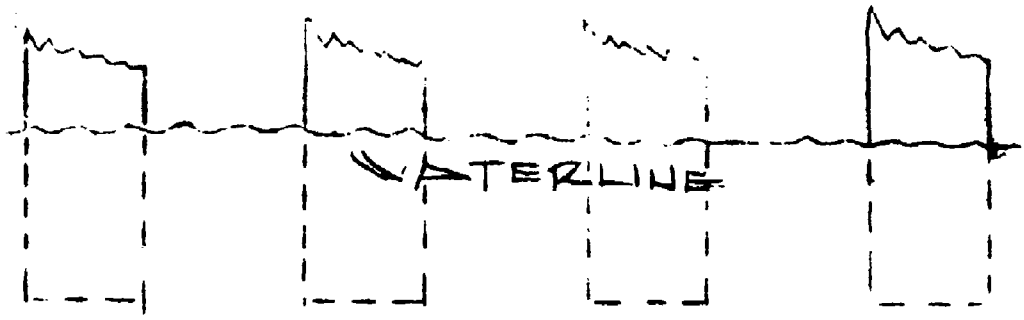

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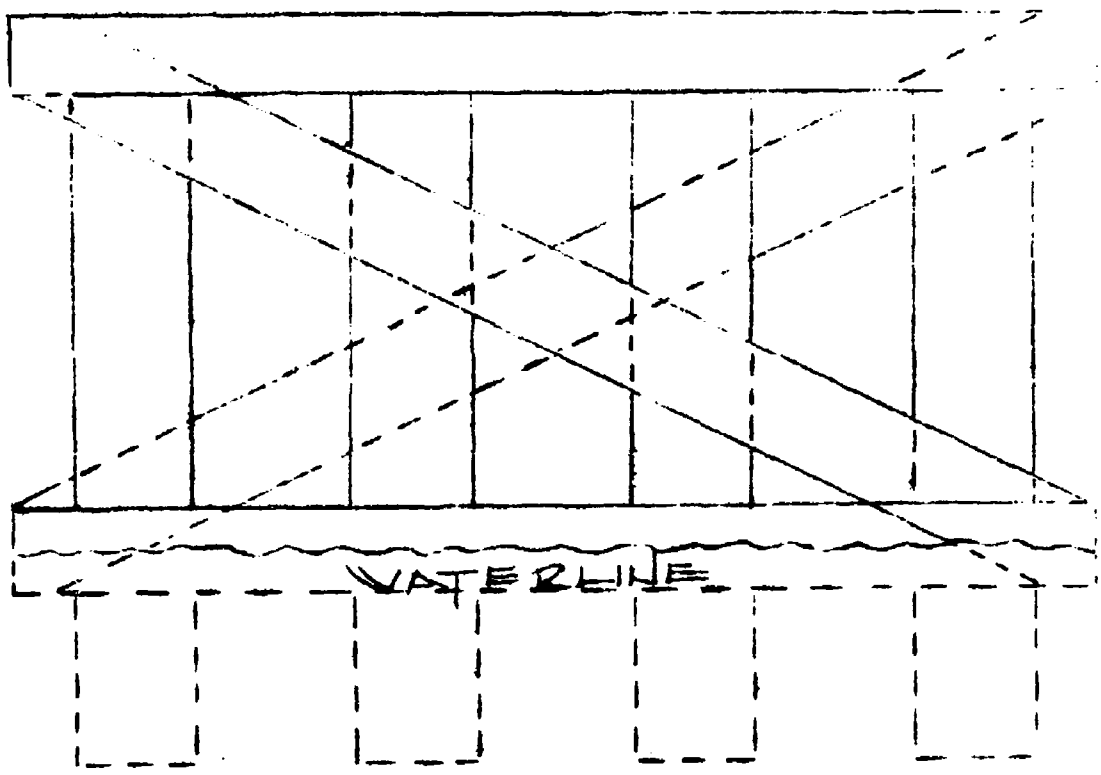

