

Federal Aid Programming and Project Development Problems

ROBERT WOODS
CHIEF
DIVISION OF LOCAL ASSISTANCE
INDIANA DEPARTMENT OF HIGHWAYS

From the above title, one would think there may be some problems with the programming and project development of local public agency projects. Sometimes, I like to refer to problems as job security. If there were no problems would our jobs be eliminated? No, but it sure would make the job easier. What I do want to emphasize are some of the problems that are occurring. If these can be emphasized whereby minimizing future problems, everyone should benefit in completing their desired projects.

FEDERAL AID HIGHWAY PROGRAM AND LOCAL GOVERNMENT

First, what is the federal aid program as it relates to local units of government. The program started with a very modest beginning in 1944 of about \$1.8 million. These funds were allocated to the 92 Indiana counties for road and bridge construction on the Federal Aid Secondary (FAS) system. Today, that figure has grown to more than \$60 million and includes funds for cities, towns and counties for projects both on and off the federal aid highway system. Along with the growth of available funds there also has been a growth of procedural requirements to utilize these funds. Now there are environmental considerations, public involvement including hearings, location and design studies, right-of-way purchase requirements, various permits, etc. It is not as easy and simple to construct a needed project today as it was years ago. These are problems that are being overcome but yet it takes longer and costs more to develop this project.

HIGHWAY PROJECT DEVELOPMENT AND LOCAL RESPONSIBILITIES

To develop a federal aid highway project what are the responsibilities of the local unit of government?

- (a) A selected project must be for construction or reconstruction (maintenance work is not eligible).

- (b) Selected project must be on an approved system of roads or streets specified for the funding category.
- (c) Projects in urbanized areas of 50,000 or greater population must be selected through the 3C planning process (continuing, cooperative, comprehensive) with priorities determined through the respective MPO (metropolitan planning organization) forum.
- (d) Projects must be designed and constructed to design standards equal to or above the minimum AASHTO approved standards for the class of project in question, unless exceptions are documented and approved.
- (e) The project plans must be prepared by a qualified engineer, either a consulting firm or a local public agency employee. The local agency would monitor the progress of the project development and evaluate the performance of the project developer both in quality and time.
- (f) The project construction must be under the supervision of a resident project representative employed by the local agency, or a representative provided through a special agreement with the IDOH. A representative employed by the local agency may be either a consulting firm or a local public agency employee. The employee never the less receives directions from the IDOH district area engineer.
- (g) Most projects are not 100% federally funded. The local unit of government must match the non federal aid portion of the project. This includes preliminary engineering (design), right-of-way, construction and construction supervision costs. The local unit of government must have a long range plan to finance their total share in all phases of a project(s). Do not spend money for preliminary engineering unless you have a financial plan to pay for the higher cost of construction at the later date. Remember, any federal funds expended on a project that does not materialize to construction, except for legitimate reasons, the local agency is liable for repayment of those federal funds.

IDOH AND FEDERAL FUNDING OF LOCAL AGENCY PROJECTS

Now, how does the Department of Highways, Division of Local Assistance fit into the federal aid funding process for local agency projects.

Federal statutes and regulations make the Department of Highways responsible for the administration of all federal highway construction programs. In this role we are responsible for:

- (a) Receiving and acting on local agency requests for federal aid funds.
- (b) Advises local agencies on project development procedures and amount of federal aid funds available by category.
- (c) Reviews annual programs, construction plans, project agreements, project documentation, and processes claims for federal reimbursement by local agencies.
- (d) Advertises for bids, awards construction contracts, administers construction and assures that qualified supervision of construction is performed.

Remember, the Department of Highways does not select your projects, nor prepare the construction plans and required documentation, or pay any part of the cost except passing through the reimbursable federal funds.

