Federal Way Washington Stake Spring 2026 Stake Conference and RS Broadcast Technology Plan

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Requirements

Standing orders
- Technology is to be as invisible as possible to not distract from the spirit
- Everything should be tested ahead of time
- Technology is an aid, if something fails the meeting will continue.

Leadership Session
- Lavalier Mic for GA
- Two Hand Mics for audience members
- Projector
- Option 1 - laptop computer display of slides and video from front of rostrum
- Option 2 - display of slides from AV booth
- Monitors on Stand

Adult Session
- Lavalier Mic for GA
- Two Hand Mics for audience members
- Projector
- Option 1 - laptop computer display of slides and video from front of rostrum
- Option 2 - display of slides from AV booth
- HD Camera video of speakers
- Monitors on Stand, Cultural Center, and Children's Meeting Room.
- Zoom of Adult Session. Links available on http://federalwaystake.net, https;//broadcasts.churchofjeuschrist.org and via the Stream app. On website include dial in link.
- Translation (Korean, Spanish, Samoan, French) to local transmitters covering chapel and cultural center, Zoom Interpretation.
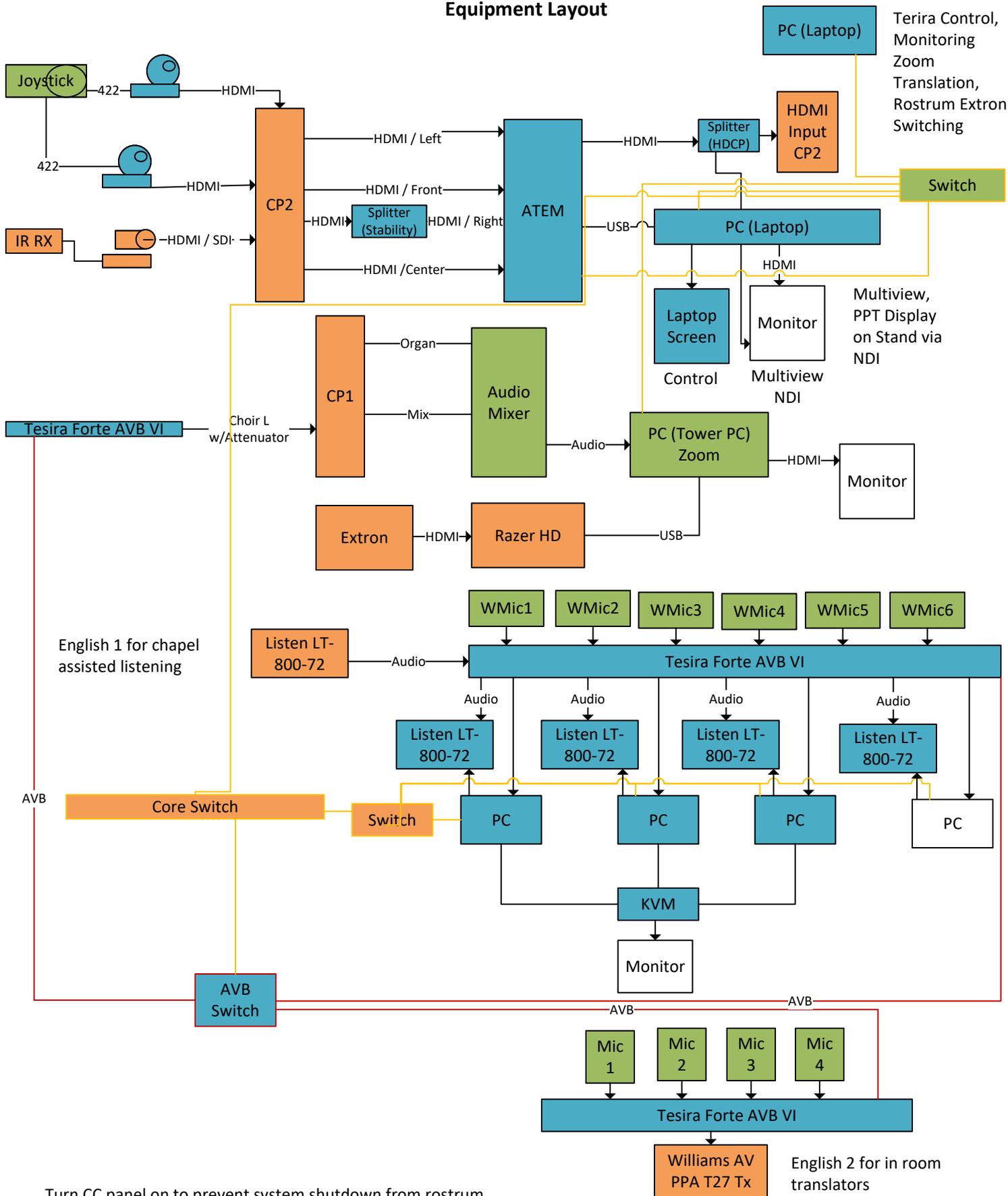
General Session
- HD Camera video of speakers
- Monitors on Stand, Cultural Center, and Children's Meeting Room.
