

LIGO-C930023-00-B

# FACSIMILE MESSAGE



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December 10, 1993

To: Larry Jones  
LIGO Project Caltech Pasadena, California

Fax No. (818)304-9834

From: M. L. Tellalian Phone (815)439-6517  
Plainfield Engineering - NOE-C

RE: Livingston Site Survey  
LIGO Design & Qualification Test - Caltech Contract C146

Larry,

Attached are three pages of the text from the Livingston site survey conducted by Ken Flessas. The entire site survey was sent to Fred Asiri on December 9 and included photographs taken by Ken. I have instructed our LIGO people to send all correspondence to Caltech directly to you for distribution to Caltech LIGO team members with a copy to me for CBI's permanent record files.

Regards,

M. L. Tellalian  
Plainfield Engineering

bcc:MLT/SWP/ LIGO File 2.2.2  
K Flessas - CBICL Houston

**LIGO PROJECT  
CBI CONTRACT 930212  
CALTECH CONTRACT NO. C146  
LIGO BEAM TUBE MODULES**

**Site Survey at Livingston:**

On Tuesday, December 7, 1993, I met and was escorted on a tour of the LIGO site by Skip Smart, the Executive Director of the Livingston Economic Development Council. He is acting as an agent for the LIGO Caltech team.

We toured the property which is presently owned by Cavenham Forest Industries, a subsidiary of Hansen, PLC. The negotiations for purchase of the property by LSU are presently with the lawyers for finalization, the price has been agreed as well as certain items LSU must do to keep the surrounding property accessible to Cavenham for continuing reforestation and harvesting. Some of the original survey markers were found, but most had been destroyed by timber harvest equipment which was operating in the area.

The site is presently 60% cleared of timber. It is a relatively flat and swampy area, about 40% is considered "wetlands" and will have to be mitigated by LSU. The area is being reforested. Hunting is allowed, I saw two deer stands in the area near the alignment and expended shotgun shells from bird shot through out. There were several hunters "campsites" and a camping trailer on or near the alignment. The property is also used to range-feed cattle. They roam the total property area including the alignment and LIGO property.

The entrance to the site area is directly off State Highway 63. Unfortunately, the exit is in a steeply banked curve (banked the wrong way for us). Skip advised that the Louisiana Highway Department had agreed to build a permanent road to the site per State specifications. I cautioned Skip about the need to provide a turnout off Route 63 that will allow long trailers and 65' loads to make the turn and handle the elevation change.

We traveled part of the route via gravel logging roads (some in almost impassable condition for two wheel drive vehicles) and walked part of it. The area is very wet and will be a real bear when it rains. An 11" rainfall in January inundated the whole property and made it impassable (except maybe by pirogue). Although we will have an elevated bed to work from for our use, if we get off the access road we will be in the swamp!! Turnaround of the haul tractor and trailer will have to be provided for, especially on the Southwest leg, it only has a 150' ROW. I will suggest to Asiri that provisions be made for some construction ROW consideration. Turnaround areas for the commercial haul trailers will also be a problem, but I think Fred is already aware of this, I will confirm though.

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The two power line crossings will require some looking at. The one on the Southeast leg appears to be only 30' or so above present grade. By the time the access road is put in, this will be reduced to 20 feet. The Southwest leg appears to be about 35' above existing grade. The lines consist of three high voltage high wires (69KV) and three wires at a lower elevation. We met with Greg Linsley, Director of Operations for DEMCO (the power Co-op) and Mike Kimble also of DEMCO. The only requirements they have for working around their power lines are the OSHA rules. We should be able to set tubes from either side of the lines without a problem. If setting the concrete covers becomes part of our scope, this will present some problem in the area under the lines. DEMCO wants to know if they will have to move any poles or reset any lines. If they do, they want to do it in October, during the low demand period since they will have to take the transmission line out of service. I will pass this on to Fred Asiri of Caltech.

We visited both pipeline crossing points. All lines are at three feet minimum coverage at the existing grade. The eastern most crossing is owned by Shell and consists of three pipelines running north-south. Moving from the east side, the first is a 40" high pressure petroleum line, the second a 24" LPG line, and the third a 20" Carbon Dioxide line. The western crossing also runs north-south and is owned by Transcontinental and consists of three gas pipelines, two at 30" and one at 20". I was unable to acquire any information on construction restrictions in the ROW area and was referred to Fred Asiri who is presently negotiating the work rules with the pipeline.

Construction Permits for the site work will come from Livingston Parrish only, this is an unzoned and unrestricted rural area of the Parrish.

There is easy access the site area from Interstate 12 north at the 26 mile exit from Baton Rouge into Livingston, then north on Highway 63. The nearest available medical service will be from Hammond (1/2 hour away the east). Major medical will be in Baton Rouge.

We visited two buildings in the area for consideration of an off site subassembly area. The first was in Holden, La, about eight miles east of Livingston. There are 150,000 SF available with two 80' wide by 350' long bays. The structure is heavy wood beams and roof with minimum 24' eave height. It has possibilities, but we would not do any renovation of the facility, and probably furnish our own power, it did not appear that there was any significant power distribution system. This plant is owned by Champion and was a plywood manufacturing plant, it closed in the mid-80's. There was some use of the facility as a food repackaging center during "Desert Storm" operation. Much of the equipment is still setting around the plant in various stages of disassembly.

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The second facility was 10 miles west of Livingston, it was an egg processing plant and not fit for our purposes.

LIGO is a much discussed item in the area, with strong political backing. The area is predominantly non-union and is economically depressed. There is no real industrial base since the plywood and lumber mills moved out in the 80's. It is becoming an outlying acreage/home/ranch living area for North East Baton Rouge.

Attached are photographs and plots for our records. Fred requested a copy of any photos, I will see that he gets them as well as a courtesy copy of this report.

Ken Flessas  
Option Project Manager