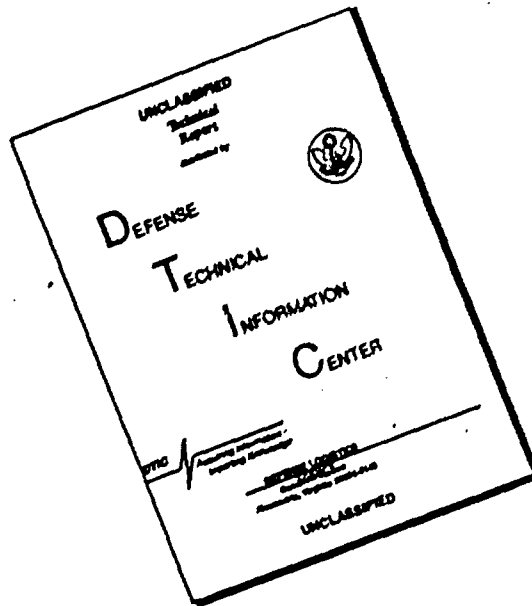


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DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL
WASHINGTON, D.C. 20310

IN REPLY REFER TO

AD 861917

AGDA (M) (31 Oct 69) FOR OT UT 693262

10 November 1969

SUBJECT: Operational Report - Lessons Learned, Headquarters, 45th Engineer Group, Period Ending 31 July 1969

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2. Information contained in this report is provided to insure appropriate benefits in the future from lessons learned during current operations and may be adapted for use in developing training material.

BY ORDER OF THE SECRETARY OF THE ARMY:

Kenneth G. Wickham

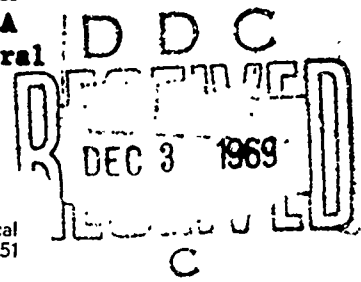
KENNETH G. WICKHAM
Major General, USA
The Adjutant General

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DEPARTMENT OF THE ARMY
HEADQUARTERS 45TH ENGINEER GROUP (CONSTRUCTION)
APO 96308

EGD-3

31 July 1969

SUBJECT: Operational Report of the 45th Engineer Group
(Construction) for Period Ending 31 July 1969, RCS
CSFOR-65 (RI)

THRU: Commanding General
18th Engineer Brigade
ATTN: AVBC-CS
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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Section 1. Operations: Significant Activities

1. The 45th Engineer Group (Construction) is located in the I Corps Tactical Zone, the Republic of Vietnam. During this reporting period the group headquarters remained at Phu Bai. The battalions and separate companies of the 45th Engineer Group (Construction) are located in the general vicinity of Quang Tri, Hue-Phu Bai, Chu Lai, and Duc Pho, RVN. Inclosure 1 is a schematic diagram depicting the organizational structure of the 45th Engineer Group (Construction) at the end of the reporting period. Inclosure 2 is a listing of units and commanders comprising the 45th Engineer Group (Construction).

2. The mission of the 45th Engineer Group (Construction) is to provide non-divisional engineer support throughout I Corps

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SUBJECT: Operational Report of the 45th Engineer Group
(Construction) for Period Ending 31 July 1969, RCS
CSFOR-65 (RI) 31 July 1969

Tactical Zone in general support of III Marine Amphibious Force. Specific tasks undertaken in accomplishing the mission were minesweeps, combat engineer construction in support of tactical operations, LOC construction and cantonment construction for U.S. Forces in northern I. Corps.

3. The following is a list by unit of the significant accomplishments of the 45th Engineer Group for this reporting period:

a. 14th Engineer Battalion (Combat)

(1) An internally formed land clearing team (four each D7 w/treedozers) cleared an additional 1900 acres in the Ba Long Valley west of LZ Sharon. Another team initiated clearing of 100 acres for Thua Thien on 29 July (YD8924).

