TELECOMMUNICATIONS SYMBOL LEGEND

▼XX	DATA COMMUNICATIONS OUTLET* SUB.TEXT REFERS TO CABLING CONFIGURATIONS REFER TO COMMUNICATIONS DETAIL SHEET		WALL MOUNTED DOUBLE-FACE CLOCK
▼XX	FLUSH FLOOR MOUNT DATA OUTLET* SUB.TEXT REFERS TO CABLING CONFIGURATIONS REFER TO COMMUNICATIONS DETAIL SHEET		CLOCK FLUSH MOUNTED
▽XX	TELECOMMUNICATIONS OUTLET* W-WALL MOUNTED TELEPHONE JACK A - ADMINISTRATIVE TELEPHONE S - STAFF TELEPHONE H - HANDS FREE (WALL MOUNT) PBX - PBX PHONE PI - INMATE TELEPHONE PS - PAY STATION J - JACK ONLY SUB.TEXT REFERS TO CABLING CONFIGURATIONS REFER TO COMMUNICATIONS DETAIL SHEET		COMBINATION P/A SPEAKER AND CLOCK DEVICE TV - CATV
XX	FLUSH FLOOR MOUNT TELEPHONE/INTERCOM OUTLET* SUB.TEXT REFERS TO CABLING CONFIGURATIONS REFER TO COMMUNICATIONS DETAIL SHEET	L	LOCAL ORIGINATION CATV OUTLET
▼XX	DATA AND TELEPHONE COMBINATION OUTLET* SUB.TEXT REFERS TO CABLING CONFIGURATIONS REFER TO COMMUNICATIONS DETAIL SHEET		VIDEO SPLITTER
▼XX	FLUSH FLOOR MOUNT COMBINATION OUTLET* SUB.TEXT REFERS TO CABLING CONFIGURATIONS REFER TO COMMUNICATIONS DETAIL SHEET	M XX	MICROPHONE OUTLET F - FLOOR MOUNT C - CEILING MOUNT
▼XX	CEILING MOUNTED DATA OUTLET* SUB.TEXT REFERS TO CABLING CONFIGURATIONS REFER TO COMMUNICATIONS DETAIL SHEET	AP	WIRELESS ACCESS POINT (DATA DROP AND JACK LOCATION)
XX	FIBER OPTIC CABLE NUMBER OF STRANDS	I XX	INTERCOM STATION F = DOOR FRAME/MULLION MTG. L = LOCAL (STAND-ALONE) M = MASTER STATION P = PEDESTAL MOUNTED V = VIDEO CAPABLE VP = PEDESTAL MOUNTED W/VIDEO # = NUMBER OF BUTTONS NOTE: EXTERIOR STATIONS SHALL BE WEATHERPROOF
S	PUBLIC ADDRESS LOUDSPEAKER A = AUDIO ENHANCEMENT SPEAKER V = VOX CONTROLLED SPEAKER VC = VOLUME CONTROL EQUIPPED SPEAKER		
S E	AUDIO ENHANCEMENT SPEAKER		
S	PUBLIC ADDRESS LOUDSPEAKER HORN TYPE/POLE MOUNTED	NCS	NURSE CALL MASTER STATION
S	PUBLIC ADDRESS LOUDSPEAKER EXTERIOR, FLUSH WALL MOUNTED IN WEATHERPROOF ENCLOSURE	HMI	NURSE CALL TOUCH SCREEN TERMINAL
VC	SPEAKER VOLUME CONTROL DEVICE.	P	NURSE CALL PATIENT STATION
AUX SS	AUXILIARY LOCAL SOUND SYSTEM CONSOLE	N	NURSE CALL EMERGENCY STATION
S S	AUXILIARY LOCAL SOUND SYSTEM SPEAKERS	D	NURSE CALL DUTY STATION
S S S	SOUND SYSTEM SPEAKER, CLUSTER TYPE	N XX	NURSE CALL DOME LIGHT D = CORRIDOR PATIENT ROOM Z = CORRIDOR ZONE
	WIREMOLD RACEWAY (TYPICAL) **	P XX	POWER POLE - DATA SIDE XX - NUMBER OF DROPS
	THROUGH-WALL CONDUIT PENETRATION SLEEVE	ANT	PATIENT WANDERING/EMERGENCY DURESS SYSTEM ANTENNAS
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR	TGB	TELECOMMUNICATIONS GROUNDING BUSBAR

NOTES:

* REFER TO FLOOR PLANS FOR EXACT JACK LOCATION.

