TCxxTOX / TCxxTOD DIELECTRIC (OSP) TUBE CABLE SERIES

CONSTRUCTION

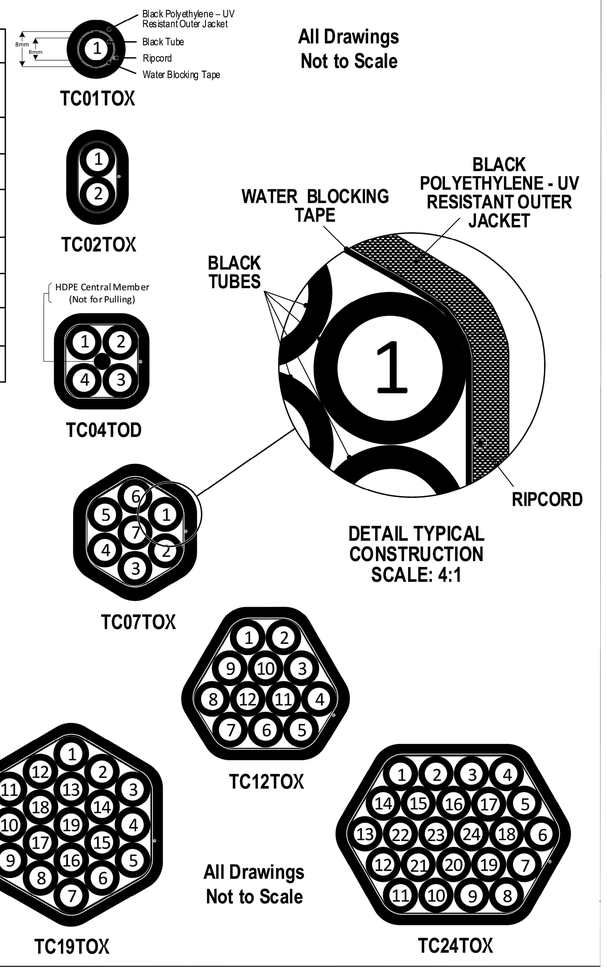
SEL Part Number	Product Description	Outside Diameter Inches – (mm)	Max. Weight (lbs./kft..)	Max. Tensile Load (lbs.)
TC01TOX	1 - Tube, Water Blocking Tape, Black Polyethylene Outer Jacket	0.53 - (13.5)	59	200
TC02TOX	2 - Tubes, Water Blocking Tape, Ripcord, Black Polyethylene Outer Jacket	0.81 - (20.6)	90	200
TC04TOD	4 - Tubes, HDPE Central Member, Water Blocking Tape, Ripcord, Black Polyethylene Outer Jacket	0.94 - (23.9)	146	400
TC07TOX	7 - Tubes, Water Blocking Tape, Ripcord, Black Polyethylene Outer Jacket	1.14 - (29.0)	203	400
TC12TOX	12 - Tubes, Water Blocking Tape, Ripcord, Black Polyethylene Outer Jacket	01.46 - (37.1)	300	400
TC19TOX	19 - Tubes, Water Blocking Tape, Ripcord, Black Polyethylene Outer Jacket	1.77 - (45.0)	444	500
TC24TOX	24 - Tubes, Water Blocking Tape, Ripcord, Black Polyethylene Outer Jacket	2.0 - (50.8)	650	500

Tube Construction: High-Performance Black Polyethylene. **Tube Diameters:** O.D. 8mm, I.D. 6mm
TCxxTOX and TC04TOD: Designed for all normal OSP environments in duct and in direct buried applications.
Tube Cable Ends: Both ends of the tube cable are accessible on the reel. Each tube is sealed with a plastic cap or plug. Tube cable ends are sealed with a heat shrink end cap.
Reel Markings: The outside of each flange is marked with the Sumitomo Electric Lightwave Corp. product part number, the tube cable manufactured length in feet, and the text "*Do Not Lay Flat*" and "*Forklift from Flanges Only*."

TUBE CABLE (1000ft. 3000ft.) REEL LENGTHS

SEL Part Number	Reel F x W (Inches)		Minimum Drum Diameter (Inches)		Empty Reel Weight (lbs.)		Full Reel Weight (lbs.)	
	1000ft.	3000ft.	1000ft.	3000ft.	1000ft.	3000ft.	1000ft.	3000ft.
TC01TOX	54 x 16	60 x 42	40	40	116	420	175	597
TC02TOX	54 x 16	60 x 42	40	40	116	420	203	682
TC04TOD	54 x 16	60 x 42	40	40	116	420	253	831
TC07TOX	54 x 32	60 x 42	40	40	137	420	342	1035
TC12TOX	60 x 42	72 x 45	40	36	420	543	720	1443
TC19TOX	60 x 42	72 x 45	40	36	420	543	863	1872
* TC24TOX	72 x 45	* 72 x 45	36	* 36	543	*543	1193	* 2493

*** NOTE: TC24TOX:** is only available in 1000ft. and 2000ft. Reel Sizes.
TUBE CABLE MARKINGS: The outside surface of each jacketed cable is marked every two (2) feet with the following product identification information:



PERFORMANCE

Property	Specification
Operation Temperature Range	-40°F to +158°F (-40°C to +70°C) [per ICEA 640]
Minimum Bend Radius During / After Installation	During Installation – 20 X Cable O.D. After Installation – 10 X Cable O.D.

Refer SEL Specification SF-F04-005 - (TCxxTOX-TOD)

F4 C-504 DIELECTRIC TUBE CABLE SERIES DETAIL
SCALE: NTS

Revisions:	Date:

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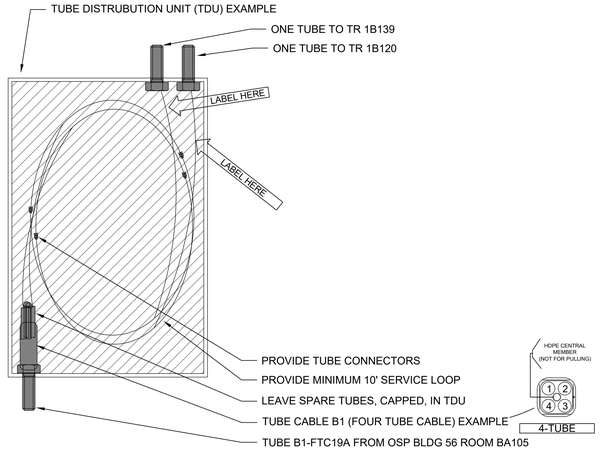
Bicsi
Michael Carson
BICSI ID # 357798
EXPIRES 12-31-25
RCDD

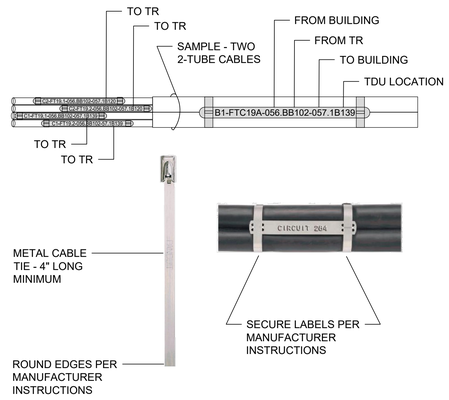
Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: COMMUNICATIONS DETAILS	Phase: CONSTRUCTION DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES	Project Number: 657-21-701JB
Approved:	FULLY SPRINKLERED	Location: ST. LOUIS VA MEDICAL CENTER - JEFFERSON BARRACKS, MO	Building Number
		Issue Date: 03/31/2022 / Checked: Checker / Drawn: Author	Drawing Number: C-504
			17 OF 435

