

MERRA - Results of Meeting  
(Temporary File)



24 May 1944.

To: Carolin A. Flexner

From : Dr James A. Crabtree

SUBJECT: Medical and Sanitation Program for MERRA Refugee Camps.

It is our feeling that detailed plans or programs for these camps should be formulated by the group in Cairo. For budgetary purposes and to have a general outline of the probable camp medical organization we have developed the following material.

It is proposed to depend on volunteer agency and locally recruited personnel for the bulk of the service. A great deal of the nursing can be done by girls recruited from camp personnel and locally trained. We do not propose to recruit or send into the area non-technical personnel such as drivers, cooks and mechanics. Personnel on the UNRRA budget itself would be limited to top administrative people. In this category, at the present time, we have budgeted for a director for camp medical services, 2 medical officers, a sanitary engineer, a director of camp nursing services, and 5 chief nurses, one for each camp.

Because more information is available on the El Shatt Camp than on the others, we have described the probable medical program of this camp. The others will follow a similar pattern with variations consistent with the population of the individual camps.

We have based our program at El Shatt on a population of 40,000. We understand the camp area is to be divided into three sections, respectively called Camp I, II and III.

El Shatt now has a permanent hospital building with between 200 and 300 beds. This may be insufficient as, with a population of 40,000, there will probably be a need of 350 to 400 beds. We are planning to send in two hospital units of 200 beds each and additional construction may be necessary to house these in permanent buildings. An allowance of 10 beds per thousand population is higher than the practice in this country. Reports from our people in the field indicate that these refugees are in poor condition and at the present time this is the actual number that is being hospitalized in relation to the population. This number of beds does not provide for epidemic conditions. If these occur they will have to be taken care of by temporary facilities such as tents provided for the purpose.



The hospital will be expected to take care of routine surgery. Facilities for special surgery will probably have to be arranged for outside the camp. It will also have male and female medical wards, a maternity ward with nurse, and a pediatric ward. Whether communicable disease cases requiring isolation will be taken care of in the hospital or on the outside will depend upon structural arrangements.

It is proposed for a camp of this size to have three dispensaries, one for each of the Camps I, II and III. The dispensary in the Camp in which the hospital is located will probably be attached to the hospital itself. Each dispensary will have clinic facilities and a central waiting room. It is proposed to have at each dispensary a daily medical clinic, a daily pediatric clinic to operate half a day either in the morning or the afternoon depending on the convenience of the physicians and the patients. The physicians working at the pediatric clinic will also be expected to work in the hospital during the times they are not at the clinic. It is also proposed to have an antenatal clinic every other day for a half day and a skin and surgical clinic every other day either all day or half day depending on the need. The skin and surgical clinic would alternate with the antenatal clinic.

It is estimated that nine medical men would be able to take care of the clinic program and also have time to render some hospital service and do a fair amount of home or tent visiting. There will be several diseases which will be especially prevalent in this group and which will necessitate greater clinic facilities than are usual in this country. We estimate that as high as 4% may have tuberculosis. A large group on whom serological tests were done in Yugoslavia revealed an incidence of 15% positive serology. Yugoslavia has a usual birth rate of 25 to 28 per thousand, a death rate of 15 to 18 per thousand and an infant mortality rate of 144 per thousand live births. In their native country about 5% of the population develop malaria each year. Skin diseases are very common and trachoma has been prevalent in certain areas of Yugoslavia. In these areas there has been an incidence of about 1% of the population. The reports we have received from the field indicate a fairly high incidence of hospital cases. In April with a population of approximately 11,000 there were 72 general hospital cases and 34 isolation cases or about 9 patients per thousand population.

It is proposed to have 3 medical officers in addition to the 9 clinic physicians - 2 surgeons, and a public health trained physician to direct and administer the hospital and be in charge of all health, and sanitation arrangements for the camp.

Other personnel needed will be a sanitary engineer responsible for water treatment and protection, garbage and refuse disposal, insect and rodent control, disinfection of refugees and food handling procedures. This sanitary engineer will be responsible for training his assistants, to be recruited locally.



The number of assistants will depend upon the size of the camp.

We estimate that 2 dentists will be required for a group such as at El Shatt. The dental clinics will operate in the dispensaries rotating from one dispensary to the other on successive days.

A nutritionist will be necessary. She will be responsible for hospital food preparation as well as supervising the activities of the communal kitchens.

Other personnel needed will be an x-ray technician and either one or two laboratory technicians. At El Shatt, with 40,000 people, two laboratory technicians will be needed.

Most of the above personnel should be recruited locally with a fair proportion from the refugees themselves. This will be supplemented by personnel supplied by the voluntary agencies. Of UNRRA personnel there probably would only be the physician in charge of the camp health activities, chief nurse, and sanitary engineer.

Attached as Appendix "A" is a tabulation of medical facilities and personnel for each of the camps. Appendix "B" is a summary table of medical and sanitation supplies together with budget estimates needed for one year's operation of the camps. Appendix "C" is a list of questions which we would like to have answered to assist us in future planning for medical and sanitation supplies.



EL SHATT - 40,000Hospital - 350 beds3 dispensaries

(dental - 4 days a week

(medical - every day

Clinics (antenatal - every other day  
(skin and surgical - every other day  
(pediatric - every day (1/2 day)

Medical Personnel

1 public health medical officer - director - UNRRA  
2 surgeons  
4 general practitioners  
1 internist  
3 pediatricians  
1 obstetrician  
2 dentists  
1 sanitary engineer - UNRRA  
1 pharmacist  
1 director of camp nursing services - UNRRA  
12 graduate nurses  
1 nutritionist  
1 X-ray technician  
2 laboratory technicians

NUSEIRAT - 12,000Hospital - 80 beds2 dispensaries

(medical - 2 times a week

(surgical - 2 times a week

Clinics (antenatal - 2 times a week  
(Pediatric - 3 times a week  
(dental - 3 times a week

Medical Personnel.5 medical officers

1 director (P.H.) - UNRRA

1 surgeon

1 pediatrician

2 general practitioners

1 dentist

1 sanitary engineer to supervise this camp as well  
as Aleppo and Tolumbat

1 pharmacist

1 chief nurse - UNRRA

3 graduate nurses

2 laboratory technicians

1 X-ray technician

1 nutritionist - to also supervise Aleppo and Tolumbat.



MOSES WELLS - 5,000

Hospital - 60 beds

1 dispensary  
  medical )  
  antenatal ) every other day  
  pediatric )  
  surgical )  
dentist - visiting dentist.

Medical Personnel

3 physicians  
  1 with public health experience  
  2 general practitioners - one with pediatric training  
  Dentist to be part time  
  Sanitary Engineer to be part time  
1 chief nurse - UNRRA  
1 graduate nurse  
1 laboratory technician

KHATALBA - 5,000

Hospital - 60 beds

1 dispensary  
  medical )  
  antenatal ) every other day  
  pediatric )  
  surgical )  
dentist - visiting dentist

Medical Personnel

3 physicians  
  1 with public health experience  
  2 general practitioners - one with pediatric training  
  dentist to be part time  
  sanitary engineer to be part time  
1 chief nurse - UNRRA  
2 graduate nurses

(The Moses Wells dentist could spend half his time here)

TOLUMBAT - 1,000

1 physician  
1 chief nurse - UNRRA  
10-bed dispensary

ALEPPO - 1,000

1 physician  
1 chief nurse - UNRRA  
10-bed dispensary



## Appendix B

TABLE II, BUDGET: SANITATION SUPPLIES FOR MERRA CAMPS.

DRAFT  
23 May 1944

	Expected Population	Present Pop'n	Inc. in Pop'n.	Cost per Capita	Possible Expenditures	1) Certain Expenditures	2) Cost per Camp
El Shatt	40,000	20,000	20,000				
Non-Expendables				2.45	\$49,000	\$49,000	\$98,000
Expendables				1.01		40,400	40,400
							138,400
Nuseirat	12,000	7,805	4,195				
Non-Expendables				2.45	19,122	10,278	29,400
Expendables				1.01		12,120	12,120
							41,520
Moses Wells	5,000	3,000	2,000				
Non-Expendables				2.45	7,350	4,900	12,250
Expendables				1.01		5,050	5,050
							17,300
Khatalaba	5,000	---	5,000				
Non-Expendables				2.45	---	12,250	12,250
Expendables				1.01		5,050	5,050
							17,300
Tolubat	1,000	200	800				
Non-Expendables				5.38	1,076	4,304	5,380
Expendables				4.49		4,490	4,490
							9,870
Aleppo	1,000	1,200	---				
Non-Expendables				---	---	---	---
Expendables				4.49		4,490	4,490
							4,490
TOTAL					\$76,548	152,332	\$228,880

- 1) The cost of the non-expendable equipment essential for operation of camps at present capacity.
- 2) The cost of the non-expendable equipment required for indicated camp expansion, plus cost of all expendable supplies required for 1 year's operation at full expected capacity.



Draft  
23 May 1944.

Appendix B

TABLE I, BUDGET: MEDICAL SUPPLIES FOR MERRA CAMPS.

	Cost 40,000 each ElShatt	12,000 Nuseirat	5,000 Moses Wells	5,000 Khatalba	1,000 Tolumbat	1,000 Aleppo	1) Poss. Expend-Ex- itures pen.	2) Cert.	TOTAL
<u>Non-Expendables</u>									
Hospital - 40 beds	3,736	2	a 1	1	---	---	14,944		14,944
" 200 "	15,917 2		a 1	1	1	1	15,917 15,917		31,834
Dental unit	371 1	1	a 1	1	1	1	2,226		2,226
X-ray unit	3,786 1	1					7,572		7,572
Dispensaries & Clinics	1,019 3	1	1	1	1	1	8,152		8,152
Laboratory I	323 1	1	1	1	1	1	1,938		1,938
II	939 1						939		939
III	651 1	1	1	1	1	1	3,906		3,906
IV	2,535 1						2,535		2,535
Midwives Bags	40 3	2	2	2	2	2	520		520
<u>Expendables</u>									
Confinement Bags	9 500	150	63	63	13	13		7,218	7,218
Drugs & Surgical supplies (Standard Unit)	273,116 1/352	1/10	1/25	1/25	1/100	1/100	145,600		145,600
TOTAL	139,116	42,352	17,667	17,667	5,291	5,291	\$58,649 168735		227,384

- 1) The cost of the non-expendable equipment essential for operation of camps at present capacity.
- 2) The cost of the non-expendable equipment required for indicated camp expansion plus cost of all expendable supplies required for one year's operation at full expected capacity.



Questionnaire on Medical and Sanitation Equipment and Supplies  
in Refugee Camps

1. Will the nonexpendable medical and sanitation equipment now in the camp be turned over to UNRRA complete?
2. Will the stocks of expendable supplies be turned over to UNRRA complete?
3. Will these transferrals be done on a reimbursable basis? If not completely so, state which portions will be so transferred.
4. Nonexpendable medical equipment now available. State (1) whether present, (2) capacity, (3) whether adequate for present population, (4) adequate for expected population, (5) if not present, source of services, (6) any comments on present and future needs for these services.
  - a. Hospital facilities
  - b. Dental clinic
  - c. Dispensary and/or clinic
  - d. Laboratory for minimal chemical pathology
  - e. Laboratory for minimal bacteriology & serology
  - f. Laboratory for advanced
  - g. Equipment for major surgery
  - h. X-ray equipment
  - i. Midwives bags
  - j. Pharmacy
  - k. Emergency hospital facilities
  - l. Medical and nursing books and periodicals
  - m. Ambulance
5. Expendable medical supplies. Indicate (1) size of stocks on hand in terms of number of months camp needs can be met, (2) recommended size of stocks, in terms of number of months, (3) special needs, (4) present source of supply, (5) possibility of continued supply from present source on reimbursable basis.
  - a. Drugs
  - b. Dressings
  - c. Replacement of instruments and other hospital and clinic equipment
  - d. Expendable dental supplies
  - e. Biologicals
  - f. X-ray film and supplies
  - g. Confinement supplies (layettes)
  - h. Special stores against possible epidemics  
(Name possible epidemic diseases)
  - i. Health education materials.
6. Nonexpendable sanitation equipment. Indicate (1) which of following services are carried out in the camp, (2) type of equipment or procedure used, (3) whether adequate for present population, (4) whether adequate for expected population, (5) whether any change is contemplated or desired.

contemplated or desired.

