PROAV.MIAMI
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DONNA KLEIN JEWISH ACADEMY

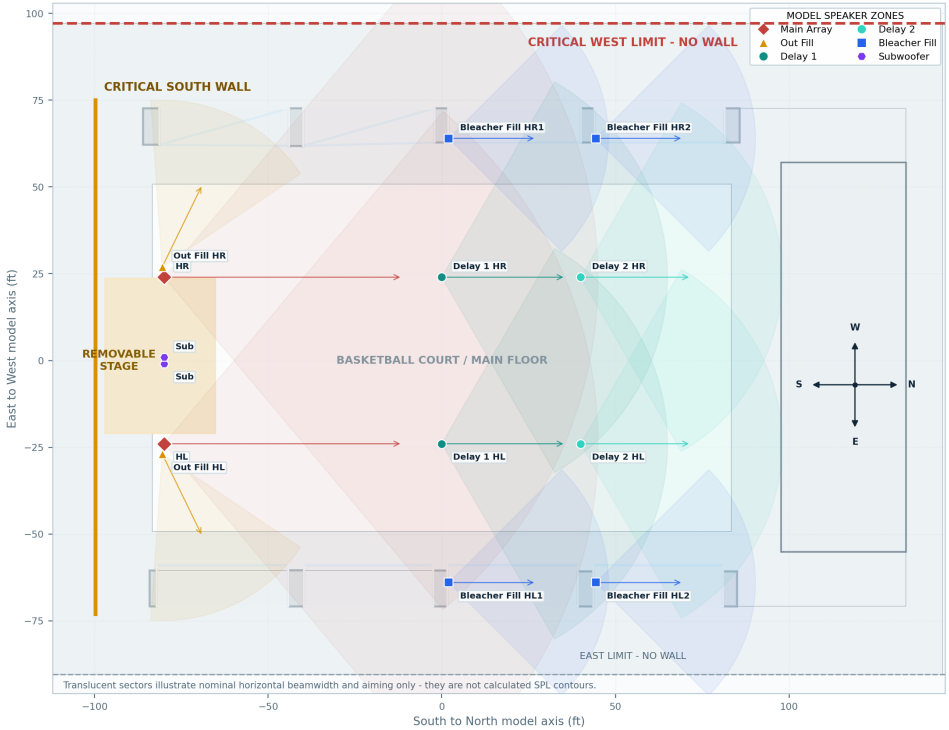
Preliminary Loudspeaker Modeling & Placement

Customer-facing summary of the initial Fulcrum acoustic model, speaker zoning, mounting positions, aiming geometry, and design status.