A federal aid funded project will normally, in most cases, cost more dollars and take longer to develop and build than if you funded a similar project totally with local funds. You must consider that on a federal aid project you will only be paying from 25% to 10% of the total project cost versus all of the cost for a locally funded project. Generally speaking, the federal aid project will be better designed, better constructed and will provide more and better safety features at a lower cost to the local agency than the totally local funded project. This does not always apply for small cost projects. The federal dollar still has 100 cents, the same as your local dollar. You may be able to spend 25 cents and receive 75 cents from federal aid to construct your needed road improvements. But make sure you will have each 25 cents along the way through design, right-of-way and construction.

PROBLEMS IN PROJECT PROGRAMMING AND DEVELOPMENT

I would like to discuss and outline some of the specific problems that are encountered in our office in the programming and development of your projects. I will try to outline the major problems as I see them into the categories of:

- I. Annual Programming
- II. Local Agencies
- III. Consultants
- IV. General

I must emphasize that all problems are not associated to all parties

involved with local federal aid projects but the nature of the problems should be brought to the attention of all.

Annual Programming

- A. Federal-aid programming requests (FA-2's) are being received after the due date of February 15 for submission. Remember, you don't have to wait until we mail information in December to start your planning, scheduling and preliminary drafting of a federal aid application. Last year we were receiving late submittals of FA-2's in June. This year so far we have received 865 applications totaling \$214,440,256 in federal aid funds. The

Form FA-2 State Form 4350R2 INDIANA DEPARTMENT OF HIGHWAYS FEDERAL AID PROGRAM DATA **Exhibit 1.**

I. GENERAL PROGRAM DATA

ID Number _____ Project Number _____

Route Number _____ Federalaid System and Route Number _____

Route Mile Point _____ N B L Number _____

Project Terminus _____

_____ Urban Core _____ Place Code _____

County _____ County _____ County _____

Length _____ mi Length _____ mi Length _____ mi

Urban Area _____

Total length of project _____ mi _____ mi _____ mi

(Total) Urban Total

Character of proposed work (planned) to be accomplished during Program Period.

Construction of Bridge #1 over No Name Creek

Program Period 7/1/84 to 6/30/85 FHWA Approval _____

II. FUNDING DATA

Type of funding requested _____ Appropr. Code(s) _____

Total cost for program period \$ 24,000

Federal share of cost for program period \$ 18,000

	FY E	Fund Per	B O L	Prog Per	CONSTR.	Prog Per
TOTAL COST	\$ 24,000	84-85				
FEDERAL SHARE	\$ 18,000	84-85				