(2) In support of the 101st Abn Div (AM) the site for a brigade-sized forward base at YG4497 to be named FSE Rendezvous was cut and cleared.

(3) 8.1 km of sand-cement two-lane road with three reinforced concrete track vehicle crossings, 9.7 km of laterite one-lane road w/turnouts, and a 209 foot timber pile bridge were constructed on HL 560 from Cua Viet to Quang Tri. A rock barge off-loading quay has been built at the port and 2.3 km of the two lane sand-cement segment has been covered with 6" of base course. (YD3363)

(4) A new 300', one-lane, class 50, timber-pile bridge was constructed on Rte 555A at My Chanh (YD466406).

(5) 240 feet of 11 foot high revetments were constructed for B/5 Trans NCR-500 Vans. (YD893151)

(6) A 1344 SF counter mortar radar maintenance building was erected for the 63d Maint Bn at Dong Ha Combat Base (YD338532).

b. 27th Engineer Battalion (Combat)

(1) All efforts were directed to upgrading HL 547 to a class 50, two-lane, all-weather road from FSB Bastogne (YD620094) to FSB Cannon and to a class 50 one-lane with turnouts, all-weather road from FSB Cannon (YD479027) to the A Shau Valley (YD426961)

(2) On 13 June a trace had been cut which permitted the passage of armored personnel carriers into the A Shau and on 18 July it had been widened to allow the movement of tanks as well.

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31 July 1969

SUBJECT: Operational Report of the 45th Engineer Group
(Construction) for Period Ending 31 July 1969, RCS
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(3) Twenty of the thirty kilometers of road from FSB Bastogne to FSB Cannon have now been upgraded to class 50, two-lane, all-weather standard.

(4) A one lane class 60, Deck Type, Bailey Bridge with reinforced concrete piers and abutments was constructed across the Song Bo. (YD527020).

(5) Two class 50, one-lane, timber trestle bridges (63' and 80') were built (YD619093 and YD590069).

(6) Ninety-five culverts were installed and four ford sites were constructed.

c. D/87th Engineer Battalion (Construction) (Provisional)

(1) The provisional company remained assigned to the Group until its deactivation on 15 July.

(2) A 580', class 50, one-lane, timber pile bridge was built at Phu Thu (YD897184).

(3) A 2880 SF UH-1 maintenance hangar was constructed for the 5th Trans Bn at Phu Bai (YD893151).

(4) 5000 m of pressure sensing system were installed on the Phu Bai Base Defense perimeter (YD878140).

(5) A 250 man mess hall was erected for the 504th M.P. Bn at Phu Bai (YD874148).

(6) A 736 SF graves registration facility was constructed for the 26th Gen Spt Gp at Phu Bai. (YD878140).

d. Land Clearing Company (Provisional)

On 12 June a provisional land clearing company was formed by the 2/687 Engr Co (Land Clearing) and a platoon of ten EIMCO dozers from the 7th Engr Bn FMF. The unit operated under III MAF with the 45th Engr Gp supporting the 2/687th Engr Co. The company cleared 7717 acres in the vicinity of Go Noi Island (AT8962) in support of Operation Pipestone Canyon for the 1st Marine Division.

e. 39th Engineer Battalion (Combat)

(1) All sub-base work was completed on QL-1 from Quang Ngai (BS62745) to Duc Pho (BS806378).

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(2) Base course on 21.1 km of QL-1 south from Quang Ngai has been completed in preparation for paving by RAK-BRJ to CENCOM (Combined Central Highway and Waterway Committee) class A standards (4 foot shoulders).

(3) The 590' Bailey Bridge over the Song Ve was repaired and five timber pile bridges on QL-1 were reconstructed as a result of enemy interdiction (BS695635).

(4) Construction of a 14,000 SY rotary wing aircraft parking apron was initiated at Duc Pho and is now 6% complete (BS61282).

(5) Two heavy artillery timber gun pads were constructed for the Americal Division at LZ Dottie (BS627856).