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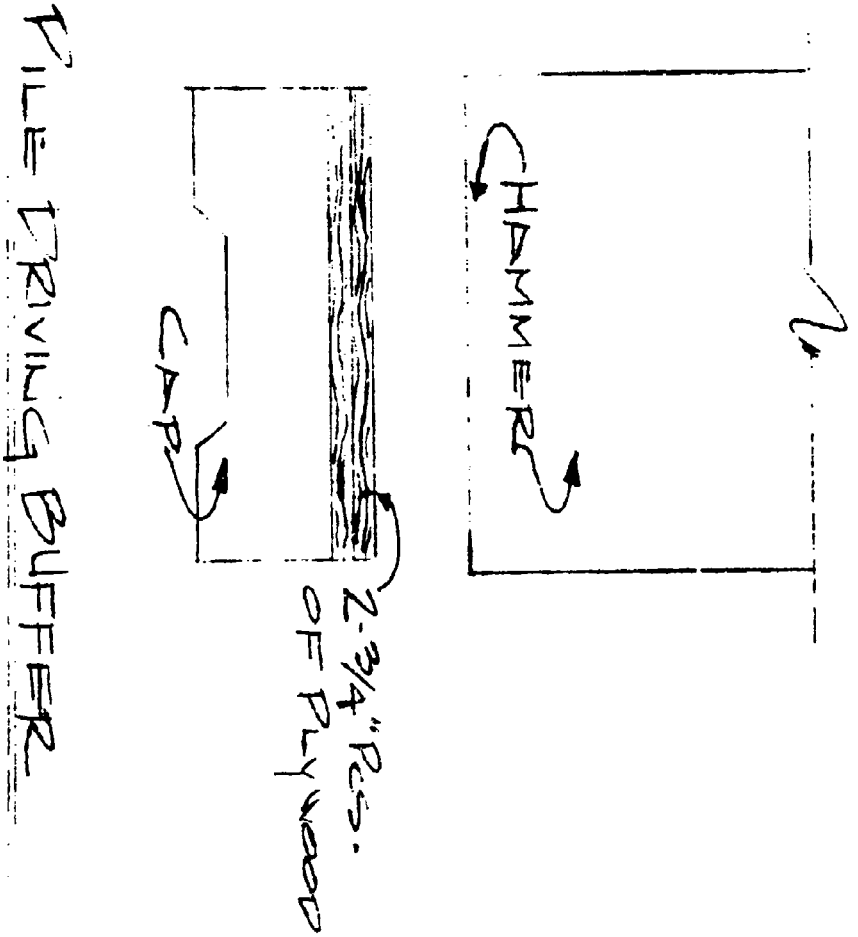

