



Empire Residences

**7695 Village Way
Park City
Utah
84060**

AUDIO		
SYMBOL	DESCRIPTION	INFRASTRUCTURE WIRE
AUDIO DEVICES		
	6" In Ceiling Speaker Location	1- 16/2 Speaker Cable 1- 6" Surface Round Speaker Ring Align With Lighting Fixtures, Evenly Spaced In Room
	6" Blind Wire In Ceiling Speaker	1- 16/2 Speaker Cable Buy Speaker Cable Behind Drywall Align With Lighting Fixtures, Evenly Spaced In Room
	6" In Ceiling Speaker w/ Dual Voice Coil	1- 16/2 Speaker Cable 1- 6" Surface Round Speaker Ring Align With Lighting Fixtures, Evenly Spaced In Room
	8" In Ceiling Speaker	1- 16/2 Speaker Cable 1- 8" Surface Round Speaker Ring Align With Lighting Fixtures, Evenly Spaced In Room
	8" Blind Wire In Ceiling Speaker	1- 16/2 Speaker Cable Buy Speaker Cable Behind Drywall Align With Lighting Fixtures, Evenly Spaced In Room
	8" In Ceiling Speaker w/ Dual Voice Coil	1- 16/2 Speaker Cable 1- 8" Surface Round Speaker Ring Align With Lighting Fixtures, Evenly Spaced In Room
	Outdoor Speaker	1- 16/2 Speaker Cable Sub Wire 6" Zin To A Staple Near The Exit Point Try To Align With Outdoor Lighting Fixtures
	Outdoor Speaker w/ Dual Voice Coil	1- 16/2 Speaker Cable Sub Wire 6" Zin To A Staple Near The Exit Point Try To Align With Outdoor Lighting Fixtures
	6" In Wall Speaker	1- 16/2 Speaker Cable 1- 6" Surface Rectangular Speaker Ring Spread Out In Room, Height Determined By Room Layout
	8" In Wall Speaker	1- 16/2 Speaker Cable 1- 8" Surface Rectangular Speaker Ring Spread Out In Room, Height Determined By Room Layout
	In Wall Subwoofer	1- 16/2 Speaker Cable 1- 6" Surface Rectangular Speaker Ring Or Back Box Mount Ring 6" Above Floor, or But Box To Bottom Plate Of Wall
	In Ceiling Subwoofer	1- 16/2 Speaker Cable 1- 6" Surface Round Speaker Ring Or Back Box Mount Ring 6" Above Floor, or If Used For A Surround Sound, Place Near Fronts
	6" Theater In Wall Speaker	1- 16/2 Speaker Cable 1- Check Projector PD - Speaker Ring / Back Box See Plans For Specifications & Layout
	8" Theater In Wall Speaker	1- 16/2 Speaker Cable 1- Check Projector PD - Speaker Ring / Back Box See Plans For Specifications & Layout
	Box Subwoofer	1- 16/2 Speaker Cable 1- Black RGB Quad Coax Single Gang Backless Mud Ring Match Outlet Height With Electrical
	Box Speaker	1- 16/2 Speaker Cable Single Gang Backless Mud Ring Match Outlet Height With Electrical
	Landscape Speaker System	2- 16/2 Speaker Cable Single Gang Backless Mud Ring Match Outlet Height With Electrical
	Landscape Rock Speaker	1- 16/2 Speaker Cable Single Gang Backless Mud Ring Match Outlet Height With Electrical
	Soundbar Speaker	3- 16/2 Speaker Cable Use Same Single Gang Backless Mud Ring As RTV Outlet
VIDEO		
SYMBOL	DESCRIPTION	INFRASTRUCTURE WIRE
VIDEO & DISPLAY DEVICES		
	Remote Television Location (RTV)	1- Purple CAT5e, 1- Green CAT5e, 1- Blue CAT6, 1- Black RGB Quad Coax 1- Single Gang Backless Mud Ring @ 60° To Center
	Local Source Location	1- Purple CAT5e, 1- Green CAT5e, 1- Blue CAT6, 1- White RGB Quad Coax 1- Single Gang Backless Mud Ring Match Outlet Height With Electrical
	Projector Location	1- ControlSurf Table Top, 1- Purple CAT5e, 1- Green CAT5e, 1- Blue CAT6, 1- Black RGB Quad Coax 1- Single Gang Backless Mud Ring, Center On Screwwall @ Second Distance
	Motorized Projection Screen	1- Purple CAT5e, 1- Green CAT5e Reference Wiring Plans for Infrastructure Specifications
	Satellite 6 Location	6- Black RGB Quad Coax, 2 Blue CAT5e, 1- 16/2 Speaker Cable, Location TBD On-Site With Contractor
	Phone / Cable D-Mark Location	1- Purple CAT5e, 1- Green CAT5e Reference Wiring Plans for Infrastructure Specifications
	Closed Circuit Television Location (CCTV)	1- Purple CAT5e, 1- Green CAT5e Reference Wiring Plans for Infrastructure Specifications
VOICE & DATA		
SYMBOL	DESCRIPTION	INFRASTRUCTURE WIRE
VOICE/DATA DEVICES		
	Wall Phone Location	1- White CAT5e 1- Single Gang Backless Mud Ring @ 60° To Center
	Phone and Data Location	1- White CAT5e, 1- Blue CAT5e 1- Single Gang Backless Mud Ring, Match Outlet Height WI Electrical
	Wireless Voice or Data Device (Type: Cell, DECT, Wi-Fi)	1- White CAT5e, 1- Blue CAT5e 1- Single Gang Backless Mud Ring @ 90° To Center
	Floor Phone and Data Location	1- White CAT5e, 1- Blue CAT5e 1- Single Gang Backless Mud Ring, Match Outlet WI Electrical Floor Box
	Data Location	1- White CAT5e 1- Single Gang Backless Mud Ring, Match Outlet Height WI Electrical
	Phone Location	1- White CAT5e 1- Single Gang Backless Mud Ring, Match Outlet Height WI Electrical