(6) Three observation towers and ten bunker-towers were built for the Chu Lai Defense Command (BS5304).

f. 19th Engineer Battalion (Combat)

(1) Two companies operated as infantry along QL-1 in southern Duc Pho District in order to protect work parties from enemy forces. These units accounted for one KIA, four captured including a tax collector, and ten suspects detained..

(2) All sub-base work was completed on QL-1 from IICTZ boundary (BS908150) to Duc Pho (BS806378).

(3) Base course on 32.2 km of QL-1 north from IICTZ has now been completed.

(4) 20.2 km of QL-1 between IICTZ and Duc Pho have now been paved to CENCOM class A standard (four foot shoulders).

(5) A forty foot and a sixty foot class 60, two-lane, timber pile bridge were completed on QL-1. An eighty foot, class 60, two-lane, timber pile bridge on QL-1 was burned by an enemy force while under construction (90%) and is now being re-built (BS883304, BS815359, BS840330).

(6) 1400 SF of billets, and a water supply system were constructed for the 41st ARVN Regt Div Team at Phu My (BS895658).

4. Major civic action projects undertaken by units of the Group were:

a. Completion of the class 50 timber trestle bridge in Phu Thu District (Thau Thien Province) on 22 June has given

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the region commercial access to the Hue city area.

b. Site preparation has been completed for a new commercial bus terminal in Quang Tri (YD3552).

5. ARVN engineer units worked with 45th Gp units on the following projects:

- a. Upgrading of HL 560.
- b. Upgrading of HL 547.
- c. Construction of the Phu Thu Bridge.

6. Voluntary Informat Program (VIP) activities continued.

The 39th Engineer Battalion (Combat) was the forerunner in the program. A total of \$VN 617,435 was spent in return for 147 mines, 6673 rounds of ammunition, 40mm and larger, 27 rockets, 417 grenades and other miscellaneous items.

7. Under the MEDCAP Program 140 patients were treated.

8. Weather generally favored construction in the 45th Engr Gp area. Rainfall data is summarized in Table I.

TABLE I: RAINFALL DATA (INCHES)

	Chu Lai	Da Nang	Phu Bai
May Total	.14	2.23	2.67
24 hr high	.09	1.14	.85
Jun Total	6.62	2.98	2.35
24 hr high	2.50	1.13	.99
Jul Total	6.01	6.04	3.43
24 hr high	2.13	3.87	2.28

9. Enemy activity in the I Corps Tactical Zone affecting units of the 45th Engineer Group (Construction) increased in May. During June and July enemy activity decreased. Table II lists enemy initiated incidents.

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TABLE II: ENEMY INITIATED INCIDENTS

	May	June	July
Mines/Booby Traps Found	40	20	26
Mines/Booby Traps Detonated	14	13	11
Mortar/Rocket Attacks	34	19	4
Sniper Fire/Ambushes	39	28	35
Bridges Damaged/Destroyed	0	1	1
Culverts Damaged/Destroyed	7	8	0
Other	24	21	20
TOTL	161	117	97

10. The following significant enemy initiated incidents occurred:

a. G Company, 39th Engineer Battalion (Combat) received a night ground and rocket attack on 12 May. Results were 23 enemy KIA (confirmed), 2 POW's, six captured AK-47's two captured rocket launchers, two captured B40 rockets and 100 captured hand grenades. Company G suffered 3 KIA and 9 WIA (BS708608).

b. A minesweep team of G Company, 19th Engineer Battalion (Combat) received SAF, AWF and rockets in an ambush on 24 May. Friendly losses were 5 KIA, 12 WIA, and the combat loss of one 5 ton dump, one 3/4 ton truck, one ambulance and two 40mm dusters (BS914166).

c. A convoy of A and D Companies, 27th Engineer Battalion (Combat) was ambushed on Rte 547 on 9 June. Enemy losses were ten enemy KIA, and the capture of one 12.7 mm AA gun, 5-AK47's, one RPG-7 and one M-79 launcher. A and D Companies suffered three KIA, 16 WIA, and the combat loss of five 5 ton dumps and one 1/2 ton truck (YD596072).

d. A and B Companies, 39th Engineer Battalion (Combat) received AWF and SAF while on an area sweep near LZ Dragon on 17 July. Results were two U.S. KIA (BS716567).

