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## **U.S. Department of Veterans Affairs**

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Office of Information and Technology

# OIT DESIGN GUIDE FOR INSIDE PLANT TELECOMMUNICATIONS ENCLOSURE (TE) (TELECOMMUNICATIONS WALL-MOUNTED CABINET) NATIONAL CEMETERY ADMINISTRATION SPECIFICATION

DEVELOPED BY: DATA CENTER AND INFRASTRUCTURE ENGINEERING

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	LEG	END	NO <sup>-</sup>	ſES
#	ELECTRICAL DETAIL NUMBER (*) DETAIL NUMBER	TELECOMMUNICATIONS	ELECTRICAL	TELECOMM
	BONDING BUSBAR	# DETAIL NUMBER	1 MINIMUM QTY TWO 120 V 20 A CONVENIENCE POWER OUTLETS PER WALL; PLACEMENT DETERMINED BY OTHERS	1 SERVICE PROVIDER ENTR
	OR REQUIREMENTS	TYPE DETAIL NUMBER TYPE TYPICAL THROUGHOUT THIS SHEET	2 PRIMARY BONDING BUSBAR PLACEMENT DETERMINED BY OTHERS SECONDARY BONDING BUSBAR PLACEMENT DETERMINED BY	2 SERVICE BACKBONE - EN ROOM (MCR) WITH DUAL R MAIN CROSS CONNECT (C
	ELECTRICAL SERVICE PANEL OVERHEAD POWER DROP CORD WITH L21-20 RECEPTACLE	OR WIRE MESH CABLE TRAY SIZE COMMENSURATE WITH REQUIREMENTS	OTHERS SERVICE PANEL FOR A-SIDE POWER, GENERATOR BACKED IF THE FACILITY HAS GENERATION CAPABILITIES. SHALL BE	3     BACKBONE CABLING (MCI       4     ENTRANCE ROOM INTERCO
$\overline{\bigcirc}$	OVERHEAD POWER DROP CORD WITH L21-30 RECEPTACLE		EQUIPPED WITH POWER METER; PLACEMENT PER OTHERS SERVICE PANEL FOR B-SIDE POWER, GENERATOR BACKED IF POSSIBLE, SHALL BE EQUIPPED WITH POWER METER;	5 HORIZONTAL DISTRIBUTIO
	POWER JUNCTION BOX FOR GOA CONNECTION  POWER BUSWAY TAP WITH SINGLE BREAKER 3' DROP	SLEEVE WITH BUSHING FIRESTOP AND INNERDUCT FOR	OF PLACEMENT PER OTHERS 30 AMP 120 VOLT SINGLE-PHASE TWIST LOCK RECEPTACLE (L5- 30R); CENTERED ON BACK CABINET CUTOUT {L-N-G (3-WIRE)}	6 MEET REQUIREMENTS. 7 HORIZONTAL DISTRIBUTIO
	CORD WITH L21-20R FOR STANDARD-DENSITY CABINETS POWER BUSWAY TAP WITH DUAL BREAKERS AND QTY TWO 3' DROP CORDS WITH L21-20R FOR HIGH-DENSITY	O SLEEVE OR CONDUIT WITH BUSHING FIRESTOP AND INNERDUCT FOR FIBER	COORDINATE INSTALLATION LOCATION WITH TELECOMMUNICATIONS CONTRACTOR	8 HORIZONTAL DISTRIBUTIO
$\square$	ZI CABINETS TYPICAL UNSWITCHED 110 VOLT, 20 AMP DUPLEX CONVENIENCE OUTLET	TELECOMMUNICATIONS CHANNEL RACK, 19" RAILS, #12-24 TAPPED EIA HOLE PATTERN. 30" DEEP CHANNEL MINIMUM. 7		9 MAIN DISTRIBUTION AREA
\$	MOTION SENSOR LIGHT SWITCH	HIGH, 45RU, WHITE		STANDARD-DENSITY (SD REDUNDANT
	CEILING MOUNIED MOTION SENSOR (LOCATIONS AS REQUIRED FOR FULL ROOM COVERAGE)	VERTICAL CABLE MANAGER WITH DOOR, 6" WIDE MINIMUM (SIZED TO MEET REQUIREMENT)		12 HIGH-DENSITY (HD) CABIN 40" NETWORK CABINET W
