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FAX COVER PAGE

CALIFORNIA INSTITUTE OF TECHNOLOGY

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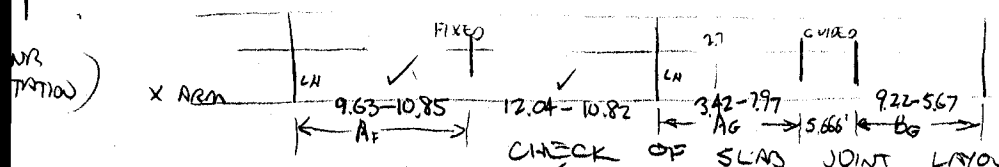
TO:	ALLEN SIBLEY
ORGANIZATION:	
FAX NUMBER:	
VOICE NUMBER:	
DATE:	9/15/97
TIME:	

FROM:	LARRY JONES
ORGANIZATION:	
FAX NUMBER:	
VOICE NUMBER:	
REFER TO:	LIGO-T970220-00-B
SUBJECT:	SLAB JOINT SPACING - WORKSNEERS

NUMBER OF PAGES FAXED INCLUDING THIS COVER SHEET:	5

(1) PLEASE CALL FOR ORIENTATION

(2) PLEASE FAX A MAP ON:
- HOW TO GET TO MAGNOLIA BEACH FROM BATON ROUGE HAMPTON INN
- HOW TO GET TO LA SITE FROM SAME



7/18/97

CHECK OF SLAB JOINT LAYOUT PLAN (ALL DATA IN FT)

PARSONS LA-5-504 REV 1 (LIGO D961239)
11/15/96 S04A REV 0

21.55'

	X ARM, CORNER-MID	13.97'	2	(-) 9.63	A_{FS}				
		13.97'	1	21.67					
		(-) 49.49		18.01		CHECK MID STATION SEAM @ 10.61 FROM VE I/F:			
-11 9/32		55.15	(K)	18.00					
-1 1/2		(-) 5.66	A_{G_K}	(-) 48.05		TS*N:	0'-11	4.40	
0'-8"		17.00	4	51.47	(M)		0'-11	1.25	
-1 25/32" (K)	(VF TO SUPPORT RING)	17.50	5	(-) 3.42	A_{G_M}		1'-2	.75	
		17.51	6	18.00 (x3)			1'-4 13/16	6.40'	I/F TO METAL BASE EDGE
4'-3 25/32		(-) 46.35		10.61			4.40'	<<10.61: NO PROBLEM!	
1'-0 5/16		57.20	(L)	(-) 61.19					
3'-3 15/32		(-) 10.85	A_{F_L}	60.85	N ⇒ VE				
1'-1 1/2"		21.67 (x3)		-0.34 ≈ (.24+.07)					
0'-8"		(-) 54.16							
2'-1"		62.13	(A_1)				2-6 1/32		
7'-1 31/32"		(-) 7.97	$A_{G_{A_1}}$				0-8"		1'-0 3/4"
~ 15/32"	STRETCH	21.67 (x3)		CHECK ON LENGTH:			1'-1/2"		1'-5 1/8"
57'-2 3/16 (L)	(SUPPORT RING TO SUPP. RING)	(-) 57.04		K:	59.02		2'-1"		59'-8 3/32"
		67.87	(B_1)	L:	54.32		1'-1 1/2"		62'-1 15/32" A_2
STRETCH @ 74 F		(-) 10.83	A_{FB_1}	(48) A:	3118.88		0'-8"		
R 130' LGTN = 0.5"		21.67 (x3)		(48) B,D,S:	3118.88		59'-7 15/16"		STRETCH DIFF
= 0.042' ①		(-) 54.18		M:	54.32		~ 3/8" STRETCH		A_2 62.1224
		62.12	(A_2)	N:	56.94		67'-10 11/32" S		B_2 67.8724
1-0 5/16"		(-) 7.94	$A_{G_{A_2}}$		6462.36				Σ 129.9948
1'-5 1/8"		21.67 (x3)			.042 (x48)	STRETCH	1'-0 1/4"		
9'-8 3/32"		(-) 57.07			.04		1'-5 7/32"		(6)·(21.67) =
2'-1 17/32"	A_1	67.87	(B_2)		.04		49'-0 1/8"		130.020
①		10.80	A_{FB_2}		6464.44	GT PLANNED OVERALL LIGO ARM LAYOUTS	51'-5 19/32" M		
				5/8	6464.68				Δ = 0.0252'
0.8"		= 1.13	(45 SETS LATER)		.24	TOO SHORT	0'-8"		= 0.303"
1'-1 1/2"		~(-) 9.67	$A_{FB_{47}}$		(2.82")		1'-1 1/2"		PER 130'
2'-1"		21.67 (x3)					2'-1"		
1'-1 1/2"		(-) 55.34			21.55		56'-11 9/32"		x 48 SETS =
0-8"		62.12	(A_{48})		13.97 (x2)		~ 3/8" STRETCH		14.52"
62-1 31/32"		(-) 6.78	$A_{G_{A48}}$		17.00		60'-10 5/32" N	SUPPORT RING TO I/F END	(1.21')
0 1/2"	STRETCH	21.67 (x3)			17.50				
67'-10 15/32"	B_1 ⇒	(-) 58.23			17.51				
②		67.86	(S_1)		21.67 (x289)				
		9.63	A_{FS}		18.01				
					18.00 (x4)				
					10.61				
					6464.75	PARSONS PLAN 6464.68 .07'	LIGO ARM LAYOUTS TOO LONG		