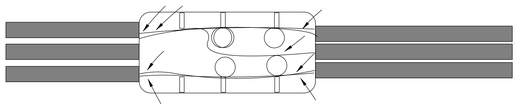
VA FORM 08 - 6231



C2 C-505 TDU LABELING SCHEME EXAMPLE
SCALE: NTS

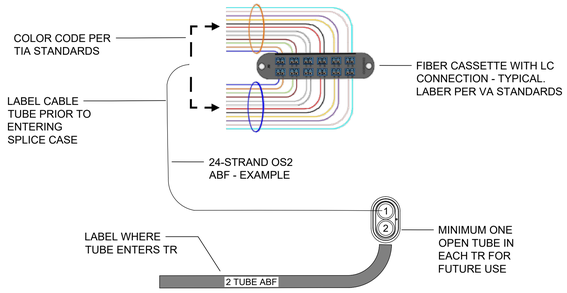


E2 C-505 METAL LABELING MATERIALS EXAMPLE
SCALE: NTS

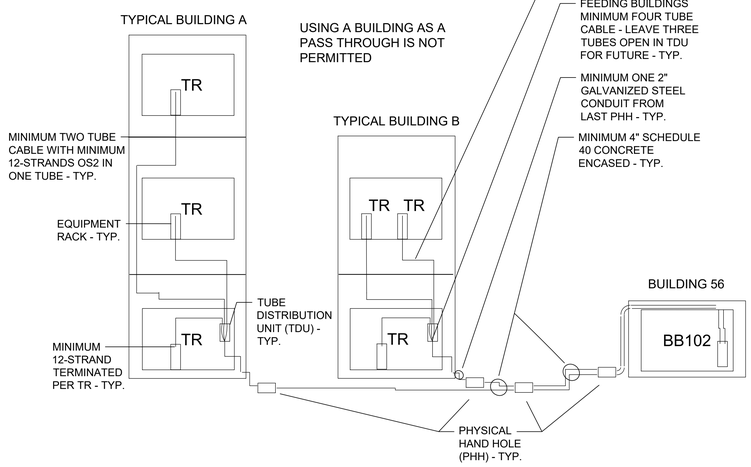


NOTE:
1. LABEL EACH TUBE CABLE IN EACH HAND HOLE AT ENTRY AND EXIT.
2. DO NOT BLOCK OTHER LABLES.
3. STAGER LABLES WHERE MULTIPLE CABLES ARE PRESENT.
4. USE ONLY EMBOSSED METAL LABLES PER S 27 05 53

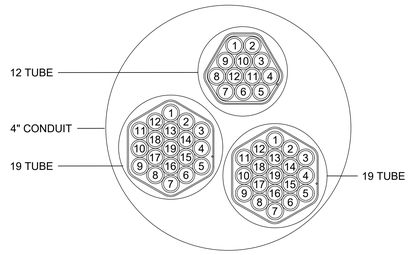
F2 C-505 TUBE CABLE LABELING LOCATIONS IN PHHs
SCALE: NTS



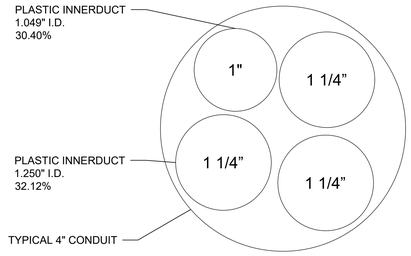
B5 C-505 EXAMPLE - TR CONTAINING A TWO TUBE CABLE WITH 24-STRAND OS2 ABF
SCALE: NTS



E5 C-505 BUILDING TO BUILDING FIBER - TYPICAL
SCALE: NTS



B8 C-505 MAX FILL RATIO FOR 4" CONDUIT
SCALE: NTS



B8 C-505 SERVICE PROVIDER ENTRY CONDUIT INNERDUCT
SCALE: NTS

Revisions:	Date:

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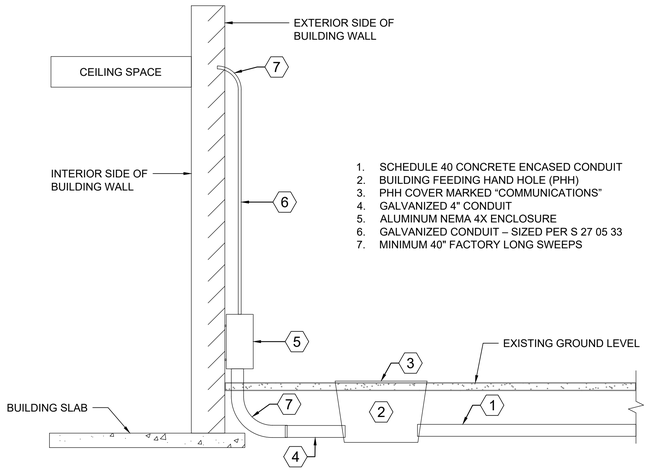
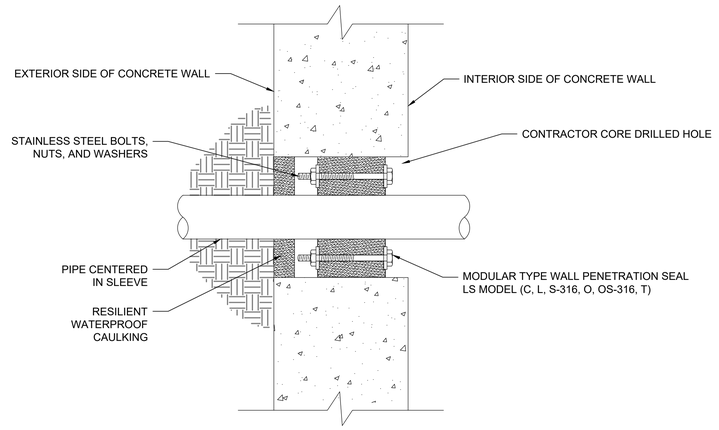
Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title	COMMUNICATIONS DETAILS
Phase	CONSTRUCTION DOCUMENTS
Approved:	
	FULLY SPRINKLERED
Project Title	EHRM INFRASTRUCTURE UPGRADES
Location	ST. LOUIS VA MEDICAL CENTER - JEFFERSON BARRACKS, MO
Issue Date	03/31/2022
Checked	Checker
Drawn	Author
Project Number	657-21-701JB
Building Number	
Drawing Number	C-505
	18 OF 435

VA FORM 08 - 6231



C1 / C-506 BUILDING ENTRY DETAIL - TYPICAL
SCALE: NTS



C4 / C-506 PIPE PENETRATION THROUGH WALLS BELOW GRADE - TYPICAL
SCALE: NTS

Revisions:	**Date:**

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
COMMUNICATIONS DETAILS

Approved:

Phase
CONSTRUCTION DOCUMENTS

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Project Title
EHRM INFRASTRUCTURE UPGRADES