	FIXED CAMERA, PANTILT/ZOOM, PASSIVE INFRARED	PUNCHED RAIL, SINGLE PERFORATED FRONT DOOR, SOLID REAR DOOR (VERTICAL EXHAUST DUCT [VED]		WIRE MESH CABLE TRAY
	LED LIGHTING	VED), TWO-POINT KEYED LOCKS, WHITE, SOLID SIDE PANELS		15 BLUE CABLE TRAY PATH
	POWER BUSWAY WITH METERED HEADEND FOR A SIDE POWER DISTRIBUTION	(NOMINAL), SQUARE PUNCHED RAIL, SINGLE PERFORATED FRONT DOOR, SOLID REAR DOOR	1. LED LIGHTING PLACED IN AISLES DIRECTLY IN FRONT OF AND BEHIND CABINET ROWS     2. LIGHTING OPERATED BY MOTION SENSOR PER CABINET ROW OR SECTION	16 YELLOW CABLE TRAY PA
	POWER BUSWAY WITH METERED HEADEND FOR B SIDE POWER DISTRIBUTION	DOUBLE PERFORATED REAR DOOR (NO VED), TWO-POINT KEYED LOCKS, WHITE, SOLID SIDE PANELS	3. 500 LUMENS IN THE HORIZONTAL PLANE AND 200 LUMENS IN THE VERTICAL PLANE REQUIRED MEASURED AT 3 FT AFF IN FRONT OF AND BEHIND EQUIPMENT CABINETS	17 NETWORK CHANNEL RACK
UPS	MODULAR UPS CABINET (POWER MODULES, BATTERIES, POWER PANELS)			
	ARCHITECTURAL		ARCHITECTURAL	MECHA
	4' BY 8' AC GRADE 34" TRADE SIZE PLYWOOD BACKBOARD PAINTED HIGH-GLOSS WHITE WITH TWO COATS OF FIRE RESISTANT PAINT FOR SERVICE PROVIDER / SECURITY /	STANDARD 25% OPEN PERFORATED FLOOR TILE  COLD AISLE CONTAINMENT PVC CURTAIN	<ol> <li>TELECOMMUNICATION ROOMS INCLUDING NETWORK SUPPORT CENTERS: MAXIMUM EXTENT POSSIBLE</li> <li>DATA CENTERS EXCLUDING EXTRA SMALL NETWORK SUPPORT CENTERS: MINIMUM 16 FT SLAB TO DECK ABOVE</li> </ol>	CHANGES TO DESIGN WILL REG DYNAMICS (CFD) ANALYSIS TO
	-3 FT WIDE, 8 FT HIGH DOOR	RETURN AIR DUCT	FLOOR COMPOSITION: 1. STATIC DISSIPATING FLOOR TILE OR COATING 2. CONCRETE SLAB 5" THICKNESS AT GROUND 3. STEEL PECK AND FILL FOR FLOORS ABOVE GROUND 4. AVOID ACCESS FLOOR PLENING FOR AIR DISTRIBUTION	
		COMPUTER ROOM AIR CONDITIONER (CRAC) (SEE COMPUTATIONAL FLUID DYNAMICS REQUIRED FOR SIZING)	PURPOSES WALLS: FULL HEIGHT TO DECK ABOVE FOR ALL TELECOMMUNICATION SPACES CEILINGS: NO SUSPENDED CEILINGS ALLOWED	
		REQUIRED CLEARANCE AROUND CRACS (SIZE VARIES DEPENDING UPON CRAC MANUFACTURER)	DATA CENTER SIZE ALLOCATION PER CHART BELOW:         DATA CENTER 5 ZE       SQUARE FOOTAGE         EXTRA SMALL       775 (785)       24' X 32.5' (20' X 39.25)	
		AC SPLIT PACKAGE AIR CONDITIONER OR EQUIVALENT 24/7 SUPPLY AIR TO REJECT 17,000 BTU/H (5 KW) PER TELECOMMUNICATIONS RACK	SMALL         1152         24' X 48'           MEDIUM         1760         40' X 44'           LARGE         2464         44' X 56'	
		ADDITIONAL SPLIT PACKAGE AIR CONDITIONER AS REQUIRED	CONTACT DATA CENTER AND INFRASTRUCTURE ENGINEERING (VAITESEDATACENTERENGINEERING2@VA.GOV) TO DETERMINE WHAT SIZE DATA CENTER IS REQUIRED FOR YOUR FACILITY.	
		T- AIR CONDITIONER THERMOSTAT	FLOORPLANS ARE NOT TO SCALE (NTS) DOCUMENTS ARE NOT TO BE USED FOR CONSTRUCTION	