* COORDINATE THE INSTALLATION OF ALL DATA COMMUNICATION JACKS WITH THE LOCATION OF ALL 120 VAC CIRCUITS PROVIDED FOR THE PROPER CONNECTION OF ALL COMPUTERS, PRINTERS, COPIERS AND FAX MACHINES.

** REFER TO ELECTRICAL POWER DRAWINGS AND FURNITURE PLANS FOR EXACT DEVICE LOCATIONS.

WIREMOLD RACEWAY AND POWER POLES ARE TO BE PROVIDED BY FURNITURE CONTRACTOR. COORDINATE WITH ELECTRICAL CONTRACTOR AND FURNITURE SYSTEMS PROVIDER FOR ALL INSTALLATION REQUIREMENTS.

THIS IS A STANDARD SYMBOL LIST. ALL SYMBOLS MAY NOT APPEAR ON THIS PROJECT.

GENERAL SYMBOLS LEGEND

PB	OUTDOOR PULLBOX	JB	JUNCTION BOX
	120 VAC EMERGENCY ELECTRICAL DUPLEX OUTLET	J 2	JUNCTION BOX / PULL BOX. STACKED FOR CONNECTION OF CELL EQUIPMENT
	120 VAC EMERGENCY ELECTRICAL QUADRAPLEX OUTLET	RIO	ROUGH IN ONLY
J	120 VAC EMERGENCY ELECTRICAL CONNECTION	#	SPECIFIC CONSTRUCTION ITEM NOTE INDICATOR
	ABOVE GRADE/SLAB HOMERUN		BELOW GRADE/SLAB ENCLOSED IN CONDUIT
	ABOVE GRADE/SLAB HOMERUN ENCLOSED IN CONDUIT	EQ	EQUIPMENT CABINET, RACK OR PANEL GROUND

NOTE:
THIS IS A STANDARD SYMBOL LIST. ALL SYMBOLS MAY NOT APPEAR ON THIS PROJECT.

STANDARD MOUNTING HEIGHTS

CEILING	SPEAKERS, WIRELESS ACCESS POINTS. TV AND LCD PROJECTOR CONNECTIONS
8' A.F.G.	EXTERIOR SPEAKERS,
7'-5" A.F.F.	CLOCKS, COMBINATION CLOCK/SPEAKERS, TRUMPET SPEAKERS
7'-0" A.F.F.	VISUAL NOTIFICATION DEVICES (CENTER OF DEVICE)
5'-6" A.F.F	TOP OF PLYWOOD TELEPHONE BACKBOARD
5'-4" A.F.F.	ANNUNCIATOR PANELS, CONTROL PANELS AND DISPLAYS, TACTILE DISPLAYS
4'-8" A.F.G. MAX.	PEDESTAL MOUNT INTERCOM
4'-0" A.F.F.	"PS" TELEPHONE OUTLETS (TOP OF COIN SLOT) WALL MOUNTED TELEPHONE OUTLETS, INTERCOM STATIONS, CALL STATIONS, RESCUE ASSISTANCE PANELS (CENTER OF DEVICE)
1'-5" A.F.F.	DATA/TELEPHONE JACKS, LOW TELEVISION JACKS, MICROPHONE JACKS
0'-0"	IN FLOOR JUNCTION BOXES FLUSH TO FINISHED FLOOR (FF) (DATA, TELEPHONE, MICROPHONE, MEDIA)