CONTROL & USER INTERFACES		
SYMBOL	DESCRIPTION	INFRASTRUCTURE WIRE
CONTROL DEVICES		
	Touchpanel	1- Pink CAT5e, 1- Gray CAT5e 1- Single Gang Backless Mud Ring @ 60° To Center Screw The Mud Ring Into The Side Of The Stud
	Door Station	1- White CAT5e, 1- Blue CAT5e 1- Single Gang Backless Mud Ring @ 60° To Center
	Volume Control	1- 16/2 Speaker Cable Speakers Must Loop Through, Volume Control Location 1- Single Gang Backless Mud Ring @ 60° To Center Screw The Mud Ring Into The Side Of The Stud
	Keypad	1- Pink CAT5e, 1- Gray CAT5e 1- Single Gang Backless Mud Ring @ 60° To Center Screw The Mud Ring Into The Side Of The Stud
	Lighting Keypad	Reference Wiring Plans for Infrastructure Specifications
	Lighting Integration	1- White CAT5e, 1- Blue CAT5e 1- Single Gang Backless Mud Ring Reference Plans For Location
	HVAC Integration	1- White CAT5e, 1- Blue CAT5e 1- Single Gang Backless Mud Ring Reference Plans For Location
	Security Integration	1- White CAT5e, 1- Blue CAT5e 1- Single Gang Backless Mud Ring Reference Plans For Location
	Pool/Spa Integration	1- White CAT5e, 1- Blue CAT5e 1- Single Gang Backless Mud Ring Reference Plans For Location
	TP Touch Panel	Not Applicable
	TP Touch Panel - Tabletop Location	Reference Wiring Plans for Infrastructure Specifications
	TP Touch Panel - In-Wall Location	Reference Wiring Plans for Infrastructure Specifications
	Remote Control - Hand-Held	Not Applicable
	Wireless - Control Device (Type: RF, Zigbee)	Reference Wiring Plans for Infrastructure Specifications
LIGHTING & CLIMATE CONTROL		
SYMBOL	DESCRIPTION	INFRASTRUCTURE WIRE
LIGHTING DEVICES		
	Keypad - In-Wall Location (Type: KP, LT, SH, CL)	Reference Wiring Plans for Infrastructure Specifications
	Wireless Keypad - In-Wall Location (Type: KP, LT, SH, CL)	Not Applicable
	Keypad - Table Top Location (Type: KP, LT, SH, CL)	Reference Wiring Plans for Infrastructure Specifications
	Wireless Keypad - Table Top Location (Type: KP, LT, SH, CL)	Not Applicable
	Dimmer	Wiring Provided and Installed by Electrician
	Wireless Dimmer	Not Applicable
	Switch	Wiring Provided and Installed by Electrician
	Wireless Switch	Not Applicable
	Fan Control	Wiring Provided and Installed by Electrician
	Wireless Fan Control	Not Applicable
	Occupancy Sensor	Reference Wiring Plans for Infrastructure Specifications
	Motorized Shade or Blind (Type: DRM, SH-M)	Reference Wiring Plans for Infrastructure Specifications
	Wireless - Lighting Device	Reference Wiring Plans for Infrastructure Specifications
CLIMATE DEVICES		
	Thermostat	Reference Wiring Plans for Infrastructure Specifications
	Temperature Sensor	Reference Wiring Plans for Infrastructure Specifications
	Temperature Sensor - Outdoor	Reference Wiring Plans for Infrastructure Specifications