- a. Body insect control
- b. Anapholine mosquito control
- c. Other insect control
- d. Rodent control
- e. Water source, purification, storage and distribution
- f. Garbage disposal
- g. Latrines
- h. Bathing
- i. Laundry
- j. Food and water examination; chemical and bacteriological
- k. Malaria survey
- l. Repairs to equipment

7. Expendable sanitation supplies. State (1) size of stocks on hand in terms of number of months camp needs can be met, (2) recommended size of stocks (3) special needs, (4) present source of necessary expendable supplies, (5) possibility of continued supply from present source, on reimbursable basis.

- a. Chemicals
- b. Replacement and repair parts for equipment
- c. Miscellaneous consumable goods such as wire screening
- d. Special equipment for control of possible epidemics.

8. Special non-medical Supplies. What if any supplies in the following categories are necessary to carry out the medical and sanitation program:

1. Office and record equipment
2. Transportation
3. Miscellaneous



24 May 1944.

To: Carolin A. Flexner

From : Dr James A. Crabtree

SUBJECT: Medical and Sanitation Program for MERRA Refugee Camps.

It is our feeling that detailed plans or programs for these camps should be formulated by the group in Cairo. For budgetary purposes and to have a general outline of the probable camp medical organization we have developed the following material.

It is proposed to depend on volunteer agency and locally recruited personnel for the bulk of the service. A great deal of the nursing can be done by girls recruited from camp personnel and locally trained. We do not propose to recruit or send into the area non-technical personnel such as drivers, cooks and mechanics. Personnel on the UNRRA budget itself would be limited to top administrative people. In this category, at the present time, we have budgeted for a director for camp medical services, 2 medical officers, a sanitary engineer, a director of camp nursing services, and 5 chief nurses, one for each camp.

Because more information is available on the El Shatt Camp than on the others, we have described the probable medical program of this camp. The others will follow a similar pattern with variations consistent with the population of the individual camps.

We have based our program at El Shatt on a population of 40,000. We understand the camp area is to be divided into three sections, respectively called Camp I, II and III.

El Shatt now has a permanent hospital building with between 200 and 300 beds. This may be insufficient as, with a population of 40,000, there will probably be a need of 350 to 400 beds. We are planning to send in two hospital units of 200 beds each and additional construction may be necessary to house these in permanent buildings. An allowance of 10 beds per thousand population is higher than the practice in this country. Reports from our people in the field indicate that these refugees are in poor condition and at the present time this is the actual number that is being hospitalized in relation to the population. This number of beds does not provide for epidemic conditions. If these occur they will have to be taken care of by temporary facilities such as tents provided for the purpose.



The hospital will be expected to take care of routine surgery. Facilities for special surgery will probably have to be arranged for outside the camp. It will also have male and female medical wards, a maternity ward with nursery, and a pediatric ward. Whether communicable disease cases requiring isolation will be taken care of in the hospital or on the outside will depend upon structural arrangements.

It is proposed for a camp of this size to have three dispensaries, one for each of the Camps I, II and III. The dispensary in the Camp in which the hospital is located will probably be attached to the hospital itself. Each dispensary will have clinic facilities and a central waiting room. It is proposed to have at each dispensary a daily medical clinic, a daily pediatric clinic to operate half a day either in the morning or the afternoon depending on the convenience of the physicians and the patients. The physicians working at the pediatric clinic will also be expected to work in the hospital during the times they are not at the clinic. It is also proposed to have an antenatal clinic every other day for a half day and a skin and surgical clinic every other day either all day or half day depending on the need. The skin and surgical clinic would alternate with the antenatal clinic.

It is estimated that nine medical men would be able to take care of the clinic program and also have time to render some hospital service and do a fair amount of home or tent visiting. There will be several diseases which will be especially prevalent in this group and which will necessitate greater clinic facilities than are usual in this country. We estimate that as high as 4% may have tuberculosis. A large group on whom serological tests were done in Yugoslavia revealed an incidence of 15% positive serology. Yugoslavia has a usual birth rate of 25 to 28 per thousand, a death rate of 15 to 18 per thousand and an infant mortality rate of 144 per thousand live births. In their native country about 5% of the population develop malaria each year. Skin diseases are very common and trachoma has been prevalent in certain areas of Yugoslavia. In these areas there has been an incidence of about 1% of the population. The reports we have received from the field indicate a fairly high incidence of hospital cases. In April with a population of approximately 11,000 there were 72 general hospital cases and 34 isolation cases or about 9 patients per thousand population.

It is proposed to have 3 medical officers in addition to the 9 clinic physicians - 2 surgeons, and a public health trained physician to direct and administer the hospital and be in charge of all health, and sanitation arrangements for the camp.

Other personnel needed will be a sanitary engineer responsible for water treatment and protection, garbage and refuse disposal, insect and rodent control, disinfection of refugees and food handling procedures. This sanitary engineer will be responsible for training his assistants, to be recruited locally.



The number of assistants will depend upon the size of the camp.

We estimate that 2 dentists will be required for a group such as at El Shatt. The dental clinics will operate in the dispensaries rotating from one dispensary to the other on successive days.

A nutritionist will be necessary. She will be responsible for hospital food preparation as well as supervising the activities of the communal kitchens.

Other personnel needed will be an x-ray technician and either one or two laboratory technicians. At El Shatt, with 40,000 people, two laboratory technicians will be needed.

Most of the above personnel should be recruited locally with a fair proportion from the refugees themselves. This will be supplemented by personnel supplied by the voluntary agencies. Of UNRRA personnel there probably would only be the physician in charge of the camp health activities, chief nurse, and sanitary engineer.

Attached as Appendix "A" is a tabulation of medical facilities and personnel for each of the camps. Appendix "B" is a summary table of medical and sanitation supplies together with budget estimates needed for one year's operation of the camps. Appendix "C" is a list of questions which we would like to have answered to assist us in future planning for medical and sanitation supplies.

EL SHATT - 40,000Hospital - 350 beds3 dispensaries

(dental - 4 days a week

(medical - every day

Clinics (antenatal - every other day  
 (skin and surgical - every other day  
 (pediatric - every day (1/2 day)

Medical Personnel

1 public health medical officer - director - UNRRA  
 2 surgeons  
 4 general practitioners  
 1 internist  
 3 pediatricians  
 1 obstetrician  
 2 dentists  
 1 sanitary engineer - UNRRA  
 1 pharmacist  
 1 director of camp nursing services - UNRRA  
 12 graduate nurses  
 1 nutritionist  
 1 X-ray technician  
 2 laboratory technicians

NUSEIRAT - 12,000Hospital - 80 beds2 dispensaries

(medical - 2 times a week

(surgical - 2 times a week

Clinics (antenatal - 2 times a week  
 (Pediatric - 3 times a week  
 (dental - 3 times a week

Medical Personnel.5 medical officers

1 director (P.H.) - UNRRA

1 surgeon

1 pediatrician

2 general practitioners

1 dentist

1 sanitary engineer to supervise this camp as well  
 as Aleppo and Tolumat

1 pharmacist

1 chief nurse - UNRRA

3 graduate nurses

2 laboratory technicians

1 X-ray technician

1 nutritionist - to also supervise Aleppo and Tolumat.



MOSES WELLS - 5,000

Hospital - 60 beds

1 dispensary  
  medical )  
  antenatal) every other day  
  pediatric)  
  surgical )  
dentist - visiting dentist.

Medical Personnel

3 physicians  
  1 with public health experience  
  2 general practitioners - one with pediatric training  
Dentist to be part time  
Sanitary Engineer to be part time  
1 chief nurse - UNRRA  
1 graduate nurse  
1 laboratory technician

KHATALBA - 5,000

Hospital - 60 beds

1 dispensary  
  medical )  
  antenatal) every other day  
  pediatric)  
  surgical )  
dentist - visiting dentist

Medical Personnel

3 physicians  
  1 with public health experience  
  2 general practitioners - one with pediatric training  
dentist to be part time  
sanitary engineer to be part time  
1 chief nurse - UNRRA  
2 graduate nurses

(The Moses Wells dentist could spend half his time here)

TOLUMBAT - 1,000

1 physician  
1 chief nurse - UNRRA  
10-bed dispensary

ALEPPO - 1,000

1 physician  
1 chief nurse - UNRRA  
10-bed dispensary

## Appendix B

TABLE II, BUDGET: SANITATION SUPPLIES FOR MERRA CAMPS.

DRAFT  
23 May 1944

	Expected Population	Present Pop'n	Inc. in Pop'n.	Cost per Capita	Possible Expenditures <sup>1)</sup>	Certain <sup>2)</sup> Expenditures	Cost per Camp
El Shatt	40,000	20,000	20,000				
Non-Expendables				2.45	\$49,000	\$49,000	\$98,000
Expendables				1.01		40,400	40,400
							138,400
Nuseirat	12,000	7,805	4,195				
Non-Expendables				2.45	19,122	10,278	29,400
Expendables				1.01		12,120	12,120
							41,520
Moses Wells	5,000	3,000	2,000				
Non-Expendables				2.45	7,350	4,900	12,250
Expendables				1.01		5,050	5,050
							17,300
Khatalaba	5,000	---	5,000				
Non-Expendables				2.45	---	12,250	12,250
Expendables				1.01		5,050	5,050
							17,300
Tolubat	1,000	200	800				
Non-Expendables				5.38	1,076	4,304	5,380
Expendables				4.49		4,490	4,490
							9,870
Aleppo	1,000	1,200	---				
Non-Expendables				---	---	---	---
Expendables				4.49		4,490	4,490
							4,490
TOTAL					\$76,548	152,332	\$228,880

- 1) The cost of the non-expendable equipment essential for operation of camps at present capacity.
- 2) The cost of the non-expendable equipment required for indicated camp expansion, plus cost of all expendable supplies required for 1 year's operation at full expected capacity



## Appendix B

Draft  
23 May 1944.

TABLE I, BUDGET: MEDICAL SUPPLIES FOR MERRA CAMPS.