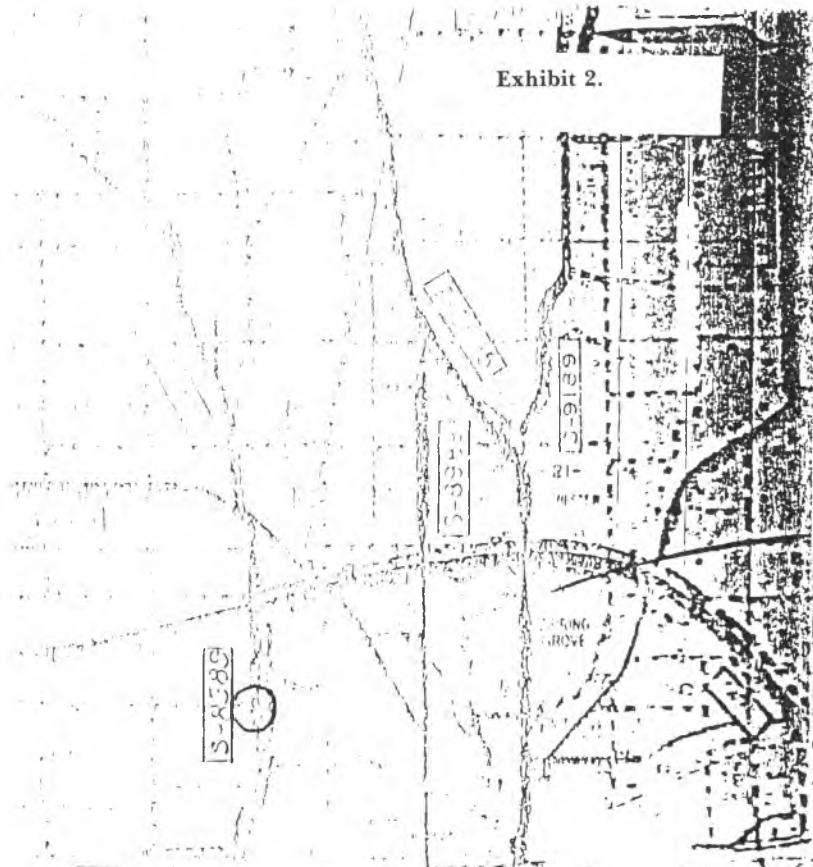
Initiating Agency Name _____

Justifying Representative _____ (Signature and Title)

For additional information contact: (Name and Phone Number) _____

obligation ceiling for spending will be about \$49,500,000 plus the Minimum Allocation funds of approximately \$12,000,000. A lot of work is involved on our part in analyzing all submitted projects to fit into a realistic annual program.

- B. FA-2's are incomplete and/or pages are missing.
 - 1. Category of funds being requested are not indicated.
 - 2. Total costs and federal share costs for future phases are not included.
 - 3. Program year incorrectly labeled.
 - 4. Character of proposed work incorrect, i.e. construction when phase should be right-of-way.
- C. Required attachments to FA-2's are missing such as project location map and R/W Introduction form. Some location maps are of poor quality and difficult to read—see Exhibit 2. Project location is not indicated on the map, or is not clearly indicated. Also, incorrect or wrong maps are attached.



- D. Submittal of FA-2's requesting funds which are no longer available such as PMS, SOS, etc. Categories of available funds are included each year in the mailout information distribution.
- E. An FA-2 is submitted for a funding category in which the local agency is in the process of revising the road classification such as off-system to rural secondary, etc. The FA-2 cannot be acted on until the system change is approved by IDOH and FHWA. Many times the requested system change is to make a desired project eligible for federal funds.
- F. The amount of funds being requested is greatly in excess of availability. Individual local agencies will submit up to ten FA-2's in the same funding category and not submit a priority listing of the projects. Could the local agency fund the matching if all projects were approved, or would some be delayed or deleted.
- G. Scheduled dates for different phases of project are not realistic, i.e. all phases of P.E., R/W, and construction in the same program year. Projects are being programmed for construction whereas the current project status is early in the P.E. phase. Some of these are major projects on relocation with considerable R/W to purchase.
- H. Local agency desires to substitute a new or different project for one already programmed and approved. The local agency changes mind entirely and stops project in progress, and in some cases concentrates on another project. There are projects approved, consultant agreements reviewed and executed, funds obligated, local agency given notice to proceed but the local agency never authorizes the consultant to proceed. Local agency programs project for construction letting, notifies area engineer to schedule project for letting, plans are updated by IDOH and then local agency desires to let another project that is not programmed.
- I. Submitted FA-2's do not have proper signatures or accompanying release of urban funds from the mayor of the urbanized area. FA-2's for projects in urbanized areas over 50,000 in population must be submitted through the respective MPO.
- J. There are submittals of FA-2's in February listing costs for P.E. and construction, then a LPA/consultant agreement is submitted in May with P.E. and construction costs 70% higher than in February. How can our office systematically approve an annual program with this variance of costs in just three months.

Local Agencies

- A. The indecision of local agencies of using funds and project

priority is a problem. It is poor planning by local agencies without a long or short range program of matching the priority needs versus available local and federal funds. Many projects are developed without due consideration of how or when they will be funded. Projects in the development stage which will not be built or funded for years are delaying other projects from being completed in a reasonable time.