MODEL SOURCE

FO_20260922_PRO AV MIAMI_Private School Gymnasium

Fulcrum build 2026.24.14 | Report 29 September 2026

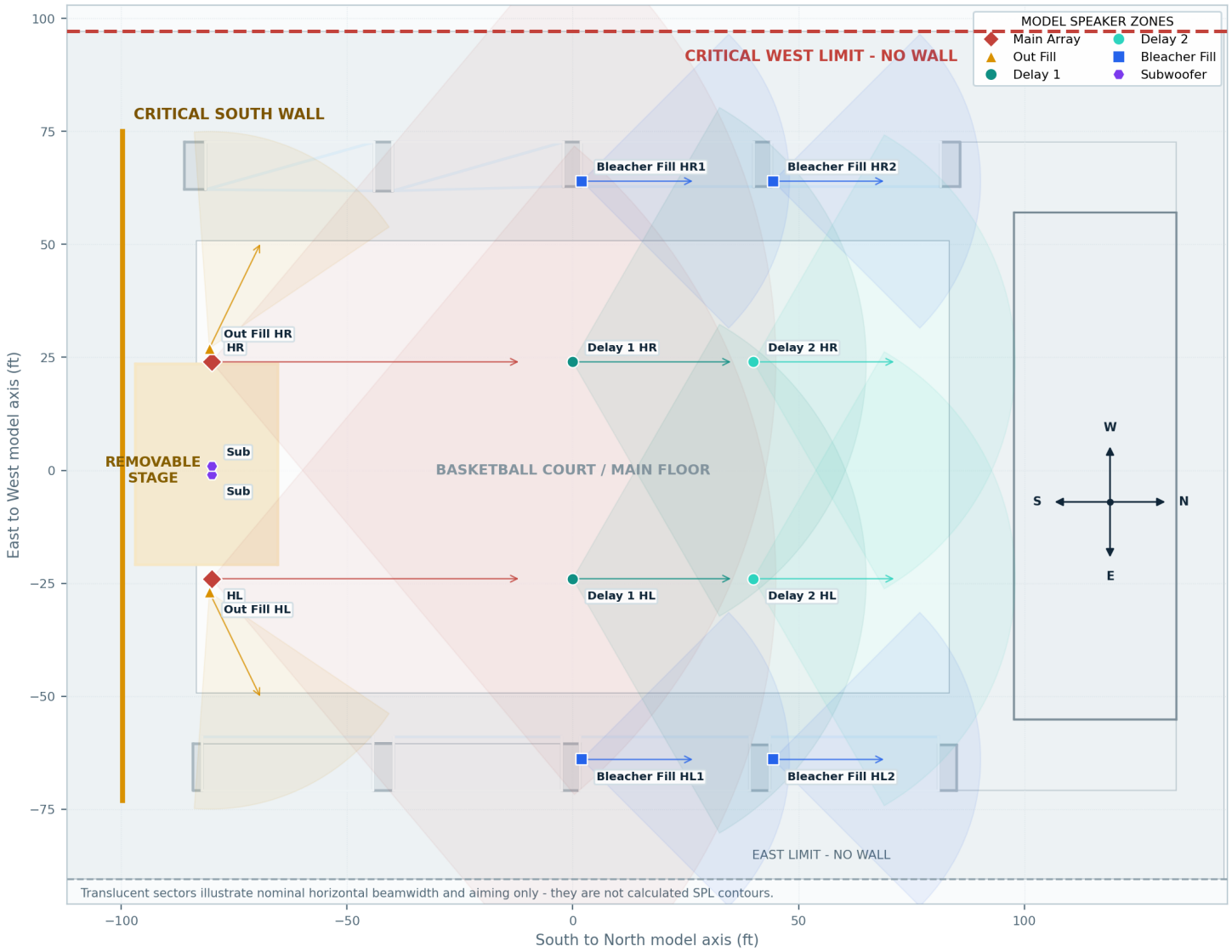


18	6	2	2
LOUDSPEAKER OBJECTS	SYSTEM ZONES	MAIN ARRAYS	CRITICAL BOUNDARIES

Preliminary design status. This document communicates the current placement and coverage framework. It is not the final contractual noise-boundary prediction or field-acceptance report.

Speaker Placement & Coverage Strategy

Distributed loudspeakers provide local coverage so the main arrays do not need to carry the entire pavilion at higher output.



DESIGN INTENT

Two three-module CC215 main arrays establish the primary coverage. Out-fills, two delay lines, and four bleacher fills reinforce only the areas that need local energy.

CRITICAL BOUNDARIES

The current geometry identifies the South wall behind the stage and the open West property limit. These areas require dedicated final prediction surfaces and agreed measurement criteria.

