

SPECIAL REPORT

Number One

July 1977

PROJECT: 521-15-190-069 THE J.G. WHITE ENGINEERING CORPORATION
HAITI IRRIGATION 4792



THE J. G. WHITE ENGINEERING CORPORATION
NEW YORK

INTRODUCTION

On October 22, 1975, the Agency for International Development, Washington, D.C. entered into a contract with The J.G. White Engineering Corporation for consulting services in connection with three projects in Haiti.

"TASK A"

Dubreuil Irrigation System Rehabilitation:

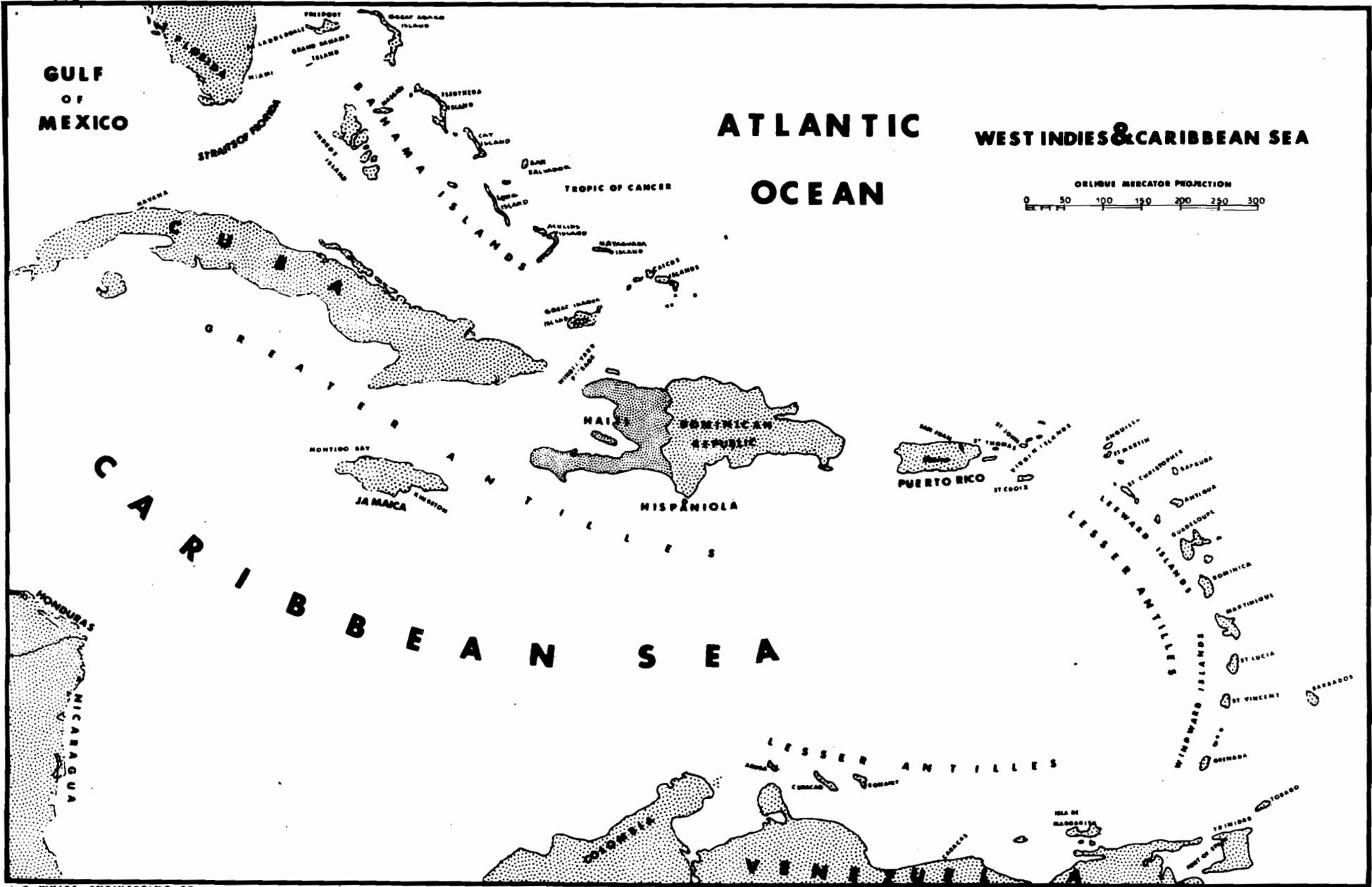
Implementation of an engineering and design report prepared by E.C.I. and the formation of an operating Dubreuil Irrigation District.

"TASK B"

