

Fellowship Hall Speaker Options

Prepared For



5742 Hamilton Ave
Cincinnati, OH 45224

8-7-2019

By Jim Murphy

SOUND CONCEPTS LLC



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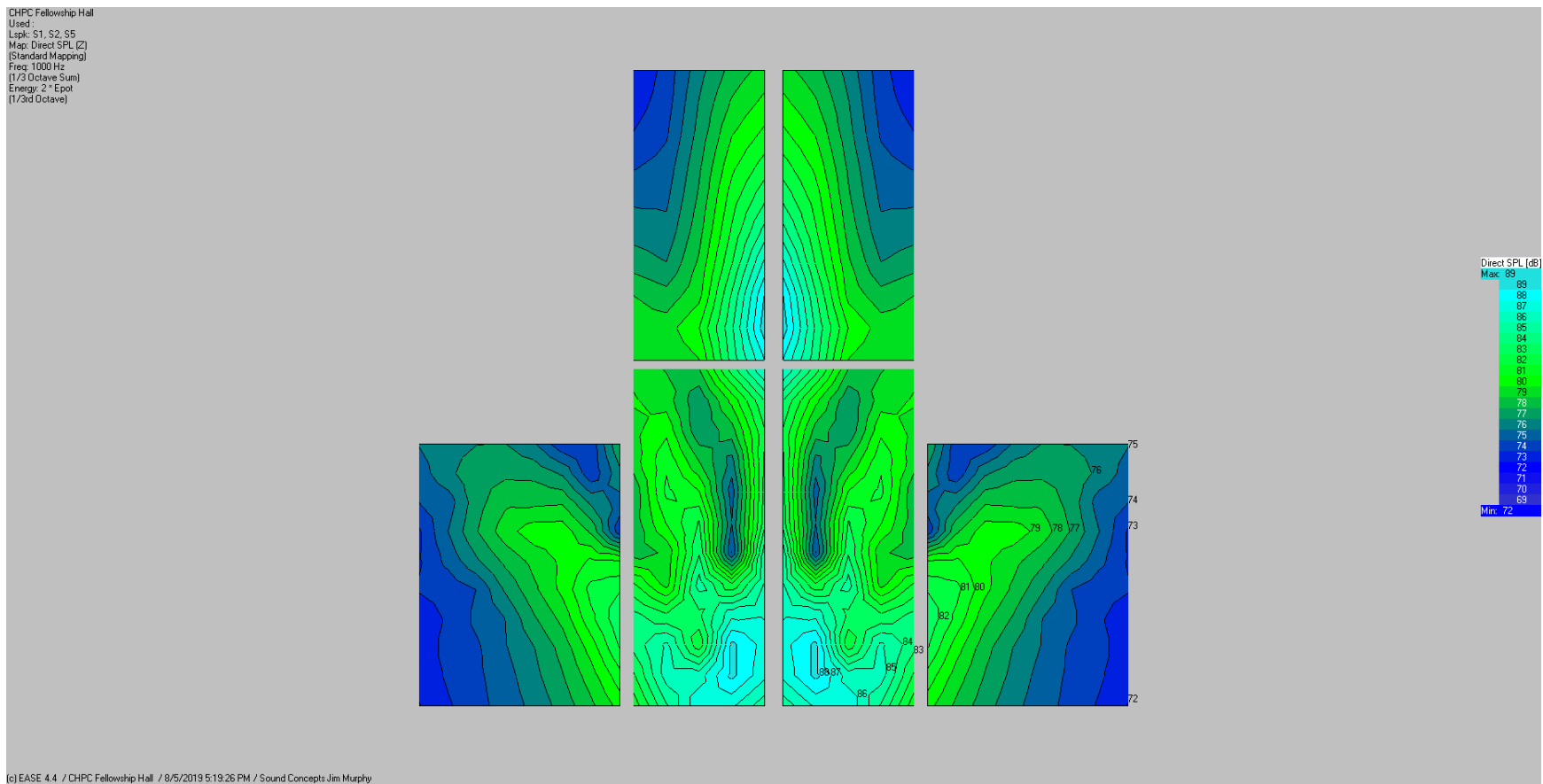
Conventional speaker system. Central cluster, point source configuration with fill speaker. Fill speaker switchable on/off when not required.

3 Speakers, 2- Renkus-Heinz CFX81 (90deg) Positioned above the light trough, centered in the room with aiming points toward each wing & 1- Renkus-Heinz CA62H (150deg) in the rear for fill.