- B. Most local agencies do not understand the time and steps required to develop a federal-aid project. A singular local agency expects the IDOH to process a project in a very short time

Form FA-2
Rev. 9/82

State Form 4350R2

INDIANA DEPARTMENT OF HIGHWAYS
FEDERAL-AID PROGRAM DATA

Exhibit 3.

I. GENERAL PROGRAM DATA

ID Number	Project Number
-----------	----------------

Route Number _____ Federal-aid System and Route Number _____

Route Mile Point: _____ N. B. I. Number: _____

Project Termini: _____

_____ Urban Code _____; Place Code _____

County _____, County _____, County _____

Length _____ mi Length _____ mi Length _____ mi

Urban Area _____

Total length of project: _____ mi * _____ mi = _____ mi
Rural Urban Total

Character of proposed work (phase(s)) to be accomplished during Program Period.

Program Period 7/1/ _____ to 6/30/ _____ FHWA Approval

II. FUNDING DATA:

Type of funding requested _____ Appropri. Code(s)

Total cost for program period \$ _____ \$ _____

Federal share of cost for program period \$ _____ \$ _____

	PE.	Prog. Per.	R O W	Prog. Per.	CONSTR.	Prog. Per.
TOTAL COST	<i>Previously</i>		<i>\$ 210,000</i>	<i>85</i>	<i>\$1,400,000</i>	<i>85</i>
	<i>Authorized</i>					
FEDERAL SHARE	<i>Previously</i>		<i>\$ 157,500</i>	<i>85</i>	<i>\$1,050,000</i>	<i>85</i>
	<i>Authorized</i>					

Initiating Agency Name _____

Certifying Representative _____
(Signature and Title)

For additional information contact (Name and Phone Number)

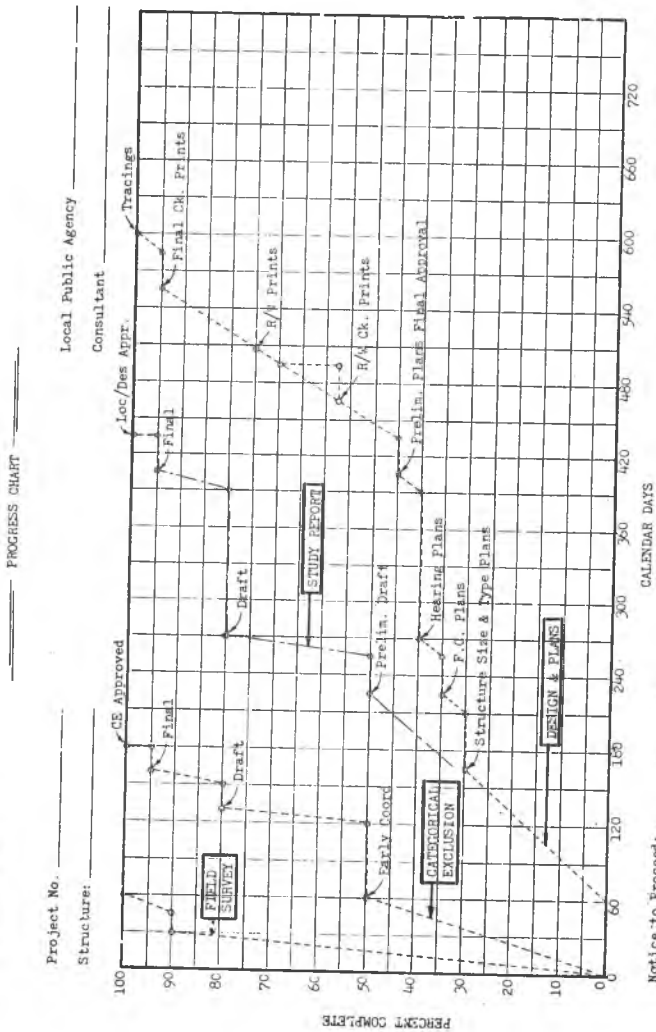
- period without consideration of all other local agency and IDOH projects.
- C. Agreements are lost at the local level necessitating the IDOH to re-start the agreement process. Agreements are not fully executed and must be returned to the local agency to complete.
 - D. Local agencies do not administer or monitor the progress and development of their projects. The payments and schedules of the projects are contained in their consultant agreement. They do not read and/or understand agreements before signing. The agreement contains a provision that the consultant is to inform the local agency each month of the project progress.
 - E. The local agency allows the consultant to completely handle the project including preparing claim vouchers for the local agency. There is no correspondence between local agency and consultant including transmittals to IDOH by consultant rather than from local agency. No interest in project by local agency until they want it for letting.
 - F. Material and instructions mailed to local agencies and consultants are not followed and complied with. Consequently, local agencies are not aware of what is going on or understand their role and responsibility. There probably is not a central location at the local level where this material is filed, or the interested people are not informed of the location.
 - G. Project priorities are constantly being revised by political considerations or administrative changes.
 - H. In some cases, the local agencies are very slow in acquiring the necessary right-of-way. Reluctance to acquire R/W by condemnation, or start acquiring R/W until funding is available delays the project.
 - I. Local agencies, after almost completing a project, decides against construction phase either through a change of political office, public disinterest, or lack of funds. This is a lack of input by the populace, no master plan to insure continuity from one administration to another, or an unrealistic undertaking from a financial standpoint. This is a waste of human resources and funds.