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	E. INFRASTI	NTERPRISE RUCTURE <b>C</b>	DATA CENT OLLABORAT	ER ION TEAM
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#### SPACE CLASSIFICATION. TES MAY BE DEPLOYED TO THE FOLLOWING TYPES OF NON-HEALTHCARE SPACES:

(A) PARKING STRUCTURES,

(B) TECHNICAL SPACES SUCH AS WAREHOUSES, KITCHENS, LAUNDRIES, MECHANICAL/ELECTRICAL PLANT BUILDINGS, CHILLER OR BOILER PLANTS, GARAGES, AND PAINT SHOPS,

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(C) HISTORICAL QUARTERS CONVERTED TO ADMINISTRATIVE USE,

(D) BUILDINGS WITH NO VA STAFFING PRESENCE AND NO REQUIREMENTS FOR CONNECTIVITY TO THE VA LAN OR GUEST WIFI,

(E) TEMPORARY MODULAR TRAILERS,

(F) NCA FIELD FACILITIES,

(G) FISHER HOUSE BUILDINGS,

(H) VHA MENTAL HEALTH ADMIN FACILITIES (VET CENTERS).

TEMPORARY BUILDINGS AND TRAILERS MUST BE VALIDATED TO BE ACTUALLY TEMPORARY (INCLUDING A STIPULATED DURATION OF OPERATION AND PLANNED DATE OF REMOVAL) AND NO HISTORY OF PREVIOUS DEFERRED OR CANCELLED REMOVAL PLANS.

- USAGE. A MAXIMUM OF 96 WORK AREA OUTLETS (WAOS) CAN BE SUPPORTED BY A STANDARDIZED TE. EACH DATA JACK IN A WORKSPACE TELECOMMUNICATIONS OUTLET, WIRED BACK TO THE PATCH PANELS IN THE TE, IS CONSIDERED A WAO FOR THESE PURPOSES. WHERE 1-48 WAOS ARE PLANNED, A 12RU (HALF-HEIGHT) STANDARDIZED TE IS USED. WHERE 49-96 WAOS ARE PLANNED, A 26RU (FULL-HEIGHT) STANDARDIZED TE IS USED.
- SERVICES. NO SERVICES OTHER THAN VA LAN HORIZONTAL DISTRIBUTION CAN BE SUPPORTED FROM A STANDARDIZED TE, EXCEPT IN A BUILDING WITH NO VA STAFFING PRESENCE AND NO REQUIREMENTS FOR VA LAN BUT WHERE GUEST WIFI IS PROVIDED.
- ENVIRONMENT. TES MAY BE DEPLOYED TO SPACES FALLING WITHIN THE ENVIRONMENTAL ENVELOPE CONDITIONS FOR A TR, AS DESCRIBED IN THE INFRASTRUCTURE STANDARD FOR TELECOMMUNICATIONS SPACES. AMBIENT AIR CONDITIONS IN THE SPACE ARE BETWEEN 41°F-95°F DRY BULB, 8-80% RH, AND A DEW POINT LESS THAN 82.4°F.
- NON-STANDARD ENVIRONMENTALLY CONDITIONED TES MAY BE APPROVED BY VARIANCE FOR USE IN SPACES WHERE THE AMBIENT AIR CONDITIONS EXTEND OUTSIDE OF THESE LIMITS.
- ALL KNOCKOUTS AND CABLE ENTRY POINTS SHALL BE SEALED TO PREVENT LIQUID AND DUST ENTRY.
- ACCESSORIES. CABLE PORT BRUSH KIT. LOW-NOISE DUAL FAN & FILTER KIT. REPLACEMENT FILTER KIT. SHELF(VES). VERTICAL RAIL-MOUNTED CABLE MANAGERS. LED LIGHT KIT.