- Zoom of General Session. Links available on http://federalwaystake.net, https;//broadcasts.churchofjeuschrist.org and via the Stream app. On website include dial in link.
- Translation (Korean, Spanish, Samoan, French) to local transmitters covering chapel and cultural center, Zoom Interpretation.
- Relief Society Room Display – Parents with children
- Family Search Room – Zoom session displayed on monitors. Calm environment.
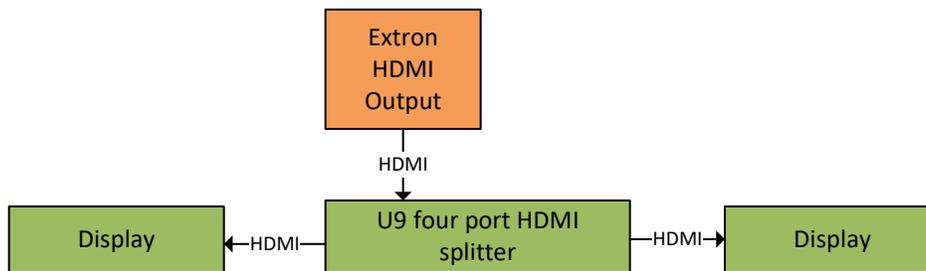
Relief Society Worldwide Broadcast
- Projector
- Monitors on Stand, Children's Meeting Room.
- Translation (Korean, Spanish, Samoan, French) to local transmitters covering chapel and cultural center.
- Simultaneous playback of pre-recorded message in English, Korean, Samoan, French
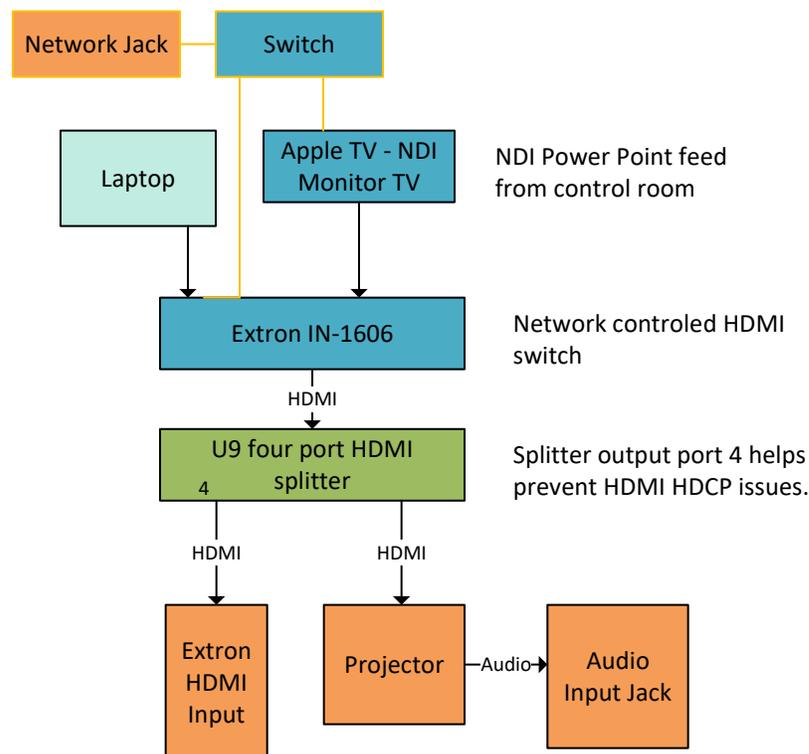
Equipment Layout

Designed by David Swartz for Federal Way Washington Stake March 2026

Rostrum Display Detail

```
        ┌──────────────┐
        │   Extron     │
        │   HDMI       │
        │   Output     │
        └──────┬───────┘
               │ HDMI
               ▼
┌──────────┐ ◄─HDMI─ ┌──────────────────┐ ─HDMI─► ┌──────────┐
│ Display  │         │ U9 four port HDMI│         │ Display  │
│          │         │     splitter     │         │          │
└──────────┘         └──────────────────┘         └──────────┘
```

This is program output for those seated on the stand.