Consultants

- A. The number of projects and/or workload of some consultants is more than can be developed in a reasonable length of time. Consequently, projects are delayed in the development stage. If the local agency exerts pressure to the consultant for their projects, those are the projects that receive priority by the consultant.

- B. Some consultants do not correspond or inform the local agency of the status or problems with their projects.
- C. Some consultants do not follow known standard procedures of project development. Some try short cuts in the development, particularly if the project is being funded with local funds. This only causes delays in the project development by having to back up to complete earlier required items.
- D. Some consultants do not analyze and engineer a project. They will submit a problem to the IDOH and ask what should the solution be. The consultant should analyze and determine dif-

Exhibit 4.



ferent solutions to the problem and make a recommendation to the IDOH.

- E. Some consultants are not familiar with the federal aid process, procedures, and standards/design department requirements for a project development process. Some must be guided through the development process step by step, informing them of what has to be accomplished next, including furnishing samples.
- F. Plans are not reviewed and checked by the consultant before submitting to the IDOH for review and approval. Consultant is not acquainted with proper design and detailing procedures, or does not know the solution to a problem area, and therefore relies on IDOH to check, markup the plans and return to the consultant for the corrections or solution.
- G. Environmental is not completed and approved in the early stages of plan development thereby delaying the progressive development of project design plans.

General

- A. Changes in the funding categories and funding levels.
 - B. Changes in the regulations, procedures and requirements of environmentalals.
 - C. Processing of more projects of increasing complexity and cost than available construction funds. This increases the work load, resulting in additional time frame with the available manpower.
 - D. The number of projects being processed concurrently without firm schedule for construction. There is no priority system among all local agencies for scheduling of these projects. Exhibit 5 details the number of projects and dollar volume for known projects. This exhibit will not reflect any projects being developed at the local level which have not been submitted to this office for review.
 - E. The local agency should evaluate the performance of the consultant on each local project in the design and construction phase. The IDOH is doing this for future information in the selection process of consultants.
- I arbitrarily selected three bridge replacement projects that were on a construction letting last year. Progress charts were developed from history of our project files.