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11. 45th Engineer Group personnel casualties during the reporting period are summarized in Table III

TABLE III: CASUALTY SUMMARY

	<u>14th</u>	<u>19th</u>	<u>27th</u>	<u>39th</u>	<u>HHC</u>
KHA	1	13	4	5	0
Non-battle Deaths	0	3	2	1	0
WHA	8	46	27	31	1
Non-battle Wounds	0	4	27	1	2

12. The 45th Engineer Group (Construction) personnel strength increased during the reporting period. Presently the unit overall strength is 96% in contrast to 84% assigned at the end of the last reporting period. Shortages in specific areas continue to be critical with no relief over the past reporting period.

<u>MOS</u>	<u>MOS Title</u>	<u>Auth</u>	<u>Asg</u>	<u>%</u>
12B40	Combat Engineer Squad Leader	352	161	46
31G40	Commo Chief	21	14	67
62G40	Quarryman	8	4	50

TABLE IV: AWARDS PRESENTED

	<u>14th</u>	<u>19th</u>	<u>27th</u>	<u>39th</u>	<u>HHC</u>
Silver Star	0	0	0	2	0
Legion of Merit	0	0	1	1	1
Distinguished Flying Cross	0	0	0	0	0
Soldier's Medal	1	0	0	0	0
Bronze Star (V device)	2	10	0	3	0
Bronze Star	7	13	13	12	1

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 SUBJECT: Operational Report of the 45th Engineer Group (Construction) for Period Ending 31 July 1969 RCS CSFOR-65 (RI)

31 July 1969

	<u>14th</u>	<u>19th</u>	<u>27th</u>	<u>39th</u>	<u>HHC</u>
Air Medal (V device)	0	0	0	0	1
Air Medal	0	0	1	0	9
Army Commendation Medal (V device)	4	4	2	1	0
Army Commendation Medal	14	35	33	36	3

TABLE V: DISCIPLINARY ACTIONS

	<u>14th</u>	<u>19th</u>	<u>27th</u>	<u>39th</u>	<u>HHC</u>
Special Court Martial	8	3	9	2	1
Article 15	85	124	81	68	2

Section 2. Lessons Learned: Commander's Observations, Evaluations, and Recommendations.

1. Personnel: None.

2. Operations:

a. Widening of Existing Bridges

(1) Observation: When widening a timber bridge to MACV standards, the existing abutment was five feet short of the required width.

(2) Evaluation: Construction of a wider abutment requires digging out the approach and placing wingwalls.

(3) Recommendation: Widen the bridge by using the existing abutment. Drive an extra pile in line with the abutment. Place a partial cap behind the wingwall and bridge the gap between wingwall and abutment extension with short stringers (Incl 3).

b. Corrugated Metal Pipe Assembly

(1) Observation: Corrugated metal pipe half-sections

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31 July 1969

SUBJECT: Operational Report of the 45 Engineer Group (Construction) for Period Ending 31 July 1969, RCS CSFOR-65 (RI)

often are bent or sprung in storage and transportation. Subsequent culvert assembly is generally quite difficult.

(2) Evaluation: 5" bolts of the same diameter as those provided with the culvert (2") facilitate alignment of half-sections and expedite culvert assembly.

(3) Recommendation: 20% of culvert bolts packaged with corrugated metal pipe half-sections should be 5" in length.

c. Treadway Wear on Timber Bridges

(1) Observation: Settling of bridge approaches subjects timber treadway to jolting by vehicles which causes the treadway to loosen and split.

(2) Evaluation: A piece of angle iron secured over the edge of the treadway will prevent such damage when used in connection with periodic replacement of approach fill.