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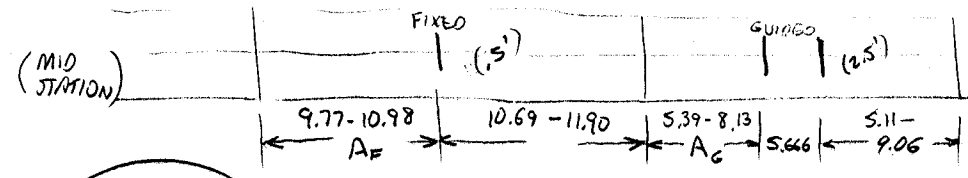

	X ARM MID-END	14.94'		(-) 9.77						
		17.69'		21.67						
2'-1		17.69'		17.21						
1'-4 13/16		(-) 50.32'		17.00						
0'-11		57.23	(O)	(-) 46.11						
0'-11		(-) 6.91	A_{G_O}	51.50	(L)					
1'-2		17.69	(x2)	(-) 5.39	A_{GL}					
2'-6		17.71		17.00	(x2)					
2'-4 15/16		(-) 46.18		10.96						
45'-10 1/32		57.16	(M)	21.55						
57'-2 25/32	O	(-) 10.98	A_{FM}	(-) 61.12						
		21.67	(x3)	60.85	(K)					
1'-1 1/2"		(-) 54.03		- 0.27'						
0'-8"		62.16	(S)							
54'-3 13/16"		(-) 8.13	A_{G_S}							0-8"
1'-0 1/4"		21.67	(x3)							1'-1 1/2"
~ 3/8 STRETCH		(-) 56.88								59'-0 9/32"
57'-1 15/16"	M	67.83	(A_1)							~0'-3/8" STRETCH
		(-) 10.95	A_{FA_1}							60'-10 5/32" (K)
2'-6 1/32"		21.67	(x3)							
59'-7 15/16"		(-) 54.06								
2'-1 31/32"	S	62.16	(B_1)							
0'-1/2"	STRETCH	(-) 8.10	A_{GB_1}							
0'-8"		21.67	(x3)							
1'-1 1/2"		(-) 56.91								
64'-11 23/32"		67.83	(A_2)							
1'-0 1/4"		10.92	A_{FA_2}							
67'-9 31/32"	$A_1 = A_2$ ⇒									
62'-1 31/32"	B	-1.13	(45 DEGS LATER)							
		(-) 9.79	A_{FA47}							
67'-9 31/32"	A47	21.67	(x3)							
+ 1/16	(DIFF BETW. B & L)	(-) 55.22								
67'-10 1/32"	A48	62.16	(B48)							
		(-) 6.94	A_{GB48}							
2'-5 29/32"		21.67	(x3)							
49'-0 1/8"		(-) 58.07								
51'-5 31/32"	L	67.84	A48							
		(-) 9.77	A_{FA48}							

3.