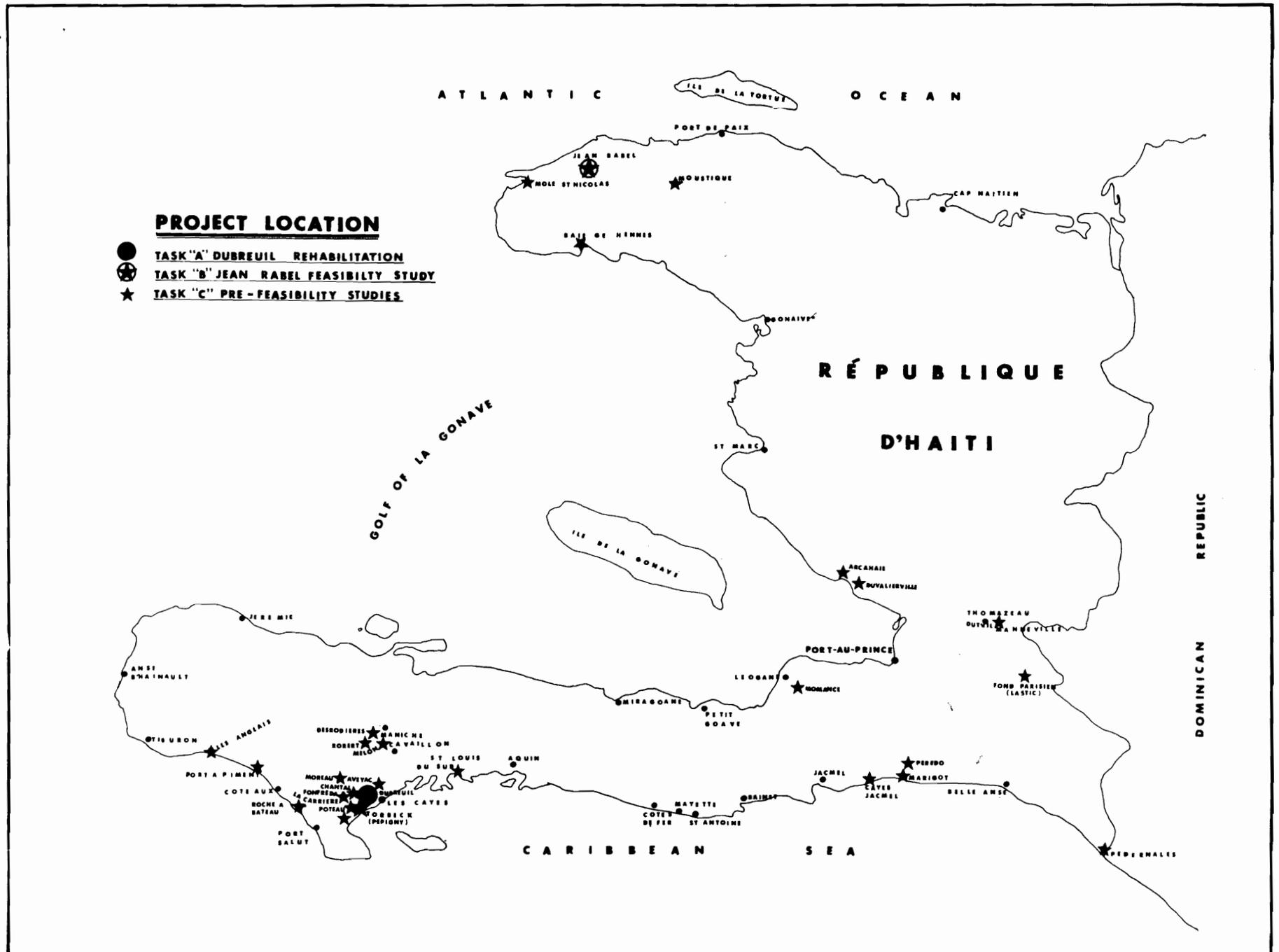
- 1.- Feasibility Report ; Jean Rabel irrigation system. A preliminary engineering study and a plan for rehabilitation of the Jean Rabel irrigation system.
- 2.- Rehabilitation of the system, if feasible.

"TASK C"

Pre-feasibility report indentifying at least 6000 hectares of irrigable land with systems requiring rehabilitation. The areas to be screened from a list of priority projects provided to the contractor from USAID and the Government of Haiti.



J. Q. WHITE ENGINEERING CO.



THE J.O. WHITE ENGINEERING CORP.

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1.01 This Special Report concerns only TASK A and TASK B, and in particular the problems which have developed which adversely effect the successful implementation of the contractor's terms of reference.

1.10 BACKGROUND

1.11 At a meeting in Mr. Leroy Rasmussen's office on 7 November 1975 attended by the following persons :

Mr. Frank Schwencke	USAID/HAITI
Mr. Dean Alter	USAID/WASHINGTON
Mr. W.D. Cameron	The J.G. White Eng. Corp.

J.G. White Engineering Corporation was informed that all work in the contract under TASK A, Dubreuil System Rehabilitation, was to be held in abeyance until further notice. TASK B, Jean Rabel Feasibility Study to be completed at the earliest date with TASK C carried on concurrently.

1.12 A calendar of critical events follows :

30 June 1976	: TASK C report submitted to USAID.
30 June 1976	: \$20,000 USAID funds transmitted to Dubreuil account.
5 August 1976	: Oral authorization to proceed on Dubreuil rehabilitation.
12 August 1976	: Actual construction started at Dubreuil.
2 September 1976	: TASK B report submitted to USAID.
20 September 1976	: Written authorization to proceed on Dubreuil rehabilitation.

26 October 1976 : \$100,000 transferred by G.O.H. to
Dubreuil account at Les Cayes.

20 January 1977 : Authorization to proceed with the
Jean Rabel project.

23 March, 1977 : DARNDR personnel arrive at Jean Rabel.
Immediate start on peasant organization
and motivation.

5 May 1977 : First transfer of \$2,000 in operating
funds for Jean Rabel completed.

1.20 At a meeting on 5 August 1976, Messrs. Rasmussen and Schwencke
requested J.G. White to change the objectives of the Dubreuil
project from a straight construction project :

"This is to be (Dubreuil) an experimental project.
USAID, world-wide is interested in developing a success-
ful format for rural development schemes. We are far
more interested in the problems that J.G. White will
have, and how they are resolved than any success derived
from direct involvement of Americans. We desire that
the Haitian counter-parts be involved to the fullest
extent in all phases and the U.S. - White Company profile
be maintained at lowest level."