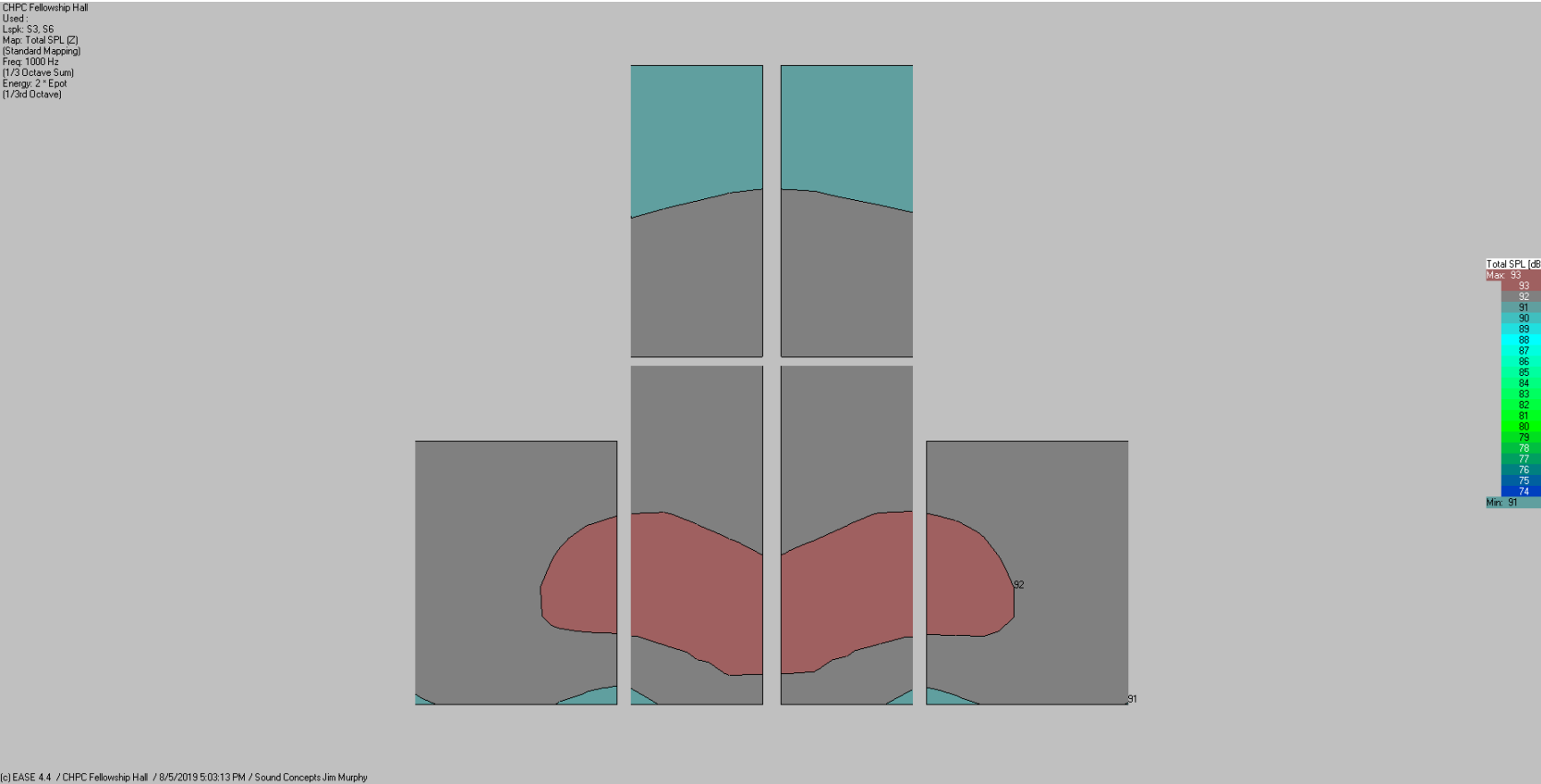
Map shows direct sound coverage @ 1KHz, see page 4 for total sound coverage mapped with reflective sound included.

Blue areas indicate the lowest levels in the room at 1000Hz Note that this map does not include any damping that might be included in the dome.

This is an acceptable coverage pattern while not Music Hall quality



Total sound including reflections +/-1.5db. We are generally looking for +/- 3db as optimal.