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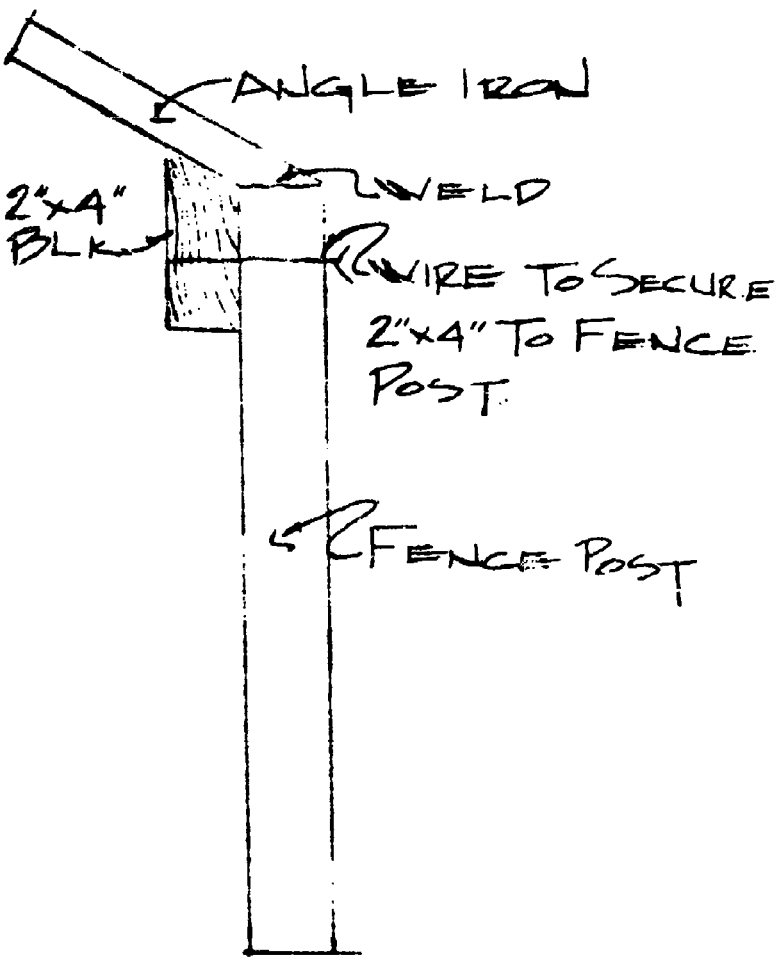
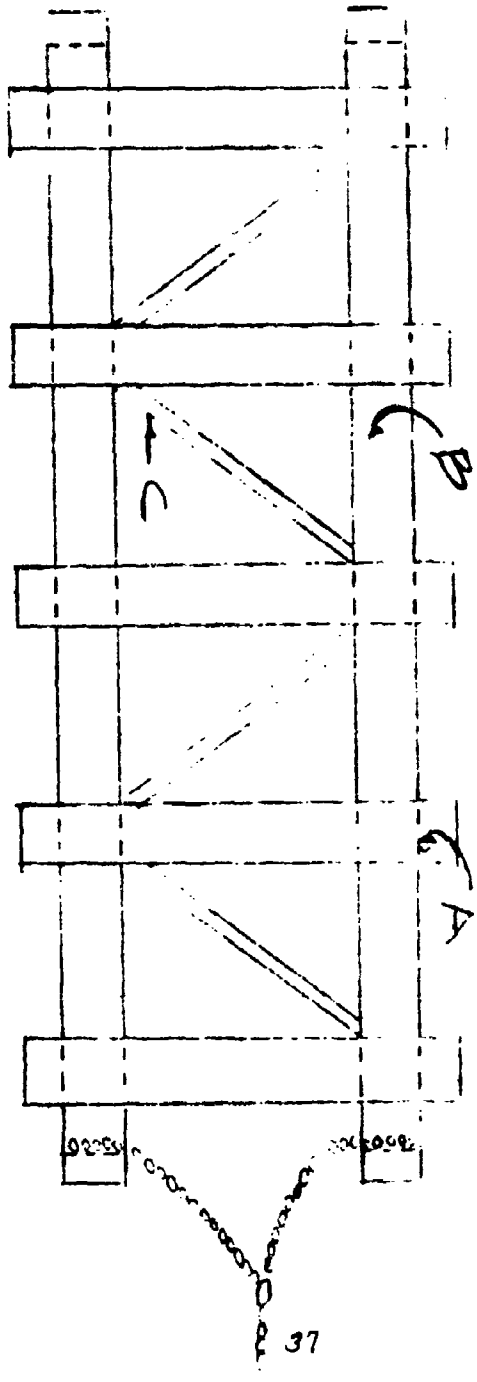