CRITERIA REQUIREMENTS FOR DIVERSE PATH BACKBONE

- SUPPORTS VA CLINICAL STAFF FUNCTION IN A HEALTHCARE SETTING.
- SUPPORTS VA CLINICAL-SUPPORTING STAFF FUNCTION WITH END-USER DESKTOP AND/OR VOIP PHONE REQUIREMENT.

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- SUPPORTS VA ADMINISTRATIVE STAFF FUNCTION WITH END-USER DESKTOP AND/OR VOIP PHONE REQUIREMENT (REDUCED FIBER COUNT ROUTING MAY BE CONSIDERED IF SPACE CANNOT BE USED FOR A HEALTHCARE/CLINICAL FUNCTION, E.G. WASHINGTON DC ADMINISTRATIVE BUILDINGS, VBA REGIONAL OFFICE BUILDINGS).
- NOT REQUIRED FOR PATIENT-ONLY AREAS WITHOUT ANY VA STAFFING FUNCTION PRESENCE (NON-DIVERSE AND REDUCED FIBER COUNT ROUTING MAY BE CONSIDERED).
- NOT REQUIRED FOR VA TECHNICIAN/MAINTENANCE/TRADES AREAS/FACILITIES (NON-DIVERSE AND REDUCED FIBER COUNT ROUTING MAY BE CONSIDERED).

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Telecommunications Enclosure Use Cases				

WALL-MOUNT TELECOMMUNICATIONS ENCLOSURE (TE) SALIENT CHARACTERISTICS

• NEMA-1 OR EQUIVALENT CONSTRUCTION. DUST SEALS AND REPLACEABLE INLET/OUTLET FILTERS FOR VENTS/AIRFLOW OPENINGS/FANS PROVIDED. THIS IS REQUIRED REGARDLESS OF PLANNED INSTALLATION ENVIRONMENT.

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- FILTERS SHALL BE COMMERCIALLY WIDELY AVAILABLE AND INITIALLY PROVIDED WITH THE TE.
- ENVIRONMENTALLY CONTROLLED ENCLOSURES ARE ACCEPTABLE; CONSIDER WHEN THE CONDITIONS WHERE THE TE IS TO BE INSTALLED ARE OUTSIDE OF ALLOWABLE TR ENVIRONMENTAL LIMITS.
- 24" MINIMUM WIDTH TO ALLOW FOR POWER AND TELECOMMUNICATIONS CABLING MANAGEMENT TO THE SIDES OF RACK-MOUNTED EQUIPMENT.
- 30" MINIMUM DEPTH TO ALLOW FOR STRUCTURED CABLING AND POWER DISTRIBUTION AT THE REAR OF THE RACK.
- PRIMARY FULL-HEIGHT TES SHALL BE 26RU IN HEIGHT OR LARGER AS NEEDED TO MEET THE SPECIFIC IMPLEMENTATION REQUIREMENTS. SECONDARY HALF-HEIGHT TES FOR OUTBUILDINGS SHALL BE A MINIMUM OF 12RU IN HEIGHT (24").
- UNIT MOUNTS TO 34" PLYWOOD BACKBOARD VIA 16" ON CENTER (OC) MOUNTING FOR STANDARD STUD CONSTRUCTION.

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- UNIT OPENS IN REAR (SWINGS OPEN) FOR ACCESS TO REAR OF INSTALLED EQUIPMENT. UNIT OPENS IN FRONT (SWINGING FRONT DOOR) FOR ACCESS TO FRONT OF INSTALLED EQUIPMENT. BOTH SECTIONS ARE ABLE TO BE PHYSICALLY LOCKED.
- ADJUSTABLE 19" ELA/TIA RACK RAILS. REAR RAIL KITS ARE REQUIRED.

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- TOP AND BOTTOM KNOCKOUTS FOR CABLE/CONDUIT ENTRY. ALL KNOCKOUTS MUST BE SEALABLE AND SEALED FOR LIQUID, DUST, AND RODENT ENTRY RESISTANCE. THE USE OF A KNOCKOUT KIT TO CREATE LARGER PENETRATIONS IS ACCEPTABLE.
- 120V FANS TO REMOVE HEAT GENERATED IN TE ARE REQUIRED. WHETHER THESE ARE USED AS EXHAUST, INTAKE, OR BOTH IS NOT SPECIFIED.
- PROVIDE TES WITH FIBER DISTRIBUTION CABINETS, FIBER CASSETTES, UTP PATCH PANELS, HORIZONTAL CABLE MANAGEMENT UNITS, AND SHELVES AS REQUIRED FOR THE SPECIFIC IMPLEMENTATION.