"It is recognized that this is will not be an easy
assignment, but please keep us aware of problems as
they arise and we will work together to arrive at some
sort of solution."

1.30 A further change in emphasis for the Dubreuil project came from the request of Mr. James Purcell of USAID/H that J.G. White direct attention more to the socio-orientation-motivation aspects of the project and less to the simple construction problems; to quote :

"I am far more interested in knowing how many organizational meetings have been held, how many people attended and their reactions, than in knowing that so many meters of canal have been constructed, or so many loads of material have been stock-piled."

2.00 FINANCIAL DIFFICULTIES

As listed under 1.12, 'calendar of critical events', both projects have been delayed because of slowness in the transfer of operating funds from DARNDR - G.O.H. to the operating accounts. We have been informed that a portion, suggested amount was \$10,000, of the G.O.H. \$100,000 transferred to Dubreuil should have been left in a DARNDR account. The purpose of this fund would be to pay custom clearance costs and the like. That no funds were available has been cited as reason for the slowness in obtaining equipment and supplies from customs.

- 2.01 J.G. White has been given to understand that no lump sums will be transferred to the project operating accounts. A revolving fund will be established and each account will receive a flat monthly amount, ie, Dubreuil \$15,000 per month and Jean Rabel \$2,000 per month. DARNDR has been requested to increase the Jean Rabel payment to \$6,000 per month.
- 2.02 Both projects can be operated within the suggested budgets, however needed flexibility is sacrificed unless a contingent fund is available to cover extraordinary expenditures.
- 2.03 Past experience indicates a definite warning. As these projects operate strictly on a cash basis, delays in transfer of monthly payments would cause an almost immediate shutdown with the increased costs of monthly salaried personnel who would be unproductive.

Jean Rabel, 20 June 1977

Mr. W. Don Cameron
Engineer

I am sending you herewith 2 payrolls for the months of March and April 1977 which are unpaid for lack of funds in the Port de Paix Branch of the National Bank.

In reality if we had to pay these payrolls, the \$2,000.00 deposited at the bank as revolving funds would not be sufficient for payments representing monthly expenses granted to the beneficiaries which names appear on these payroll sheets.

Sincerely yours,

Marceau Wroy

N.B. The total amount of the 3 payrolls (March, April, May) is \$2,070.00 and we have to pay 3 months rent for the house lodging the project and gasoline.
So : Rent \$120 + gasoline \$200.00 .

EXHIBIT 2.00-2

PROJET DE REHABILITATION DE JEAN-RABEL

IRRIGATION

FEUILLE RECAPITULATIVE DE PAYE

EMPLACEMENT DU TRAVAIL:

PERIODE: 1er au 31 Mars 77

SECTION

No.	Noms	Fonction	N. Jrs. Travail.		Salaire / Jour US \$	Montant Brut Salaire US \$	Retenues District d'Irrigation	Net à payer US \$	Signatures	
			JC	JP						
1	G. Nozine	Agron. Coordonnateur						140,00		
2	Eric René	" Ass. "						120,00		
3	Marceau Wroy	Administrateur						90,00		
4	Johnny Michel	Agent Extension						80,00		
5	Jacques Deomard	Agent Spe. Coopérative						80,00		
6	Jn. Mrie Alcimé	Ingénieur						70,00		
7	Jn. Cl. Appolon	Topographe						60,00		
8	Franck Jn-Mary	Syndic d'Irrig.						50,00		
							\$.	690,00		
TOTAUX								Total \$.	690,00	

Approuvé par:	Total US \$.....	Reconnu exact:
Certifié sincère		Chargé du Travail
Contrôleur		Témoins:

JC = JOURNEES COMMUNAUTAIRES (SANS PAYE)

JP = JOURNEES PAYEES

Les paiements aux personnes Nos. ont été faits ce jour et par les présentes, nous certifions authentiques les signes apposés par celles qui n'ont pas signé.

PROJET DE REHABILITATION DE JEAN-RABEL

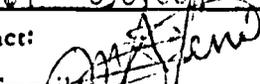
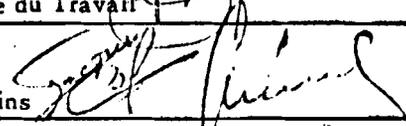
IRRIGATION

FEUILLE RECAPITULATIVE DE PAYE

EMPLACEMENT DU TRAVAIL:

PERIODE: 1^{er} au 30 Avril 77

SECTION

No.	Noms	Fonction	N. Jrs. Travail:		Salaire / Jour US \$	Montant Brut Salaire US \$	Retenues District d'Irrigation	Net à payer US \$	Signatures
			JC	JP					
1	Gérard Nozine	Agro. Coordonnateur						\$ 140,00	
2	Eric René	Ag. Assis.		"				120,00	
3	Marceau Wroy	Administrateur						90,00	
4	Johnny Michel	Agent Extension						80,00	
5	Jacques Desmard	Agent Spéc. en Coop.						80,00	
6	Jn. Marie Alcimé	Ingénieur						70,00	
7	Jn. Claude Appolon	Topographe						60,00	
8	Franck Jn. Mary	Syndic d'Irrigation						50,00	
								\$ 690,00	
TOTAUX						Total \$		690,00	
Approuvé par: 					Total US \$.....		Reconnu exact: 		
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Nos:
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qui n'ont pas signé.

