

**Department of Civil and Environmental Engineering  
University of South Florida – Tampa, Florida 33620**

Date: April 30, 2010

To: FDOT Research Center c/o Sandra Bell  
From: A. Sagüés, Principal Investigator (PI) Project BDK84 977-08  
cc.: Sastry Putcha, FDOT technical coordinator  
Mario Paredes, FDOT State Materials Office



Subject: **Quarterly Progress Report – 3rd Quarter: 1/1/10 - 3/31/10**  
Project BDK84 977-06: “Reinforced Concrete Pipe Cracks -Acceptance Criteria”  
(USF # 2104112600).

1) Activities performed this quarter:

Literature review was expanded from 43 to 77 sources. A draft report was prepared and sent for discussion on 1/12/10.

A discussion teleconference was conducted on 1/15/10 to review implications of the literature findings. The expanded review concurred with earlier indications in that in general in-place crack width of 0.02 inch may be considered to be acceptable. A preliminary FDOT pipe crack acceptance guideline could be formulated accordingly based on environmental conditions and RC pipe specifications applicable to FDOT. Review of the literature continued on a maintenance basis.

Based on the review and January meeting findings a proposed laboratory test plan was prepared and sent for discussion. The objectives of the proposed plan were to fill-in missing information on the effect of steel corrosion localization on the extent of concrete spalling, and to determine extent of corrosion that can take place in RC pipe cracks with partial or complete autogenous healing. Discussion and modifications of this plan were scheduled for April 15, next quarter.

2) Activities Planned for Next Quarter:

Finalize laboratory test plan based on project manager and task group feedback.

Plan specific actions implement test plan and start execution including procurement of culvert pipe from manufacturers, cut and prepare specimens, and initiate exposure to test solutions.

3) Summary of Requested Modifications:

None at present. Anticipated schedule of completion of laboratory tasks will be defined after discussion of the plan proposed in this quarter. If necessary any impact on schedule will be discussed at that time with the project manager.

4) Progress Schedule:

See next page.

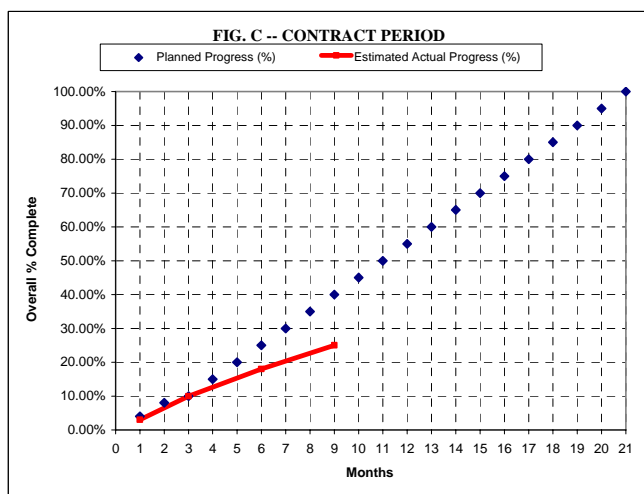
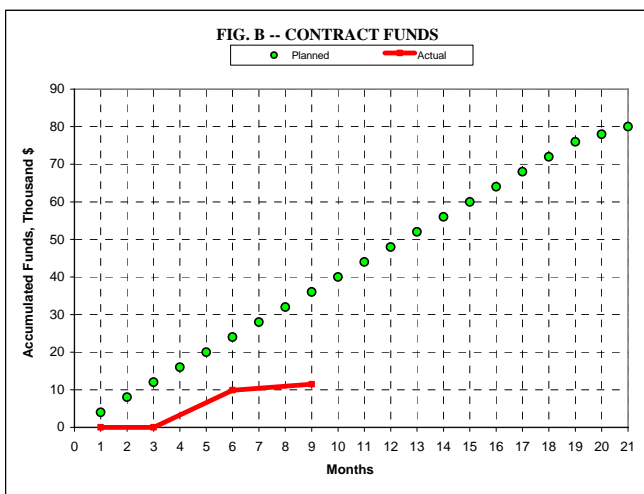
FLORIDA DEPARTMENT OF TRANSPORTATION  
RESEARCH CENTER

**PROJECT SCHEDULE**

Project Title	Reinforced Concrete Pipe Cracks - Acceptance Criteria																				ESTIMATED % COMPLETION	
FDOT Project No.	BDK84 977-06																		FY	2008-9	Month	9
Research Agency	University of South Florida																					
Principal Investigator	Dr.Alberto A. Sagues																					

RESEARCH TASK	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	ESTIMATED % COMPLETION
Task 1 Lit. Rev.	33	66	100																			95%
Task 2 Final approach				100																		50%
Task 3 Conduct Rsch.					10	20	25	30	40	50	60	70	75	80	85	90	95	100				15%
Task 4 Maximum Width									25	50	75	100										0%
Task 5 Draft Specification															25	50	75	100				0%
Final Report																33	66	100				0%
Overall % Complete Projected	4%	8%	10%	15%	20%	25%	30%	35%	40%	45%	50%	0.55	0.6	0.65	0.7	0.75	0.8	0.85	0.9	0.95	100	
Overall % Complete Actual			10%			18%			25%													25%

FIG. A -- OVERALL PROJECT SCHEDULE



Funds Expended	% 14%	*Only direct costs are listed as expenses. Indirect cost is budgeted to reach \$14,675 by the end of the contract. Listed balance does not include that eventual reduction.
Contract Amount	\$ 80,000	
Expended This Quarter	\$ 1602.63	
Total Exp. to Date	\$ 11496.83	
Balance	\$ 68,503	

Time expended	% 29%
Starting Date	07/01/09
Completion Date	3/31/2011