SALIENT CHARACTERISTICS OF TELECOMMUNICATIONS ENCLOSURES

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С	INFRASTRUCTURE ENGINEERING EDPCT ENTERPRISE DATA CENTER INFRASTRUCTURE COLLABORATION TEAM PROJECT: TELECOMMUNICATIONS			
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		NEMA-1 OR EQUIVALENT
	SHELL	TEMPERED GLASS FRONT DOOR
		DUST SEALS AND REPLACEABLE INLET/OUTLET VENTS/AIRFLOW OPENINGS/FANS
		CABINET SWINGS OPEN TO ACCESS REAR OF INSTALLED EQUIPMENT
	ACCESS	Swinging FRONT DOOR TO ACCESS FRONT OF INSTALLED EQUIPMENT
TELECOMMUNICATIONS		BOTH SECTIONS ABLE TO BE PHYSICALLY LOCKED
ENCLOSURE LAYOUT	RACKING RAILS	EIA-310-D 19" FRONT AND REAR ADJUSTABLE RAILS
STANDARDS		• 12RU (HORIZONTAL DISTRIBUTION ONLY) FOR UP TO 48 WORK AREA OUTLETS (WAOS)
	HEIGHT	26RU (MAIN DISTRIBUTION AREA FUNCTION) FOR UP TO 96 WORK AREA OUTLETS (WAOS)
	WIDTH	24" MINIMUM
	DEPTH	30" MINIMUM
	Mounting	16" ON-CENTER FOR STANDARD STUD CONSTRUCTION
	INPUT POWER	A/B REDUNDANT L5-30 120V 30A CIRCUITS
	UPS	RACK-MOUNTED 2880VA METERED L5-30 INPUT/OUTPUT
		DUAL/DELTA CONVERSION NOT REQUIRED
		CONNECTED TO A-SIDE INPUT POWER CIRCUIT
	RACK POWER DISTRIBUTION	A/B REDUNDANT 1RU HORIZONTAL RACK-MOUNTED PDUS
		• L5-30 INPUT, MINIMUM 8 EACH 5-15R OR 5-20R OUTLETS
	HEAT DISSIPATION	120V FANS
	FIREP BACKBONE	1RU FIBER DISTRIBUTION CABINET
	I IDER DAURDUNE	FLAT CABINET AUTHORIZED
		1RU UTP PATCH PANELS
OUTFITTING OF TES	ING OF TES HORIZONTAL DISTRIBUTION	FLAT PATCH PANELS AUTHORIZED
		MAXIMUM 1 PATCH PANEL FOR 12RU TE, 2 PATCH PANELS FOR 26RU TE
		STANDARD 1RU 48-PORT NETWORK SWITCHES
	I NETWORK SWITCHES	MAXIMUM 1 SWITCH FOR 12RU TE, 2 SWITCHES FOR 26RU TE
		• 120V 15A
	IT EQUIPMENT POWER CORD TYPE	C13 AT IT EQUIPMENT POWER SUPPLY AND NEMA 5-15 AT RACK PDU
		A-SIDE: BLACK
	IT EQUIPMENT POWER CORD	B-SIDE: A DISTINCTLY DIFFERENT COLOR (WHITE OR GRAY PREFERRED)
	COLOR CODE	DIFFERENTIATED BY SOURCE BUS (JACKET OR OTHER MARKING)
		COMPLY WITH ANY ESTABLISHED LOCAL COLOR SCHEMA
	Bonding	STANDARD EQUIPMENT AND INTERCONNECTIONS AS PER A TR AND NETWORK CHANNEL RACK