ANGLE IRON
WELD
2"x4"
BLK
WIRE TO SECURE
2"x4" TO FENCE
POST
FENCE POST

~~ENCL 6~~

A- 4"x12" SUPPORT TIMBERS

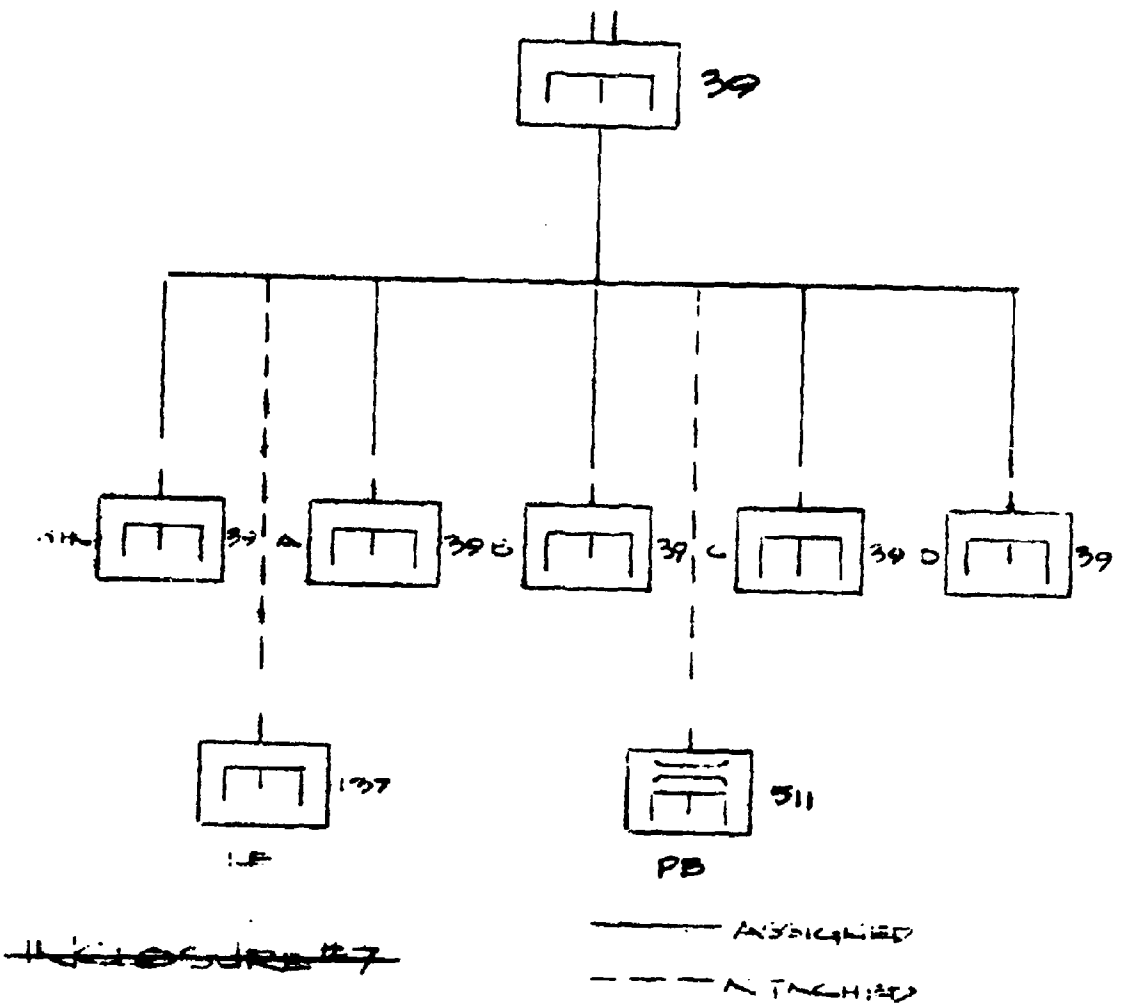
B- 35' PILE

C- 2"x 4" TRANSVERSE BRACING AS REQ'D.



~~Encl 6~~

ORGANIZATION
39TH ENGINEER BATTALION (LA)
30 APRIL 1970



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UNCLASSIFIED
Security Classification

DOCUMENT CONTROL DATA - R & D

(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)

1 ORIGINATING ACTIVITY (Corporate author) HQ, OACSFOR, DA, Washington, D.C. 20310	2a. REPORT SECURITY CLASSIFICATION CONFIDENTIAL 2b GROUP 4

3 REPORT TITLE

Operational Report - Lessons Learned, 39th Engineer Battalion

4 DESCRIPTIVE NOTES (Type of report and inclusive dates)

Experiences of unit engaged in counterinsurgency operations,

5. AUTHOR(S) (First name, middle initial, last name)

Operational Report - Lessons Learned, 39th Engineer Battalion

6 REPORT DATE 30 April 1970	7a. TOTAL NO OF PAGES 41	7b. NO OF REFS
8a. CONTRACT OR GRANT NO b PROJECT NO N/A c d	9a. ORIGINATOR'S REPORT NUMBER(S) 702034 9b. OTHER REPORT NO(S) (Any other numbers that may be assigned this report)	

10 DISTRIBUTION STATEMENT

11 SUPPLEMENTARY NOTES N/A	12. SPONSORING MILITARY ACTIVITY OACSFOR, DA, Washington, D.C. 20310

13 ABSTRACT

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DD FORM 1 NOV 68 1473

UNCLASSIFIED
Security Classification