EXHIBIT 5
PROJECTS VERSUS FUNDS

FUNDING	1984 FUNDS				1985 FUNDS				NO. YRS		
	AVAIL. FEDERAL FUNDS	NO. PROJ	TOTAL	LOCAL FEDERAL	NO. PROJ	AVAIL. FEDERAL FUNDS	NO. PROJ	TOTAL		LOCAL FEDERAL	
M - Non Attrib	7,773	30	10,022	1,354	8,668	6,666	75	57,423	16,254	47,169	7.11
M - Attrib	15,120	29	23,792	5,261	18,531	8,837	56	35,123	12,243	42,376	4.36
Rural Secondary	24,259	38	18,431	4,251	14,176	7,484	80	39,943	8,484	30,709	5.10
Br. Replacement	22,312	44	19,096	3,319	15,777	21,297	80	28,641	5,324	21,314	1.30
RRP & RRS	9,202	68	4,871	431	4,384	4,275	123	11,001	1,101	9,908	6.52
HES	4,038	4	1,633	163	1,470	1,799	6	916	92	824	0.60
TOTAL-OBLIG.	83,334	213	77,844	15,344	62,500	49,898	422	191,271	38,203	153,068	3.07
MA (85%)	15,178	26	21,234	3,603	17,631	11,465					
TOTAL	98,512	239	99,079	18,948	80,131	61,363	422	191,271	38,203	153,068	2.49

FUNDING	1986 FUNDS				3 YEAR FUNDS				NO. YRS		
	AVAIL. FEDERAL FUNDS	NO. PROJ	TOTAL	LOCAL FEDERAL	AVAIL. FEDERAL FUNDS	NO. PROJ	TOTAL	LOCAL FEDERAL			
M - Non Attrib	6,666	24	27,311	5,539	21,772	21,105	129	94,961	17,147	77,814	11.06
M - Attrib	8,837	24	35,606	5,329	30,277	32,794	109	114,881	23,189	91,742	8.39
Rural Secondary	7,484	54	32,326	8,009	24,317	39,927	174	90,350	21,150	69,200	5.20
Br. Replacement	21,257	92	30,885	6,117	24,768	64,980	216	76,624	15,265	61,299	2.83
RRP & RRS	4,275	1	73	7	66	17,752	192	15,953	1,595	14,358	2.43
HES	1,379	0	0	0	0	6,796	10	2,551	255	2,296	1.01
TOTAL-OBLIG.	49,898	195	126,201	25,001	101,140	183,354	830	395,320	78,581	316,709	5.18
MA (85%)	11,665					38,508					
TOTAL	61,563	195	126,201	101,140	101,140	221,862	830	395,320	78,581	316,709	4.28

Exhibit 5.