Here is the cost sheet for the conventional system. See notes on page 11 for installation notes.



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BILL OF MATERIALS

PROPRIETARY AND CONFIDENTIAL.

Pricing on this quotation is good for 30 days from issue date.

Customer:

College Hill Presbyterian

Project Number:

50868

Revision:

Project:

FH Conventional System

By:

J Murphy

Date:

8/5/2019

Line	Mfr.	Model	Description	Qty	Unit	Sell Price	Ext.
1	Renkus Heinz	CX-81	Speaker cabinet 8" Woofer	2.00	Ea	518.00	1,036.00
2	Renkus Heinz	CX62	Speaker cabinet 6" Woofer	1.00	Ea	600.00	600.00
3	Renkus Heinz	UBRKT/CT62-81B	U bracket	3.00	Ea	74.00	222.00
4	BSS	Blue50	DSP	1.00	Ea	1,425.00	1,425.00
5				1.00	Ea	-	-
6				1.00	Ea	-	-
7	N/A	N/A	Misc wire & hardware	-	Ea	-	-
8	SC	Shipping		-	Ea	-	135.00
9	SC	Design & Drawings		4.00	Ea	150.00	600.00
10	SC	Programming		-	man/hrs	125.00	-
11	SC	Training		-	Ea	99.00	-
12	SC	Labor, Lead		48.00	man/hrs	97.50	4,680.00
13	SC	Labor, Helper		-	man/hrs	65.00	-
14	Notes:					Sub Total	\$ 8,698.00
15						Sales Tax	-
16							
17	* Items supplied by the customer.					Total	\$ 8,698.00
18							

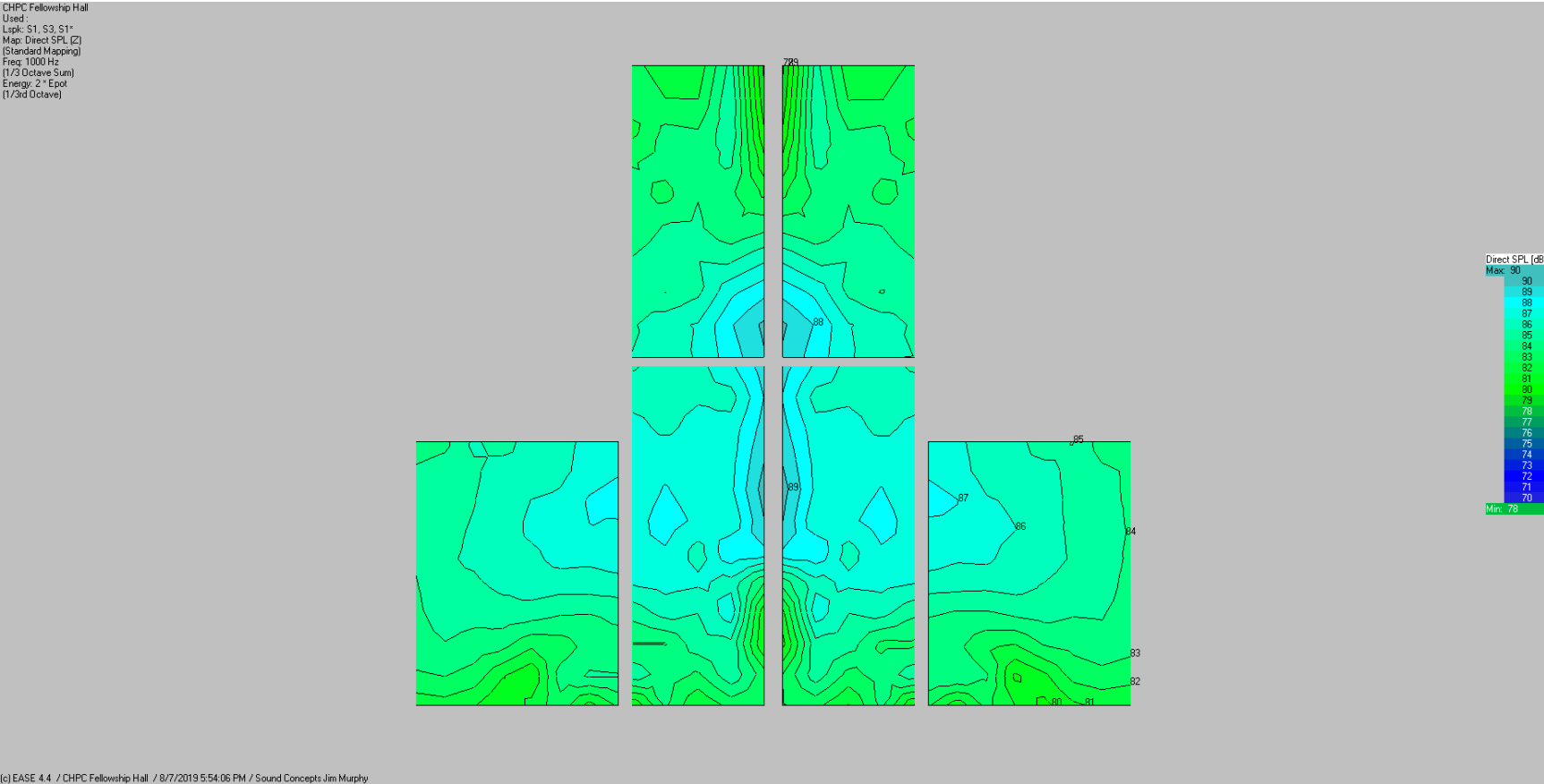
Steerable Array speaker system. Central cluster, point source configuration with fill speaker. Fill speaker switchable on/off when not required.