Location
ST. LOUIS VA MEDICAL CENTER - JEFFERSON BARRACKS, MO

Issue Date	Checked	Drawn
03/31/2022	Checker	Author

Project Number
657-21-701JB

Building Number

Drawing Number
C-506

VA FORM 08 - 6231

TARGET BUILDING NUMBER	ROOM NUMBER OF TARGET BUILDING TR	SOURCE BUILDING AND ROOM NUMBER	SIDE-A FIBER PLANT COMMENTS	FIBER STRANDS TO BUILDING	FIBER STRANDS TERMINATED	# OF FIBER CABLES TO BUILDING	CABLE CONTAINING FIBER	SPLICE STRAND NUMBERS FROM CABLE
56	BB102	BLDG 1 GC11A	INSTALL SPLICE SHELF HERE WITH 72 STRANDS OS2 INDOOR/OUTDOOR FIBER - LEAVE 12 STRANDS UNTERMINATED (DARK) HERE - RACKS 7, 8, or 9	72		1	1	1-12
	BB102		INSTALL AND TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN BB102		12		1	13-24
	BA105		INSTALL AND TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN BB102		12		1	25-36
	1A109		INSTALL AND TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN BB102		12		1	37-48
	2A122		INSTALL AND TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN BB102		12		1	49-60
	3A122		INSTALL AND TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN BB102		12		1	61-72
55	1C132	BLDG 1 GC11A	INSTALL SPLICE SHELF HERE WITH TWO 48 STRAND OS2 INDOOR/OUTDOOR FIBER - LEAVE 12 STRANDS UNTERMINATED (DARK) HERE	96		2	1	1-12
	1C132		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN 1C132		12		1	13-24
	1B104		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN 1C132		12		1	25-36
	1A129		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN 1C132		12		1	37-48
	2A136		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN 1C132		12		2	1-12
	2C144		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN 1C132		12		2	13-24
	3A120		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN 1C132		12		2	25-36
	3C149		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN 1C132		12		2	37-48
1	GC11A	ALL SIDE-A FIBER	PLACE AND TERMINATE ALL NEW SIDE-A OS2 FIBER IN NEW RACK IN GC11A ABOVE NEW SIDE-B FIBER	936	768			
	GC12	BLDG 1 GC11A	INSTALL AND TERMINATE 12 STRANDS OS2 FIBER FROM IN NEW RACK IN GC11A		12	N/A	1	1-12
	C102D	BLDG 1 GC11A	INSTALL AND TERMINATE 12 STRANDS OS2 FIBER FROM IN NEW RACK IN GC11A		12	N/A	1	1-12
	E1E15	BLDG 1 GC11A	INSTALL AND TERMINATE 12 STRANDS OS2 FIBER FROM IN NEW RACK IN GC11A		12	N/A	2	1-12
	2C10A	BLDG 1 GC11A	INSTALL AND TERMINATE 12 STRANDS OS2 FIBER FROM IN NEW RACK IN GC11A		12	N/A	2	1-12
	E303	BLDG 1 GC11A	INSTALL AND TERMINATE 12 STRANDS OS2 FIBER FROM IN NEW RACK IN GC11A		12	N/A	2	1-12
	3C13	BLDG 1 GC11A	INSTALL AND TERMINATE 12 STRANDS OS2 FIBER FROM IN NEW RACK IN GC11A		12	N/A	2	1-12
24	G02A	BLDG 1 GC11A	INSTALL SPLICE HERE WITH 48 STRANDS OS2 INDOOR/OUTDOOR FIBER - LEAVE 12 STRANDS UNTERMINATED (DARK) HERE	48		1	1	1-12
	G02A		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN G02A		12		1	13-24
	114B		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN G02A		12		1	25-36
	205A		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN G02A		12		1	37-48
58	104	BLDG 1 GC11A	INSTALL AND TERMINATE 24 STRANDS INDOOR/OUTDOOR OS2 FIBER ON RACK PER DRAWINGS	24	24	1	1	1-24
51	BE111	BLDG 1 GC11A	INSTALL SPLICE HERE WITH 72 STRANDS OS2 INDOOR/OUTDOOR FIBER - LEAVE 24 STRANDS UNTERMINATED (DARK) HERE	72		1	1	1-24
	BE111		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN BE111		12		1	25-36
	1A102		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN BE111		12		1	37-48
	1A183		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN BE111		12		1	49-60
	1A139A		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN BE111		12		1	61-72
52	GN29A	BLDG 1 GC11A	INSTALL SPLICE HERE WITH 72 STRANDS OS2 INDOOR/OUTDOOR FIBER - LEAVE 12 STRANDS UNTERMINATED (DARK) HERE	72		1	1	1-12
	GN29A		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN GN29A		12		1	13-24
	1N82A		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN GN29A		12		1	25-36
	1S33		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN GN29A		12		1	37-48
	2N91		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN GN29A		12		1	49-60
	2S53		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN GN29A		12		1	61-72
54	1A133	BLDG 1 GC11A	INSTALL SPLICE HERE WITH 72 STRANDS OS2 INDOOR/OUTDOOR FIBER - LEAVE 24 STRANDS UNTERMINATED (DARK) HERE	72		1	1	1-24
	1A133		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN 1A133		12		1	25-36
	BA-100		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN 1A133		12		1	37-48
	BB-115		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN 1A133		12		1	49-60
	Penthouse		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN 1A133		12		1	61-72
53	GS10	BLDG 1 GC11A	INSTALL SPLICE HERE WITH 72 STRANDS OS2 INDOOR/OUTDOOR FIBER - LEAVE 12 STRANDS UNTERMINATED (DARK) HERE	72		1	1	1-12
	GS10		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN GS10		12		1	13-24
	GS02A		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN GS10		12		1	25-36
	1S002		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN GS10		12		1	37-48
	1S011		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN GS10		12		1	49-60
	2S001		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN GS10		12		1	61-72
53T	109	BLDG 1 GC11A	INSTALL AND TERMINATE 12 STRANDS INDOOR/OUTDOOR OS2 FIBER ON RACK PER DRAWINGS	12	12	1	1	1-12
60T	108	BLDG 1 GC11A	INSTALL AND TERMINATE 12 STRANDS INDOOR/OUTDOOR OS2 FIBER ON RACK PER DRAWINGS	12	12	1	1	1-12
60	102	BLDG 1 GC11A	INSTALL AND TERMINATE 12 STRANDS INDOOR/OUTDOOR OS2 FIBER ON RACK PER DRAWINGS	12	12	1	1	1-12
51T	109	BLDG 1 GC11A	INSTALL AND TERMINATE 12 STRANDS INDOOR/OUTDOOR OS2 FIBER ON RACK PER DRAWINGS	12	12	1	1	1-12
75	1B105	BLDG 1 GC11A	INSTALL AND TERMINATE 12 STRANDS INDOOR/OUTDOOR OS2 FIBER ON RACK PER DRAWINGS	12	12	1	1	1-12
57	1B139	BLDG 1 GC11A	INSTALL SPLICE SHELF HERE WITH 48 STRANDS OS2 INDOOR/OUTDOOR FIBER - LEAVE 24 STRANDS UNTERMINATED (DARK) HERE	48		1	1	1-24
	1B139		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN 1B139		12		1	25-36
	1B120		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN 1B139		12		1	37-48
23	G09B	BLDG 1 GC11A	INSTALL SPLICE SHELF HERE WITH 48 STRANDS OS2 INDOOR/OUTDOOR FIBER - LEAVE 24 STRANDS UNTERMINATED (DARK) HERE	48		1	1	1-24
	G09B		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN G09B		12			25-36
	121		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN G09B		12		1	37-48
3	B025A	BLDG 1 GC11A	INSTALL SPLICE SHELF HERE WITH 48 STRANDS OS2 INDOOR/OUTDOOR FIBER - LEAVE 12 STRANDS UNTERMINATED (DARK) HERE	48		1	1	1-12
	B025A		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN B025A		12		1	13-24
	117		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN B025A		12		1	25-36
	224A		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN B025A		12		1	37-48
3T	118	BLDG 1 GC11A	INSTALL AND TERMINATE 12 STRANDS INDOOR/OUTDOOR OS2 FIBER ON RACK PER DRAWINGS	12		1		1-12
18	011A	BLDG 1 GC11A	INSTALL SPLICE SHELF HERE WITH 72 STRANDS OS2 INDOOR/OUTDOOR FIBER - LEAVE 24 STRANDS UNTERMINATED (DARK) HERE	72		1	1	1-24
	011A		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN 011A		12		1	25-36
	119		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN 011A		12		1	37-48
	213		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN 011A		12		1	49-60
	312		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN 011A		12		1	61-72
2	G02	BLDG 1 GC11A	INSTALL SPLICE SHELF HERE WITH 72 STRANDS OS2 INDOOR/OUTDOOR FIBER - LEAVE 24 STRANDS UNTERMINATED (DARK) HERE	72		1	1	1-24
	G04		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN G02		12		1	25-36
	111		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN G02		12		1	37-48
	209		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN G02		12		1	49-60
	308		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN G02		12		1	61-72
25	117A	BLDG 1 GC11A	INSTALL SPLICE SHELF HERE WITH 48 STRANDS OS2 INDOOR/OUTDOOR FIBER - LEAVE 12 STRANDS UNTERMINATED (DARK) HERE	48		1	1	1-12
	117A		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN 117A		12		1	13-24
	204B		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN 117A		12		1	25-36
	313A		TERMINATE 12 STRANDS OS2 FIBER FROM SPLICE IN 117A		12		1	37-48

Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	FIBER DISTRIBUTION SCHEDULE SIDE A
Phase	CONSTRUCTION DOCUMENTS
Project Title	EHRM INFRASTRUCTURE UPGRADES
Project Number	657-21-701JB
Building Number	
Approved:	
	FULLY SPRINKLERED
Location	ST. LOUIS VA MEDICAL CENTER - JEFFERSON BARRACKS, MO
Drawing Number	C-600
Issue Date	03/31/2022
Checked	Checker
Drawn	Author

VA FORM 08 - 6231

SIDE-B FIBER PLANT COMMENTS

BUILDING NUMBER	ROOM NUMBER OF BUILDING TR	SOURCE BUILDING AND ROOM NUMBER	SIDE-B FIBER PLANT COMMENTS	FIBER STRANDS TO BUILDING	FIBER STRANDS TERMINATED	TUBE CABLES FROM LAST PHH	TUBE CABLE CONTAINING FIBER	FIBER STRAND NUMBERS FROM TUBE CABLE
56	BB102	ALL SIDE-B FIBER	TERMINATE ALL NEW SIDE-B OS2 FIBER HERE IN LAST ROW, RACKS 7, 8, AND 9	1272	1056			
	BA105	BLDG 56 BB102	TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM BB102, RACK 9		12	N/A	N/A	1-12
	1A109	BLDG 56 BB102	TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM BB102, RACK 9		12	N/A	N/A	1-12
	2A122	BLDG 56 BB102	TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM BB102, RACK 9		12	N/A	N/A	1-12
	3A122	BLDG 56 BB102	TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM BB102, RACK 9		12	N/A	N/A	1-12
55	TDU	BLDG 56 BB102	ROOM 1C132 INSTALL TDU HERE WITH TWO 48 STRAND OSP INDOOR/OUTDOOR FIBER IN A FOUR TUBE CABLE - FUSION SPLICE 12 STRANDS HERE	96		4	1	1-12
	1C132		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN 1C132		12		1	13-24
	1B104		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN 1C132		12		1	25-36
	1A129		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN 1C132		12		1	37-48
	2A136		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN 1C132		12		2	1-12
	2C144		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN 1C132		12		2	13-24
	3A120		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN 1C132		12		2	25-36
	3C149		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN 1C132		12		2	37-48
1	GC11A	BLDG 56 BB102	INSTALL AND TERMINATE FOUR 72 STRAND OSP INDOOR/OUTDOOR FIBER IN A TWELVE TUBE CABLE - TERMINATE ALL STRANDS IN NEW RACK IN GC11A	288	288	12	1-4	1-288
	TDU	BLDG 56 BB102	ROOM GC12 INSTALL TDU HERE WITH TWO 48 STRAND OSP INDOOR/OUTDOOR FIBER IN A FOUR TUBE CABLE - FUSION SPLICE 24 STRANDS HERE	96		4	1	1-24
	GC12		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN GC12		12		1	25-36
	C102D		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN GC12		12		1	37-48
	E1E15		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN GC12		12		2	1-12
	2C10A		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN GC12		12		2	13-24
	E303		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN GC12		12		2	25-36
	3C13		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN GC12		12		2	37-48
24	TDU	BLDG 56 BB102	ROOM G02A INSTALL TDU HERE WITH 48 STRANDS OSP INDOOR/OUTDOOR FIBER IN A FOUR TUBE CABLE - FUSION SPLICE 12 STRANDS HERE	48		4	1	1-12
	G02A		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN G02A		12		1	13-24
	114B		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN G02A		12		1	25-36
	205A		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN G02A		12		1	37-48
58	RACK	BLDG 56 BB102	NO TDU - PLACE 24 STRANDS OSP INDOOR/OUTDOOR IN A TWO TUBE CABLE - FUSION SPLICE 12 ON RACK	24		2	1	1-12
	104		TERMINATE 12 STRANDS OS2 FIBER FROM RACK IN 104		12		1	13-24
51	TDU	BLDG 56 BB102	ROOM BE111 INSTALL TDU HERE WITH 72 STRANDS OSP INDOOR/OUTDOOR FIBER IN A FOUR TUBE CABLE - FUSION SPLICE 24 STRANDS HERE	72		4	1	1-24
	BE111		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN BE111		12		1	25-39
	1A102		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN BE111		12		1	37-48
	1A183		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN BE111		12		1	49-60
	1A139A		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN BE111		12		1	61-72
52	TDU	BLDG 56 BB102	ROOM GN29A INSTALL TDU HERE WITH 72 STRANDS OSP INDOOR/OUTDOOR FIBER IN A FOUR TUBE CABLE - FUSION SPLICE 12 STRANDS HERE	72		4	1	1-12
	GN29A		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN GN29A		12		1	13-24
	1N82A		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN GN29A		12		1	25-39
	1533		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN GN29A		12		1	37-48
	2N91		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN GN29A		12		1	49-60
	2S53		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN GN29A		12		1	61-72
54	TDU	BLDG 56 BB102	ROOM 1A133 INSTALL TDU HERE WITH 72 STRANDS OSP INDOOR/OUTDOOR FIBER IN A FOUR TUBE CABLE - FUSION SPLICE 24 STRANDS HERE	72		4	1	1-24
	1A133		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN 1A133		12		1	25-39
	BA-100		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN 1A133		12		1	37-48
	BB-115		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN 1A133		12		1	49-60
	Penthouse		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN 1A133		12		1	61-72
53	TDU	BLDG 56 BB102	ROOM GS10 INSTALL TDU HERE WITH 72 STRANDS OSP INDOOR/OUTDOOR FIBER IN A FOUR TUBE CABLE - FUSION SPLICE 12 STRANDS HERE	72		4	1	1-12
	GS10		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN GS10		12		1	13-24
	GS02A		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN GS10		12		1	25-39
	1S002		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN GS10		12		1	37-48
	1S011		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN GS10		12		1	49-60
	2S001		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN GS10		12		1	61-72
53T	109	BLDG 56 BB102	NO TDU - PLACE AND TERMINATE 12 STRANDS INDOOR/OUTDOOR IN A TWO TUBE CABLE ON RACK PER DRAWINGS	12	12	2	1	
60T	108	BLDG 56 BB102	NO TDU - PLACE AND TERMINATE 12 STRANDS INDOOR/OUTDOOR IN A TWO TUBE CABLE ON RACK PER DRAWINGS	12	12	2	1	
60	102	BLDG 56 BB102	NO TDU - PLACE AND TERMINATE 12 STRANDS INDOOR/OUTDOOR IN A TWO TUBE CABLE ON RACK PER DRAWINGS	12	12	2	1	
51T	109	BLDG 56 BB102	NO TDU - PLACE AND TERMINATE 12 STRANDS INDOOR/OUTDOOR IN A TWO TUBE CABLE ON RACK PER DRAWINGS	12	12	2	1	
75	RACK	BLDG 56 BB102	NO TDU - PLACE 24 STRANDS OSP INDOOR/OUTDOOR IN A TWO TUBE CABLE - FUSION SPLICE 12 ON RACK	24		2	1	1-12
	1B105		TERMINATE 12 STRANDS OS2 FROM RACK IN 1B105		12		1	13-24
57	TDU	BLDG 56 BB102	ROOM 1B139 INSTALL TDU HERE WITH 48 STRANDS OSP INDOOR/OUTDOOR FIBER IN A FOUR TUBE CABLE - FUSION SPLICE 24 STRANDS HERE	48		4	1	1-24
	1B139		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN 1B139		12		1	25-36
	1B120		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN 1B139		12		1	37-48
23	G05	BLDG 56 BB102	INSTALL TDU HERE WITH 48 STRANDS OSP INDOOR/OUTDOOR IN A FOUR TUBE CABLE - FUSION SPLICE 24 STRANDS HERE -NOT A TR	48		4	1	1-24
	G09B		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN G05		12		1	25-36
	121		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN G05		12		1	37-48
3	TDU	BLDG 56 BB102	ROOM B025A INSTALL TDU HERE WITH 48 STRANDS OSP INDOOR/OUTDOOR FIBER IN A FOUR TUBE CABLE - FUSION SPLICE 12 STRANDS HERE	48		4	1	1-12
	B025A		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN B025A		12		1	13-24
	117		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN B025A		12		1	25-36
	224A		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN B025A		12		1	37-48
3T	RACK	BLDG 56 BB102	NO TDU - PLACE 24 STRANDS OSP INDOOR/OUTDOOR IN A TWO TUBE CABLE - FUSION SPLICE 12 ON RACK	24		2	1	1-12
	118		TERMINATE 12 STRANDS OS2 FIBER FROM RACK IN 118		12		1	13-24
18	TDU	BLDG 56 BB102	ROOM 011A INSTALL TDU HERE WITH 72 STRANDS OSP INDOOR/OUTDOOR FIBER IN A FOUR TUBE CABLE - FUSION SPLICE 24 STRANDS HERE	72		4	1	1-24
	011A		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN 011A		12		1	25-36
	119		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN 011A		12		1	37-48
	213		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN 011A		12		1	49-60
	312		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN 011A		12		1	61-72
2	TDU	BLDG 56 BB102	ROOM G02 INSTALL TDU HERE WITH 72 STRANDS OSP INDOOR/OUTDOOR FIBER IN A FOUR TUBE CABLE - FUSION SPLICE 12 STRANDS HERE	72		4	1	1-12
	G02		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN G02		12		1	13-24
	G04		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN G02		12		1	25-36
	111		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN G02		12		1	37-48
	209		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN G02		12		1	49-60
	308		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN G02		12		1	61-72
25	TDU	BLDG 56 BB102	ROOM 117A INSTALL TDU HERE WITH 48 STRANDS OSP INDOOR/OUTDOOR FIBER IN A FOUR TUBE CABLE - FUSION SPLICE 12 STRANDS HERE	48		4	1	1-12
	117A		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN 117A		12		1	13-24
	204B		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN 117A		12		1	25-36
	313A		TERMINATE 12 STRANDS OS2 FIBER IN A TWO CABLE TUBE RISER RATED TUBE CABLE FROM TDU IN 117A		12		1	37-48