	Cost 40,000 each ElShatt	12,000 Nuseirat	5,000 Moses Wells	5,000 Khatalba	1,000 Tolumbat	1,000 Aleppo	1) Poss.	2) Cert.	
									TOTAL
<u>Non-Expendables</u>									
Hospital - 40 beds	3,736								
" 200 "	15,917	2	a 1	1	---	---	14,944		14,944
Dental unit	371	1					15,917	15,917	31,834
X-ray unit	3,786	1	a 1	1	1	1	2,226		2,226
Dispensaries & Clinics	1,019	3					7,572		7,572
Laboratory I	323	1	1	1	1	1	8,152		8,152
II	939	1	1	1	1	1	1,938		1,938
III	651	1					939		939
IV	2,535	1	1	1	1	1	3,906		3,906
Midwives Bags	40	3	2	2	2	2	2,535		2,535
							520		520
<u>Expendables</u>									
Confinement Bags	9 500	150							
Drugs & Surgical supplies			63	63	13	13		7,218	7,218
(Standard Unit)	273,116 1/3	1/10	1/25	1/25	1/100	1/100			
TOTAL	139,116	42,352	17,667	17,667	5,291	5,291	\$58,649	163,735	227,384

- 1) The cost of the non-expendable equipment essential for operation of camps at present capacity.
- 2) The cost of the non-expendable equipment required for indicated camp expansion plus cost of all expendable supplies required for one year's operation at full expected capacity.

Questionnaire on Medical and Sanitation Equipment and Supplies  
in Refugee Camps

1. Will the nonexpendable medical and sanitation equipment now in the camp be turned over to UNRRA complete?
2. Will the stocks of expendable supplies be turned over to UNRRA complete?
3. Will these transferrals be done on a reimbursable basis? If not completely so, state which portions will be so transferred.
4. Nonexpendable medical equipment now available. State (1) whether present, (2) capacity, (3) whether adequate for present population, (4) adequate for expected population, (5) if not present, source of services, (6) any comments on present and future needs for these services.
  - a. Hospital facilities
  - b. Dental clinic
  - c. Dispensary and/or clinic
  - d. Laboratory for minimal chemical pathology
  - e. Laboratory for minimal bacteriology & serology
  - f. Laboratory for advanced
  - g. Equipment for major surgery
  - h. X-ray equipment
  - i. Midwives bags
  - j. Pharmacy
  - k. Emergency hospital facilities
  - l. Medical and nursing books and periodicals
  - m. Ambulance
5. Expendable medical supplies. Indicate (1) size of stocks on hand in terms of number of months camp needs can be met, (2) recommended size of stocks, in terms of number of months, (3) special needs, (4) present source of supply, (5) possibility of continued supply from present source on reimbursable basis.
  - a. Drugs
  - b. Dressings
  - c. Replacement of instruments and other hospital and clinic equipment
  - d. Expendable dental supplies
  - e. Biologicals
  - f. X-ray film and supplies
  - g. Confinement supplies (layettes)
  - h. Special stores against possible epidemics  
(Name possible epidemic diseases)
  - i. Health education materials.
6. Nonexpendable sanitation equipment. Indicate (1) which of following services are carried out in the camp, (2) type of equipment or procedure used, (3) whether adequate for present population, (4) whether adequate for expected population, (5) whether any change is contemplated or desired.



contemplated or desired.

- a. Body insect control
- b. Anapholine mosquito control
- c. Other insect control
- d. Rodent control
- e. Water source, purification, storage and distribution
- f. Garbage disposal
- g. Latrines
- h. Bathing
- i. Laundry
- j. Food and water examination; chemical and bacteriological
- k. Malaria survey
- l. Repairs to equipment

7. Expendable sanitation supplies. State (1) size of stocks on hand in terms of number of months camp needs can be met, (2) recommended size of stocks (3) special needs, (4) present source of necessary expendable supplies, (5) possibility of continued supply from present source, on reimbursable basis.

- a. Chemicals
- b. Replacement and repair parts for equipment
- c. Miscellaneous consumable goods such as wire screening
- d. Special equipment for control of possible epidemics

8. Special non-medical Supplies. What if any supplies in the following categories are necessary to carry out the medical and sanitation program:

1. Office and record equipment
2. Transportation
3. Miscellaneous

24 May 1944.

To: Carolin A. Flexner

From : Dr James A. Crabtree

SUBJECT: Medical and Sanitation Program for MERRA Refugee Camps.

It is our feeling that detailed plans or programs for these camps should be formulated by the group in Cairo. For budgetary purposes and to have a general outline of the probable camp medical organization we have developed the following material.

It is proposed to depend on volunteer agency and locally recruited personnel for the bulk of the service. A great deal of the nursing can be done by girls recruited from camp personnel and locally trained. We do not propose to recruit or send into the area non-technical personnel such as drivers, cooks and mechanics. Personnel on the UNRRA budget itself would be limited to top administrative people. In this category, at the present time, we have budgeted for a director for camp medical services, 2 medical officers, a sanitary engineer, a director of camp nursing services, and 5 chief nurses, one for each camp.

Because more information is available on the El Shatt Camp than on the others, we have described the probable medical program of this camp. The others will follow a similar pattern with variations consistent with the population of the individual camps.

We have based our program at El Shatt on a population of 40,000. We understand the camp area is to be divided into three sections, respectively called Camp I, II and III.

El Shatt now has a permanent hospital building with between 200 and 300 beds. This may be insufficient as, with a population of 40,000, there will probably be a need of 350 to 400 beds. We are planning to send in two hospital units of 200 beds each and additional construction may be necessary to house these in permanent buildings. An allowance of 10 beds per thousand population is higher than the practice in this country. Reports from our people in the field indicate that these refugees are in poor condition and at the present time this is the actual number that is being hospitalized in relation to the population. This number of beds does not provide for epidemic conditions. If these occur they will have to be taken care of by temporary facilities such as tents provided for the purpose.



The hospital will be expected to take care of routine surgery. Facilities for special surgery will probably have to be arranged for outside the camp. It will also have male and female medical wards, a maternity ward with nurse, and a pediatric ward. Whether communicable disease cases requiring isolation will be taken care of in the hospital or on the outside will depend upon structural arrangements.

It is proposed for a camp of this size to have three dispensaries, one for each of the Camps I, II and III. The dispensary in the Camp in which the hospital is located will probably be attached to the hospital itself. Each dispensary will have clinic facilities and a central waiting room. It is proposed to have at each dispensary a daily medical clinic, a daily pediatric clinic to operate half a day either in the morning or the afternoon depending on the convenience of the physicians and the patients. The physicians working at the pediatric clinic will also be expected to work in the hospital during the times they are not at the clinic. It is also proposed to have an antenatal clinic every other day for a half day and a skin and surgical clinic every other day either all day or half day depending on the need. The skin and surgical clinic would alternate with the antenatal clinic.

It is estimated that nine medical men would be able to take care of the clinic program and also have time to render some hospital service and do a fair amount of home or tent visiting. There will be several diseases which will be especially prevalent in this group and which will necessitate greater clinic facilities than are usual in this country. We estimate that as high as 4% may have tuberculosis. A large group on whom serological tests were done in Yugoslavia revealed an incidence of 15% positive serology. Yugoslavia has a usual birth rate of 25 to 28 per thousand, a death rate of 15 to 18 per thousand and an infant mortality rate of 144 per thousand live births. In their native country about 5% of the population develop malaria each year. Skin diseases are very common and trachoma has been prevalent in certain areas of Yugoslavia. In these areas there has been an incidence of about 1% of the population. The reports we have received from the field indicate a fairly high incidence of hospital cases. In April with a population of approximately 11,000 there were 72 general hospital cases and 34 isolation cases or about 9 patients per thousand population.

It is proposed to have 3 medical officers in addition to the 9 clinic physicians - 2 surgeons, and a public health trained physician to direct and administer the hospital and be in charge of all health, and sanitation arrangements for the camp.

Other personnel needed will be a sanitary engineer responsible for water treatment and protection, garbage and refuse disposal, insect and rodent control, disinfection of refugees and food handling procedures. This sanitary engineer will be responsible for training his assistants, to be recruited locally.



The number of assistants will depend upon the size of the camp.

We estimate that 2 dentists will be required for a group such as at El Shatt. The dental clinics will operate in the dispensaries rotating from one dispensary to the other on successive days.

A nutritionist will be necessary. She will be responsible for hospital food preparation as well as supervising the activities of the communal kitchens.

Other personnel needed will be an x-ray technician and either one or two laboratory technicians. At El Shatt, with 40,000 people, two laboratory technicians will be needed.

Most of the above personnel should be recruited locally with a fair proportion from the refugees themselves. This will be supplemented by personnel supplied by the voluntary agencies. Of UNRRA personnel there probably would only be the physician in charge of the camp health activities, chief nurse, and sanitary engineer.

Attached as Appendix "A" is a tabulation of medical facilities and personnel for each of the camps. Appendix "B" is a summary table of medical and sanitation supplies together with budget estimates needed for one year's operation of the camps. Appendix "C" is a list of questions which we would like to have answered to assist us in future planning for medical and sanitation supplies.



EL SHATT - 40,000Hospital - 350 beds3 dispensaries

(dental - 4 days a week

(medical - every day

Clinics (antenatal - every other day  
 (skin and surgical - every other day  
 (pediatric - every day (1/2 day)

Medical Personnel

1 public health medical officer - director - UNRRA

2 surgeons

4 general practitioners

1 internist

3 pediatricians

1 obstetrician

2 dentists

1 sanitary engineer - UNRRA

1 pharmacist

1 director of camp nursing services - UNRRA

12 graduate nurses

1 nutritionist

1 X-ray technician

2 laboratory technicians

NUSEIRAT - 12,000Hospital - 80 beds2 dispensaries

(medical - 2 times a week

(surgical - 2 times a week

Clinics (antenatal - 2 times a week

(Pediatric - 3 times a week

(dental - 3 times a week

Medical Personnel.5 medical officers

1 director (P.H.) - UNRRA

1 surgeon

1 pediatrician

2 general practitioners

1 dentist

1 sanitary engineer to supervise this camp as well  
as Aleppo and Tolumbat

1 pharmacist

1 chief nurse - UNRRA

3 graduate nurses

2 laboratory technicians

1 X-ray technician

1 nutritionist - to also supervise Aleppo and Tolumbat.

MOSES WELLS - 5,000

Hospital - 60 beds

1 dispensary  
  medical )  
  antenatal ) every other day  
  pediatric )  
  surgical )  
dentist - visiting dentist.

Medical Personnel

3 physicians  
  1 with public health experience  
  2 general practitioners - one with pediatric training  
  Dentist to be part time  
  Sanitary Engineer to be part time  
1 chief nurse - UNRRA  
1 graduate nurse  
1 laboratory technician

KHATALBA - 5,000

Hospital - 60 beds

1 dispensary  
  medical )  
  antenatal ) every other day  
  pediatric )  
  surgical )  
dentist - visiting dentist

Medical Personnel

3 physicians  
  1 with public health experience  
  2 general practitioners - one with pediatric training  
  dentist to be part time  
  sanitary engineer to be part time  
1 chief nurse - UNRRA  
2 graduate nurses

(The Moses Wells dentist could spend half his time here)

TOLUMBAT - 1,000

1 physician  
1 chief nurse - UNRRA  
10-bed dispensary

ALEPPO - 1,000

1 physician  
1 chief nurse - UNRRA  
10-bed dispensary



TABLE II, BUDGET: SANITATION SUPPLIES FOR MERRA CAMPS.