(3) Recommendation: Angle iron should be secured over the edge of timber treadway to prevent damage from traffic.

3. Training: None

4. Intelligence: None

5. Logistics:

a. Observation: D7E tractors operating in mountainous terrain experienced many burned out upper bearings.

b. Evaluation: While working on these slopes (up to 40%) the crankcase oil level dropped below the upper bearings.

c. Recommendation: Increase crankcase oil level by one gallon when operating continuously on steep slopes.

6. Organization: None

3 Incl

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Incl 2 wd HQ, DA

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Carroll N. LeFellier
CARROLL N. LeFELLIER

Colonel, CE

Commanding

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GPOP-DT (31 Jul 69) 3d Ins
SUBJECT: Operational Report of HQ, 45th Engineer Group
(Construction for Period Ending 31 July 1969,
RCS CSFOR-65 (R1))

HQ, US Army, Pacific, APO San Francisco 96558

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:



D. A. TUCKER
CPT. AGC
ASST AG

AF 9-22 (21 Jul 65) 1 1 0

Subject: Operational Report of the 45th Engineer Group (Const) for the period ending 31 Jul, 1965, TCS 4507-65 (1)

HL, HEADQUARTERS, 137th AVIATION BRIGADE, APO 96377

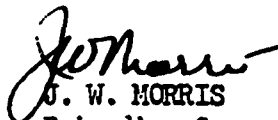
28 AUG 1965

To: Commanding General, U.S. Army Vietnam, ATTN: AVHQS-EST, APO 96375

1. The Operational Report - Lessons Learned for the 45th Engineer Group (Const) has been reviewed by this headquarters and is considered to be an excellent account of the group's activities during the reporting period.

2. This headquarters concurs with the observations and recommendations of the Group Commander, with the following comments added:

Reference: Section 1, paragraph 12. Overall personnel shortages are recognized as problem areas by this headquarters and USARV. This headquarters is in daily contact with the replacement battalions and USARV. Up-dated requirements, to include casualty losses and medevacs, are now being incorporated in these requirements. These procedures were recently discussed with a representative from USARV G-1, Personnel Management. Our personnel posture should improve considerably in the immediate future, if our requisitions are honored. USARV was also advised that notification of cancellations of lower grade EM fills would be of assistance in up-dating our requisitions. Currently, this information is being provided for senior grade personnel.


J. W. MORRIS
Brigadier General, USA
Commanding

CF:

2 - AC of S for Force Development, DA

1 - CO, 45th Engr Gp

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AVHGC-DST (31 Jul 69) 2d Ind
SUBJECT: Operational Report of the 45th Engineer Group (Construction)
for Period Ending 31 July 1969, RCS CSFOR-65 (RI)

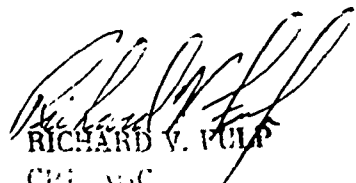
HEADQUARTERS, UNITED STATES ARMY, VIETNAM, APO San Francisco 96375 29 SEP 1969

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 31 July 1969 from Headquarters, 45th Engineer Group (Construction).

2. Reference item concerning "Logistics", Section II, page 9, paragraph 5; nonconcur. It is not necessary to overfill the crankcase to insure that the upper bearings are lubricated when operating on steep slopes. This engine has positive pressure lubrication and the bearings should be lubricated when the tractor is operated on the slopes specified. If the bearings are not receiving lubrication, the possibility exists that the "scavenger" oil pumps are clogged or defective. Overfilling the engine with oil will normally result in the oil being thrown out through the breather or possibly through the seals. Another reason for not overfilling is that the operator would be constantly draining or adding oil depending upon the slope of the terrain over which he is operating. The 45th Engineer Group will be advised by separate correspondence that the recommended practice is unsound. No further action is required by this or higher headquarters.