HAND HOLE AND SPARE TUBE CABLE IN HAND HOLE SCHEDULE

(FROM)	/	(PHH-##)	SERVES BLDG	.TDU-ROOM#	MINIUMUM SPARE TUBES IN PHH
(056.BB102)	/	(PHH.01)	56	BB102	
(PHH.01)	/	(PHH.SP1A)			5
(PHH.SP1A)	/	(PHH.SP2A)			5
(PHH.01)	/	(PHH.02)			5
(PHH.02)	/	(PHH.02A)	55	GCS10	
(PHH.02)	/	(PHH.02B)	24	G02A	
(PHH.02)	/	(PHH.03)			5
(PHH.03)	/	(PHH.03A)	58	104	
(PHH.03)	/	(PHH.03B)	51	BE111	
(PHH.03)	/	(PHH.03C)	FUTURE		5
(PHH.03)	/	(PHH.04)			2
(PHH.04)	/	(PHH.04A)	52	GN29A	
(PHH.04)	/	(PHH.05)	54	BB-115	
(PHH05)	/	(PHH.06)			5
(PHH.06)	/	(PHH.06A)	53T	109	
(PHH.06)	/	(PHH.16B)	53	GS02A	
(PHH.07)	/	(PHH.07A)	60	102	
(PHH.07)	/	(PHH.07B)	60T	108	
(PHH.07)	/	(PHH.07C)	51T	109	
(PHH.07)	/	(PHH.07D)	75	1B105	
(PHH.07)	/	(PHH.08)	57	1B139	
(PHH.08)	/	(PHH.09)			5
(PHH.09)	/	(PHH.09A)	23	G05	
(PHH.09)	/	(PHH.10)			5
(PHH.10)	/	(PHH.10A)	1	GC11A & G02A	
(PHH.01A)	/	(PHH.13)	56	BB102	5
(PHH.13)	/	(PHH.13C)	18	011A	
(PHH.13)	/	(PHH.13B)	3T	118	
(PHH.13B)	/	(PHH.13A)	3	B025A	
(PHH.13)	/	(PHH.12)			5
(PHH.12)	/	(PHH.12A)	2	G02	
(PHH-12)	/	(PHH.11)			5
(PHH.11)	/	(PHH.11A)	25	117A	
(PHH.11)	/	(PHH.10)			5

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: TUBE CABLE AND FIBER DISTRIBUTION SCHEDULES SIDE B

Approved:

Phase: CONSTRUCTION DOCUMENTS

FULLY SPRINKLERED

Project Title: EHRM INFRASTRUCTURE UPGRADES

Location: ST. LOUIS VA MEDICAL CENTER - JEFFERSON BARRACKS, MO

Issue Date: 03/31/2022

Checked: Checker

Drawn: Author

Project Number: 657-21-701JB

Building Number:

Drawing Number: C-601

VA FORM 08 - 6231

SIDE-A TOPOLOGY

ALL EXISTING SIDE-A OS1 OPTICAL FIBER SHALL BE REPLACED WITH INDOOR/OUTDOOR (TO THE BUILDING) AND RISER-RATED (PLENUM AS REQUIRED) MINIMUM 12-STRAND OS2 FIBER, ALONG THE EXISTING PATHWAYS IN A MANNER THAT CREATES A POINT-TO-POINT CONNECTION FROM THE BUILDING 1 MCR (NEW EQUIPMENT RACK) TO EACH CAMPUS BUILDING TR (TELECOMMUNICATION ROOM). NO PART OF THIS NEW NETWORK SHALL BE CROSS CONNECTED. THE PATHWAY FOR THE RISER CABLES TO THE TRS SHALL NOT BE THE SAME AS THE PATHWAY OF THE REDUNDANT SIDE-B FIBER NETWORK. SEPARATION SHALL BE MAINTAINED UNTIL THE FIBER TERMINATES ON THE EQUIPMENT RACKS WITHIN THE TRS. THE MEANS AND METHOD OF THIS DISCRETE PATHWAY SHALL BE PLACED ON THE CONTRACTOR. AS MUCH INFORMATION ABOUT THE EXISTING/LEGACY SIDE-A PATHWAYS THAT COULD BE GLEANED ARE PART OF THIS DESIGN PACKAGE. WHERE PATHWAYS TO BUILDINGS COULD NOT BE CONFIRMED, KEY NOTES WERE USED TO INDICATE THIS LACK OF KNOWLEDGE ON THE DRAWINGS.

TO CREATE THIS POINT-TO-POINT TOPOLOGY, HIGH-STRAND COUNT FIBERS SHALL BE PLACED FROM THE MCR (BUILDING 1) TO THE DISCRETE BUILDING TRS AS INDICATED ON THE DRAWINGS/SCHEDULES. WITHIN THIS FIRST TR, THE FIBERS SHALL BE SPLICED WITHIN A SHELF ON THE EQUIPMENT RACK. ANY FIBERS REQUIRED FOR THAT TR SHALL BE TERMINATED THERE. TO CONNECT THE 'NEXT' TR WITHIN THIS SAME BUILDING, SPLICE FROM THIS RACK-MOUNTED CASE ONTO A RISER-RATED (PLENUM AS REQUIRED) AND RUN THE BUNDLE (QUANTITY PER DRAWINGS AND SCHEDULES) TO THAT NEXT TR. IN THIS MANNER, EACH TR SHALL BE AN UNBROKEN POINT-TO-POINT CONNECTION TO THE MCR. EXTRA STRANDS SHALL BE SPOOLED WITHIN THE SPLICE CASE FOR FUTURE USE (DARK FIBER). THESE EXTRA STRANDS WERE DESIGNED INTO THE PROJECT TO ALLOW THE VA TO SPLICE THEM ANYWHERE WITHIN THE BUILDING SHOULD FUTURE REQUIREMENTS ARISE. NO BUILDING SHALL CONNECT TO OTHER BUILDINGS. NO HIERARCHICAL STAR TOPOLOGIES ARE ALLOWED, AND NO CROSS CONNECTS WILL BE PERMITTED. SEE EXAMPLE, THIS SHEET.