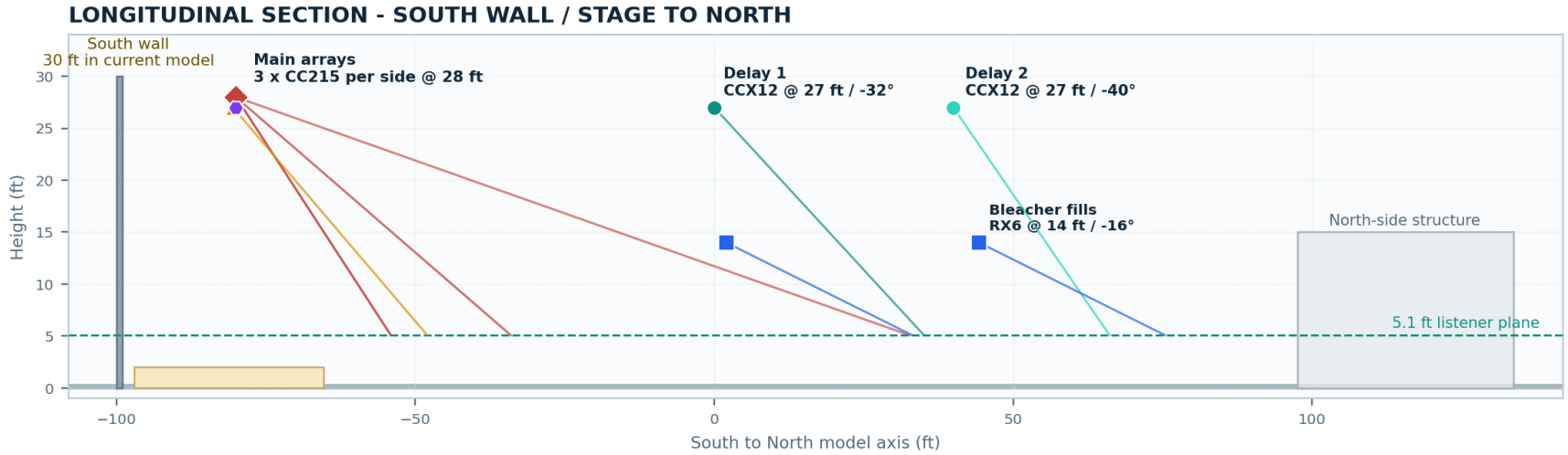
DIRECTIVITY STRATEGY

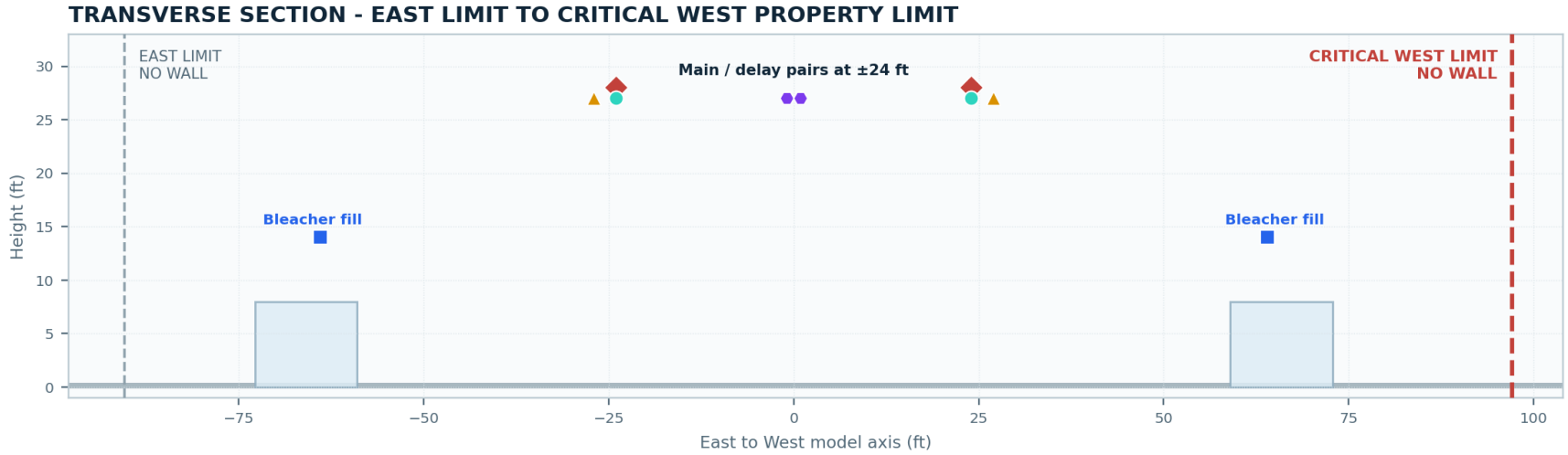
Subcardioid CC/CCX loudspeakers and CS-series subwoofers support rear attenuation. Actual spillover control also depends on aiming, gain structure, processing, mounting, and site conditions.

Graphic convention: translucent sectors are nominal beamwidth guides, not predicted dB contours.

Aiming Geometry & Distributed Coverage

The model places high-output sources close to their target zones and uses steep downward aiming to limit unnecessary horizontal throw.





Aiming rays terminate at the 5.1 ft listener plane for communication purposes. Final acoustic prediction remains software-calculated.

Commissioning note: the distributed geometry is established, but the model currently stores 0 ms delay for the delay zones. Final Q-SYS time alignment, gain trim, polarity, and limiting remain commissioning tasks.

Preliminary Zone Schedule & Design Status

Positions, mounting heights, aiming, and trims below are taken directly from the current modeling file and remain subject to manufacturer and field coordination.

ZONE	LOUDSPEAKERS	MODEL POSITION (FT)	HEIGHT	AIMING	MODELED TRIM / DELAY
Main arrays	2 arrays / 6 CC215	x -80; y ±24	28	Az 0; frame El -4; 7.5/15/15 splay	0 dB
Out fills	2 CCX12 60 x 45	x -80.5; y ±27	27	Az ±64; El -34/-32	-8 dB
Delay 1	2 CCX12 120 x 60	x 0; y ±24	27	Az 0; El -32	-10 dB / 0 ms
Delay 2	2 CCX12 120 x 60	x 40; y ±24	27	Az 0; El -40	-10 dB / 0 ms
Bleacher fills	4 RX6 90 x 75	x 2/44.3; y ±64	14	Az 0; El -16	-3 dB / 0 ms
Subwoofers	2 CS218L	x -80; y ±0.9	27	Roll ±90	0 dB

Placement & zoning
DEVELOPED
Distributed concept is fully represented.

Directivity strategy
DEVELOPED
Aiming and coverage zones are represented.

Boundary prediction
PENDING
Dedicated South/West receiver planes remain.

DSP timing
PENDING
Delay groups currently store 0 ms.

REQUIRED BEFORE A FINAL BOUNDARY-SPL COMMITMENT

- Confirm the South-wall height: the current model contains an approximately 30 ft wall, while the proposal working assumption was 20 ft.
- Add dedicated receiver planes at the South wall and West property limit; define the exact evaluation coordinates.
- Run and export broadband A-weighted boundary predictions under an agreed source signal, drive level, averaging metric, and environmental condition.
- Enter final Q-SYS gain/delay settings, obtain Fulcrum review of arrays and presets, and coordinate all rigging with approved structural attachments.
- Validate the completed system with calibrated field measurements using the same documented test method and operating preset.

Customer-facing conclusion. The present model demonstrates a professional distributed loudspeaker strategy with controlled aiming and localized reinforcement. It is suitable for design review and budget evaluation. Final numerical property-line compliance remains contingent on the outstanding boundary study, confirmed architectural conditions, manufacturer review, commissioning, and field verification.