1. IN MASONRY CONSTRUCTION THE MOUNTING HEIGHTS SHALL BE USED FOR REFERENCE TO THE NEAREST BLOCK OR BRICK COURSING.
2. THE ABOVE MOUNTING ELEVATIONS ARE TO CENTER OF DEVICE AND SHALL BE ADHERED TO UNLESS SPECIFICALLY NOTED OR DETAILED OTHERWISE ON THE DRAWINGS AND/OR SPECIFICATIONS.
3. COORDINATE THE INSTALLATION AND MOUNTING ELEVATIONS OF ALL EQUIPMENT, DEVICES, CONTROLS AND APPURTENANCES WITH ARCHITECT AND ALL AFFECTED TRADES PRIOR TO INSTALLATION. DOCUMENT ALL MOUNTING ELEVATIONS FOR ALL EQUIPMENT, DEVICES, CONTROLS AND APPURTENANCES AT THE TIME OF SHOP DRAWING SUBMITTAL.

ABBREVIATIONS

above finished floor	AFF	far end crosstalk	FEXT	National Electric Manufacturer Association	NEMA
above finished grade	AFG	fire alarm	FA	National Electric Code	NEC
accent	ACC	fire alarm annunciator panel	FAAP	Near End Crosstalk	NEXT
adjustable	ADJ	fire alarm control panel	FACP		
alternating current	AC	fire alarm graphic annunciator panel	FAGP	night light	NL
aluminum	AL	fixture	FIXT	normally opened	NO
American wire gauge	AWG	floor	FL	Not Available/Not Applicable	N/A
ammeter	AM	fluorescent	FLOUR	not in contract	NIC
ampere	A/AMP	footcandles	FT	not to scale	NTS
approximately(ly)	APPROX	full load amperes	FLA		
asymmetric	ASY	full voltage non-reversing	FVNR	on center	OC
attenuation/crosstalk ratio	ACR	general contractor	GC	overhead	OH
automatic transfer switch	ATS	generator	GEN	overload heater element	OL
battery	BATT	ground	GND/G	panel	PNL
below finished ceiling	BFC	ground fault interrupter	GFI	pewter	PEW
black	BLK	hand hole	HH	plywood	PLY
bracket	BRKT	heating ventilating air conditioning	HVAC	pole	P
breaker	BKR	hertz	HZ	polyvinyl chloride	PVC
cabinet	CAB	high intensity discharge	HID	potential transformer	PT
cable television	CATV	high power factor	HPF	power panel	PP
ceiling	CLG	high voltage	HV	pull box	PB
circuit	CIR/CKT	horsepower	HP	rapid start	RS
circuit breaker	CB	incandescent	INCAN	receptacle	REC/RECPT
clear	CLR	isolated ground	IG	reflector	REFL
closed circuit television	CCTV	junction box	JB	required	REQD
column	COL	kilovar (reactance)	KVAR	rigid galvanized steel conduit	RGS
communication	COMM	kilovolt ampere	KVA	room	RM
conduit	C	kilowatt	KW	rough in only	RIO
cool white	CW	kilowatt hour meter	KWH	schedule	SCHED/SCH
copper	CU	inverter power supply	IPS	single pole double throw	SPST
current limiting fuse	CLF	light	LT	single pole single throw	SPDT
current transformer	CT	lighting	LTG	solid state ballast	SSB
decibel	DB	lightning arrester	LA	switch	SW
dedicated	DED	low voltage	LV	switchboard	SWBD
diameter	DIA	light emitting diode	LED	switchgear	SWGR
direct current	DC	main circuit breaker	MCB	telephone	TELE
disconnect	DISC	main distribution panel	MDP	transformer	XFMR
distribution panel	DP	main lugs only	MLO	twin tube	TT
double pole double-throw	DPDT	manhole	MH	typical	TYP
downlight	DNLT	manual transfer switch	MTS	Telecommunications Industry Association	TIA
drawing	DWG	manufacturer	MFR	Technical Service Bulletin	TSB
dual element	DE	master antenna television	MATV	twisted shielded pair	TSP
each	EA	mechanical contractor	MC	unshielded twisted pair	UTP
electric water cooler	EWC	medium voltage	MV	Underwriter's Laboratories	UL
electrical	ELEC	metal halide	MH	uninterruptible power supply	UPS
electrical contractor	EC	metal-clad cable	MCC	unless otherwise noted	UON
electrically operated	EO	miscellaneous	MISC	vapor proof	VP
elevator	ELEV	motor circuit protector	MCP	volt	V
emergency	E	motor control center	MCC	voltmeter	VM
energy saving ballast	EMERG	motor operated damper	MOD	warm white	WW
equipment	ESB	mounted	MTD	watt	W
exhaust fan	EQP	mounting height	MTG HT	weatherproof	WP
explosion proof	EF	millimeter	MM	with	W/
Electronics Industry Association	XP	millivolt	MV	within	W/I
	EIA			without	W/O