DRAFT  
23 May 1944

	Expected Population	Present Pop'n	Inc. in Pop'n.	Cost per Capita	Possible Expenditures	1) Certain Expenditures	2) Cost per Camp
El Shatt	40,000	20,000	20,000				
Non-Expendables				2.45	\$49,000	\$49,000	\$98,000
Expendables				1.01		40,400	40,400
							138,400
Museirat	12,000	7,805	4,195				
Non-Expendables				2.45	19,122	10,278	29,400
Expendables				1.01		12,120	12,120
							41,520
Moses Wells	5,000	3,000	2,000				
Non-Expendables				2.45	7,350	4,900	12,250
Expendables				1.01		5,050	5,050
							17,300
Khatalaba	5,000	---	5,000				
Non-Expendables				2.45	---	12,250	12,250
Expendables				1.01		5,050	5,050
							17,300
Tolunbat	1,000	200	800				
Non-Expendables				5.38	1,076	4,304	5,380
Expendables				4.49		4,490	4,490
							9,870
Aleppo	1,000	1,200	---				
Non-Expendables				---	---	---	---
Expendables				4.49		4,490	4,490
							4,490
TOTAL					\$76,548	152,332	\$228,880

- 1) The cost of the non-expendable equipment essential for operation of camps at present capacity.
- 2) The cost of the non-expendable equipment required for indicated camp expansion, plus cost of all expendable supplies required for 1 year's operation at full expected capacity.

Draft  
23 May 1944.

Appendix B

TABLE I, BUDGET: MEDICAL SUPPLIES FOR MERRA CAMPS.

	Cost each	40,000 ElShatt	12,000 Nuseirat	5,000 Moses Wells	5,000 Khatalba	1,000 Tolumbat	1,000 Aleppo	1) Poss. Expend- itures	2) Cert. Ex- pen.	TOTAL
<u>Non-Expendables</u>										
Hospital - 40 beds	3,736		2	a 1	1	---	---	14,944		14,944
" 200 "	15,917	2						15,917	15,917	31,834
Dental unit	371	1	1	a 1	1	1	1	2,226		2,226
X-ray unit	3,786	1	1					7,572		7,572
Dispensaries & Clinics	1,019	3	1	1	1	1	1	8,152		8,152
Laboratory I	323	1	1	1	1	1	1	1,938		1,938
II	939	1						939		939
III	651	1	1	1	1	1	1	3,906		3,906
IV	2,535	1						2,535		2,535
Midwives Bags	40	3	2	2	2	2	2	520		520
<u>Expendables</u>										
Confinement Bags	9 500		150	63	63	13	13		7,218	7,218
Drugs & Surgical supplies										
(Standard Unit)	273,116 1/3	382	1/10	1/25	1/25	1/100	1/100	145,600		145,600
TOTAL	139,116	42,352	17,667	17,667	5,291	5,291	\$58,649	168,735		227,384

- 1) The cost of the non-expendable equipment essential for operation of camps at present capacity.
- 2) The cost of the non-expendable equipment required for indicated camp expansion plus cost of all expendable supplies required for one year's operation at full expected capacity.



Questionnaire on Medical and Sanitation Equipment and Supplies  
in Refugee Camps

1. Will the nonexpendable medical and sanitation equipment now in the camp be turned over to UNRRA complete?
2. Will the stocks of expendable supplies be turned over to UNRRA complete?
3. Will these transferrals be done on a reimbursable basis? If not completely so, state which portions will be so transferred.
4. Nonexpendable medical equipment now available. State (1) whether present, (2) capacity, (3) whether adequate for present population, (4) adequate for expected population, (5) if not present, source of services, (6) any comments on present and future needs for these services.
  - a. Hospital facilities
  - b. Dental clinic
  - c. Dispensary and/or clinic
  - d. Laboratory for minimal chemical pathology
  - e. Laboratory for minimal bacteriology & serology
  - f. Laboratory for advanced
  - g. Equipment for major surgery
  - h. X-ray equipment
  - i. Midwives bags
  - j. Pharmacy
  - k. Emergency hospital facilities
  - l. Medical and nursing books and periodicals
  - m. Ambulance
5. Expendable medical supplies. Indicate (1) size of stocks on hand in terms of number of months camp needs can be met, (2) recommended size of stocks, in terms of number of months, (3) special needs, (4) present source of supply, (5) possibility of continued supply from present source on reimbursable basis.
  - a. Drugs
  - b. Dressings
  - c. Replacement of instruments and other hospital and clinic equipment
  - d. Expendable dental supplies
  - e. Biologicals
  - f. X-ray film and supplies
  - g. Confinement supplies (layettes)
  - h. Special stores against possible epidemics  
(Name possible epidemic diseases)
  - i. Health education materials.
6. Nonexpendable sanitation equipment. Indicate (1) which of following services are carried out in the camp, (2) type of equipment or procedure used, (3) whether adequate for present population, (4) whether adequate for expected population, (5) whether any change is contemplated or desired.

contemplated or desired.

- a. Body insect control
- b. Anapholine mosquito control
- c. Other insect control
- d. Rodent control
- e. Water source, purification, storage and distribution
- f. Garbage disposal
- g. Latrines
- h. Bathing
- i. Laundry
- j. Food and water examination; chemical and bacteriological
- k. Malaria survey
- l. Repairs to equipment

7. Expendable sanitation supplies. State (1) size of stocks on hand in terms of number of months camp needs can be met, (2) recommended size of stocks (3) special needs, (4) present source of necessary expendable supplies, (5) possibility of continued supply from present source, on reimbursable basis.

- a. Chemicals
- b. Replacement and repair parts for equipment
- c. Miscellaneous consumable goods such as wire screening
- d. Special equipment for control of possible epidemics

8. Special non-medical Supplies. What if any supplies in the following categories are necessary to carry out the medical and sanitation program:

- 1. Office and record equipment
- 2. Transportation
- 3. Miscellaneous



24 May 1944.

To: Carolin A. Flexner

From : Dr James A. Crabtree

SUBJECT: Medical and Sanitation Program for MERRA Refugee Camps.

It is our feeling that detailed plans or programs for these camps should be formulated by the group in Cairo. For budgetary purposes and to have a general outline of the probable camp medical organization we have developed the following material.

It is proposed to depend on volunteer agency and locally recruited personnel for the bulk of the service. A great deal of the nursing can be done by girls recruited from camp personnel and locally trained. We do not propose to recruit or send into the area non-technical personnel such as drivers, cooks and mechanics. Personnel on the UNRRA budget itself would be limited to top administrative people. In this category, at the present time, we have budgeted for a director for camp medical services, 2 medical officers, a sanitary engineer, a director of camp nursing services, and 5 chief nurses, one for each camp.

Because more information is available on the El Shatt Camp than on the others, we have described the probable medical program of this camp. The others will follow a similar pattern with variations consistent with the population of the individual camps.

We have based our program at El Shatt on a population of 40,000. We understand the camp area is to be divided into three sections, respectively called Camp I, II and III.

El Shatt now has a permanent hospital building with between 200 and 300 beds. This may be insufficient as, with a population of 40,000, there will probably be a need of 350 to 400 beds. We are planning to send in two hospital units of 200 beds each and additional construction may be necessary to house these in permanent buildings. An allowance of 10 beds per thousand population is higher than the practice in this country. Reports from our people in the field indicate that these refugees are in poor condition and at the present time this is the actual number that is being hospitalized in relation to the population. This number of beds does not provide for epidemic conditions. If these occur they will have to be taken care of by temporary facilities such as tents provided for the purpose.



The hospital will be expected to take care of routine surgery. Facilities for special surgery will probably have to be arranged for outside the camp. It will also have male and female medical wards, a maternity ward with nursery, and a pediatric ward. Whether communicable disease cases requiring isolation will be taken care of in the hospital or on the outside will depend upon structural arrangements.

It is proposed for a camp of this size to have three dispensaries, one for each of the Camps I, II and III. The dispensary in the Camp in which the hospital is located will probably be attached to the hospital itself. Each dispensary will have clinic facilities and a central waiting room. It is proposed to have at each dispensary a daily medical clinic, a daily pediatric clinic to operate half a day either in the morning or the afternoon depending on the convenience of the physicians and the patients. The physicians working at the pediatric clinic will also be expected to work in the hospital during the they they are not at the clinic. It is also proposed to have an antenatal clinic every other day for a half day and a skin and surgical clinic every other day either all day or half day depending on the need. The skin and surgical clinic would alternate with the antenatal clinic.

It is estimated that nine medical men would be able to take care of the clinic program and also have time to render some hospital service and do a fair amount of home or tent visiting. There will be several diseases which will be especially prevalent in this group and which will necessitate greater clinic facilities than are usual in this country. We estimate that as high as 4% may have tuberculosis. A large group on whom serological tests were done in Yugoslavia revealed an incidence of 15% positive serology. Yugoslavia has a usual birth rate of 25 to 28 per thousand, a death rate of 15 to 18 per thousand and an infant mortality rate of 144 per thousand live births. In their native country about 5% of the population develop malaria each year. Skin diseases are very common and trachoma has been prevalent in certain areas of Yugoslavia. In these areas there has been an incidence of about 1% of the population. The reports we have received from the field indicate a fairly high incidence of hospital cases. In April with a population of approximately 11,000 there were 72 general hospital cases and 34 isolation cases or about 9 patients per thousand population.

It is proposed to have 3 medical officers in addition to the 9 clinic physicians - 2 surgeons, and a public health trained physician to direct and administer the hospital and be in charge of all health, and sanitation arrangements for the camp.

Other personnel needed will be a sanitary engineer responsible for water treatment and protection, garbage and refuse disposal, insect and rodent control, disinfestation of refugees and food handling procedures. This sanitary engineer will be responsible for training his assistants, to be recruited locally.



The number of assistants will depend upon the size of the camp.

We estimate that 2 dentists will be required for a group such as at El Shatt. The dental clinics will operate in the dispensaries rotating from one dispensary to the other on successive days.

A nutritionist will be necessary. She will be responsible for hospital food preparation as well as supervising the activities of the communal kitchens.

Other personnel needed will be an x-ray technician and either one or two laboratory technicians. At El Shatt, with 40,000 people, two laboratory technicians will be needed.

Most of the above personnel should be recruited locally with a fair proportion from the refugees themselves. This will be supplemented by personnel supplied by the voluntary agencies. Of UNRRA personnel there probably would only be the physician in charge of the camp health activities, chief nurse, and sanitary engineer.

Attached as Appendix "A" is a tabulation of medical facilities and personnel for each of the camps. Appendix "B" is a summary table of medical and sanitation supplies together with budget estimates needed for one year's operation of the camps. Appendix "C" is a list of questions which we would like to have answered to assist us in future planning for medical and sanitation supplies.

EL SHATT - 40,000Hospital - 350 beds3 dispensaries

(dental - 4 days a week

(medical - every day

Clinics (antenatal - every other day  
(skin and surgical - every other day  
(pediatric - every day (1/2 day)

Medical Personnel

1 public health medical officer - director - UNRRA

2 surgeons

4 general practitioners

1 internist

3 pediatricians

1 obstetrician

2 dentists

1 sanitary engineer - UNRRA

1 pharmacist

1 director of camp nursing services - UNRRA

12 graduate nurses

1 nutritionist

1 X-ray technician

2 laboratory technicians

NUSEIRAT - 12,000Hospital - 80 beds2 dispensaries

(medical - 2 times a week

(surgical - 2 times a week

Clinics (antenatal - 2 times a week  
(Pediatric - 3 times a week  
(dental - 3 times a week

Medical Personnel.5 medical officers

1 director (P.H.) - UNRRA

1 surgeon

1 pediatrician

2 general practitioners

1 dentist

1 sanitary engineer to supervise this camp as well  
as Aleppo and Tolumbat

1 pharmacist

1 chief nurse - UNRRA

3 graduate nurses

2 laboratory technicians

1 X-ray technician

1 nutritionist - to also supervise Aleppo and Tolumbat.