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Electrical Distribution	DISTRIBUTION PATHS	<ul> <li>Two simultaneously active (A/B) distr</li> <li>UPS on the A side distribution upstread</li> </ul>
	≤96 WAO	TELECOMMUNICATIONS ENCLOSURE (WHEN MEETI
WAUS*	>96	1-RACK TR. SEE THE <u>ISTS</u> AND CONTACT DCIE VAITESEDATACENTERENGINEERING2@VA.GOV
Busbars	PBB, AND SBB	<ul> <li>PROVIDED WITH HOLES FOR USE WITH CORREC</li> <li>COPPER, OR COPPER ALLOYS HAVING A MINIL</li> <li>As specified by the International Anne.</li> <li>MINIMUM DIMENSIONS OF 0.25 IN. THICK X 4</li> <li>MAXIMUM 5.0 Ω TO GROUND SYSTEM RESI- INCLUDING ITEQUIPMENT CHASSIS)</li> </ul>

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	Mounting	19 IN. RACK MOUNT
	AC VOLTAGE INPUT	120V
	CURRENT INPUT	30 A
	CURRENT OUTPUT	30 A
	OUTPUT RECEPTACLE	L5-30R
UPS (IN RACK/	INPUT PLUG	L5-30P
ENCLOSURE)	PHASE TYPE	SINGLE-PHASE
	Connectivity	NETWORK INTERFACE CARD REQUIRED F MONITORING BY THE BAS AND SET FOR BATTERY CONDITIONS
	BATTERY CAPACITY	SUFFICIENT CAPACITY TO PROVIDE MINI CURRENT FULL LOADING LEVELS
	KW RATING	2.88kW

#### ATTRIBUTES FOR TELECOMMUNICATIONS ENCLOSURES NTS

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TRIBUTION FROM DISTRIBUTION PAY REAM OF POWER DISTRIBUTION UN ETING OTHER TE CRITERIA) IE AT OV	velboard It (PDU).	D	Offic	CE OF INF TECHN	ORMATION AND
RECTLY MATCHED LISTED LUGS AN INIMUM OF 95% CONDUCTIVITY WH NEALED COPPER STANDARD (IAC (4 IN. WIDE AND VARIABLE IN LENG ISISTANCE (FROM ANY POINT IN TH	ID HARDWARE HEN ANNEALED S) TH E SYSTEM,		Enti Infr		TA CENTER AND RE ENGINEERING
		С	Ei Infrastr		DATA CENTER DILABORATION TEAM
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D FOR CONNECTION AND FOR ALARMING ON CERTAIN		В			
INMUM 10 MIN RUNTIME AT			MARK	DATE	DESCRIPTION
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	PERFORMANCE CATEGORY	(OS1/OS2 TO BE FIELD SELECTABLE)
	PERFORMANCE SPECIFICATIONS	LASER OPTIMIZED 9/125 $\mu\text{M}$ with effective modal bandwidth of at least 850 MHz·km at 1310 nm
	COMBUSTION RATING	<ul> <li>RISER CABLE FOR VERTICAL RUNS THROUGH FLOORS</li> <li>PLENUM RATED FOR PLENUM SPACES</li> <li>TIGHT-BUFFERED FOR OS1</li> <li>LOOSE-TUBE GEL-FILLED FOR OS2 RISER RATED WHEN USED FOR C INDOOR/OUTDOOR TRANSITION</li> <li>OR AS PER AHJ REQUIREMENT</li> </ul>
	JACKET COLOR	YELLOW
SINGLE MODE FIBER OPTIC	TERMINATION METHOD	FIELD TERMINATED (CONNECTIONS BETWEEN TELECOMMUNICATIONS SPACE
	MEDIA CONNECTOR	LC ON FRONT OF SPLICE CASSETTES
	STRAND COUNT	<ul> <li>12 OR 24 PER ASSEMBLY</li> <li>CONSTRUCTED IN STRAND BUNDLES OF 6 OR 12 FOR COMPATIBILITY SPECIFIED SPLICE CASSETTES</li> </ul>
	CABLE LENGTH	CABLES NOT TO EXCEED 6 FT (2 M) OF EXCESS LENGTH ON EACH END
	Bundling	DIELECTRIC <ul> <li>TIGHT-BUFFERED - ISP USE</li> <li>LOOSE-TUBE GEL-FILLED - OSP USE</li> </ul>
	POLARITY	<ul> <li>STRAIGHT (OR TYPE A-KEY UP ONE END &amp; KEY DOWN ON THE OTHE</li> <li>TYPE B WITH "UNIVERSAL" CASSETTES</li> </ul>
	FORM FACTOR	1RU
	CAPACITY	3-12 CASSETTES
FIBER OPTIC DISTRIBUTION	USER INTERFACES	LC CONNECTORS (6/12 DUPLEX PER CASSETTE)
	BACKBONE INTERFACES	12-STRAND OR 24-STRAND FUSION SPLICED TO SPLICE CASSETTES
	TYPE	051/052 SINGLE MODE TO MATCH MEDIA