2.04 With the Dubreuil project as a successful example of the ability of DARNDR field personnel to administer a sizable fund locally, J.G. White recommends that the current procedure be continued; that sufficient funding be transferred to operate both Jean Rabel and Dubreuil for 6 months. Dubreuil would require \$90,000 for the next half year with \$10,000 as a contingency, totaling \$100,000. Jean Rabel will require \$36,000 in operating funds and should have \$14,000 for contingencies, making a total of \$50,000.

3.00 DARNDR PERSONNEL

3.01 It has been the experience at Dubreuil that personnel furnished to the project by DARNDR have been excited by the new concept of having the farmer build, operate and maintain his irrigation system. Unfortunately this enthusiasm erodes rapidly when salaries and supplement payments are delayed. The assigned personnel become far more interested in returning to Damiens to investigate lack of payment than they are in the project.

The additional fact that men of equal educational background and abilities working in the Les Cayes area on various public works projects receive salaries double or triple the DARNDR people lessens project commitment.

When the various G.O.H. ministries cooperate to standardize salary categories the above problem will not be critical.

4.00 COUNTER-PART EVALUATION

Counter-parts (DARNDR personnel assigned full or part-time work at Dubreuil) were named by authorities at Damiens June 28, 1976.

Including those originally assigned to the project the following individual evaluation of performance is offered :

- 4.10 Mr. Max Mondésir, District Agronome and Supervisor of the Rehabilitation of Dubreuil project, was assigned for 50% of his time to the Dubreuil project. Considering his widely scattered responsibilities, it is extremely difficult for Mr. Mondésir to spend 50% of his time on supervision of Dubreuil. A rough estimate would be that Mr. Mondésir spends between 10 - 15% of his time on the project. Mr. Mondésir's leadership has been low key through-out the life of the project. On the other hand, he has had a leveling influence on other personnel assigned to the project. By this, it is meant that he uses a great deal of tact and understanding in dealing with personnel problems. He seldom initiates action unless the requirement is brought to his attention. Apparently, he is following Damiens instructions in this respect. Given authority to take action from Damiens, Mr. Mondésir will perform quite effectively. Waiting for signals from Damiens before taking action seems to be Mr. Mondésir's main fault - - - or perhaps Damiens has not clearly defined his sphere of authority where the project is concerned.

4.11 Mr. William Timmer, Administrator of the EDAPS project was named administrator of the Dubreuil project, being assigned for 50% of his time. Mr. Timmer's contribution to the Dubreuil project has been invaluable. Despite a serious accident early in 1977, Mr. Timmer has managed to maintain a current and accurate accounting of Dubreuil project expenditures and financial status. Clear thinking and level headed, Mr. Timmer contributes a great deal to the Dubreuil project.

4.12 Mr. Nerva Cassion, Motivator, was assigned 50% of his time to Dubreuil's organizational activities. Active and forceful, Mr. Cassion has fulfilled most of the requirements placed upon him as far as formation of groups is concerned. He has been weak in follow-up with the groups which he has formed. From a motivation point of view, he generally avoids advice and presents a limited point of view to his groups which leaves them something short of understanding how their activities fit into the overall picture of rehabilitation. Mr. Cassion has many interests and since he is only assigned 50% of the time to the Dubreuil project, he can, and does, conveniently disappear into his other 50% of responsibilities. It must be said, however, that Mr. Cassion is an active individual whether on Dubreuil, or pursuing personal interests. He regularly requests use of a vehicle which he is usually granted if a vehicle is available. However, when asked to give detailed reports on contacts, meetings, etc., he has nothing to report. Mr. Cassion should also be assigned 100% of the time to the Dubreuil project, or he should be replaced

by a 100% (full time) technician. At present Mr. Cassion has 2 assistants which have been assigned approximately 2 months. No visible improvement in his productivity has been observed. The man has the potential, but needs to be confined to a specific responsibility. He also needs to be assigned some sort of vehicle, with strict control of its use for project business only.

4.13 Engineer José Barthélemy was assigned to the Dubreuil project for 50% of his time. More recently, he was assigned 100% to the project. The assignments however are misleading as Eng. Barthélemy probably spends close to between 5% to 10% of his time on the project. Reasons for this lack of application of time to the project can best be explained by Mr. Barthélemy; however, it has been observed that considerable time has been spent at Port-au-Prince and on other projects in the District as demands are levied upon him. Technically Engineer Barthélemy has an excellent grasp on how things should be done. Putting his observations into practice becomes a little more difficult for him. One exception to this is physical construction work which he manages very well. However, establishing efficient work patterns, manpower management, and planning are areas which Engineer Barthélemy needs to concentrate upon. Mr. Barthélemy needs to apply full time to the project or to be replaced.

4.14 Mr. Guillaume Josaphat, Topographer, is assigned 50% of his time to the Dubreuil project. At times, he spends close to 100%, but the majority of the time, he spends less than 25%

of his time on the project. This is because he has many other responsibilities. His work is good and he is efficient when he is on the job. He is flexible and can assume , (willingly), responsibility. His experience is obvious and he is a great asset to the Dubreuil project when present. Mr. Smith, his assistant, shows much promise. He has been regularly on the job and has also contributed considerably towards project objectives.