FOR THE COMMANDER:


RICHARD V. VULP
CPT, AGC
Assistant Adjutant General

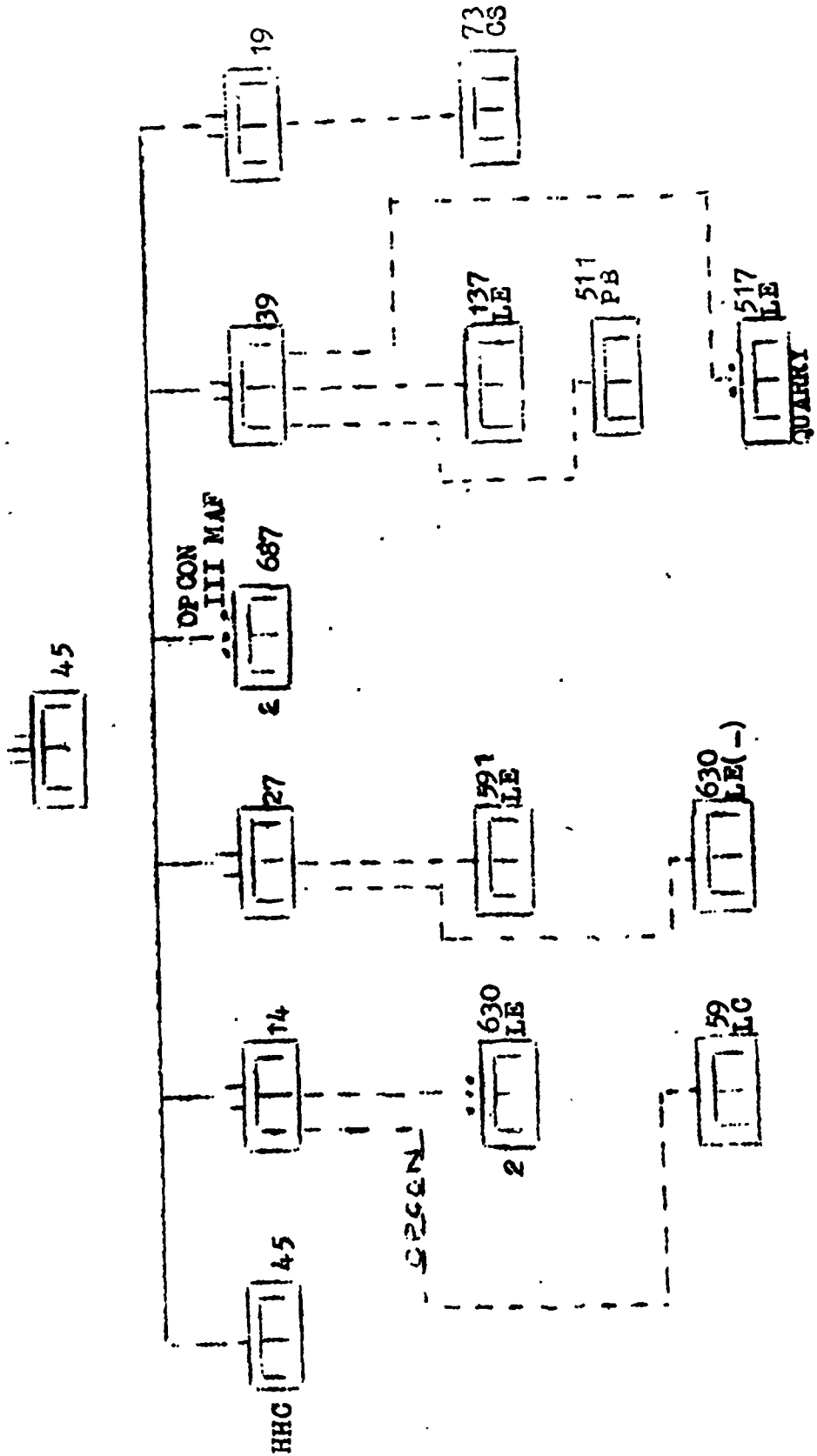
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