SECURITY		
SYMBOL	DESCRIPTION	INFRASTRUCTURE WIRE
SECURITY DEVICES		
	Security Keypad	1- 22/4 Security Cable 60° To Center Align With Light Switches
	Siren	1- 22/4 Security Cable 90° To Center Align With Light Switches
	Door Contact	1- 22/4 Security Cable Locate Inside Door Frame
	Window Contact	1- 22/4 Security Cable Locate Inside Window Frame
	Smoke Detector	1- 18/4 Fire Cable Align With Lighting
	Carbon Monoxide (CO) Detector	1- 18/4 Fire Cable Outlet Height Align With High Voltage
	Corner Motion Detector	1- 22/4 Security Cable 60° To Center Place In Corner
	Overhead Door Contact	1- 22/4 Security Cable 60° To Center Place Near Overhead Garage Door
	Flush Mount Motion Sensor	1- 22/4 Security Cable 75° To Center See Plans For Location
	Ceiling Mount Motion Sensor	1- 22/4 Security Cable Align With Lighting
	Freeze Sensor	1- 22/4 Security Cable Outlet Height See Plans For Placement
	Flood Sensor	1- 22/4 Security Cable Outlet Height See Plans For Placement
	Flow Valve Sensor Connection	1- 18/4 Fire Cable See Plans For Placement Align With High Voltage
	Glass Break Sensor	1- 22/4 Security Cable Align With Lighting
	Wireless Receiver	1- 22/4 Security Cable 60° To Center Align With Light Switches
	RS-232 Module	1- White CAT5e Cable Run From Home Automation System To Security Panel
	Security Panel / Security Head End	See Plans For Placement Align Security Panel Top To Electrical Panel
	Security Expansion Panel	See Plans For Placement Align Expansion Panel Above Or Below Security Panel