4.15 Agronome Charité Jean assigned 100% of his time to the Dubreuil project, has spent considerably less than this amount on the project. His work and understanding of the project is excellent; however, he lacks flexibility in application of his knowledge to varying situations. He will perhaps develop this needed flexibility as he gains experience. He has been hampered by not having adequate transport and also by being unable to coordinate his proposed activities with those of the engineers assigned to the project. For example, Mr. Jean wishes to develop demonstration farms (15 -25 hectares involving 15 - 25 farmers) in 5 habitations simultaneously. To do this he needs engineering support, involving survey, design, and construction. He meets resistance from engineers who rightly so, say " We do not have the capability to support you at this time to the extent you wish ". At this point, Mr. Jean may disappear to Port-au-Prince, or other parts unknown instead of concentrating on other improved cultural practices with his groups until such time as irrigation engineering support becomes available.

- 4.16 Engineer Hughes Bien-Aimé, assigned 100% of the time to the project has with few exceptions spent close to 100% on the job. Highly energetic and enthusiastic, Eng. Bien-Aimé shows great promise once he gains additional maturity and experience. At the present time Eng. Bien-Aimé is subject to spur-of-the-moment changes in operating procedures without much thought or consultation on the matter. He also needs to concentrate on the economics of construction work including manpower management, and use of construction materials. Overall, Mr. Bien-Aimé is probably the most productive individual assigned to the Dubreuil project at the present time. He covers the entire area of the project and also needs some means of transportation.
- 4.17 Mr. Joseph Mentor, Agricultural Extensionist, assigned 50% of his time to the Dubreuil project, has been spending considerably more than 50% at the project. His responsibilities have been limited to controlling work crew assignments, setting up weekly payrolls, and managing the program and depot requirements. He has shown no inclination to become involved in extension activities. He also resists advisory efforts. For example, while being repeatedly reminded that only group members may work on the Dubreuil project, outsiders are still discovered actively participating and drawing salaries. Directives to this effect, concerning member participation only, may be needed from Damiens. To convince Mr. Mentor of the desirability of confirming the actual residence of the worker.

- 4.18 Mr. Fritz Régis, Agricultural Extensionist, is assigned 50% of his time to the Dubreuil project. Mr. Régis is a willing if not imaginative participant in the project. As seems to be the custom, he is rather inflexible within his field. Once oriented to a certain course of action, Mr. Régis waits for all the pegs to fall in place before he initiates his particular aspect of the project. Instead of looking for ways of adding flexibility to facilitate the application of innovative project activities, Mr. Régis disappears to somewhere within the other 50% of his responsibilities. Mr. Régis should be assigned some means of personal transportation.
- 4.19 Mr. Jean Lafranche, Driver, assigned 100% of the time, has performed alternately well and poorly. He is technically a good driver but seems to have considerable personal problems which interfere with his work. At times, he has spent weeks in Port-au-Prince and the project is adversely affected. At present the one dump truck the project has is out of commission because Mr. Lafranche got it stuck in the Ravine du Sud and the river rose, filling the crank case with water which subsequently caused considerable damage to the engine since the presence of water was not noticed until after several hours of use.
- 4.20 Engineer Philippe Lamour was assigned 100% of the time as a design engineer. Much illness and his eventual resignation in January 1977 because he was dissatisfied with his salary level left the Dubreuil project with no design capability on the counter-part side. A replacement is urgently needed since lack of designs for various secondary canals prevents locally formed groups from participating in the project in their habitations.

- 4.21 Engineer Raoul Pierre-Louis was assigned to the project for 100% of his time. He worked with survey crews and with stockpiling of materials. He left the project in December 1976 in order to accept employment involving a higher salary. A replacement is needed.
- 4.22 Mr. Ernest Fantal was assigned 50 % of his time to the Dubreuil project to keep the vehicles in working condition. With the heavy toll that the roads leading to and within the Dubreuil project take on vehicles, another mechanic was also assigned to the project, Mr. Olivier Villanson. Both of these men have shown outstanding willingness and ability to keep project vehicles operating under extremely difficult conditions. They easily spend 50% of their time on maintenance and repairs, often working holidays and regularly working on Saturdays.
- 4.23 Mr. Smith Adonis, Irrigation Controller, (Water Master) was assigned to the Dubreuil project for 25% of his time. His problem is that he does not have transportation to allow him to inspect his various areas of responsibility. In spite of this, he managed to spend approximately 25% of his time on the project. He moved to a house located within the project area which helped considerably. While it is felt that he has not exercised the full potential of his capabilities in the past, it is believed that he is willing and capable of assuming greater responsibility.

- 4.24 Mr. William Claude, Syndic, was assigned with 100% of his time to the Dubreuil project. With nothing else to do, Mr. William Claude has spent 100% of his time on project activities at about 25% rate of efficiency. While he assists in setting up meetings, etc., the condition of repair and maintenance of the present canals attest to the fact that he does little or nothing to enforce the laws regulating irrigation systems and water users as outlined in the Code Rurale. His transfer to other responsibilities would be appropriate. Base salaries (\$50.00 per month) offered men of this type, of course, are no incentive for them to concentrate fully on the work assigned on a project such as Dubreuil.
- 4.25 Mr. Lupercio Grégoire was assigned for 50% of his time to the Dubreuil project as warehouse keeper. During Mr. Timmer's absence, he was also named to perform certain functions of the administrator. Mr. Grégoire keeps a tight control on project materials located at the Aux Cayes Depot. He is an effective part of the Dubreuil Team.
- 4.26 Mr. Yovane Mazile, Pay Clerk for the Zone du Sud, was assigned for 50% of his time to the Dubreuil project. No problems have arisen associated with Mr. Mazile's work. Lack of transportation has made him depend on mobility provided him by the various projects with which he is involved.
- 4.27 Mrs. Charité Jean, Typist, was assigned for 50% of her time to the Dubreuil project. She has performed her duties efficiently and has worked closely with Mr. Timmer to provide the project with timely monthly financial reports.