(CORNER STATION)	FIXED		GUIDED	
	9.78 - 11.00	10.67 - 11.89	5.39 - 8.12	4.83 - 7.07
	← AF →		← AG →	5.666

Y ARM, CORNER-MID

21.55			(-) 9.78	AFS	
10.10			21.67		
17.00			17.19		
(-) 48.65			17.00		
55.15	(R)-(k)		(-) 46.08		
(-) 6.50	AGR		51.47	M	
17.00			(-) 5.39	AGM	
17.85 (x2)			17.00		
(-) 46.20			17.00		
57.20	(L)		21.92		
(-) 11.00	AFL		10.60		
21.67 (x3)			(-) 61.13		
(-) 54.01			60.85	(P)-(N)	
62.13	(A_1)		-0.28		
(-) 8.12	AGA_1				
21.67 (x3)					
(-) 56.89					
67.87	(B1)				
(-) 10.98	AFB1				
21.67 (x3)					
(-) 54.03					
62.12	A_2				
(-) 8.09	AGA_2				
21.67 (x3)					
(-) 56.92					
67.87	(B2)				
10.95	AFB2				
⋮					
-1.13					
(-) 9.82	AFB47				
21.67 (x3)					
(-) 55.19					
62.12	A48				
(-) 6.93	AGA48				
21.67 (x3)					
(-) 58.08					
67.86	(S)				
(-) 9.78	AFS				

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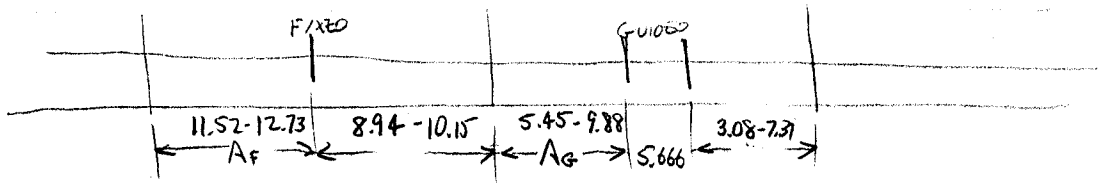
(MID STATION)



Y ARM MID-ENC

	14.95		(-)11.52	A_{FA48}	
	16.59		21.67		
2'-1"	16.60		18.00		
1'-4 13/16"	(-) 48.14		17.90		
0'-11"	57.23	(Q)	(-)46.05		
0'-11"	(-) 9.09	A_{GQ}	51.50	(L)	
1'-2"	17.84	(x3)	(-) 5.45	A_{GL}	
2'-6"	(-) 44.43		17.10		
2'-4 15/16"	57.16	(M)	15.00		
45'-10 1/32"	(-) 12.73	A_{FM}	12.92		
57'-2 25/32" Q(=0)	21.67	(x3)	21.55		
	(-) 52.28		(-)61.12		
	62.16	(S)	60.85	(R) = (K)	
	(-) 9.88	A_{GS}	-0.27		
	21.67	(x3)			
	(-) 55.13				
	67.83	(A)			
	(-) 12.70	A_{FA_1}			
	21.67	(x3)			
	(-) 52.31				
	62.16	(B_1)			
	(-) 9.85	A_{GB1}			
	21.67	(x3)			
	(-) 55.16				
	67.83	(A)			
	12.67	AFA_2			
	⋮				
	-1.13	(45 SETS LATER)			
	(-) 11.54	AFA_{47}			
	21.67	(x3)			
	(-) 53.47				
	62.16	(B48)			
	(-) 8.69	A_{GB48}			
	21.67	(x3)			
	(-) 56.32				
	67.84	A48			
	(-) 11.52	A_{FA48}			