MISCELLANEOUS		
SYMBOL	DESCRIPTION	INFRASTRUCTURE WIRE
MISCELLANEOUS DEVICES		
	Satellite Dish	Reference Wiring Plans for Infrastructure Specifications
	Antenna (Any Type)	Reference Wiring Plans for Infrastructure Specifications
INFRASTRUCTURE ANNOTATIONS (WIRE TAG)		
	WIRE-TYPE (INDEX)	
	WIRE-D	
	WIRE-DESTINATION	
	CONDUIT-MATERIAL	
	CONDUIT-CONNECTOR (REDUCE)	
	CONDUIT-DIAMETER	
CONDUIT CALLOUTS & ANNOTATIONS		
	PVC	
	RWB	
	COPPER	
TECHNICAL POWER CALLOUTS & ANNOTATIONS		
	ELECTRICAL OUTLET	Typical - 120V Duplex Isolated Ground - NEMA 5-15R or 5-20R Wiring Provided and Installed by Electrician
	ELECTRICAL GND	Typical - 120V Quad Isolated Ground - NEMA 5-15R or 5-20R Wiring Provided and Installed by Electrician
	ELECTRICAL OUTLET ON CIRCUIT	

LOCATIONS & DESTINATIONS		
SYMBOL	DESCRIPTION	INFRASTRUCTURE WIRE
ELECTRONIC DEVICE CENTERS		
	Text	Text Varies based on Designation Reference Wiring Plans for Infrastructure Specifications
DESIGNATION		
MF	MAIN DISTRIBUTION FRAME	
IF	INTERMEDIATE DISTRIBUTION FRAME	
LIC	LOCAL EQUIPMENT CENTER	
HE	HEAD EQUIPMENT PANEL	
MBL	MINIMUM POINT OF ENTRY (POINT OF DEMARQUE FOR OUTSIDE SERVICE PROVIDERS)	
PE	PULL BOX	
COB	CONDUIT COLLECTION BOX	

SCHEMATIC KEY		
LINE FIELD	DESCRIPTION	



JACK & CONNECTOR LEGEND

Universal Jack Definition

The diagram shows a 'Universal' jack symbol connected to four colored lines representing different wire counts:

- Blue line: RG6Q Coaxial Wire Count
- Green line: Category 6a Wire Count
- Red line: Category 6 Wire Count
- Yellow line: Category 5e Wire Count

1 PORT

2 PORT

3 PORT

4PORT

6 PORT

Category 5e Jacks

	U1000	U2000	U4000	U6000
CAT5e				
Blank				

Category 6 / Category 6a Jacks

	U0100 / U0010	U0200 / U0020	U0400 / U0040	U0600 / U0060
CAT6 / CAT6a				
Blank				

Combination Jacks – Category 5e / Category 6 / Category 6a

	U1100 / U1010	U2200 / U2020	U3300 / U3030
CAT5e			
CAT 6 / CAT6a			

Coaxial Jacks

	U0001	U0002	U0004	U0006
RG6Q				

Combination Jacks – Category 5e / Coaxial

	U1001	U2001	U2002	U4002
CAT5e				
RG6Q				

Combination Jacks – Category 6 / Category 6a / Coaxial

	U0101 / U0011	U0201 / U0021	U0202 / U0022	U0402 / U0042
CAT6 / CAT6a				
RG6Q				

Combination Jacks – Category 5e / Category 6 / Category 6a / Coaxial

	U1101 / U1011	U1102 / U1012	U220 / U202
CAT5e			
CAT6 / CAT6a			
RG6Q			

AUDIO VIDEO TECHNICAL POWER WIRING GUIDELINES

GENERAL NOTES & DIAGRAM:

- ALL ISOLATED GROUND A/V RECEPTACLES MUST MOUNT IN METAL BOXES
- A/V CONDUCTORS MAY ONLY BE SHARED IN THE MANNER INDICATED ON THIS DRAWING
- ALL A/V BRANCH CIRCUIT CONDUCTORS SHALL BE AT LEAST 12 AWG OR LARGER
- ALL CIRCUIT BREAKERS USED FOR A/V BRANCH CIRCUITS SHALL BE RATED AT 20A OR LARGER
- A/V BRANCH CIRCUITS REQUIRING 208 AND 240 VOLTS SHALL ALSO USE ISOLATED GROUND RECEPTACLES AND BE WIRED IN A MANNER CONSISTENT WITH THE METHODS SHOWN ON THIS DRAWING