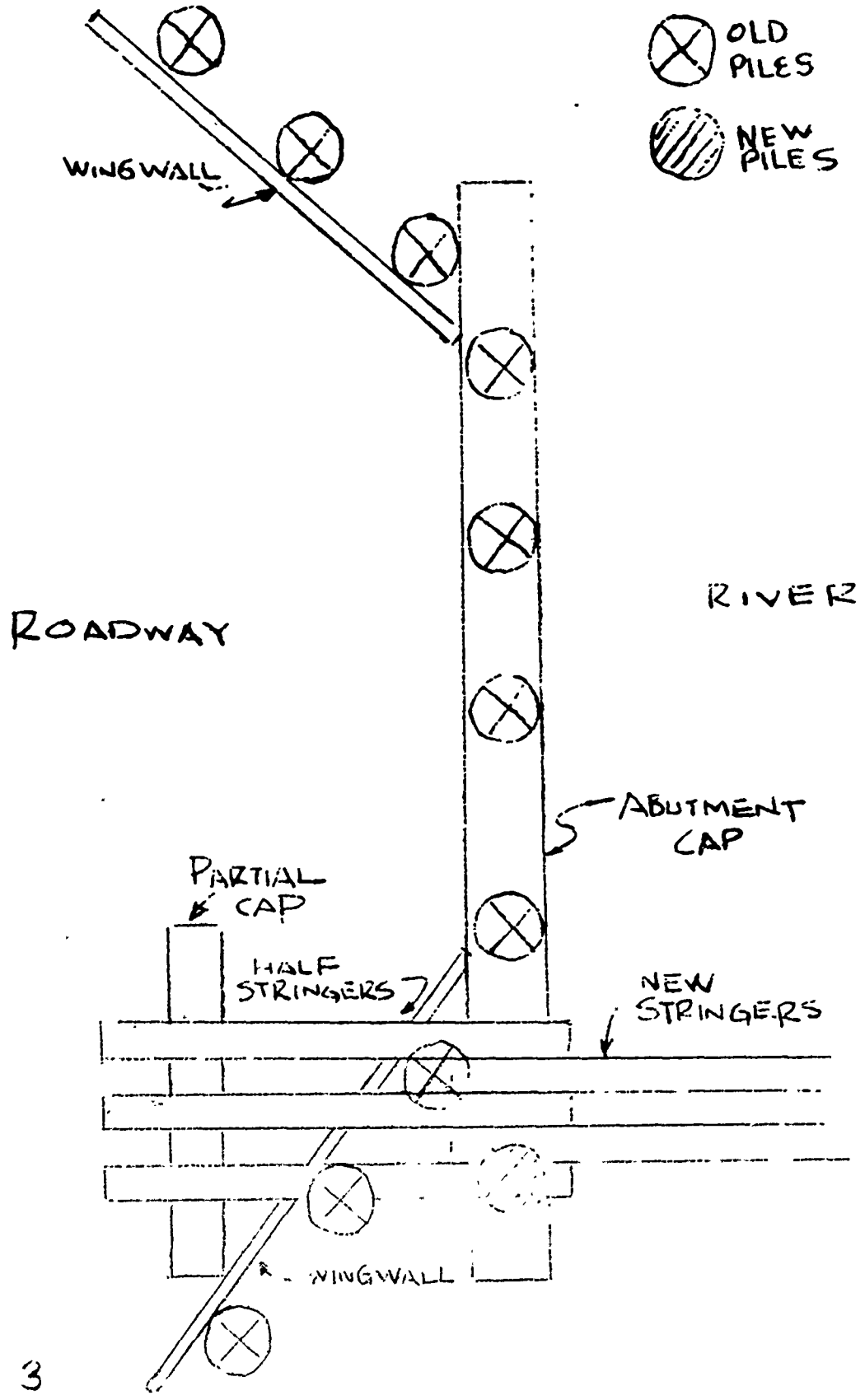


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CO, 45th Engineer Group			
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