GENERAL COMMUNICATIONS SYSTEM NOTES:

1. THE FOLLOWING GENERAL NOTES AS LISTED BELOW SHALL APPLY TO ALL COMMUNICATIONS SYSTEM REQUIREMENTS AS INDICATED ON ALL ET SERIES CONTRACT DRAWINGS.
2. DRAWINGS FOR THIS WORK ARE DIAGRAMMATIC AND INTENDED TO CONVEY THE EXTENT, GENERAL ARRANGEMENT AND LOCATIONS OF THE WORK. BECAUSE OF THE SCALE OF THE DRAWINGS, CERTAIN BASIC ITEMS SUCH AS ACCESS PANELS, CONDUITS, CABINET SIZES, PENETRATION SLEEVES, PULL BOXES, BACKBOXES AND JUNCTION BOXES MAY NOT BE SHOWN. INCLUDE ALL ITEMS WHERE REQUIRED BY CODE, MANUFACTURER AND RELATED SPECIFICATION SECTIONS FOR THE PROPER INSTALLATION OF ALL WORK.
3. DUE TO SCALE OF THE DRAWINGS, ALL COMMUNICATIONS DEVICE SYMBOLS ARE SHOWN ON DRAWINGS AS CLOSE AS POSSIBLE TO THEIR INTENDED LOCATION. CONTRACTOR SHALL COORDINATE IN THE FIELD THE PROPER INSTALLATION OF ALL EQUIPMENT, DEVICES, CONTROLS AND CABLING. REFER TO RELATED SPECIFICATION SECTIONS FOR ADDITIONAL REQUIREMENTS.
4. COORDINATE WITH ALL TRADES AND SYSTEM INTEGRATORS ANY CONDITIONS RELATED TO THE INSTALLATION OF ALL SYSTEMS. THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE TRADE ALL INSTALLATION REQUIREMENTS IMPACTING THE PLACEMENT OF ALL SYSTEM COMPONENTS TO THE SATISFACTION OF ALL CONCERNED TRADES.
5. COORDINATE EXACT LOCATION OF ALL DESK OR COUNTER MOUNTED EQUIPMENT WITH OWNER AND ARCHITECT AND ALL AFFECTED TRADES PRIOR TO THE INSTALLATION OF ANY EQUIPMENT AND/OR CABLING.
6. COORDINATE EXACT LOCATION(S) OF ALL CEILING MOUNTED CABLE, CONDUITS, EQUIPMENT AND/OR DEVICES WITH ALL ARCHITECTURAL PLANS, REFLECTED CEILING PLANS AND ALL AFFECTED TRADES PRIOR TO INSTALLATION.
7. COORDINATE EXACT LOCATION(S) OF ALL DATA AND TELEPHONE OUTLETS, ELECTRICAL RECEPTACLES WITH THE ARCHITECTURAL PLANS, FURNITURE PLANS AND ALL AFFECTED TRADES PRIOR TO INSTALLATION.
8. ALL HORIZONTAL CATEGORY 6 UTP CABLE SHALL BE PLENUM RATED CABLE AND SHALL BE BUNDLED AND ROUTED THROUGH THE FACILITY AND SHALL TERMINATE AT THE NEAREST MDF/IDF EQUIPMENT RACKS. ALL HORIZONTAL CABLE BUNDLES SHALL NOT CONTAIN ANY AC CONDUCTING CABLING. ALL HORIZONTAL CABLE DROPS SHALL NOT EXCEED 294' FROM PATCH PANEL TO OUTLET TERMINATION AND SHALL BE TESTED AND CERTIFIED IN ACCORDANCE WITH ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS. REFER TO RELATED SPECIFICATIONS SECTIONS FOR ADDITIONAL INFORMATION.