Rostrum Projection Detail

```
┌──────────────┐  ┌──────────────┐
│ Network Jack │──│    Switch    │
└──────────────┘  └──────┬───────┘
                         │
┌──────────────┐  ┌──────────────────┐
│              │  │ Apple TV - NDI   │   NDI Power Point feed
│   Laptop     │  │  Monitor TV      │   from control room
│              │  │                  │
└──────┬───────┘  └────────┬─────────┘
       │                   │
       ▼                   ▼
      ┌───────────────────────────┐
      │      Extron IN-1606       │   Network controled HDMI
      │                           │   switch
      └─────────────┬─────────────┘
                    │ HDMI
                    ▼
      ┌───────────────────────────┐
      │    U9 four port HDMI      │   Splitter output port 4 helps
      │  4      splitter          │   prevent HDMI HDCP issues.
      └──────┬──────────────┬─────┘
             │ HDMI         │ HDMI
             ▼              ▼
      ┌──────────┐   ┌───────────┐ ─Audio─► ┌───────────┐
      │ Extron   │   │ Projector │          │  Audio    │
      │ HDMI     │   │           │          │ Input Jack│
      │ Input    │   │           │          │           │
      └──────────┘   └───────────┘          └───────────┘
```
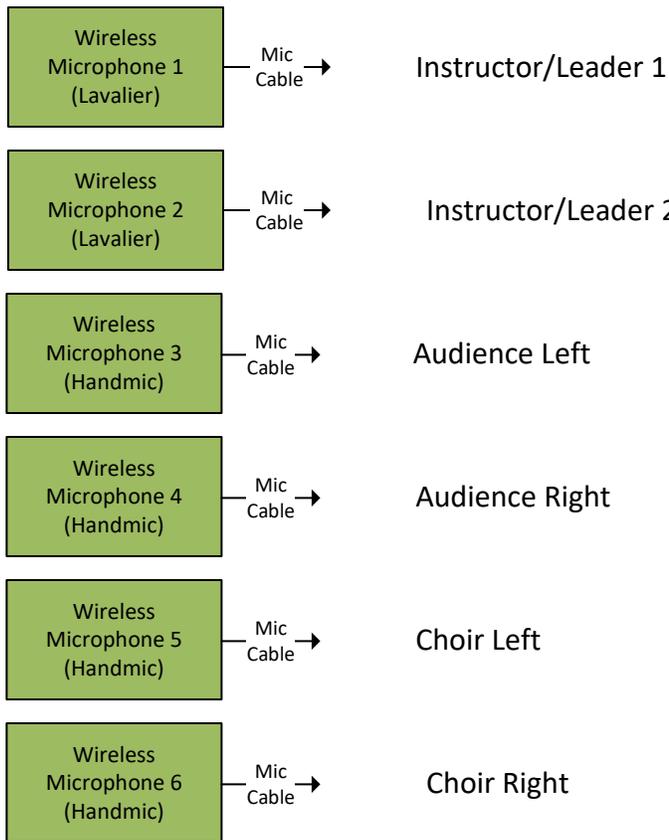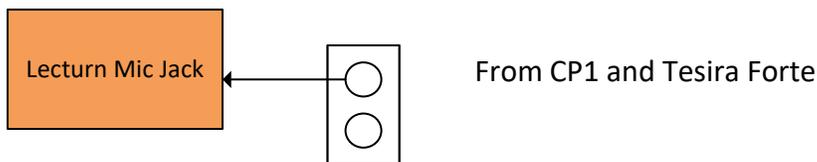
Notes:

- Projector audio volume is set to 100%
- Congregation audio is set using knob on audio input jack.
- While HDMI Audio input is possible, direct wiring from projector to audio input jack is more robust and gives presenter audio volume control from the stand as well as when teaching from in front of rostrum
- Discreetly route cables and secure with Gaffers tape.
- Place power strips under children's stool and place equipment on top of children's stool to keep off floor and reduce likelihood of it being stepped on.
- Cover electronics with black cloth to reduce distractions to speakers / leaders seated on rostrum.
- Test everything ahead of time.
- Technology is to be as invisible as possible.