MOSES WELLS - 5,000

Hospital - 60 beds

1 dispensary  
  medical )  
  antenatal ) every other day  
  pediatric )  
  surgical )  
dentist - visiting dentist.

Medical Personnel

3 physicians  
  1 with public health experience  
  2 general practitioners - one with pediatric training  
Dentist to be part time  
Sanitary Engineer to be part time  
1 chief nurse - UNRRA  
1 graduate nurse  
1 laboratory technician

KHATALBA - 5,000

Hospital - 60 beds

1 dispensary  
  medical )  
  antenatal ) every other day  
  pediatric )  
  surgical )  
dentist - visiting dentist

Medical Personnel

3 physicians  
  1 with public health experience  
  2 general practitioners - one with pediatric training  
dentist to be part time  
sanitary engineer to be part time  
1 chief nurse - UNRRA  
2 graduate nurses

(The Moses Wells dentist could spend half his time here)

TOLUMBAT - 1,000

1 physician  
1 chief nurse - UNRRA  
10-bed dispensary

ALEPPO - 1,000

1 physician  
1 chief nurse - UNRRA  
10-bed dispensary

## Appendix B

TABLE II, BUDGET: SANITATION SUPPLIES FOR MERRA CAMPS

DRAFT  
22 May 1944

	Expected Population	Present Pop'n	Inc. in Pop'n.	Cost per Capita	1) Expenditures	2) Expenditures	Cost per Camp
El Shatt	40,000	20,000	20,000				
Non-Expendables				2.45	\$49,000	\$49,000	\$2,450
Expendables				1.01	40,490	40,490	1,012
							138,400
Nuseirat	12,000	7,805	4,195				
Non-Expendables				2.45	19,122	10,278	29,400
Expendables				1.01		12,120	12,120
							41,520
Moses Wells	5,000	3,000	2,000				
Non-Expendables				2.45	7,350	4,900	12,250
Expendables				1.01		5,050	5,050
							17,300
Khatalaba	5,000	---	5,000				
Non-Expendables				2.45	---	12,250	12,250
Expendables				1.01		5,050	5,050
							17,300
Tolubat	1,000	200	800				
Non-Expendables				5.38	1,076	4,304	5,380
Expendables				4.49		4,490	4,490
							9,870
Aleppo	1,000	1,200	---				
Non-Expendables				---	---	---	---
Expendables				4.49		4,490	4,490
							4,490
TOTAL					\$76,548	152,332	\$228,880

- 1) The cost of the non-expendable equipment essential for operation of camps at present capacity.
- 2) The cost of the non-expendable equipment required for indicated camp expansion, plus cost of all expendable supplies required for 1 year's operation at full expected capacity.



Draft  
23 May 1944.

Appendix B

TABLE I, BUDGET: MEDICAL SUPPLIES FOR MERRA CAMPS.

	Cost	40,000	12,000	5,000	5,000	1,000	1,000	1) Poss.	2) Cert.	
	each	ElShatt	Nuseirat	Moses Wells	Khatalba	Tolumbat	Aleppo	Expend-Ex-	itures pen.	TOTAL
<u>Non-Expendables</u>										
Hospital - 40 beds	3,736		2	a 1	1	---	---	14,944		14,944
" 200 "	15,917	2						15,917	15,917	31,834
Dental unit	371	1	1	a 1	1	1	1	2,226		2,226
X-ray unit	3,786	1	1					7,572		7,572
Dispensaries & Clinics	1,019	3	1	1	1	1	1	8,152		8,152
Laboratory I	323	1	1	1	1	1	1	1,938		1,938
II	939	1						939		939
III	651	1	1	1	1	1	1	3,906		3,906
IV	2,535	1						2,535		2,535
Midwives Bags	40	3	2	2	2	2	2	520		520
<u>Expendables</u>										
Confinement Bags	9 500		150	63	63	13	13	7,218		7,218
Drugs & Surgical supplies										
(Standard Unit)	273,116	1/3	1/10	1/25	1/25	1/100	1/100	145,600		145,600
TOTAL	139,116	42,352	17,667	17,667	5,291	5,291	58,649	168,735		227,384

- 1) The cost of the non-expendable equipment essential for operation of camps at present capacity.
- 2) The cost of the non-expendable equipment required for indicated camp expansion plus cost of all expendable supplies required for one year's operation at full expected capacity.

Questionnaire on Medical and Sanitation Equipment and Supplies  
in Refugee Camps

1. Will the nonexpendable medical and sanitation equipment now in the camp be turned over to UNRRA complete?
2. Will the stocks of expendable supplies be turned over to UNRRA complete?
3. Will these transferrals be done on a reimbursable basis? If not completely so, state which portions will be so transferred.
4. Nonexpendable medical equipment now available. State (1) whether present, (2) capacity, (3) whether adequate for present population, (4) adequate for expected population, (5) if not present, source of services, (6) any comments on present and future needs for these services.
  - a. Hospital facilities
  - b. Dental clinic
  - c. Dispensary and/or clinic
  - d. Laboratory for minimal chemical pathology
  - e. Laboratory for minimal bacteriology & serology
  - f. Laboratory for advanced
  - g. Equipment for major surgery
  - h. X-ray equipment
  - i. Midwives bags
  - j. Pharmacy
  - k. Emergency hospital facilities
  - l. Medical and nursing books and periodicals
  - m. Ambulance
5. Expendable medical supplies. Indicate (1) size of stocks on hand in terms of number of months camp needs can be met, (2) recommended size of stocks, in terms of number of months, (3) special needs, (4) present source of supply, (5) possibility of continued supply from present source on reimbursable basis.
  - a. Drugs
  - b. Dressings
  - c. Replacement of instruments and other hospital and clinic equipment
  - d. Expendable dental supplies
  - e. Biologicals
  - f. X-ray film and supplies
  - g. Confinement supplies (layettes)
  - h. Special stores against possible epidemics  
(Name possible epidemic diseases)
  - i. Health education materials.
6. Nonexpendable sanitation equipment. Indicate (1) which of following services are carried out in the camp, (2) type of equipment or procedure used, (3) whether adequate for present population, (4) whether adequate for expected population, (5) whether any change is contemplated or desired.



contemplated or desired.

- a. Body insect control
- b. Anapholine mosquito control
- c. Other insect control
- d. Rodent control
- e. Water source, purification, storage and distribution
- f. Garbage disposal
- g. Latrines
- h. Bathing
- i. Laundry
- j. Food and water examination; chemical and bacteriological
- k. Malaria survey
- l. Repairs to equipment

7. Expendable sanitation supplies. State (1) size of stocks on hand in terms of number of months camp needs can be met, (2) recommended size of stocks (3) special needs, (4) present source of necessary expendable supplies, (5) possibility of continued supply from present source, on reimbursable basis.

- a. Chemicals
- b. Replacement and repair parts for equipment
- c. Miscellaneous consumable goods such as wire screening
- d. Special equipment for control of possible epidemics

8. Special non-medical Supplies. What if any supplies in the following categories are necessary to carry out the medical and sanitation program:

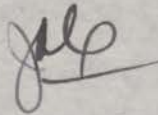
1. Office and record equipment
2. Transportation
3. Miscellaneous

UNITED NATIONS  
RELIEF AND REHABILITATION ADMINISTRATION

1344 CONNECTICUT AVENUE  
WASHINGTON 25, D. C.

24 May 1944

TO: Carolin A. Flexner

FROM: Dr. James A. Crabtree 

SUBJECT: Medical and Sanitation Program for MERRA Refugee Camps.

It is our feeling that detailed plans or programs for these camps should be formulated by the group in Cairo. For budgetary purposes and to have a general outline of the probable camp medical organization we have developed the following material.

It is proposed to depend on volunteer agency and locally recruited personnel for the bulk of the service. A great deal of the nursing can be done by girls recruited from camp personnel and locally trained. We do not propose to recruit or send into the area non-technical personnel such as drivers, cooks, and mechanics. Personnel on the UNRRA budget itself would be limited to top administrative people. In this category, at the present time, we have budgeted for a director for camp medical services, 2 medical officers, a sanitary engineer, a director of camp nursing services, and 5 chief nurses, one for each camp.

Because more information is available on the El Shatt Camp than on the others we have described the probable medical program of this camp. The others will follow a similar pattern with variations consistent with the population of the individual camps.

We have based our program at El Shatt on a population of 40,000. We understand the camp area is to be divided into three sections, respectively called Camp I, II, and III.

El Shatt now has a permanent hospital building with between 200 and 300 beds. This may be insufficient as, with a population of 40,000, there will probably be a need of 350 to 400 beds. We are planning to send in two hospital units of 200 beds each and additional construction may be necessary to house these in permanent buildings. An allowance of 10 beds per thousand population is higher than the practice in this country. Reports from our people in the field indicate that these refugees are in poor condition and at the present time this is the actual number that is being hospitalized in relation



25 May 1944

to the population. This number of beds does not provide for epidemic conditions. If these occur they will have to be taken care of by temporary facilities such as tents provided for the purpose.

The hospital will be expected to take care of routine surgery. Facilities for special surgery will probably have to be arranged for outside the camp. It will also have male and female medical wards, a maternity ward with nursery, and a pediatric ward. Whether communicable disease cases requiring isolation will be taken care of in the hospital or on the outside will depend upon structural arrangements.

It is proposed for a camp of this size to have three dispensaries, one for each of the Camps I, II, and III. The dispensary in the camp in which the hospital is located will probably be attached to the hospital itself. Each dispensary will have clinic facilities and a central waiting room. It is proposed to have at each dispensary a daily medical clinic, a daily pediatric clinic to operate half a day either in the morning or the afternoon depending on the convenience of the physicians and the patients. The physicians working at the pediatric clinic will also be expected to work in the hospital during the time they are not at the clinic. It is also proposed to have an antenatal clinic every other day for a half day and a skin and surgical clinic every other day either all day or half day depending on the need. The skin and surgical clinic would alternate with the antenatal clinic.

It is estimated that nine medical men would be able to take care of the clinic program and also have time to render some hospital service and do a fair amount of home or tent visiting. There will be several diseases which will be especially prevalent in this group and which will necessitate greater clinic facilities than are usual in this country. We estimate that as high as 4% may have tuberculosis. A large group on whom serological tests were done in Yugoslavia revealed an incidence of 15% positive serology. Yugoslavia has a usual birth rate of 25 to 28 per thousand, a death rate of 15 to 18 per thousand and an infant mortality rate of 144 per thousand live births. In their native country about 5% of the population develop malaria each year. Skin diseases are very common and trachoma has been prevalent in certain areas of Yugoslavia. In these areas there has been an incidence of about 1% of the population. The reports we have received from the field indicate a fairly high incidence of hospital cases. In April with a population of approximately 11,000 there were 72 general hospital cases and 34 isolation cases or about 9 patients per thousand population.

It is proposed to have 3 medical officers in addition to the 9 clinic physicians - 2 surgeons, and a public health trained physician to direct and administer the hospital and be in charge of all health, and sanitation arrangements for the camp.

Other personnel needed will be a sanitary engineer responsible for water treatment and protection, garbage and refuse disposal, insect and rodent



25 May 1944

control, disinfection of refugees and food handling procedures. This sanitary engineer will be responsible for training his assistants, to be recruited locally. The number of assistants will depend upon the size of the camp.

We estimate that 2 dentists will be required for a group such as at El Shatt. The dental clinics will operate in the dispensaries rotating from one dispensary to the other on successive days.