SERVICE PANELBOARD

GROUNDED SERVICE CONDUCTORS
L1, L2, N

PHASE CONDUCTORS

NEUTRAL CONDUCTOR

INSULATED EQUIPMENT GROUNDING CONDUCTOR (CU);
MAKES SAME AWG AS NEUTRAL CONDUCTOR

THIS TERMINAL BLOCK MUST BE PROMINENTLY LABELED:
"TECHNICAL EQUIPMENT GROUND"

GND

GNDING ELECTRODE CONDUCTOR (CU):
MAKES SAME AWG AS GROUNDED SERVICE CONDUCTOR

GROUNDED ELECTRODE

A/V SUBPANEL WITH ISOLATED EQUIPMENT GROUNDS

20A, 20A, 20A, 30A

TYPICAL DEDICATED ISOLATED GROUND A/V BRANCH CIRCUIT
DISPLAY: NEMA 5-20R (IG)

USE NO MORE THAN ONE 5-20R RECEPTACLES PER
DEDICATED A/V CIRCUIT

TYPICAL ISOLATED GROUND A/V BRANCH CIRCUIT
FOR LOCAL EQUIPMENT CENTERS (LEC)
WITH EQUIPMENT PLUS DISPLAY
EQUIPMENT: NEMA 5-20R (IG)
DISPLAY: NEMA 5-15R (IG)

USE NO MORE THAN FOUR 5-15R AND ONE 5-20R RECEPTACLES
PER A/V LEC BRANCH CIRCUIT

TYPICAL ISOLATED GROUND A/V BRANCH CIRCUIT
15A A/V RECEPTACLE: DUPLEX NEMA 5-15R (IG)
USE NO MORE THAN FOUR 5-15R RECEPTACLES PER A/V BRANCH CIRCUIT

TRACKING TVSS

INSULATED TERMINAL BLOCK

INSULATED EQUIPMENT GROUNDING CONDUCTORS (CU)

CATV SERVICE GROUNDING BLOCK

SATELLITE DISH GROUNDING BLOCK

TECHNICAL POWER LEGEND

Dedicated Outlets (Circuits)

15 AMP

DUPLEX

15 AMP

QUAD

20 AMP

DUPLEX

20 AMP

QUAD

GENERAL NOTES

AUDIO VIDEO SYSTEMS, INC.	
REGIONAL OFFICE	
ADDRESS: 390 West 6500 South Murray, Utah 84107	
PHONE: 801-649-5200	
WEBSITE: www.avsutah.com	
AVS PROJECT TEAM	
SYSTEM DESIGNER:	
PROJECT MANAGER:	
LEAD TECHNICIAN:	
TECHNOLOGY ADVISOR:	

Empire Residences		AUDIO VIDEO SYSTEMS	#	REVISION	DATE
7695 Village Way Park City Utah		390 WEST 6500 SOUTH MURRAY, UTAH 84107 OFFICE (801) 649 - 5200 FAX (801) 255-5039	84060	3	2700 HOMESTEAD RD. #10 PARK CITY, UTAH 84098 (844) 649 - 5200
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Wall Plate Elevation			3		
DATE					4/3/2020
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AUDIO VIDEO SYSTEMS