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Wireless Microphones Chapel

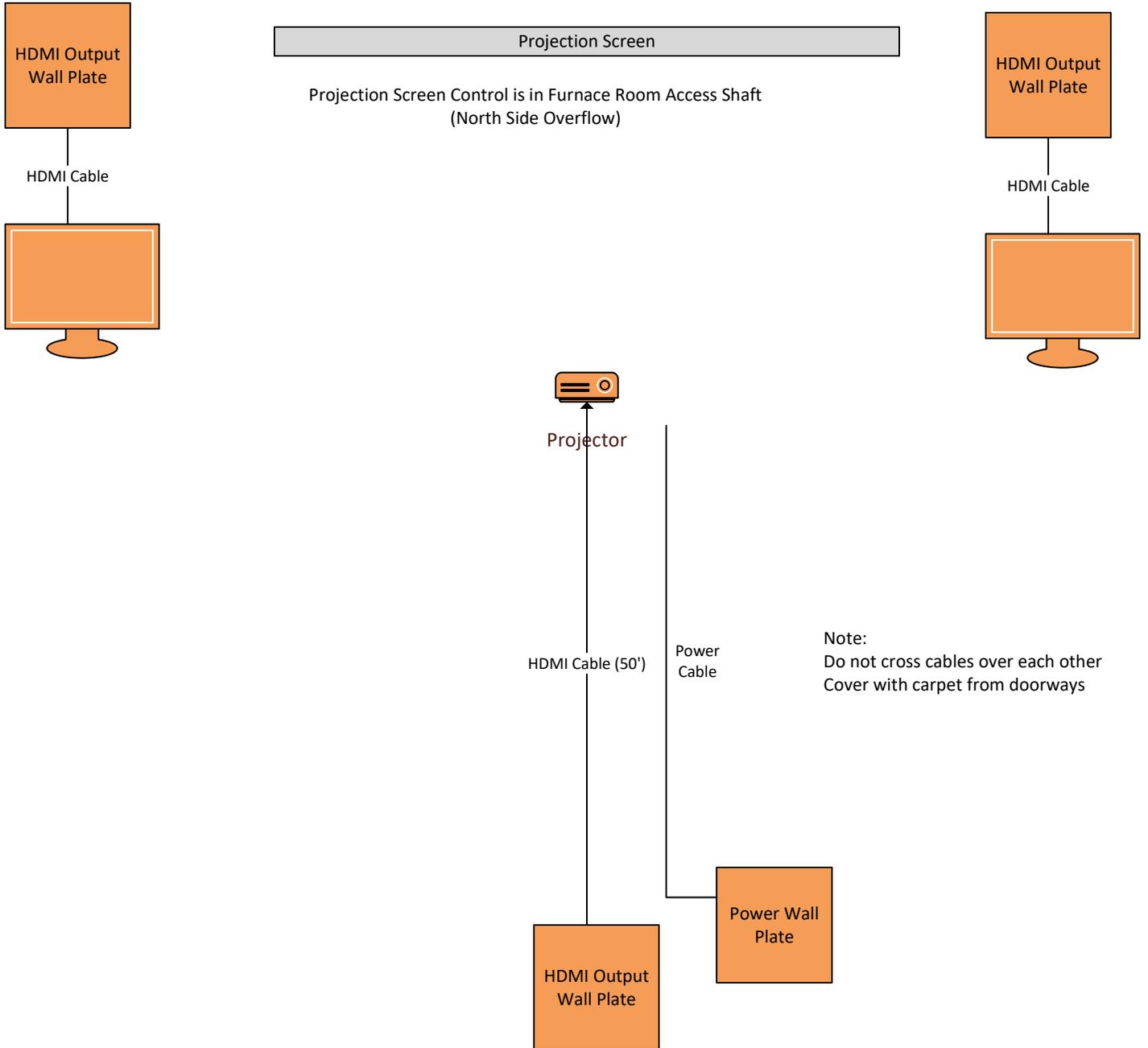|		
Wireless Microphone 1 (Lavalier)	Mic Cable →	Instructor/Leader 1
Wireless Microphone 2 (Lavalier)	Mic Cable →	Instructor/Leader 2
Wireless Microphone 3 (Handmic)	Mic Cable →	Audience Left
Wireless Microphone 4 (Handmic)	Mic Cable →	Audience Right
Wireless Microphone 5 (Handmic)	Mic Cable →	Choir Left
Wireless Microphone 6 (Handmic)	Mic Cable →	Choir Right