A nutritionist will be necessary. She will be responsible for hospital food preparation as well as supervising the activities of the communal kitchens.

Other personnel needed will be an x-ray technician and either one or two laboratory technicians. At El Shatt, with 40,000 people, two laboratory technicians will be needed.

Most of the above personnel should be recruited locally with a fair proportion from the refugees themselves. This will be supplemented by personnel supplied by the voluntary agencies. Of UNRRA personnel there probably would only be the physician in charge of the camp health activities, chief nurse, and sanitary engineer.

Attached as Appendix "A" is a tabulation of medical facilities and personnel for each of the camps. Appendix "B" is a summary table of medical and sanitation supplies together with budget estimates needed for one year's operation of the camps. Appendix "C" is a list of questions which we would like to have answered to assist us in future planning for medical and sanitation supplies.

Attachments-3

HAMMILL  
BOND  
MADE IN USA



EL SHATT - 40,000Hospital - 350 beds

## 3 dispensaries

(dental - 4 days a week

(medical - every day

## Clinics (antenatal - every other day

(skin and surgical - every other day

(pediatric - every day ( $\frac{1}{2}$  day)Medical Personnel

1 public health medical officer - director - UNRRA

2 surgeons

4 general practitioners

1 internist

3 pediatricians

1 obstetrician

2 dentists

1 sanitary engineer - UNRRA

1 pharmacist

1 director of camp nursing services - UNRRA

12 graduate nurses

1 nutritionist

1 x-ray technician

2 laboratory technicians

NUSEIRAT - 12,000Hospital - 80 beds

## 2 dispensaries

(medical - 2 times a week

(surgical - 2 times a week

## Clinics (antenatal - 2 times a week

(pediatric - 3 times a week

(dental - 3 times a week

Medical Personnel

5 medical officers

1 director (P.H.) - UNRRA

1 surgeon

1 pediatrician

2 general practitioners

1 dentist

1 sanitary engineer to supervise this  
camp as well as Aleppo and Tolumbat

1 pharmacist

1 chief nurse - UNRRA

3 graduate nurses

2 laboratory technicians

1 x-ray technician

1 nutritionist - to also supervise  
Aleppo and Tolumbat

MOSES WELLS - 5,000

Hospital - 60 beds

1 dispensary  
    medical )  
    antenatal ) every other day  
    pediatric )  
    surgical )  
dentist - visiting dentist

Medical Personnel

3 physicians  
    1 with public health experience  
    2 general practitioners - one with pediatric training  
dentist to be part time  
sanitary engineer to be part time  
1 chief nurse - UNRRA  
1 graduate nurse  
1 laboratory technician

KHATALBA -5,000

Hospital - 60 beds

1 dispensary  
    medical )  
    antenatal ) every other day  
    pediatric )  
    surgical )  
dentist - visiting dentist

Medical Personnel

3 physicians  
    1 with public health experience  
    2 general practitioners - one with pediatric training  
dentist to be part time  
sanitary engineer to be part time  
1 chief nurse - UNRRA  
2 graduate nurses

(The Moses Wells dentist could spend half his time here)

TOLUMBAT - 1,000

1 physician  
1 chief nurse - UNRRA  
10-bed dispensary

ALEPPO - 1,000

1 physician  
1 chief nurse - UNRRA  
10-bed dispensary



## Appendix B

Draft  
23 May 1944

TABLE II, BUDGET: SANITATION SUPPLIES FOR MERRA CAMPS

	Expected Population	Present Population	Inc. in Population	Cost per Capita	Possible <sup>1)</sup> Expenditures	Certain <sup>2)</sup> Expenditures	Cost	Cost per Camp
El Shatt	40,000	20,000	20,000					
Non-Expendables				2.45	\$49,000	\$49,000	\$98,000	
Expendables				1.01		40,400	40,400	\$138,400
Nusierat	12,000	7,805	4,195					
Non-Expendables				2.45	19,122	10,278	29,400	
Expendables				1.01		12,120	12,120	41,520
Moses Wells	5,000	3,000	2,000					
Non-Expendables				2.45	7,350	4,900	12,250	
Expendables				1.01		5,050	5,050	17,300
Khatataba	5,000	---	5,000					
Non-Expendables				2.45	---	12,250	12,250	
Expendables				1.01		5,050	5,050	17,300
Tolubat	1,000	200	800					
Non-Expendables				5.38	1,076	4,304	5,380	
Expendables				4.49		4,490	4,490	9,870
Altepo	1,000	1,200	---					
Non-Expendables				---	---	---	---	
Expendables				4.49		4,490	4,490	4,490
TOTAL					\$76,548	\$152,332		\$228,880

- 1) The cost of the non-expendable equipment essential for operation of camps at present capacity.  
 2) The cost of the non-expendable equipment required for indicated camp expansion, plus cost of all expendable supplies required for one year's operation at full expected capacity.

## Appendix B

Draft  
23 May 1944

TABLE I, BUDGET: MEDICAL SUPPLIES FOR MERRA CAMPS

Cost (Each)	40,000 El Shatt	12,000 Nusierat	5,000 Moses Wells	5,000 Khatiba	1,000 Tala	1,000 Thabat Aleppo	Poss. <sup>1)</sup> Expend- itures	Cert. <sup>2)</sup> Expend- itures	Total
<u>Non-Expendables</u>									
Hospital-40 Beds	\$3,736	2	a 1	1	---	---	\$14,944		\$14,944
" 200 Beds	15,917	2					15,917	\$15,917	31,834
Dental unit	371	1	a 1	1	1	1	2,226		2,226
X-ray unit	3,786	1	1				7,572		7,572
Dispensaries and clinics	1,019	3	1	1	1	1	8,152		8,152
Laboratory I	323	1	1	1	1	1	1,938		1,938
II	939	1					939		939
III	651	1	1	1	1	1	3,906		3,906
IV	2,535	1					2,535		2,535
Midwives Bags	40	3	2	2	2	2	520		520
<u>Expendables</u>									
Confinement Bags	9 500	150	63	63	13	13		7,218	7,218
Drugs and Sur- gical supplies (Standard Unit)	273,000 1/3	1/10	1/25	1/25	1/100	1/100		145,600	145,600
TOTAL	139,116	42,352	17,667	17,667	5,291	5,291	\$58,649	\$168,735	\$227,384

- 1) The cost of the non-expendable equipment essential for operation of camps at present capacity.  
 2) The cost of the non-expendable equipment required for indicated camp expansion, plus cost of all expendable supplies required for one year's operation at full expected capacity.



Questionnaire on Medical and Sanitation Equipment and Supplies in Refugee Camps

1. Will the nonexpendable medical and sanitation equipment now in the camp be turned over to UNRRA complete?
2. Will the stocks of expendable supplies be turned over to UNRRA complete?
3. Will these transferrals be done on a reimbursable basis? If not completely so, state which portions will be so transferred.
4. Nonexpendable medical equipment now available. State (1) whether present, (2) capacity, (3) whether adequate for present population, (4) adequate for expected population, (5) if not present, source of services, (6) any comments on present and future needs for these services.

- a. Hospital facilities
- b. Dental clinic
- c. Dispensary and/or clinic
- d. Laboratory for minimal chemical pathology
- e. Laboratory for minimal bacteriology & serology
- f. Laboratory for advanced
- g. Equipment for major surgery
- h. X-ray equipment
- i. Midwives bags
- j. Pharmacy
- k. Emergency hospital facilities
- l. Medical and nursing books and periodicals
- m. Ambulance

5. Expendable medical supplies. Indicate (1) size of stocks on hand in terms of number of months camp needs can be met, (2) recommended size of stocks, in terms of number of months, (3) special needs, (4) present source of supply, (5) possibility of continued supply from present source on reimbursable basis.

- a. Drugs
- b. Dressings
- c. Replacement of instruments and other hospital and clinic equipment
- d. Expendable dental supplies
- e. Biologicals
- f. X-ray film and supplies
- g. Confinement supplies (layettes)
- h. Special stores against possible epidemics (Name possible epidemic diseases)
- i. Health education materials

6. Nonexpendable sanitation equipment. Indicate (1) which of following services are carried out in the camp, (2) type of equipment or procedure used, (3) whether adequate for present population, (4) whether adequate

for expected population, (5) whether any change is contemplated or desired.

- a. Body insect control
- b. Anapholine mosquito control
- c. Other insect control
- d. Rodent control
- e. Water source, purification, storage and distribution
- f. Garbage disposal
- g. Latrines
- h. Bathing
- i. Laundry
- j. Food and water examination: chemical and bacteriological
- k. Malaria survey
- l. Repairs to equipment

7. Expendable sanitation supplies. State (1) size of stocks on hand in terms of number of months camp needs can be met, (2) recommended size of stocks (3) special needs, (4) present source of necessary expendable supplies, (5) possibility of continued supply from present source, on reimbursable basis.

- a. Chemicals
- b. Replacement and repair parts for equipment
- c. Miscellaneous consumable goods such as wire screening
- d. Special equipment for control of possible epidemics

8. Special non-medical supplies. What if any supplies in the following categories are necessary to carry out the medical and sanitation program:

1. Office and record equipment
2. Transportation
3. Miscellaneous



1444

Refugee Camps - General

UNITED NATIONS RELIEF AND REHABILITATION ADMINISTRATION

1734 New York Avenue, NW  
Washington 6, D. C.

13 March 1944

To: Caroline A. Flexner

From: Dr. D. A. Reekie

In your note to Dr. Crabtree of March 9th you asked for an idea of how we intend to inaugurate a health program in refugee camps.

A Health Program in a refugee camp will depend, we believe, on many factors which can only be determined at the time and place.

We are prepared to assign the type of people who with their background of experience, training and passed responsibilities, are capable of determining what Health, Sanitation, and Medical Services are needed at camps organized to care for refugees.

The sick must be cared for, women permitted to bear children safely, epidemics prevented by adequate immunization, provision for safe water, food and food handling, potential malaria, typhus, etc., prevented. Such considerations illustrate some of the problems, possibly many other, that are within the ken of a camp health program.

We believe it would be futile to spell out more, for geography, climate, racial groups, and the location of a camp in relation to community facilities, all require that we depend on the judgment and capacity of the Health Division personnel we make responsible for Health, Sanitation, and Medical Services of Refugee Camps.

All we now plan is to get the proper people and the tools they need to work with together in numbers and quantities sufficient for the size of camp you determine is necessary.

Please call on us for further discussion of the subject if you believe we have left out or have overlooked anything.

D.A.R.

UNITED NATIONS  
RELIEF AND REHABILITATION ADMINISTRATION

1344 CONNECTICUT AVENUE  
WASHINGTON 25, D. C.

22 May 1944

TO: Carolin A. Flexner  
FROM: Anthony Fried *Mr.*  
SUBJECT: MERRA Camps: Moses Wells  
El Shatt  
Tolumbat  
Khatatba  
Nuseirat  
Aleppo

This division feels that it is not qualified, at the present time, to make constructive comments on the general and sanitary arrangements of the MERRA camps. The information submitted to date by your office is too sketchy, and our engineers are not sufficiently conversant with local conditions, habits, and customs. The sanitary layout falls far short of American standards, but this undoubtedly is due to the sanitary habits and customs of the refugees. It is the opinion of this division that, however complete the information might have been, no comments or suggestions could be made until our engineers have had an opportunity to visit the sights, and there discuss with the Administrators their problems and requirements on the grounds. It is further suggested that the construction of the proposed additional buildings for Moses Wells be deferred, if at all possible, until our engineers can make recommendations at the sight.