4.30 The Jean Rabel project has not been operational for a sufficient time to permit evaluation of assigned DARNDR personnel. This will be contained in a subsequent report.

5.00 J.G. WHITE ENGINEERING CORPORATION PERSONNEL

5.10 The eight man staff specified under White's contract were mobilized early on in anticipation of an immediate start on Dubreuil rehabilitation. With the adjusted starting dates the personnel schedule was unbalanced with short-term employees leaving before the major project started.

5.11 White has attempted to maintain a four man team in the field. However, upon completion of the basic one year contract with USAID on 30 November 1976, a series of 3 month extensions were granted. It has been extremely difficult to recruit personnel on a 3 month contract with no extension commitment. White has therefore been troubled with a series of professionals not completely dedicated to the project. Two engineers have supplied the continuity by remaining from early in the contract to date.

5.12 It is unlikely that the problem of less than dedicated people can be corrected until longer term contracts are available. White will continue to staff their contract to the best of their abilities.

6.00 REHABILITATION MOTIVATION

6.10 With the start of construction on 12 August 1976 of the Dubreuil rehabilitation the turn-out of workers was large and enthusiastic. The greatest difficulty was in determination that the prospective worker actually resided or owned property with the Dubreuil project limits. Many errors were made at this point with workers being employed from areas even beyond Les Cayes. As "Groupments" were established on a "Habitation" basis and employee identity cards issued controls were tightened until today it is rare that an outsider manages to obtain a day's employment.

6.20 Dubreuil rehabilitation is a labor intensive project with a bare minimum of power equipment in use or available. It was decided with the concurrence of AID/H and G.O.H. to operate the labor phase on a daily pay schedule as follows:

5 - 8 hour days per week.

Worker receives cash for 3 days work

Worker donates one day's pay to Dubreuil Irrigation
District

Worker donates one day's work at no pay as a
community contribution.

At first there was considerable misunderstanding of the terms of employment, through several months of meetings and with the final establishment of a majority of the planned groupments, the wording of the pay schedule is now seems to be understood.

The fact that a sum in excess of \$10,000 is on deposit for the Dubreuil Irrigation District as a result of worker contribution is a source of pride among the community leaders.

6.30 Work teams consisting of 10 men and one leader have been established. These teams are assigned to certain areas of rehabilitation, clearing rocks and vegetative growth from the main canal; clearing right-of-way; collection, washing and grading of masonry construction rocks, sand and concrete aggregate; masonry construction and repairs; excavation and construction of secondary canals; etc. At the start, production of these day-rate workers was satisfactory and as the results of increased calorie input furnished by the free mid-day meal reflected in increased worker output became a project show-piece.

Groupment meetings continued to stress the theme : "We, DARNDR, (with the foreign presences either ignored or in extremely low profile) are here to help you rehabilitate, operate and maintain your irrigation system".

6.31 In all of the various meetings this theme was punched out with heaviest emphasis on the you and yours. Often it was repeated several times in slightly different wordings or expressed in a creole folk-tales or proverbs. The theme was definitely subjected to a heavy-sell. Unfortunately as of this date it would appear that either the message did not reach the peasant or, more likely, he did not believe it.

- 6.40 For the first four months of project activity, the initial enthusiasm plus the novelty of the free lunch program pushed production in an upward curve. Unfortunately this trend peaked at approximately four months and for the last five months team productivity has been declining.
- 6.50 The theory, that because the laborers are peasants working on a system that would solely benefit them, they would provide self-discipline for the project simply is not viable.
- 6.60 It appears that the Dubreuil project must change from a day-rate pay schedule to a contract scheme if any reasonable construction progress is to be maintained.
- 6.61 We are suggesting that each groupment be considered as a sub-contractor to the Dubreuil Irrigation District. The individual groupment will be responsible for the total rehabilitation within its habitation(s). Payment will be negotiated against a fixed labor charge per cubic meter of masonry and excavation or per linear meter of canal construction. In order to maintain a similar payment schedule to that now current; the contracting groupment will receive $3/5$'s of their labor fee in cash, $1/5$ will be held by the Dubreuil Irrigation District for its maintenance - operational fund and $1/5$ will be a labor donation to the community. Basically the work situation remains as before with only the responsibility for productivity being delegated to the groupment, with greater production giving increased income.

6.62 The change from day-rate to piece-rate will be made starting 1 July 1977. Monthly Activity Reports plus additional Special Reports will present production trends and the unexpected problems which will certainly develop.

6.63 We definitely would recommend that a straight day-pay schedule not be used on any similar project in Haiti and it is our intention to instigate the same change at Jean Rabel when sufficient permanent groupments are established.

7.00 MATERIAL TRANSPORT

7.10 Experience at Dubreuil indicates that a major delaying factor of construction of the project lies in the inability of one dump truck to maintain sufficient stockpiles of material. An attempt is being made to secure 2 additional trucks on a loan or lease basis. It can be anticipated that similar conditions will delay work at Jean Rabel, where unfortunately no surplus equipment is available.

For future similar projects the assignment of several dump trucks is recommended.