All wireless mic inputs connect to TesiraForte in Mezzanine (Note: Chapel only has three microphone input jacks, GA's requested more mics that available jacks)
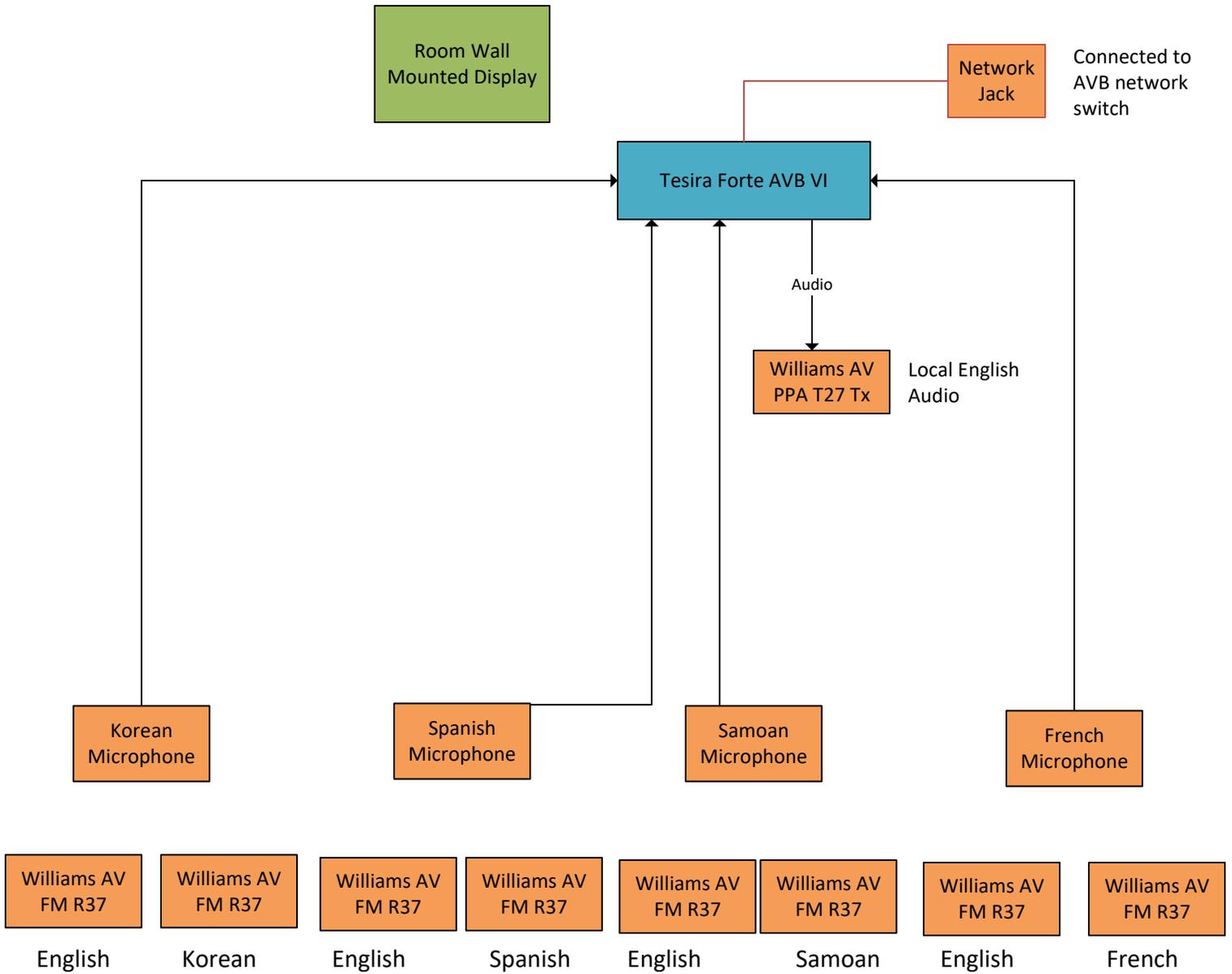
Audio Injection