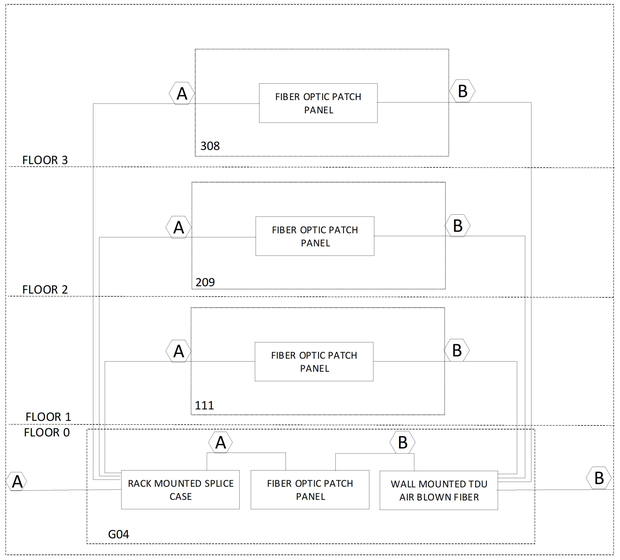
SIDE-B TOPOLOGY

THE SIDE-B NEW REDUNDANT FIBER PLANT WILL USE AN AIR BLOWN FIBER METHOD. FROM BUILDING 56, EMPTY CABLE TUBES WILL BE PLACED IN UNDERGROUND SCHEDULE-40 CONCRETE ENCASED CONDUITS, PER DRAWINGS AND SCHEDULES, TO EACH DISCRETE BUILDING TR. ONCE THESE TUBES ARE PLACED, A MINIMUM OF 12 STRANDS OF AIR BLOWN OS2 FIBER SHALL BE BLOWN FROM BUILDING 56 TO THE TRS.

TO CREATE THIS POINT-TO-POINT TOPOLOGY, HIGH-STRAND COUNT FIBERS SHALL BE PLACED FROM BUILDING 56 TO THE DISCRETE BUILDING TUBE DISTRIBUTION UNITS (TDUs) (NEMA-1 ENCLOSURES) AS INDICATED ON THE DRAWINGS/SCHEDULES. WITHIN THESE TDUs, THE FIBERS SHALL BE SPLICED WITHIN ON TRAYS MOUNTED IN SPLICE CASES, WHICH ARE INSTALLED WITHIN THE TDUs. ANY FIBERS REQUIRED FOR THAT TR SHALL BE TERMINATED THERE. TO CONNECT THE 'NEXT' TR WITHIN THIS SAME BUILDING, SPLICE FROM THIS TDU AND PLACE RISER-RATED (PLENUM AS REQUIRED) FIBER INTO THE TUBE AND BLOW THE FIBER TO THE NEXT TR. IN THIS MANNER, EACH TR SHALL BE AN UNBROKEN POINT-TO-POINT CONNECTION TO BUILDING 56. EXTRA STRANDS SHALL BE COILED WITHIN THE TDU FOR FUTURE USE (DARK FIBER). EXTRA TUBES TO THE HAND HOLES, THE TDUs, AND THE TRS HAS BEEN DESIGNED INTO THE PROJECT TO LESSEN THE COST OF ADDING ADDITIONAL/UPGRADED FIBER IN THE FUTURE. NO BUILDING SHALL CONNECT TO OTHER BUILDINGS. NO HIERARCHICAL STAR TOPOLOGIES AND NO CROSS CONNECTS SHALL BE PERMITTED. SEE EXAMPLE, THIS SHEET.

FUTURE TOPOLOGIES / OPPORTUNITIES

THE DESIGN PLACES AN ADDITIONAL 288 STRANDS OF OS2 FIBER BETWEEN BUILDING 1 MCR AND BUILDING 56. THIS FIBER IS INTENDED TO BE USED AS A BRIDGE FOR MOVING THE CORE-B, THEN CORE-A FROM BUILDING 1 TO BUILDING 56 (NOT IN THIS PROJECT SCOPE). ULTIMATELY, ALL OF THE NEW SIDE-A OS2 FIBER CONNECTING ALL CAMPUS BUILDING TRS TO BUILDING 1 COULD BE SPLICED ONTO THIS 288 STRAND FIBER, THERE-BY ELIMINATING THE NEED TO RUN NEW FIBER IN THE FUTURE, AND BY SPLICING, REMOVES THE NEED FOR CROSS-CONNECT.



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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title FIBER TOPOLOGIES	**Phase** CONSTRUCTION DOCUMENTS	**Project Title** EHRM INFRASTRUCTURE UPGRADES	**Project Number** 657-21-701JB
Approved:	FULLY SPRINKLERED	**Location** ST. LOUIS VA MEDICAL CENTER - JEFFERSON BARRACKS, MO	**Building Number**
		Issue Date 03/31/2022 · **Checked** Checker · **Drawn** Author	**Drawing Number** C-700
			22 OF 435

VA FORM 08 - 6231

SYMBOLS

EXTERIOR ELEVATION

INTERIOR ELEVATION

BUILDING SECTION FLAG

WALL SECTION FLAG

CALLOUT FLAG

VERTICAL GRID LINE

HORIZONTAL GRID LINE

TRUE NORTH ARROW

PROJECT NORTH ARROW (TRUE NORTH DASHED)

ELEVATION MARKER

KEY NOTE

ROOM TAG (SF OPTIONAL)

CEILING HEIGHT TAG

WALL TAG

FLOOR TAG

ROOF TAG

DOOR TAG

WINDOW TAG

SPECIALTY EQUIPMENT TAG

SIGNAGE TAG

SIGNAGE KEY NOTE (AW SHEETS ONLY)

SIGNAGE MATERIAL TAG (AW SHEETS ONLY)

EXISTING TO REMAIN

NEW CONSTRUCTION

TO DEMOLISH

HIDDEN ABOVE OR BELOW

EXISTING DOOR TO REMAIN

EXISTING DOOR TO DEMOLISH

NEW DOOR

SMOKE ZONE

1 HR FIRE RATED WALL

2 HR FIRE RATED WALL

SMOKE RATED WALL

SMOKE & 1 HR FIRE RATED WALL

PATIENT NON-SLEEPING SUITE

AREA OF WORK / AREA SHOWN

CONSTRUCTION ZONE, (- -) PRESSURE

ANTE ROOM, (-) PRESSURE

TEMPORARY ICRA BARRIER

TEMPORARY ICRA DOOR

PATH OF TRAVEL

EMERGENCY EGRESS PATHWAY

SEISMIC JOINT

BATT INSULATION

RIGID INSULATION

GYPSUM BOARD, TYPE X

ACOUSTICAL CEILING TILE, 2' x 2'

CONCRETE

STEEL

PLYWOOD, FIRE RATED

EARTH

SUPPLY GRILLE PER MECHANICAL (SIZE & PROPORTIONS MAY VARY)

RETURN GRILLE PER MECHANICAL (SIZE & PROPORTIONS MAY VARY)

LIGHTING PER ELECTRICAL (SIZE & PROPORTIONS MAY VARY)