This division intends to send Mr. J. Van Teylingen, Head of the Shelter Section to Egypt as soon as he can complete his inoculations, and transport can be provided.

We herewith return the documents received May 8:

Moses Wells - Drg Nos. 4508, 4509, 4510, 4511  
4624/1

Suez East - Kubri  
Drg. No. 4630

Suez East - El Shatt  
Drg. No. 4630



SUMMARY OF MEETING HELD TO DISCUSS PROGRAMS FOR  
CAMP OPERATIONS

Thursday, May 4, 1944

2:30 p.m.

Room 309

*Extra copy  
(for reference  
a second  
meeting after  
programs are  
in)*

PRESENT

Bureau of Areas: George Xanthaky (Chairman), Southern European  
Branch  
S. Reeseaman Fryer  
Carolyn A. Flexner, Camp Division  
Cicely Ryshpan, Studies Coordination  
Bureau of Supply: Theodore Wilson, Procurement Coordination  
Edwin R. Henson, Agricultural Rehabilitation  
Division  
Peter L. Slagsvold, Agricultural Rehabilitation  
Division  
A. S. Boykoff, Industrial Equipment  
Displaced Persons  
Division: Clarence Pierce  
Welfare Division: Harry Greenstein  
Industrial Rehabil-  
itation Division: John H. Cover  
Health Division: Dr. A. L. Frechette

Mr. Xanthaky began by explaining that the meeting had been called in order to discuss the responsibility of each division in regard to camps, and to consider how the plans and programs of the respective divisions might best be coordinated in relation to the sphere of camp activity. The Camp Division does not wish to preempt authority nor to write the technical programs, which properly should come from the respective technical divisions, but does want to coordinate these programs and to provide the necessary executive supervision in order to put them into operation.

Miss Flexner stated that the taking over of the MERRA camps on May first had underlined the need for quick action, which of course is always difficult to secure in any large organization. In addition to the immediate problem of the MERRA camps, there is also the question of camps to be set up in liberated areas such as the Balkans. The Camp Division in order to make its plans must know what programs and policies are being formulated by the technical divisions, so that these may be put into operation by the administrators who are currently being selected to supervise the camps.

Mr. Xanthaky emphasized that priority in planning must be given to the former MERRA camps, which UNRRA has now taken over. The situation will be different within the Balkans, where the problem of displaced persons will largely concern people who are placed within their own countries. The camps in those areas will be like staging centers, transient in character, and maximum use will be made of sheltering persons in existing public buildings (schools, etc.). Camps will be set up only to shelter the residue who cannot be taken care of otherwise. No more money than strictly necessary should be expended for construction of temporary shelters.



Mr. Greenstein requested a clarification of the administrative responsibility in regard to the camps, stating that at present the Camp Administrator was being selected by the Camp Division, and the Camp Activities Officer jointly by the Camp Division and by Welfare, but when operating within the camp the latter would be administratively responsible to the Camp Administrator. Mr. Xanthaky stated that although many problems within the camps relate to welfare activity, in actuality for practical reasons all operations within the camp must come under a single Administrator. After some discussion it was agreed that the question of jurisdiction or of exact chains of control could not be settled at this particular meeting, which had been called rather to stimulate and clarify operational ideas.

Mr. Fryer emphasized the need of securing as quickly as possible from each functional division a policy and program relating to the camps which the Camp Division can put into operation. The Welfare Division, for example, would be concerned in formulating policy on such questions as categories of skills and scales of wages for employment to be set up in the camps, wage differentials between native and refugee labor, etc.; with questions of community management such as education, self-government, and the effective organization of refugee leadership; and with community projects. The relocation of refugees (moving them from camp to camp in order to unite families, and so forth) is a question of policy to be settled jointly between the Welfare Division, Displaced Persons and the Legal Division. Mr. Fryer suggested that assignment of refugees to quarters is an important administrative problem which should be handled on the basis of policies established by the Welfare Division. Self-help projects come within the sphere of Welfare, but should also be worked out in conjunction with the Divisions of Agricultural and Industrial Rehabilitation, in order that the manpower in the camps can be utilized effectively for constructive purposes fitting into the total program for relief and rehabilitation in the Balkans. The Bureau of Supply should, similarly, come up with a program regarding channels of supply for the camps, relationship to local procurement, etc. The Legal Division (not represented at the meeting) will have to be consulted in regard to jurisdictional problems which affect international law and the rights of the individual - such questions as might be raised relating to the nationality of children born at the camps, the protection of wills and of property left behind by the refugees in their respective countries, and so forth. The functional divisions should be responsible for thinking through policies and programs on technical matters of this sort, which the Camp Division of the Bureau of Areas, through its administrative machinery will put into effect in the camps. Mr. Xanthaky reiterated that the object of this meeting was not to settle questions of jurisdiction between the divisions, which will have to be ironed out separately, but to settle the matter of the responsibility of each division for the immediate formulation of programs which can be put into effect in those camps for which UNRRA is currently responsible.

It was decided that in order that the functional divisions will have the necessary data from which to work, the Camp Division will send to each division within the next few days an analytical description of the information at present available on each of the camps, with



a request from each division for certain specific recommendations. Thus, although as Dr. Frechette emphasized many decisions will have to be made in the field by the qualified expert personnel sent out by the respective technical divisions, all plans have to be reduced to action. Mr. Xanthaky brought out that in the last analysis this action essentially resolves itself into decisions on budget, on personnel, on procurement, and on allocation, which have to be settled here at Washington headquarters on the basis of data and recommendations sent from the field.

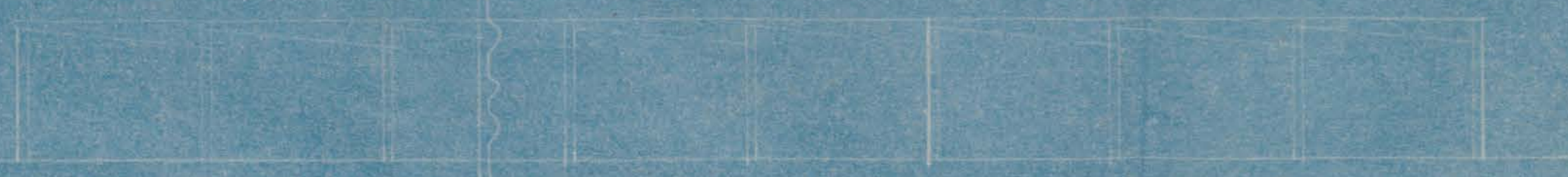
After receiving from the Camp Division the analytical description of each camp, the functional divisions within two weeks will each present specific recommendations. For the present these should deal only with the former MERRA camps, but later similar recommendations will be requested for Balkan areas and ultimately for other countries. The essential fact to bear in mind is that, regardless of questions of interdepartmental jurisdiction, as of May first UNRRA assumed responsibility for the Middle East camps and they must be operated.

Mr. Cover referred to the meeting held earlier in the day by the Committee of Review, at which it was agreed that each division should meet as a working unit to formulate the requirements of the camps and of the communities where UNRRA would operate, and stated that this was relevant to the present proposal.

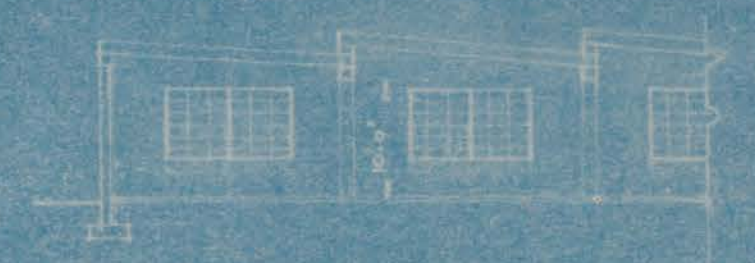
Mr. Xanthaky stated that a decision should also be made on the ideal size for a camp, which figure would be taken as the unit on which requirements would be developed. It was agreed that 1000 would probably be the best unit on which to base estimates of requirements for the camps.



A



ELEVATION



SECTION-A-A



Nº	DATE	DETAILS
LIST OF AMENDMENTS		

STONEHENGE TYPE BUILDING  
SCALE 1/16" = 1'-0"

DRAWN BY  
*[Signature]*  
601-2-D.R.E.

MOSES WELLS  
PROPOSED COOKHOUSE FOR 1000.

MAJOR R.E.  
O.C. TO R.E. WKS. SEC.  
DRG. No. 4511  
DATE 17-12-45  
LT. COL. R.E.  
ACBS. O.R.E.



Return to:

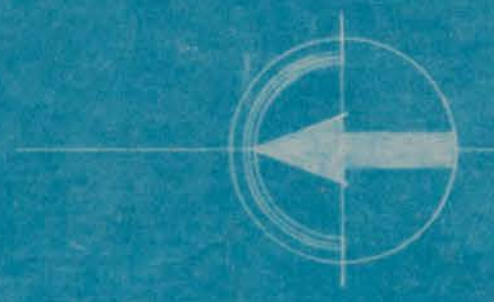
Camps Division  
Room 317



# Moses Wells

## Proposed New Layout

SCALE 1:1000.



EXISTING 14 ROWS OF B.B.P. TENTS  
3RD. 1000

PROPOSED SCHOOL  
BUILDING

COOK HOUSE

3 ROWS  
OF  
B.B.P. TENTS

EXISTING DECHVILLE TRACK

PROPOSED 20' 0" ROADWAY

EXISTING TENTS  
TO BE REMOVED

EXISTING  
ROWS OF  
B.B.P. TENT

EXISTING  
QUARTERS

PROPOSED  
COMMUNAL  
CENTRE

FUTURE  
PROPOSAL  
SCHEME  
REPEATED

PROPOSED  
18 ROWS  
OF B  
B.B.P. TENTS

5TH 1000.

4TH 1000.

PROPOSED 6" WATER MAIN FROM ELEVATED CISTERN  
CAMP 4. & DE L. J. HARTY BOOSTER STATION

WATER  
TANKS

PUMP  
HOUSE

NEW ROAD IN PROGRESS

DINING  
COOK  
HOUSE

REFERENCE	DRAWING	DATE	DETAILS
DATE	17.12.43		55. C.B.E
DRAWN BY	S. GIBLOWE		DRAWING NO.