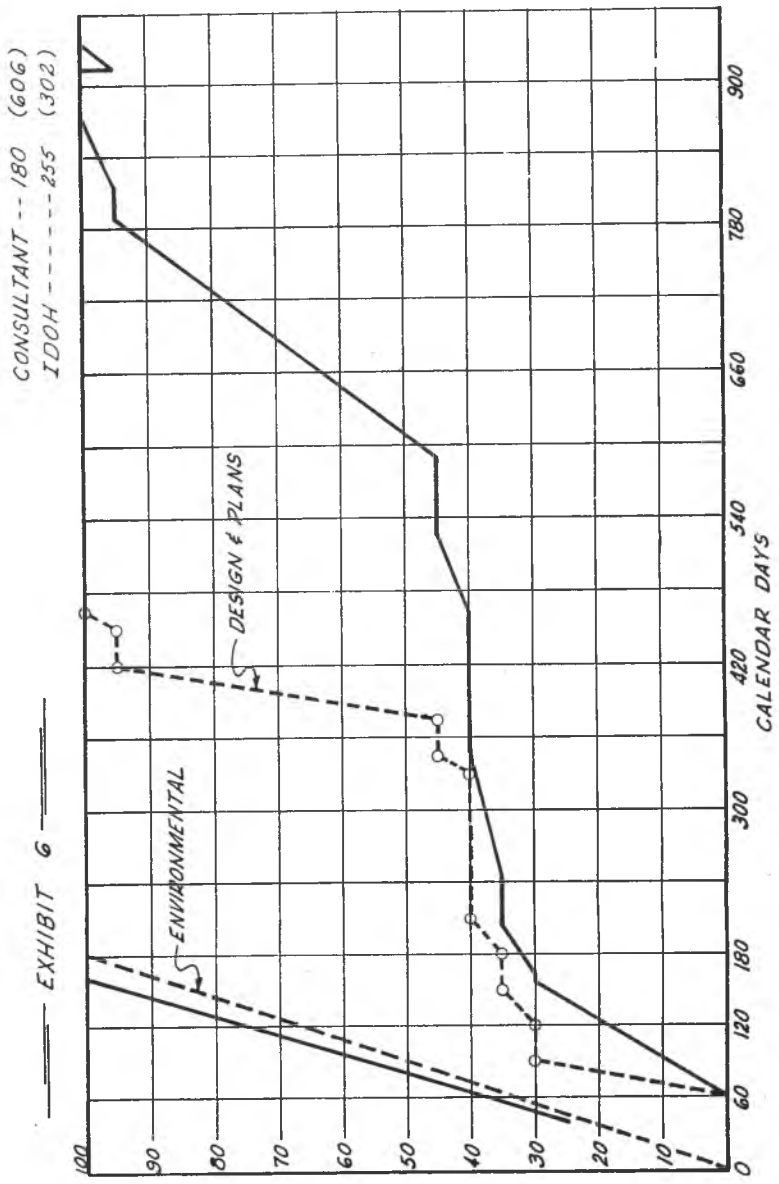


Exhibit 6.

This project was funded in the P.E. phase with federal funds. The project agreement schedule is as shown by the dotted line on the progress chart. The actual progress of the project is as shown by the solid line. The local agency evaluated the consultant performance of this project. Two of the rating items were evaluated as follows:

- Actual progress compared to schedule = 4
 - Agreement compliance, emphasis on work sequence and approvals = 4
- where: 4 = Good performance as desired and expected (a full credit rating)