Lecturn Mic Jack ← From CP1 and Tesira Forte

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Cultural Center

HDMI Output
Wall Plate

Projection Screen

Projection Screen Control is in Furnace Room Access Shaft
(North Side Overflow)

HDMI Output
Wall Plate

HDMI Cable

HDMI Cable

Projector

HDMI Cable (50')

Power
Cable

Note:
Do not cross cables over each other
Cover with carpet from doorways

HDMI Output
Wall Plate

Power Wall
Plate

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**Childrens Meeting Room
Used for Translation**

Room Wall
Mounted Display

Network
Jack

Connected to
AVB network
switch

Tesira Forte AVB VI

Audio

Williams AV
PPA T27 Tx

Local English
Audio

Korean
Microphone

Spanish
Microphone

Samoan
Microphone

French
Microphone

Williams AV FM R37	Williams AV FM R37	Williams AV FM R37	Williams AV FM R37	Williams AV FM R37	Williams AV FM R37	Williams AV FM R37	Williams AV FM R37
English	Korean	English	Spanish	English	Samoan	English	French

One receiver is used to listen to local English transmitter. Second receiver is to listen to their own translation to verify operation and receive feedback.

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Frequency Plan

Frequency	Listen	Williams	Comtek	Use
72.1000	A	A	A (1)	English
72.2000	K	K		
72.3000	B	B	B (2)	English (Secondary)
72.4000	N	N		
72.5000	C	C	C (3)	
72.6000	O	O		French
72.7000	D	D	D (4)	
72.8000	P	P		
72.9000	E	E	E (5)	
74.7000	I	I	I (9)	Korean
75.3000	J	J	J (10)	
75.4000	R	R		
75.5000	F	F	F (6)	
75.6000	S	S		
75.7000	G	G	G (7)	Samoan
75.8000	T	T		
75.9000	H	H	H (8)	Spanish

William AV 8 Channel Freq Plan

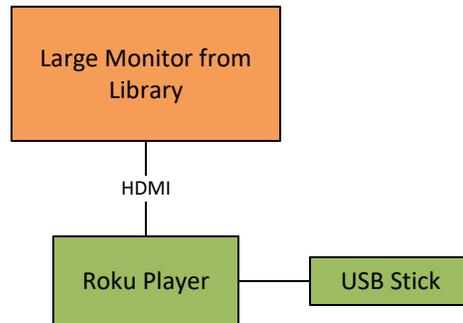| Freq (MHz)	Letter	8 Ch	17 Ch
72.1	A	1	1
72.2	K		10
72.3	B	2	2
72.4	N		11
72.5	C		9
72.6	O	3	3
72.7	D		12
72.8	P	4	4
72.9	E		13
74.7	I	5	5
75.3	J		14
75.4	R	6	6
75.5	F		17
75.6	S		15
75.7	G	7	7
75.8	T		16
75.9	H	8	8

6 Transmitters in use.

To avoid interference from overlapping frequency ranges we used an adaptation of the Williams AV 8 channel frequency plan with consideration of which channels were supported by all three major manufacturers.

English (Secondary) was for use by translators to monitor the chapel since English was out of range.

It is critical that all receivers are tested ahead of time to make sure that they are programed to the correct frequency. This frequency may be different from the frequency used in their usual building. Prepare an audio track in the various languages that can be played back before the meeting to aid in frequency identification.

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Information Kiosk

```
          ┌─────────────────────┐
          │  Large Monitor from │
          │       Library       │
          └─────────────────────┘
                     │
                   HDMI
                     │
          ┌──────────────┐       ┌──────────────┐
          │  Roku Player │───────│  USB Stick   │
          └──────────────┘       └──────────────┘
```

Prepare three slides
- Leadership Session
- Adult Session
- General Session.
- Place South Foyer on right side of door to chapel
- Include instructions on special accommodations such as where to checkout ALS receivers, receivers for translation, and where to find event support staff.
- Have ushers assigned ahead of time to assist members so technology staff are not encumbered with that role.