EXISTING 14 ROWS of 8 E.P.D.P. TENTS  
300 1000

DIVING



Return to:-  
Camp Division  
Room 317





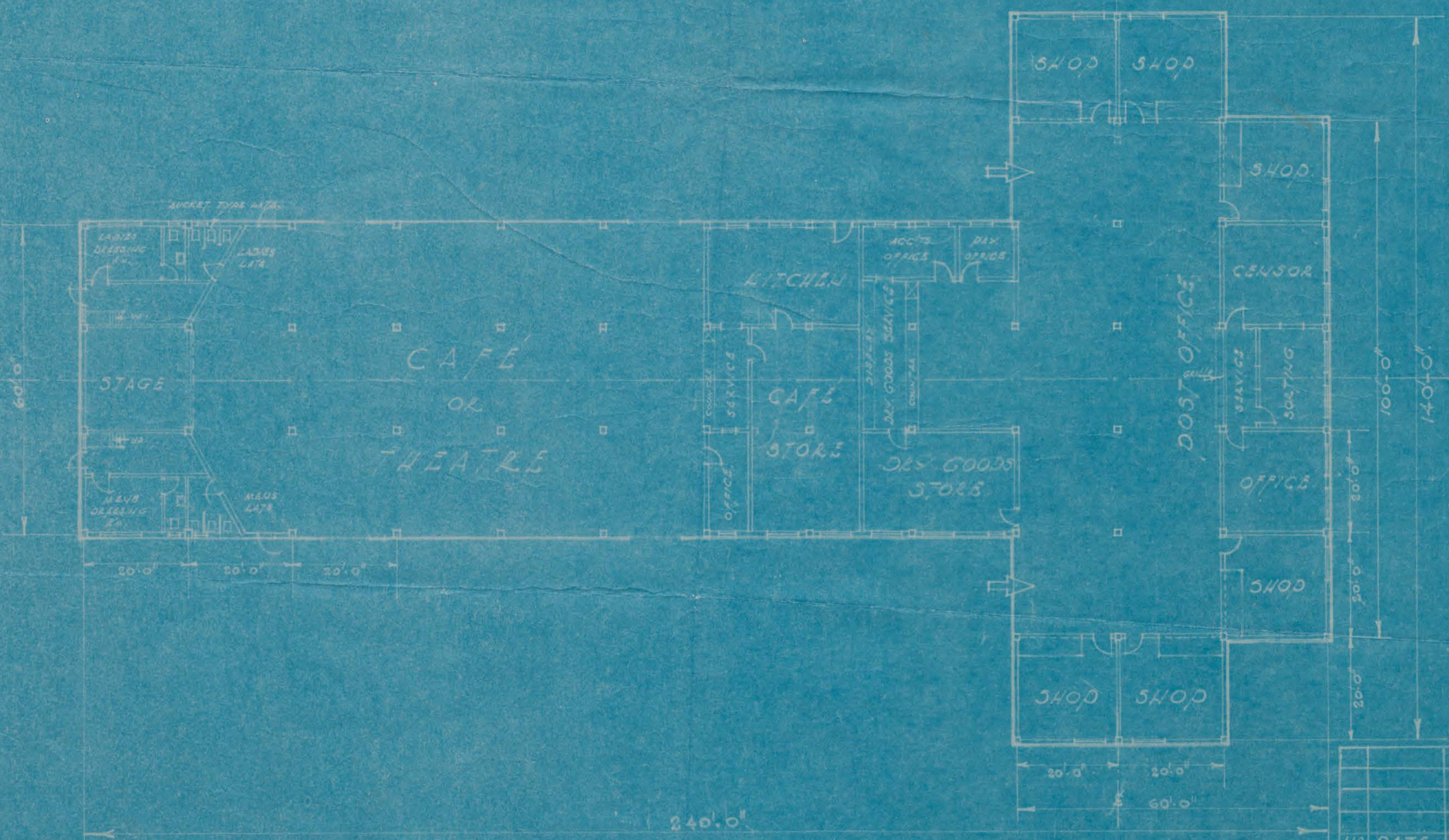


D

MOSES WELLS.

PROPOSED COMMUNAL CENTRE

SCALE: 1/6" = 1' INCH



NO. DATE DETAILS.  
LIST OF AMENDMENTS.

DRAWN BY: [Signature]  
SCALE: 1/6" = 1' INCH

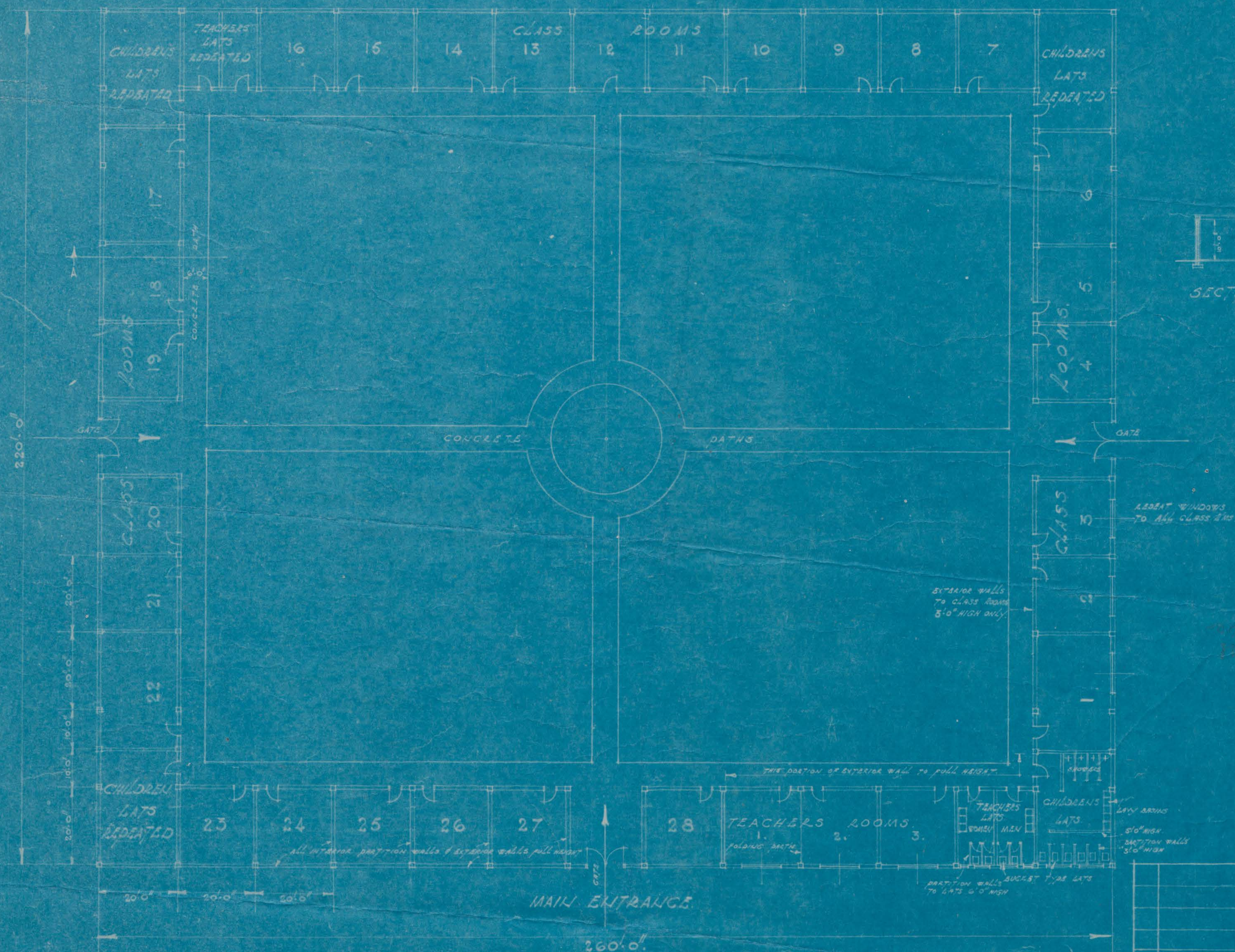
DRG. 16.  
4509  
MAJOR. R.E.  
O.C. 70. R.E. WKS. SEC. DA. 7. 18. 12. 48.  
LT. COL. R.E.  
55. C.A. E.



Return to: Camps Division  
Room 317



B



SCALE 1/8" = 1'-0"

NO.	DATE	DETAILS
LIST OF AMENDMENTS		

DRAWN BY

1941. D.D.R.S.

MOSES WELLS

PROPOSED SCHOOL BUILDING - STONHENGES TYPE ADDED

MAJOR, R.E.  
O.C. 70 R.E. WKS. SEC.DRG. No.  
4510

DATE: 17-12-43

LT. COL. R.E.  
3551 R.E. M.E.

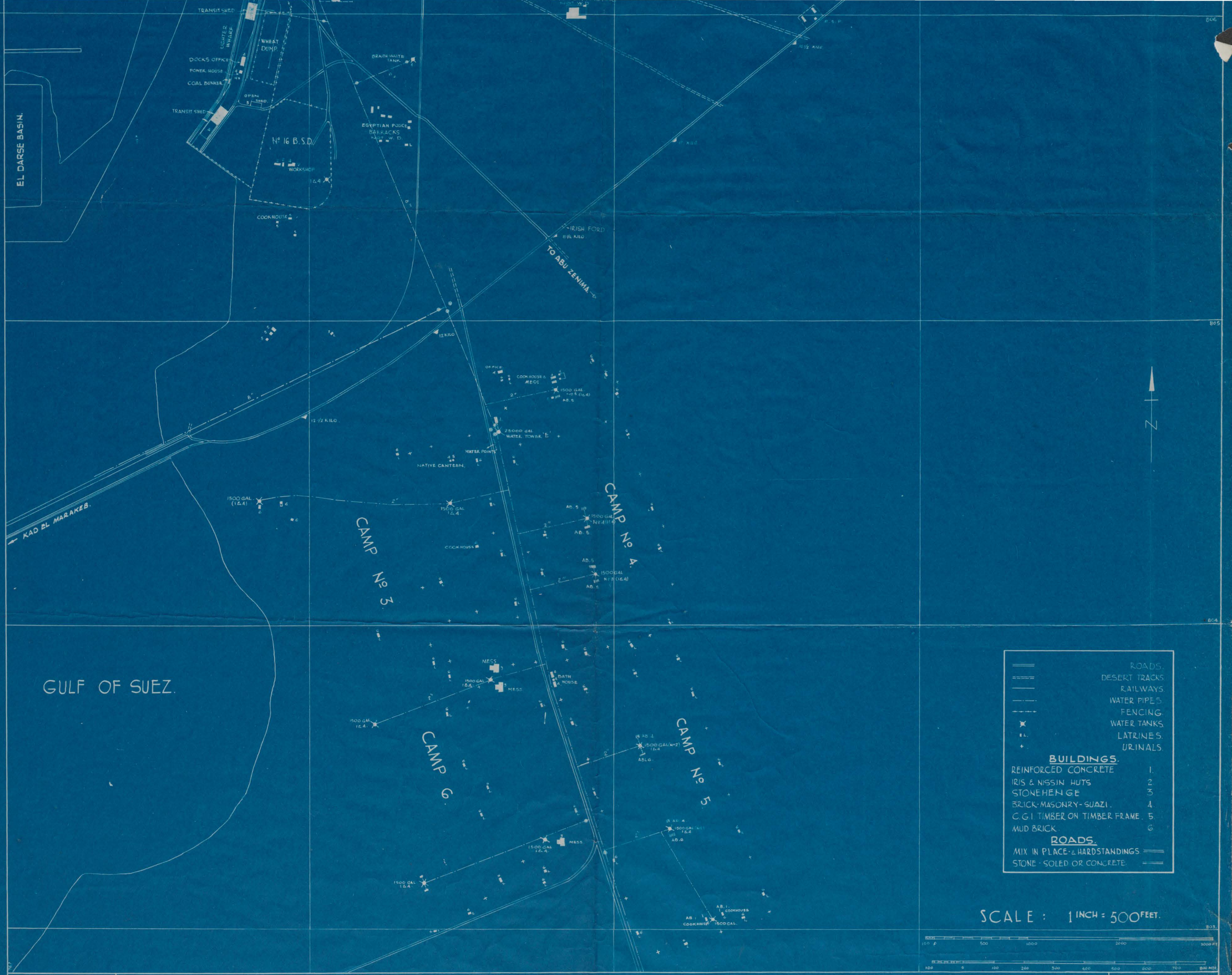


Return to:  
Camps Division  
Room 317











Return to: Division  
Camp 317

El Shatt



Return To: Division  
Camp 317

El Shatt











Return to Campo Rio  
Room 317