FIRE EXTINGUISHER CABINET

ABBREVIATIONS

&	AND
∠	ANGLE
@	AT
℄	CENTERLINE
°	DEGREES
#	NUMBER
AB	ANCHOR BOLT
ABA	ARCHITECTURAL BARRIERS ACT
AC(T)	ACOUSTICAL CEILING (TILE)
ACM	ASBESTOS CONTAINING MATERIAL
ACW	ACOUSTICAL WALL
ADA	AMERICANS W/ DISABILITIES ACT
ADJ	ADJACENT
A/E	ARCHITECT/ENGINEER
AF	ACCESS FLOOR
AFF	ABOVE FINISH FLOOR
AGG	AGGREGATE
ALT	ALTERNATE
ALUM	ALUMINUM
APPROX	APPROXIMATELY
ARCH	ARCHITECT(URAL)
ASPH	ASPHALT
A/V	AUDIO / VIDEO
BARR	BARRIER
BATH	BATHROOM
BB	BACKER BOARD
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BLW	BELOW
BM	BEAM
BMTU	BONE MARROW TRANSPLANT UNIT
BO	BOTTOM OF
BOC	BOTTOM OF CURB
BOS	BOTTOM OF SLAB
BRC	BRACE, BRACING
BRKT	BRACKET
BRNG	BEARING
BTM	BOTTOM
BTWN	BETWEEN
CAB	CABINET
CC	CONTRACTOR FURN, CONTRACTOR INST
CD	CONSTRUCTION/CONTRACT DOCUMENTS
CJ	CONTROL JOINT
CLG	CEILING
CLR	CLEAR(ANCE)
CMU	CONCRETE MASONRY UNIT
CO	CONTRACTING OFFICER
COL	COLUMN
COMP	COMPOSITION
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
COORD	COORDINATE
COR	CONTRACTING OFFICER REPRESENTATIVE
CORR	CORRIDOR
CS	CONCRETE SEALER
CT	CERAMIC TILE
CTR	CENTER
CV	CONTRACTOR FURNISHED, VA INSTALLED
DBL	DOUBLE
DC	DIRECT CURRENT
DD	DESIGN DEVELOPMENT
DEMO	DEMOLISH(ION)
DEPT	DEPARTMENT
DG	DESIGN GUIDE
DIA	DIAMETER
DIM	DIMENSION
DWN	DOWN
DR	DOOR
DTL	DETAIL
DWG	DRAWING(S)
E	EAST
EA	EACH
EJ	EXPANSION JOINT
ELEC	ELECTRIC(AL)
ELEV	ELEVATION OR ELEVATOR
ENG	ENGINEER(ING)
EOC	EDGE OF CURB
EOP	EDGE OF PAVEMENT
EPDM	ETHYLENE PROPYLENE DIENE TERPOLYMER
EQ	EQUAL
EQUIP	EQUIPMENT
ES	EACH SIDE
ETS	EXPOSED TO STRUCTURE
EX(IST)	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FA	FIRE ALARM
FD	FLOOR DRAIN
FE(C)	FIRE EXTINGUISHER (CABINET)
FF	FACTORY FINISH
FFB	FINISH FLOOR BREAK
FFL	FINISH FLOOR LINE
FIN	FINISH(ED)
FLASH	FLASHING
FLR	FLOOR(ING)
FLRSNT	FLORESCENT
FNDN	FOUNDATION
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOS	FACE OF STUDS
FP	FIRE PROOF
FR	FIRE RATED
FRM	FRAME
FT	FOOT, FEET
FTG	FOOTING
FUR	FURRING
FURN	FURNISHED
GA	GAGE, GAUGE
GALV	GALVANIZED
GE	GENERAL ELECTRIC
G(W)B	GYPSUM (WALL) BOARD
GC	GENERAL CONTRACTOR
GL	GRID LINE
GLB	GLUE LAMINATED BEAM
GMU	GLASS MASONRY UNIT
GOV(T)	GOVERNMENT
GYP	GYPSUM BOARD
HDR	HEADER
HDWE	HARDWARE
HM	HOLLOW METAL
HORZ	HORIZONTAL
HPDL	HIGH PRESSURE DECORATIVE LAM
HR	HOUR
HT	HEIGHT
HVAC	HEATING, VENTILATION & AIR CONDITIONING
ICRA	INFECTIOUS CONTROL RISK ASSESSMENT
ID	INSIDE DIAMETER OR DIM
ILSM	INTERIM LIFE SAFETY MEASURES
INCL	INCLUDE(D,ING)
INST	INSTALL
INSUL	INSULATION
INT	INTERIOR
JT	JOINT
KV	KILOVOLT
LAM	LAMINATE(D)
LAV	LAVATORY
LCM	LEAD CONTAINING MATERIAL(S)
LT	LIGHT
MAT	MATERIAL(S)
MAX	MAXIMUM
MDF	MEDIUM-DENSITY FIBREBOARD
MECH	MECHANIC(AL)
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MFR	MANUFACTURE(R)
MIN	MINIMUM
MISC	MISCELLANEOUS
MOD	MODIFIED
MTL	METAL
N	NORTH
N/A	NOT APPLICABLE
NEG	NEGATIVE
NO.	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
O.C.	ON CENTER(S)
OPNG	OPENING
OPP	OPPOSITE
OPT	OPTION(AL)
OVHD	OVERHEAD
P	PAINT
PCONC	PRECAST CONCRETE
PCRA	PRE-CONSTRUCTION RISK ASSESSMENT
PL	PLATE
PLAM	PLASTIC LAMINATE
PLY(WD)	PLYWOOD
PNL	PANEL
PR	PAIR
PRFB	PREFABRICATED
PS	PLASTIC
PT	PRESSURE TREATED
PTN(S)	PARTITION(S)
PVMT	PAVEMENT
QTY	QUANTITY
RAD	RADIUS
RCP	REFLECTED CEILING PLAN
REF	REFERENCE
REINF	REINFORCE(D,ING)
REP	REPRESENTATIVE
REQ(s,('))D)	REQUIRE(D,S,MENT(S))
RESIL	RESILIENT
REV	REVERSE
RF	RADIO FREQUENCY / ROOF
RM	ROOM
RMV	REMOVE
RO	ROUGH OPENING
S	SOUTH
SCHED	SCHEDULE
SD	SCHEMATIC DESIGN
SECT	SECTION
SF	SQUARE FEET
SFRM	SPRAY APPLIED FIRE-RESISTIVE MATERIAL
SHG	SHINGLES
SHT(G)	SHEET (SHEATHING)
SIM	SIMILAR
SM	SEAM
SOW	SCOPE OF WORK
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
ST	STAIN
STDG	STANDING
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL
SUSP	SUSPENDED
SV	SHEET VINYL
SYS	SYSTEM
TEMP	TEMPORARY
T&G	TONGUE AND GROOVE
THK	THICK(NESS)
THRESH	THRESHOLD
TOC	TABLE OF CONTENTS
TOS	TOP OF SLAB
TPH	TOILET PAPER HOLDER
TRANS	TRANSITION
TS	TUBE STEEL
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VA	VETERANS AFFAIRS
VAR	VARIES
VB	VAPOR BARRIER
VC	VA FURNISHED, CONTRACTOR INSTALLED
VERT	VERTICAL
VIF	VERIFY IN FIELD
VV	VA FURNISHED, VA INSTALLED
W	WEST
W/	WITH
WD	WOOD
WDW	WINDOW
WGHT	WEIGHT
W/O	WITHOUT
WP	WATERPROOF(ING)
WR	WATER RESISTANT

GENERAL NOTES

APPLICABLE PUBLICATIONS

AS AN AGENCY OF THE FEDERAL GOVERNMENT, THE VA IS NOT SUBJECT TO LOCAL IMPOSITIONS OF CODE ENFORCEMENT PROCEDURES (DRAWING REVIEWS, BUILDING PERMITS, INSPECTIONS, FEES, ETC). THE VA SHALL FUNCTION AS THE AUTHORITY HAVING JURISDICTION (AHJ).

VA DIRECTIVES, DESIGN MANUALS, MASTER SPECIFICATIONS, VA NATIONAL CAD STANDARD APPLICATION GUIDE AND OTHER GUIDANCE ON THE TECHNICAL INFORMATION LIBRARY (TIL).

INTERNATIONAL BUILDING CODE (IBC) 2018.

INTERNATIONAL EXISTING BUILDING CODE (IEBC) 2018.

NATIONAL FIRE PROTECTION AGENCY (NFPA) 101 LIFE SAFETY CODE. NFPA 101 TAKES PRECEDENCE OVER IBC.

NFPA NATIONAL FIRE CODES, WITH THE EXCEPTION OF NFPA 5000 AND NFPA 900.

OCCUPATIONAL, SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS.