3 Speakers, 2- Renkus-Heinz DC12-2 positioned to the right and left of the stage on the columns adjoining the north and south wings & 1- Renkus-Heinz CA62H (150deg) in the rear for fill.

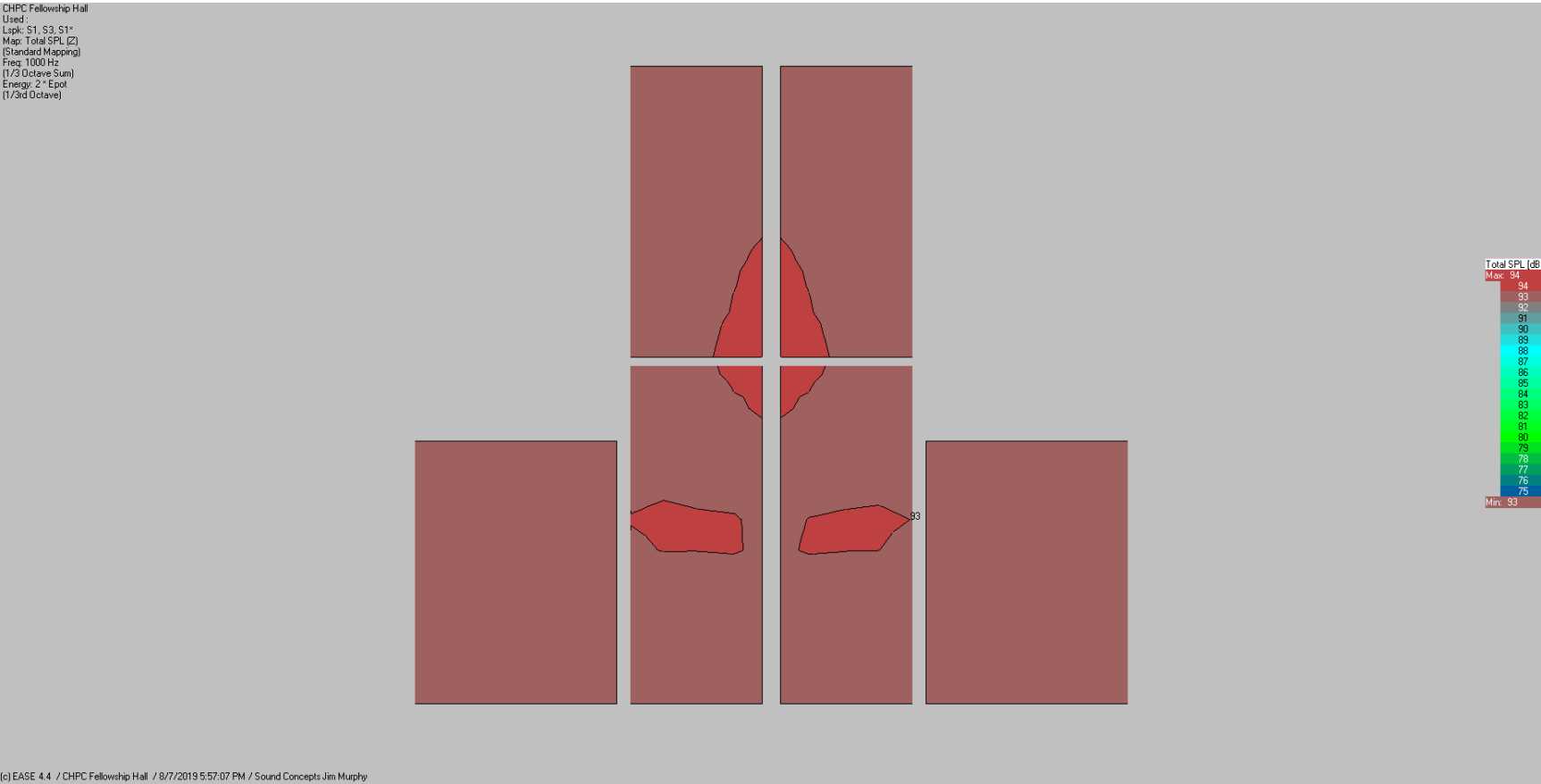
Map shows direct sound coverage, see page 7 for total sound coverage mapped with reflective sound included.