**390 WEST 6500 SOUTH
MURRAY, UTAH 84107
OFFICE (801) 649 - 5200
FAX (801) 255-5039**

**2700 HOMESTEAD RD. #10
PARK CITY, UTAH 84098
(844) 649 - 5200**

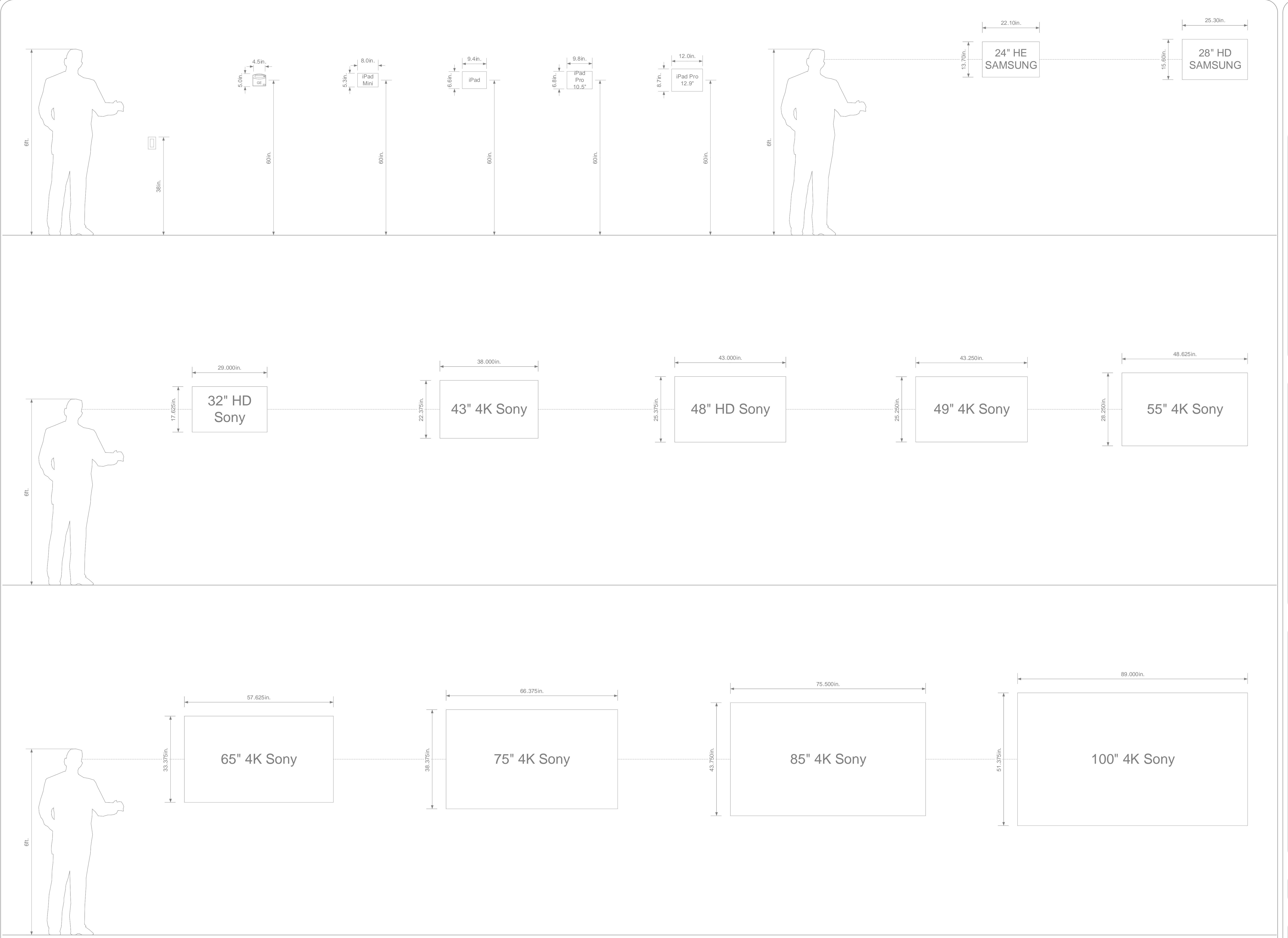
Empire Residences