VA SEISMIC DESIGN REQUIREMENTS, H-18-8.

NATIONAL ELECTRICAL CODE (NEC).

INTERNATIONAL PLUMBING CODE (IPC).

SAFETY CODE FOR ELEVATORS AND ESCALATORS, AMERICAL SOCIETY OF MECHANICAL ENGINEERS (ASME) A 17.1.

ASME BOILER AND PRESSURE VESSEL CODE

ASME CODE FOR PRESSURE PIPING

ARCHITECTURAL BARRIER ACT ACCESSIBILITY STANDARDS (ABAAS), INCLUDING VA SUPPLEMENT BARRIER FREE DESIGN GUIDE (PG-18-3)

BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, AMERICAN CONCRETE INSTITUTE AND COMMENTARY (ACI 318)

MANUAL OF STEEL CONSTRUCTION , LOAD AND RESISTANCE FACTOR DESIGN SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS, AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

ENERGY POLICY ACT OF 2005 (EPACT)

DOE INTERIM FINAL RULE: ENERGY CONSERVATION STANDARDS FOR NEW FEDERAL, COMMERCIAL AND MULTI-FAMILY HIGH-RISE RESIDENTIAL BUILDINGS AND NEW LOW-RESE RESIDENTIAL BUILDINGS, 10 CFR PARTS 433,434 AND 435.

APPLICABLE PUBLICATIONS

FEDERAL LEADERSHIP IN HIGH PERFORMANCE AND SUSTAINABLE BUILDINGS: MEMORANDUM OF UNDERSTANDING (MOU)

EXECUTIVE ORDER 13423: STRENGTHENING FEDERAL ENVIRONMENTAL, ENERGY AND TRANSPORTATION MANAGEMENT.

THE PROVISIONS FOR CONSTRUCTION AND SAFETY SIGNS. STATED IN THE GENERAL REQUIREMENTS SECTION 01 01 0 OF THE VA MASTER CONSTRUCTION SPECIFICATION.

VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY - ASHRAE STANDARD 62.1 - 2004.

SAFETY STANDARD FOR REFRIGERATION SYSTEMS - ASHRAE STANDARD 15 - 2007.

VAMC APPROVED HARDWARE LOCKING STANDARDS

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

AMERICAN SOCIETY FOR TESTING MATERIALS (ASTM)

FEDERAL COMMUNICATIONS COMMISSION (FCC), ALL REGULATIONS, PROCEDURES AND STANDARDS FOR TWO-WAY RADIO EQUIPMENT, SYSTEMS AND OPERATION

ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA)

INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE)

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO), STANDARDS FOR PROTOCOLS AND INTERFACES THAT INCLUDE OPEN SYSTEM INTERCONNECTIONS (OSI)

JOINT COMMISSION ON ACCREDITATION OF HEALTHCARE ORGANIZATIONS (JACHO), ENVIRONMENT OF CARE GUIDELINES AND STANDARDS

FACILITIES GUIDELINES INSTITUTE (FGI): 2010 , OR MOST CURRENT ISSUE, GUIDELINES FOR THE DESIGN AND CONSTRUCTION OF HEALTH CARE FACILITIES

THE AMERICAN INSTITUTE OF ARCHITECTS (AIA) AND NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS(NSPE) RECENT ADDITIONS TO THEIR PROFESSIONAL CODES OF ETHICS ENCOURAGING "ENVIRONMENTALLY RESPONSIBLE DESIGN"

GENERAL NOTES

1. MAINTAIN A SAFE, CLEAN CONSTRUCTION ZONE AT ALL TIMES.
2. DO NOT SCALE DRAWINGS.
3. DIMENSIONS ARE NOT ADJUSTABLE UNLESS NOTED WITH A +/- SYMBOL. ONLY NORMAL INDUSTRY STANDARD TOLERANCES ARE ACCEPTABLE DEVIATIONS FROM DIMENSIONS INDICATED.
4. ALL DIMENSIONS NOTED AS CLEAR SHALL MAINTAIN THE FULL SPACE INDICATED WITHOUT ENCROACHMENTS.
5. FURNISH ALL MATERIALS & PRODUCTS TO COMPLY WITH THE CONTRACT DOCUMENTS.
6. ALL VERTICAL HEIGHTS INDICATED ARE FROM THE FINISH FLOOR ELEVATION, UON.
7. ANY AND ALL WALL MOUNTED EQUIPMENT SHALL HAVE BLOCKING IN WALL BEHIND, THIS INCLUDES BACKING FOR WALL MOUNTED DOOR STOPS. ENSURE THAT ALL REQUIRED BACKING IS INSTALLED IN WALLS PRIOR TO INSTALLING DRYWALL.
8. IN TOILET ROOMS PROVIDE STAINLESS STEEL FILLER BEHIND ANY MIRRORS AND OTHER WALL MOUNTED ACCESSORIES WHEN ITEM IS INSTALLED PARTIALLY OVER CERAMIC TILE.
9. CONTRACTOR SHALL INSTALL FASCIA COVERS FOR HEADWALLS.
10. SEGREGATE ALL NURSE CALL, FIRE ALARM AND SECURITY SYSTEM ALARM WIRES FROM THE DATA CABLES WHEN THEY ARE INTERMIXED. CONTRACTOR SHOULD EXPECT WIRES TO BE INTERMIXED IN CERTAIN AREAS OF THE FACILITY TO INCLUDE BUT NOT LIMITED TO CABLE TRAYS, J-HOOKS AND IN OPENINGS.
11. MOVE AND STORE ALL FURNITURE, FIXTURES, AND EQUIPMENT (FFE) AS NEEDED. FFE WILL BE COVERED WITH PLASTIC BEFORE BEING MOVED. FFE WILL BE MOVED BACK TO THE SAME LOCATION IT WAS ORIGINALLY LOCATED WHEN CONTRACTORS WORK IS COMPLETE. IF EQUIPMENT NEEDS TO BE MOVED OUTSIDE THE ROOM IT IS THE CONTRACTOR'S RESPONSIBILITY TO COVER ALL COSTS ASSOCIATED WITH MOVING, STORING, AND REINSTALLING FFE.
12. WHEN THE CONTRACTOR MOVES FFE, THE CONTRACTOR IS RESPONSIBLE FOR UNPLUGGING ALL EQUIPMENT FROM WALLS APPROPRIATELY. DURING REINSTALLATION OF FFE, IT IS THE CONTRACTOR'S RESPONSIBILITY TO RECONNECT POWER PLUGS. THE VA WILL RECONNECT ALL DATA TO THE NEW CAT 6A DATA PORTS.
13. REMOVAL OF EXISTING CEILING AND TURNING UPRIGHT EXISTING SPRINKLER HEADS NEED TO BE COORDINATED TO HAPPEN CONCURRENTLY.
14. REINSTALL CEILING TILES AT THE END OF EVERY WORK SHIFT.
15. IF FLOOR OR RATED WALL PENETRATIONS CANNOT BE FIRESTOPPED AT THE END OF THE WORK SHIFT DUE TO THE NEED TO PULL ADDITIONAL CABLES, TEMPORARY FIRE STOPPING COMPOSED OF MINERAL WOOL SHOULD BE INSTALLED IN THE PENETRATION TO PROVIDE PROTECTION AGAINST FIRE/SMOKE SPREAD THROUGH THE UNSEALED PENETRATION.
16. CONTRACTOR TO REPLACE EXISTING FIRE EXTINGUISHER WITHIN 75' WITH A CLEAN AGENT FIRE EXTINGUISHER IN ACCORDANCE TO THE FIRE PROTECTION MANUAL AT ALL TELECOM ROOMS.

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

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10000 REGISTERED ARCHITECT JAMES M. KING STATE OF WASHINGTON

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL SYMBOLS & ABBREVIATIONS

Approved:

Phase: CONSTRUCTION DOCUMENTS

FULLY SPRINKLERED

Project Title: EHRM INFRASTRUCTURE UPGRADES

Location: ST. LOUIS VA MEDICAL CENTER - JEFFERSON BARRACKS, MO

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