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FILE COPY

5222

Nov 11 1982

From: Commanding Officer, Coast Guard Civil Engineering Unit Oakland
To: Officer-in-Charge, LORAN Station Havre

Subj: LORSTA HAVRE, VESTIBULES AND OTHER PROJECTS, SER 2325

1. CEU Oakland personnel recently visited your unit. Enclosed is a trip report of the visit.
2. If you have any questions, please contact Thomas O. (Tod) Dauer at (510) 535-7261.
3. I appreciate your assistance and cooperation rendered to my staff during this visit.

Richard J. Kowalski Jr

RICHARD J. KOWALSKI, JR.
By direction

Encl: (1) Trip Report of Thomas O. Dauer

Copy: CGD Thirteen (o)

DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

UNITED STATES GOVERNMENT MEMORANDUM

2325

2 Nov 1992

Reply to: cab

Attn of: Dauer x261

Subj: LORSTA HAVRE, VESTIBULES AND OTHER PROJECTS, TRIP REPORT

From: Tod Dauer

To: cab

1. The purpose of this memorandum is to provide an official record of observations and discussions made during the subject site visit. Personnel from CEU Oakland on this site visit were: Rick Kowalski, Chief, Civil/Architectural Branch; Judd Janes, Architect; Al Paniccia, Mechanical Engineer; and the undersigned. Primary point of contact at the site was ETC Tracy Boutwell, Officer in Charge. Still and video photography were done to augment observations made.

2. Four major project areas were investigated during the site visit:

a. Roadways: The observed roadways considered for improvement can be categorized into three principle sections: the 12' wide, 900' long section on Coast Guard property running north-south; the 28' wide, 4,200' long Farm Road section running east-west; and the 28' wide, 7,400' long County Road section running north-south. Both the road section on Coast Guard property and the Farm Road section were improved (subgrade compaction and new gravel) during the construction of the LORSTA in 1989-90. The present major problems with the roads are the lack of surface stability and vehicle traction during wet periods. This is especially noticeable on the County Road section which has steep grades in parts and has not been significantly improved during at least the last 10 years. Wet weather makes the roads virtually impassable to normal traffic hindering weekly required material deliveries to the LORSTA and requiring Coast Guard personnel to utilize 4 wheel drive vehicles only to travel in and out. This project will improve these roads to the extent feasible, making them passable during all types of weather. New paving, improved surfacing/admixtures to the existing roads, and/or grade structure revisions will be investigated as potential solutions. Work on the Farm and County Road sections will require outside permits/easements with the County and adjacent owners, to be coordinated thru the MLCPAC Real Property Section. Major grade modification work to these two sections will also require the relocation of buried adjacent

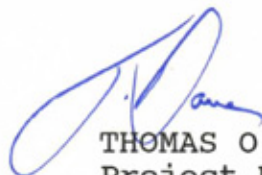
telephone and water lines. The Coast Guard and Farm Road sections already have working surveys for grade and alignment. Work to the the County Road section will require an outside professional survey firm to provide this information as the County does not have it on record. The County has also informed us that a gravel source pit is not located nearby to this area. Some research will be done to find out the nearest gravel source and its impact on the improvement costs.

b. Vestibules: The original design of the LORSTA Building should have provided vestibules for the outside man-doors, based on available data for extreme temperature ranges and local wind conditions. These doors freeze shut in the winter because of interior condensation build-up, and offer inadequate protection against the strong winds, contributing to significant heat loss. There was observed evidence of cracking damage around the door frames as an apparent result of the wind and freeze/thaw conditions experienced during the past few winters. Vestibules will be provided at three man-door locations as soon as practicable to reduce the incidence of further damage and future problems.

c. Insulation: The original design of the LORSTA Building did not provide for any insulation in the exterior walls of the transmitter and generator rooms. This omission can cause significant damage to the building structure, utility systems and internal LORAN equipment, potentially compromising the operational capabilities of the facility. The transmitter room has interior furring covered by gypsum board that would allow blown-in type of insulation. This will be investigated as a potential option and, if done, will require special care in its installation due to the extensive ADP equipment in the room. The wing of the building that houses the generator, mechanical/electrical, lounge, storage and garage areas does not have interior furring on the walls. Given the complexity of the adjacent equipment and mounted wall conduit, an option to install insulation in a new "shell wall" attached to the existing exterior face of the building will be investigated as a potential design solution. Several material options will be reviewed for cost and adaptability.

d. Diesel Generator Coolant: The generators have been experiencing operating problems during extremely cold weather. According to MK1 Cody Brazier, the station replaced the hotstarts on the engines with larger hotstarts (as recommended by Cummins Diesel, Inc., the generator manufacturer) to alleviate the problem. The hotstarts simply heat up the incoming coolant to an acceptable operable temperature level before it reaches the engine, and prior to initiating on-line operations. Since the hotstarts were installed in Nov. 1991, and last year's winter was milder in temperature than for normal record levels, the LORSTA operating staff are willing to allow these newly installed hotstarts to operate through this winter without further modification. CEU Oakland will be appraised of their performance

by the station personnel periodically as the winter progresses, since electrical outages from Hill County Electric are a somewhat common occurrence, according to the staff there. At the same time, CEU Oakland will contact Cummins Diesel, Inc. as to what the optimum recommended anti-freeze/water mixture should be for these installed models, in order to eliminate or at least reduce the need for circulating pumps. This information will be forwarded to the operating staff upon reception. At this point in time, further physical modifications to the coolant system are not anticipated. This may change, however, as operating data from the winter season is received and evaluated.



THOMAS O. (TOD) DAUER
Project Manager

CF:

J. Janes, CAB

A. Paniccia, EMB