9. ALL FIBER OPTIC BACKBONE CABLING SHALL BE ROUTED THROUGH THE FACILITY VIA DEDICATED CONDUITS AND VERTICAL PIPES CHASES INSTALLED IN PROTECTIVE INNERDUCT CONDUIT SYSTEM AND AND SHALL TERMINATE AT ALL APPROPRIATE MDF/IDF EQUIPMENT RACKS. THE CONTRACTOR SHALL COORDINATE ALL EQUIPMENT, RACK SPACE REQUIREMENTS, WITH THE APPROPRIATE SYSTEM INTEGRATORS AND ARCHITECT. ALL FIBER OPTIC CABLING SHALL BE TESTED AND CERTIFIED IN ACCORDANCE WITH ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS. REFER TO RELATED SPECIFICATIONS SECTIONS FOR ADDITIONAL INFORMATION.
10. ALL CONDUITS SHALL BE SIZED AND INSTALLED IN ACCORDANCE WITH NFPA 70 AND PROJECT SPECIFICATIONS. ALL CONDUITS SHALL BE A MINIMUM OF 3/4" UNLESS OTHERWISE NOTED.
11. ALL SYSTEM WIRING, CONDUITS AND EQUIPMENT INSTALLATION SHALL BE IN ACCORDANCE WITH GOOD ENGINEERING PRACTICES AND BY ALL IEEE, EIA, NEC AND MANUFACTURER'S REQUIREMENTS. ALL WIRING SHALL COMPLY WITH ALL STATE AND LOCAL ELECTRICAL CODES AND SHALL TEST FREE FROM ALL GROUNDS, SHORTS STRAY VOLTAGES AND EMI.
12. PROVIDE ALL EQUIPMENT CLEARANCES IN ACCORDANCE WITH NEC REQUIREMENTS. ARRANGE EQUIPMENT TO FACILITATE UNRESTRICTED ACCESS FOR MAINTENANCE AND SERVICE AROUND ALL EQUIPMENT, COMPONENTS AND/OR CABLE TERMINATIONS.
13. PROPERLY GROUND ALL EQUIPMENT, RACKS, CABINETS, CONDUITS AND CABLE SHIELDS IN ACCORDANCE WITH ALL REQUIREMENTS OF THE NFPA 70 AND EQUIPMENT MANUFACTURER. ALL EQUIPMENT AND COMMUNICATIONS CIRCUITS SHALL BE PROPERLY SURGE PROTECTED AND GROUNDED TO MINIMIZE DAMAGE DUE TO LIGHTENING STRIKES, SNEAK CURRENTS AND OTHER TRANSIENT VOLTAGE SPIKES. ALL SURGE PROTECTION AND GROUNDING SHALL BE IN ACCORDANCE WITH ALL REQUIREMENTS OF THE EQUIPMENT MANUFACTURER. NEC, IEEE AND TIA/EIA.
14. WHERE EQUIPMENT AND/OR JUNCTION BOXES ARE INSTALLED ABOVE FINISHED CEILINGS, THE CONTRACTOR SHALL PROVIDE ACCESS HATCHES LISTED FOR THE INTENDED APPLICATION. ACCESS HATCHES SHALL BE LOCATED SO THAT SERVICE ACCESS TO THE EQUIPMENT AND/OR JUNCTION BOXES IS UNIMPEDED.
15. ALL PENETRATIONS OF WALLS AND/OR FLOORS SHALL BE FIRE STOPPED IN ACCORDANCE WITH THE ASTM AND NFPA REQUIREMENTS. REFER TO RELATED SPECIFICATION SECTIONS FOR ADDITIONAL INFORMATION. INSTALLATION OF FIRE-STOPS SHALL BE PERFORMED BY AN APPLICATOR/INSTALLER QUALIFIED AND TRAINED BY THE MANUFACTURER. INSTALLATION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH MANUFACTURER'S DETAILED INSTALLATION PROCEDURES.