7.11 Personnel transport at Dubreuil is in short supply during the working hours. As most of the vehicles return to Les Cayes in the evening and to to the project site in the

morning, travel to and from Dubreuil is not difficult. Problems arise on the project as the technicians scatter to fulfill their duties and lack sufficient transportation within the project.

Permission has been received for the project to purchase 5-6 motorcycles. This will be done when funds are available.

- 7.12 At Jean Rabel, because the project is much smaller, personnel transportation has not been as critical as that of Dubreuil. As work proceeds at Jean Rabel, some work sites will necessarily be spread out, and existing transport will not be adequate.

It has been recommended that when project funds are available 4 motorcycles be purchased.

- 7.13 One currently unresolved personnel transport problem arises from the fact that most, if not all, of the DARNDR people on the Jean Rabel project, wish to return to Port de Paix on Friday afternoons. This they generally manage to accomplish. However, very frequently difficulties occur in obtaining Monday morning transportation back to Jean Rabel, and sometimes people can not return until late in the week.

- 7.14 We have suggested that Agronome Nozine schedule his weekly inspection trips to Jean Rabel for each Monday morning. The controller-paymaster can schedule his return to Port de Paix for Friday afternoon. Both these gentlemen have DARNDR vehicles assigned to them which are capable of carrying several people.

8.00 PROJECT SCHEDULES

8.01 A map of the Dubreuil System - Planche 8.00-1 gives the project completion schedule, with the dates within habitation limits being the estimated time that water for farm irrigation will be available on a permanent basis.

8.02 In preparing this completion schedule map, a number of factors were assumed.

- a) Sufficient funds be available on a regular and uninterrupted basis to allow the project to continue at the present or at an accelerated rate.
- b) DARNDR personnel roster be brought back to the level of the first three to four months, particularly in the design categories.
- c) The project will be able to continue to borrow additional dump trucks for transport of construction materials.

8.10 Referring to 8.02 - a) and expanding on the effects of satisfactory funding on project schedule :

Since 12 August 1976 the Dubreuil project has operated by drawing against a lump sum on deposit in the BNRH in Les Cayes. The administrator knowing the bank balance could control both expenditures and project schedule on a several month basis. As the project operates on a cash basis, there

is little or no carry-over from month to month of labor or material invoices. This method permits discount economics and reasonably accurate production forecasting.

- 8.11 Should the G.O.H. change funding to a monthly advance payment of say, \$15,000 per month for Dubreuil, with a contingent fund of say \$25,000 on deposit, progress can be maintained at the proposed schedule rate.
- 8.12 If the contingent fund is not available to protect the project against delays in receipt of the monthly payments, it would be quite reasonable to expect 25% less production and delayed completion.
- 8.20 A map of the Jean Rabel system - Planche 8.20-1, gives the project completion schedule, with the dates along the main canal being the estimated time that permanent irrigation water will be available for that area.
- 8.21 As in 8.02 a number of factors are assumed.
- a) As 8.02 - a)
 - b) DARNDR personnel roster will continue at present level.
 - c) Remarks in 8.10 pertain also to Jean Rabel, with an approximately 50% lesser monthly requirement.



