EXHIBIT R - JMMU Target Designation Ref:
TAB F - Fiber Optics

Power centers	2001 ASBUILT DRAWING SHEET		FEED FROM (see E-61 thr E-63)	FEEDS TO (see E-61 thr E-63)	fiber count entering	# targets/PC fed	SITs Fed	SATs Fed	future SATs not included in fiber count	MVs Fed	Strands Fed to PC/ECM	targets Fed (G thru J)	Checksum	fiber count leaving total (L x 6)	per Fiber PC Query. Checksum	Power centers	Diagram posted at patch panel? Y/N		NOTES
PJ1A	E-36 (Sheet 240 of 451)	Behind LOA	central control building	C20, 412, 414	48	9	7	2	0	0	0	9	54	54	54	PJ1A	YES	Behind LOA	
PJ1B	E-41 (Sheet 244 of 451)	Behind LOA	central control building	432, **420/C62**, (JV-5)	24	6	4	2	JV-5	0	0	6	36	36	42	PJ1B	NO	Behind LOA	Missing Fiber diagram
PJ2A	E-42 (Sheet 245 of 451)	Behind LOA	central control building	C14, C12, 418, 416, **426/C64**, 428, 430	84	23	18	5	0	0	0	23	138	138	138	PJ2A	NO	Behind LOA	Missing Fiber diagram
PJ2B	E-42 (Sheet 245 of 451)	Behind LOA	central control building	C18, 448, 446, C16, (JV-13)	72	16	14	2	JV-13	0	12	16	96	96	96	PJ2B	YES	Behind LOA	
PJ3A	E-42 (Sheet 245 of 451)	Behind LOA	central control building	436, C22, 424, 422, 438, EJM-1	48	12	7	4	0	1	0	12	72	72	72	PJ3A	YES	Behind LOA	
PJ3B	E-47 (Sheet 250 of 451)	Behind LOA	central control building	460, 462, 454, 452, 458, (JV-25)	36	5	0	5	JV-25	0	0	5	30	30	30	PJ3B	YES	Behind LOA	
PJ4A	E-42 (Sheet 245 of 451)	Behind LOA	central control building	(JV-23), 444, C24, **440/C66**, 438, 422	60	15	11	4	JV-23	0	18	15	90	90	102	PJ4A	YES	Behind LOA	the DATA box ground makes it hard to open. need to verify how many strands running to heavy 6 x 7? Appears 36 strands going to SAT440
PJ4B	E-47 (Sheet 250 of 451)	Forward of LOA	central control building	462, 472, MAT54, C32, 478, (JV-43)	60	11	7	3	JV-43	1	36	11	66	66	66	PJ4B	YES	Forward of LOA	
PJ5A	E-43 (Sheet 245 of 451)	Behind LOA	central control building	450, 470, C30, 466, 456, C34	84	18	14	4	0	0	0	18	108	108	108	PJ5A	YES	Behind LOA	
PJ5B	E-47 (Sheet 250 of 451)	Forward of LOA	central control building	480, C40, 486, 490	48	10	7	3	0	0	0	10	60	60	60	PJ5B	YES	Forward of LOA	
PJ6A	E-43 (Sheet 245 of 451)	Forward of LOA	central control building	C28, C36, 468, 476, MAT56, 484, C38, 474, C26, 482	144	34	28	5	0	1	0	34	204	204	204	PJ6A	YES	Forward of LOA	
PJ6B	E-48 (Sheet 251 of 451)	Forward of LOA	central control building	(JV-69), 492, 506, (JV-50)	24	2	0	2	JV-69, JV-50	0	0	2	12	12	12	PJ6B	YES	Forward of LOA	
PJ7A	E-48 (Sheet 251 of 451)	Forward of LOA	central control building	(JV-52), 496, 488, MAT58, 494, 504	36	5	0	4	JV-52	1	0	5	30	30	30	PJ7A	YES	Forward of LOA	
PJ7B	E-49 (Sheet 252 of 451)	Forward of LOA	central control building	(JV-66), 514, 512, 510, 508	30	4	0	4	JV-66	0	48	4	24	24	24	PJ7B	YES	Forward of LOA	
PJ8A	E-44 (Sheet 246 of 451)	Forward of LOA	central control building	(JV-65), 502, MAT60, 498	18	3	0	2	JV-65	1	0	3	18	18	18	PJ8A	YES	Forward of LOA	
PJ8B	E-45 (Sheet 247 of 451)	Forward of LOA	central control building	(JV-64), 528, 526, 520, 524, 530	30	5	0	5	JV-64	0	0	5	30	30	30	PJ8B	YES	Forward of LOA	
PJ9A	E-45 (Sheet 247 of 451)	Forward of LOA	central control building	518, 516, 522	18	3	0	3	0	0	36	3	18	18	18	PJ9A	YES	Forward of LOA	
EJM-1	E-43 (Sheet 245 of 451)	Forward of LOA	PJ3A	MAT52	0	0	0	0	0	0	0	0		0		EJM-1	Not required	Forward of LOA	
FC-5	E-35 (Sheet 239 of 451)	Behind LOA	central control building		6	0			0			0		0		FC-5		Behind LOA	
FC-6	E-36 (Sheet 240 of 451)	Behind LOA	central control building		6	0			0			0		0		FC-6		Behind LOA	
FC-7	E-43 (Sheet 245 of 451)	Behind LOA	central control building		6	0			0			0		0		FC-7		Behind LOA	
JM Tower	E-35 (Sheet 239 of 451)	Behind LOA	central control building		18	0			0			0		0		JM Tower		Behind LOA	
Gen Inst Bldg.	E-35 (Sheet 239 of 451)	Behind LOA	central control building		12	0			0			0		0		Gen Inst Bldg.		Behind LOA	
							SITs Fed	SATs Fed		MVs Fed									
target counts						181	117	59		5									
End to End strand count (1998)					912									1086	1104				

NOTE:
1. SEE 2001 ASBUILT DRAWING E-63, (sheet 266 of 451)
2. SEE E-61 (sheet 264 of 451)& E-62 (sheet 265 of 451) for FO downstream of PCs.
3. each target receives 6 fiber count typical.
   A. 630 fiber count total to SITs
   B. 366 fiber count total to SATs
   c. 30 fiber count total to MVs
4. see E-46 (Sheet 249 of 451) for Target Emplacement Patch Panel Detail.
5. Total of 1080 Fiber Strand Count from Central Control Building or other PCs.
6. Total of 1202 Fiber Strand Count between PCs and targets/other PCs.
7. Total of 2286 End to End fiber tests.
8. power and data ran in 2001 for future SATs with 7.8 meters of slack. JV-5, JV-13, JV-23, JV-25, JV-43, JV-50, JV-52, JV-64, JV-65, JV-66, JV-69 (11 locations total) FIBER COUNT NOT INCLUDED IN THE ABOVE NUMBERS. SEE LEGEND ON E-58 (Sheet 261 of 451) & E-62 (Sheet 265 of 451)
9. FOR TRENCH CROSS-SECTION SEE E-21 (Sheet 225 of 451)
10. See E-26 (Sheet 230 of 451) for Camera Towers