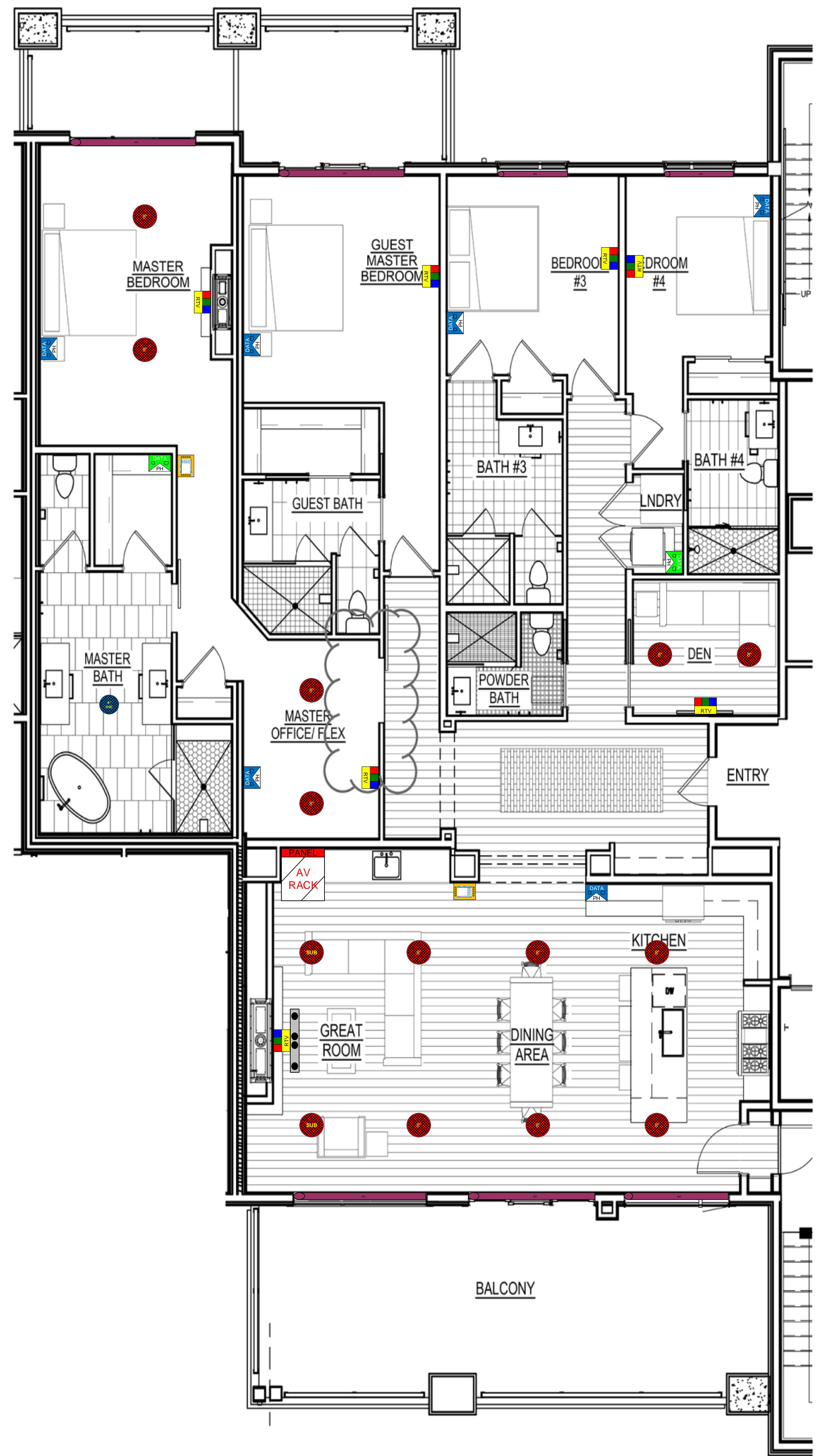
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Empire Residences 7695 Village Way Park City Utah 84060		
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