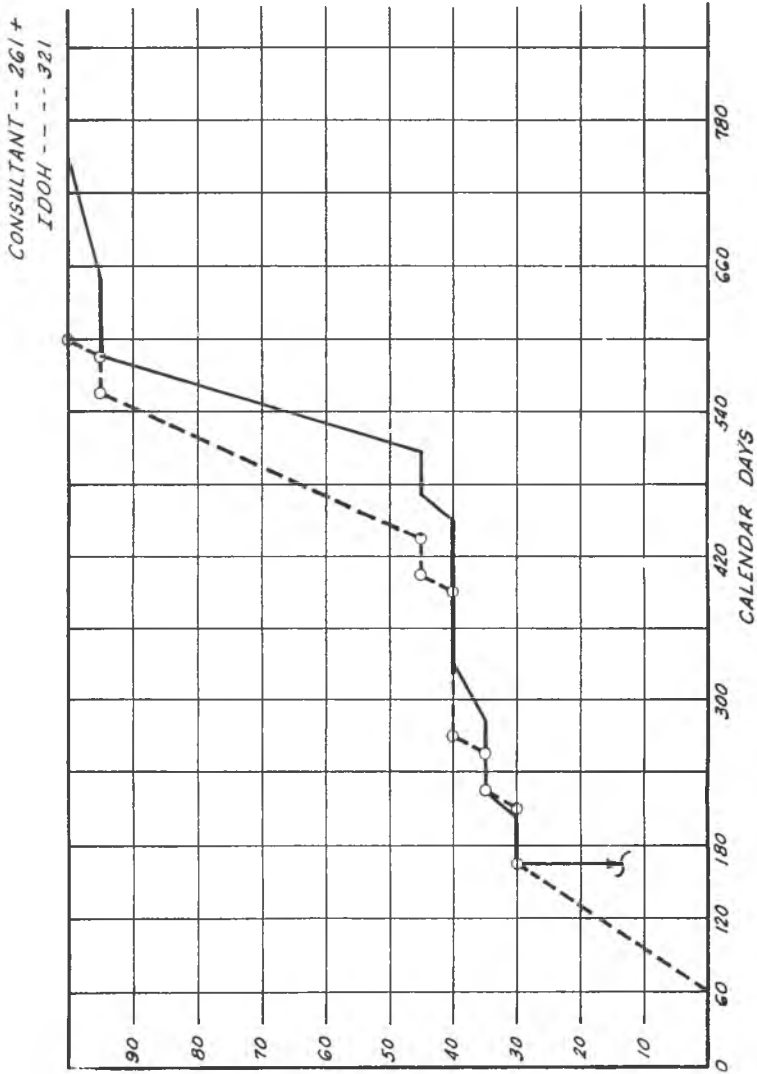


Exhibit 7.

CONSULTANT --- 663 +
IDOH - - - - - 220

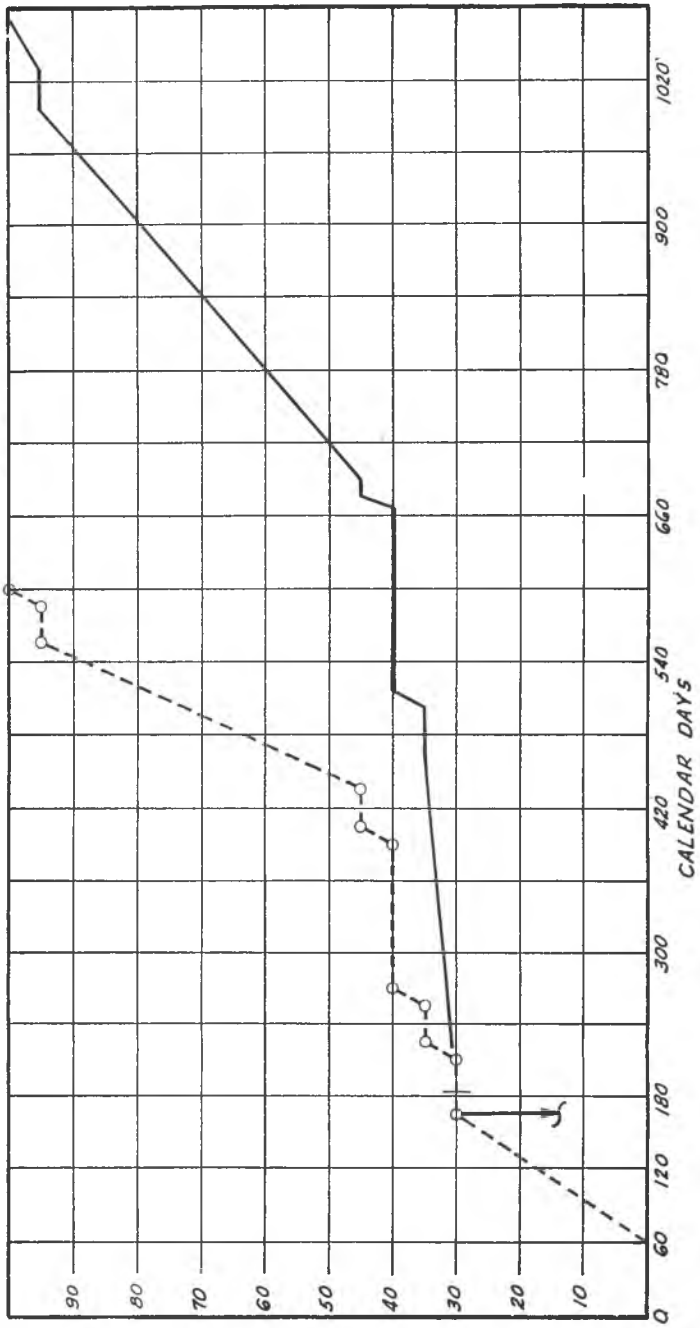


Exhibit 8.

These two projects were developed in the P.E. phase with local funds in the same county by two different consultants. This office doesn't have dates for the start of the projects, only the dates a first submission of plans were received. Note the difference in performance by the two consultants.