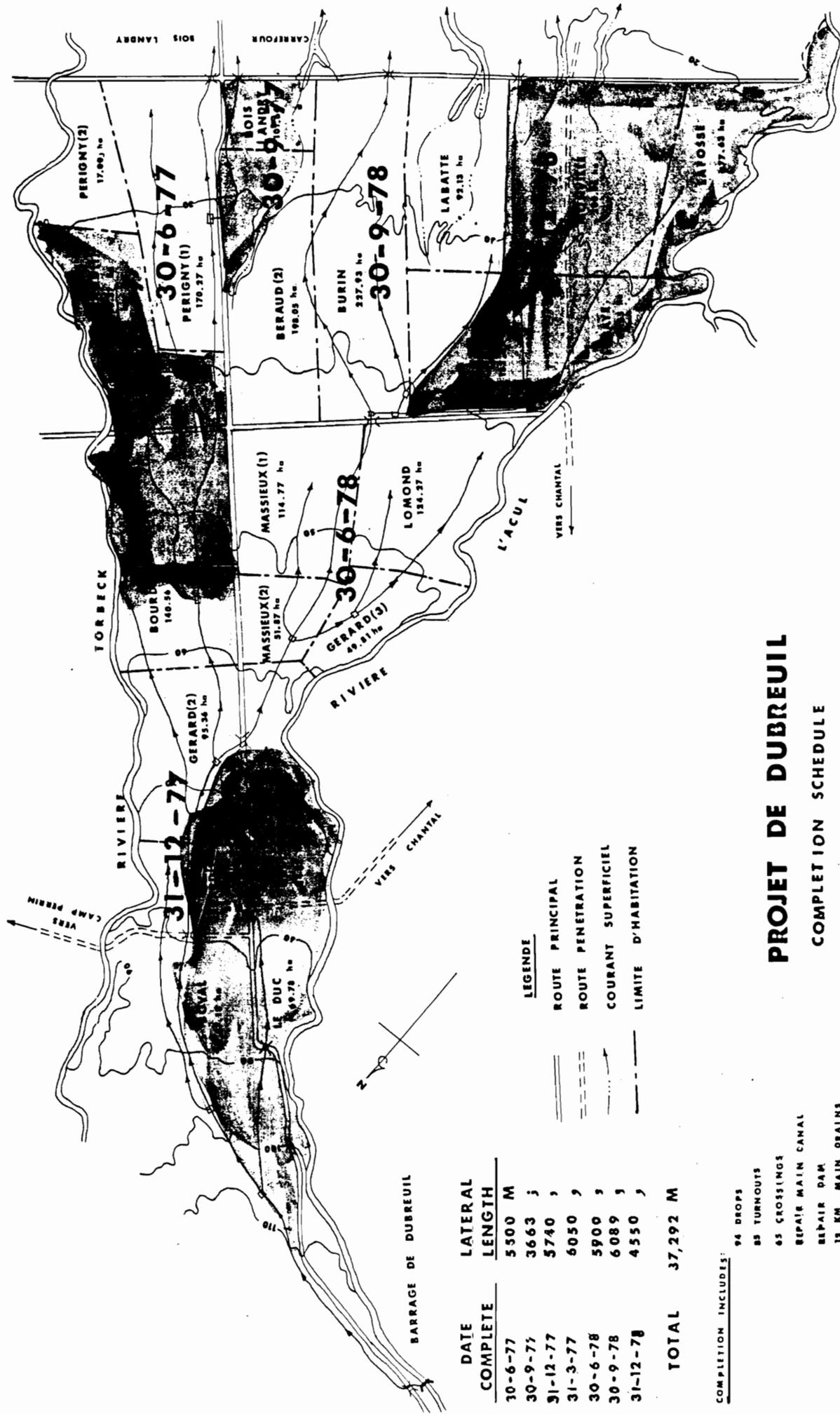
PLAN D'ACHEVEMENT

PLANCHE B.20-1

LEGENDE	
	Couleur d'irrigation
	Couleur d'eau permanente
	Route Principale
	Traverses de Route
	Source
	Barrage de dérivation
	Couleur d'eau permanent

ECHELLE

PROJET D'IRRIGATION
DE JEAN RABEL
 RESEAU DE DISTRIBUTION ACTUEL
 EXISTING IRRIGATION SYSTEM



BARRAGE DE DUBREUIL

DATE COMPLETE	LATERAL LENGTH	TOTAL
10-6-77	5300 M	37,292 M
30-9-77	3663 "	
31-12-77	5740 "	
31-3-77	6050 "	
30-6-78	5900 "	
30-9-78	6089 "	
31-12-78	4550 "	
TOTAL		37,292 M

LEGENDE

- ROUTE PRINCIPAL
- ROUTE PENETRATION
- COURANT SUPERFICIEL
- LIMITE D'HABITATION

COMPLETION INCLUDES:

- 94 DROPS
- 85 TURNOUTS
- 65 CROSSINGS
- REPAIR MAIN CANAL
- REPAIR DAM
- 12 KM MAIN GRAINS
- 16 KM SERVICE ROADS

PROJET DE DUBREUIL
COMPLETION SCHEDULE

Planche 8.00-1

BEST AVAILABLE COPY

9.00 MID-DAY FREE MEAL PROGRAM

9.10 A controversial program introduced with the start of the Dubreuil Rehabilitation Project is the mid-day free meal.

9.20 The idea of furnishing workers with a meal at mid-day had not been suggested either by USAID or GOH. J.G. White must necessarily accept what credit or fault accrues, as this program was instigated without consent or prior approval of the contracting authorities.

9.30 Historically, free feeding of agricultural workers in Haiti is common practice, as with most all coumbit. Normally a peasant arises before dawn, perhaps breakfasts on a morsel of bread and a small cup of sweetened coffee. He may then attend his own urgent farm chores before walking some considerable distance to assist in the hard day's work of the coumbit. For this reason the head of the coumbit or the recipient of the days labor furnishes food and drink to all workers.

To carry the custom over into the new concept being tried at Dubreuil appeared logical in view of the experimental aspects of the project.

9.40 To date, the free meal program at Dubreuil has operated at no cost to the project. Food stuffs have been obtained, unofficially, and free, from several agencies. Food containers, sacks, cans, etc. have been salvaged and sold in the local markets to obtain salt and spices.

9.41 Unfortunately, because the free meal program is quite unofficial and unsponsored it operates on practically a day to day basis with no guarantee of continuity. Only as long as surplus food stuffs are available in Les Cayes will the program be able to function.

9.50 From the experience of the feeding program at Dubreuil plus records of other projects including a similar program, we find three plus values.

- 1.- The free mid-day meal, sometimes the worker's only full meal of the day, is a definite added work incentive.
- 2.- It appears that over a period of time the added caloric input does increase the physical output of the worker.
- 3.- Absenteeism of workers is considerably reduced.

9.60 J.G. White recommends that on future projects a similar feeding program should be considered and that a move to make the Dubreuil program official would relieve the worry of continuity.

9.70 It is the intention of the Jean Rabel project to instigate a similar feeding program. However in this instance, HACHO has offered a guaranteed source of food stuffs and the problems of Dubreuil will not be repeated.

10.00 CONCLUSIONS

- 10.10 For the several reasons cited in this report work on the Dubreuil Rehabilitation Project has slowed critically. As this fact and it's various causes are recognized, it must follow that the problem can be addressed by the parties concerned and the causes corrected. Close co-operation by DARNDR, USAID and the contractor, J.G. White will be necessary to correct the productivity decline.
- 10.20 The Jean Rabel project has started with great enthusiasm and high productivity by both DARNDR personnel and the local farmers. The thrust of this project must be maintained, and with the knowledge and experience of Dubreuil as guide posts most but not all of the pit-falls should be avoided.