FIBER SPECIFICATIONS

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	Attachment	Permanent	
Equipment Labeling	Position	<ul> <li>READILY VISIBLE</li> <li>HORIZONTAL ORIENTATION WHERE FEASIBLE</li> <li>TOP RIGHT CORNER OF EQUIPMENT FACEPLATE WHERE FEASIBLE</li> <li>SHALL NOT INTERFERE WITH OPERATION OF LABELED EQUIPMENT</li> </ul>	
MATERIALS		<ul> <li>APPROPRIATE FOR THE INSTALLATION ENVIRONMENT</li> <li>DURABLE AND PERMANENT</li> <li>HEAT RESISTANT IN HIGH-TEMPERATURE AREAS</li> </ul>	
	COLORATION	NOT SPECIFIED	
	LABEL LOCATION	TOP RIGHT FRONT DOOR, TOP RIGHT BACK DOOR, TOP RIGHT FRONT INSIDE CABINET, TOP RIGHT BACK INSIDE CABINET	
	LABEL LOCATION	BOTH ENDS OF ALL INSTALLED CABLES AND CORDS	
POWER DIGTRIBUTION	COLORATION	FOLLOWING LOCAL SITE SCHEMA	
LABELING	LABEL LOCATION	<ul> <li>BOTH ENDS OF ALL INSTALLED CORDS</li> <li>WITHIN 36 IN. OF LEAVING DISTRIBUTION PANEL ENCLOSURE</li> <li>WITHIN 12 IN. OF THE POINT-OF-USE END OF CONDUIT</li> </ul>	
	COLORATION	NO ENTERPRISE SPECIFICATION IS PRESCRIBED     COLORS SHALL BE USED TO DIFFERENTIATE     ELECTRICAL BUS POWER SOURCES	

	PERFORMANCE CATEGORY	CAT 6/6A (10 GBE)
	CONDUCTOR SIZE	22 AWG 10 24 AWG
UTP Performance Characteristics (Horizontal and First Level Backbone)	TERMINATION METHOD	<ul> <li>PRE-TERMINATED, 8P8C WITH TIA- 568-B TERMINATION METHOD PREFERRED, OR</li> <li>FIELD-TERMINATED WITH TIA-568-B TERMINATION METHOD WHERE</li> </ul>
		DISTANCES CANNOT BE PRECISELY CALCULATED
	TERMINATION METHOD	FACTORY PRE-TERMINATED
ITP PATCH PANELG	PERFORMANCE CATEGORY	САТ 6/6А (10 GBE)
UTI TATUTTANELS	POSITION COUNT	24/48
	FORM FACTOR	• 1RU
		FLAT
	COMPONENTS	KEAK CABLE MANAGER

### LABELING & UTP SPECIFICATIONS

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DEPARTMENT OF VETERANS **A**FFAIRS **OFFICE OF INFORMATION AND** TECHNOLOGY ENTERPRISE DATA CENTER AND INFRASTRUCTURE ENGINEERING EDICT ENTERPRISE DATA CENTER NFRASTRUCTURE COLLABORATION TEAM **PROJECT**: TELECOMMUNICATIONS ENCLOSURE TEMPLATE PROJECT No: NCA DATE DESCRIPTION MARK ISSUE: DRAWING No: TELECOMMUNICATIONS ENCLOSURE STANDARD-NCA 1.5-.VSD FILE: MICHAEL JULIAN, RCDD VERIFIED BY: KELLY BATES; JOHN WERNAU; DESIGN BY: JOSH GARDNE DOC VERSION No: 1.5 ISSUE DATE: DEC 4, 2024 SHEET TITLE ELEVATION FOR 26RU PRIMARY **E**NCLOSURE SHEET: 10 OF 13



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	DESIGN BY: STANDARD-NCA 1.5VSDX MICHAEL JULIAN, RCDD KEVIN GRZEI KA.CTDC				
	VERIFIED BY: KELLY BATES; JOHN WERNAU; JOSH GARDNER				
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