16. PROVIDE THE PROPER INTERFACES TO BUILDING FIRE ALARM, INTRUSION ALARM AND BUILDING AUTOMATION SYSTEMS IN ACCORDANCE WITH ALL APPLICABLE LIFE SAFETY CODES AND MANUFACTURER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. COORDINATE WITH THE FIRE ALARM SYSTEM PROVIDER FOR ALL REQUIRED SYSTEM INTEGRATION REQUIREMENTS.
17. ALL EQUIPMENT ENCLOSURES LOCATED OUTSIDE OR IN ALL AREAS WITH HIGH MOISTURE OR A RELATIVE HUMIDITY OF 75% OR GREATER SHALL BE NEMA 4X STAINLESS STEEL AND RATED FOR THAT APPLICATION.
18. ALL DEVICES, COMPONENTS OR EQUIPMENT INSTALLED ON THE EXTERIOR OF THE FACILITY SHALL BE PROVIDED IN ACCORDANCE WITH ALL MANUFACTURERS' REQUIREMENTS TO ENSURE THE PROPER OPERATION WHEN EXPOSED TO THE ENVIRONMENTAL CONDITIONS AND/OR AVERAGE ANNUAL LOWEST TEMPERATURE THAT CAN BE ANTICIPATED FOR THE GEOGRAPHIC REGION OF THE FACILITY.
19. ALL INTERIOR AND/OR EXTERIOR COMPONENTS, DEVICES OR SYSTEMS EQUIPMENT EXPOSED TO THE GENERAL POPULATION SHALL BE INSTALLED IN SECURED EQUIPMENT ENCLOSURES WITH TAMPER SWITCHES AND INSTALLED IN SUCH A MANNER THAT RESISTS TAMPERING AND/OR REMOVAL WITHOUT THE USE OF SPECIALIZED TOOLS.
20. FOR EQUIPMENT INSTALLATIONS REQUIRING COORDINATION WITH OTHER TRADES THE CONTRACTOR SHALL PROVIDE ALL TEMPLATES, BACKBOXES AND EQUIPMENT ANCHOR BOLTS FOR MOUNTING OR FLUSH MOUNTING PREPARATION, (E.G. PEDESTALS OR OTHER DEVICES REQUIRING MOUNTING ON WALLS, CONCRETE PADS OR OTHER MATERIALS). COORDINATE DELIVERY OF TEMPLATES AND EQUIPMENT WITH ALL AFFECTED CONTRACTORS.
21. ALL COMMUNICATIONS EQUIPMENT MUST HAVE TRANSIENT SURGE PROTECTION TO COMPLY WITH UL AND NFPA 70 REQUIREMENTS. WHERE ANY CIRCUITS LEAVE THE BUILDING, ADDITIONAL TRANSIENT PROTECTION MUST BE PROVIDED FOR EACH CIRCUIT. ALL TRANSIENT PROTECTION DEVICES MUST BE UL LISTED UNDER STANDARD #497B (ISOLATED LOOP PROTECTORS).
22. REFER TO ALL RELATED CONTRACT DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND/OR REQUIREMENTS RELATED TO THE INSTALLATION, PROGRAMMING, TESTING, COMMISSIONING AND CERTIFICATION OF ALL COMMUNICATIONS SYSTEMS.

NORTH

FULLY SPRINKLERED
ISSUED FOR CONSTRUCTION

Revisions:	Date

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Drawing Title
TELECOMMUNICATIONS SYMBOLS AND NOTES

Approved: Project Director

Project Title:
ERIE VA PHARMACY IV PREP ROOM

Location:
135 EAST 38TH STREET, ERIE, PA 16504

Date: January 17, 2014 | **Checked:** Checker | **Drawn:** Author

Project Number 562-13-105

Building Number

Drawing Number ET001

Dwg. of 9

Office of Construction and Facilities Management
Department of Veterans Affairs

VA FORM 08-6231