Security Plan

- Exterior doors to Stake Suite are to be locked during conference.
- Doors adjacent to South and West parking lot are to be unlocked (3) all other doors are to be locked.
- Ushers are to monitor South and West parking lot doors to Stake Center
- Ushes are to monitor all chapel doors and cultural center doors within building.
- All valuable equipment (Microphones, Audio processors, Projectors, Translation, etc.) are to be secured in locked rooms within building or removed from building at night.
- Cables and power supplies can be left in place to aid in setup between conference days.

Receiver and Headset Distribution

- Each unit is to bring their portable translation case to the Adult and General Sessions of conference.
- Distribution location will be a table in North foyer.
- Prior to conference all receivers will be checked to ensure that they are on the correct frequency.
- Each ward/branch is to provide a member to manage the distribution and collection of receivers from their members.
- At the conclusion of conference the ward/branch is responsible for packing up their case and returning it to their building.
- Assisted Listening devices will be issued by the Stake Technology team as needed.

Relief Society Broadcast Special Setup
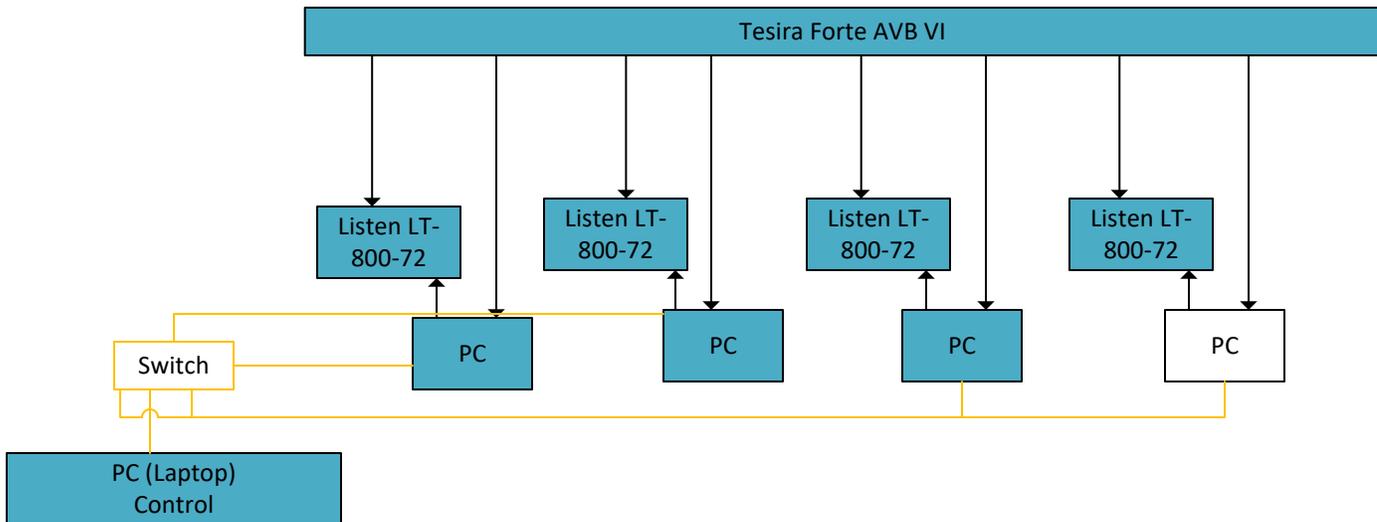
Operation:
- Each language will have a computer with the pre-recorded broadcast saved locally.
- Playback of the broadcast will be done with OBS studio loaded on each computer.
- Audio from the computer will be connected to Listen LT-800 transmitter using input 2 and mixed internally in the transmitter.
- Local translation audio will also be mixed using the audio processor and sent to the Listen transmitter.
- Synchronization of the 5 different playbacks with the video stream is critical. Bitfocus Companion will be used to trigger playback on all the computers/OBS studio systems simultaneously.
- Three scenes will be defined; setup, translation, playback. During setup a pre-recorded loop identifying the language will be played to aid in frequency selection.

Ownership

Stake Owned

FMG Provided

Swartz Family Owned

Equipment Replacement

Windows 10 is End of Life and no longer receiving patches. The following computers need to be replaced.

| PC (Tower PC) Zoom | Principle Computer used for all Webcasting / Zoom. Currently Windows 10. (Was purchased by stake as Windows 7, EOL) |

| PC | Two of the computers doing trainslation, provided by Swartz family, are running Windows 10 |

| PC | |

| PC | We do not have a computer to support the French language |