Blue areas indicate the lowest levels in the room at 1000Hz Note that this map does not include any damping that might be included in the dome.

This is a much more even coverage than the conventional speaker system.

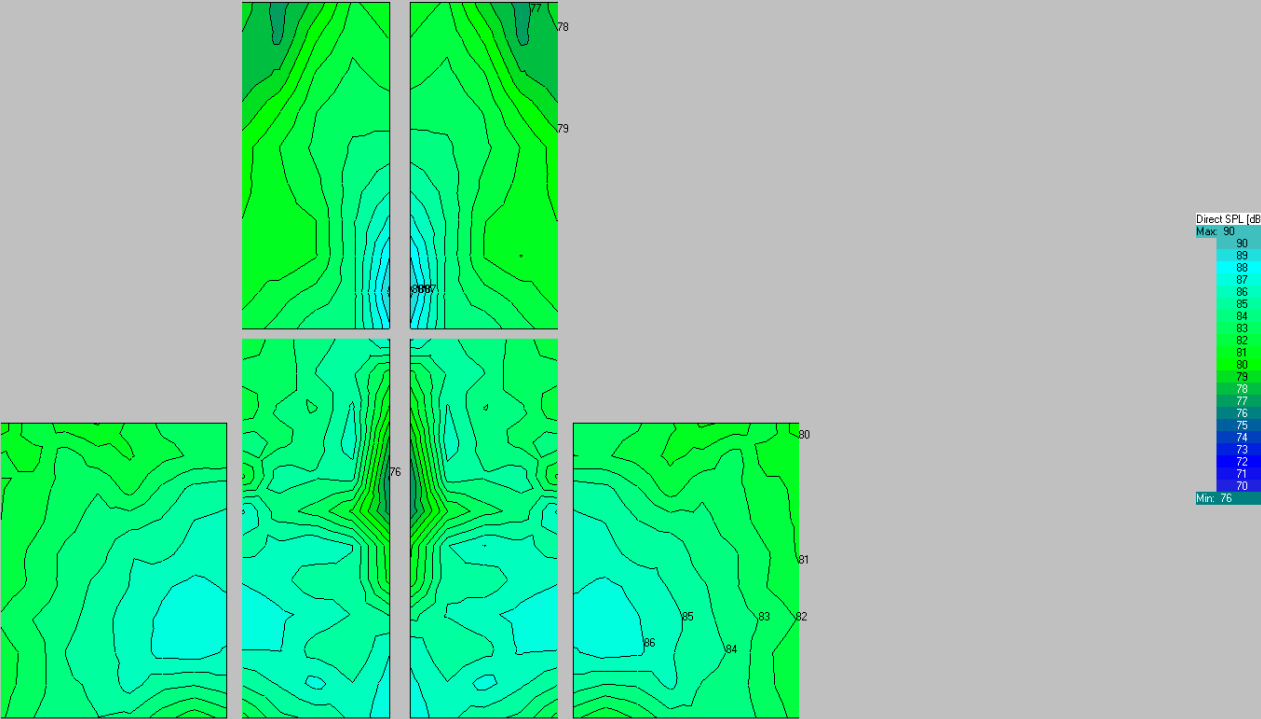


Total sound including reflections @ 1KHz: +/- .5db. We are generally looking for +/- 3db as optimal.

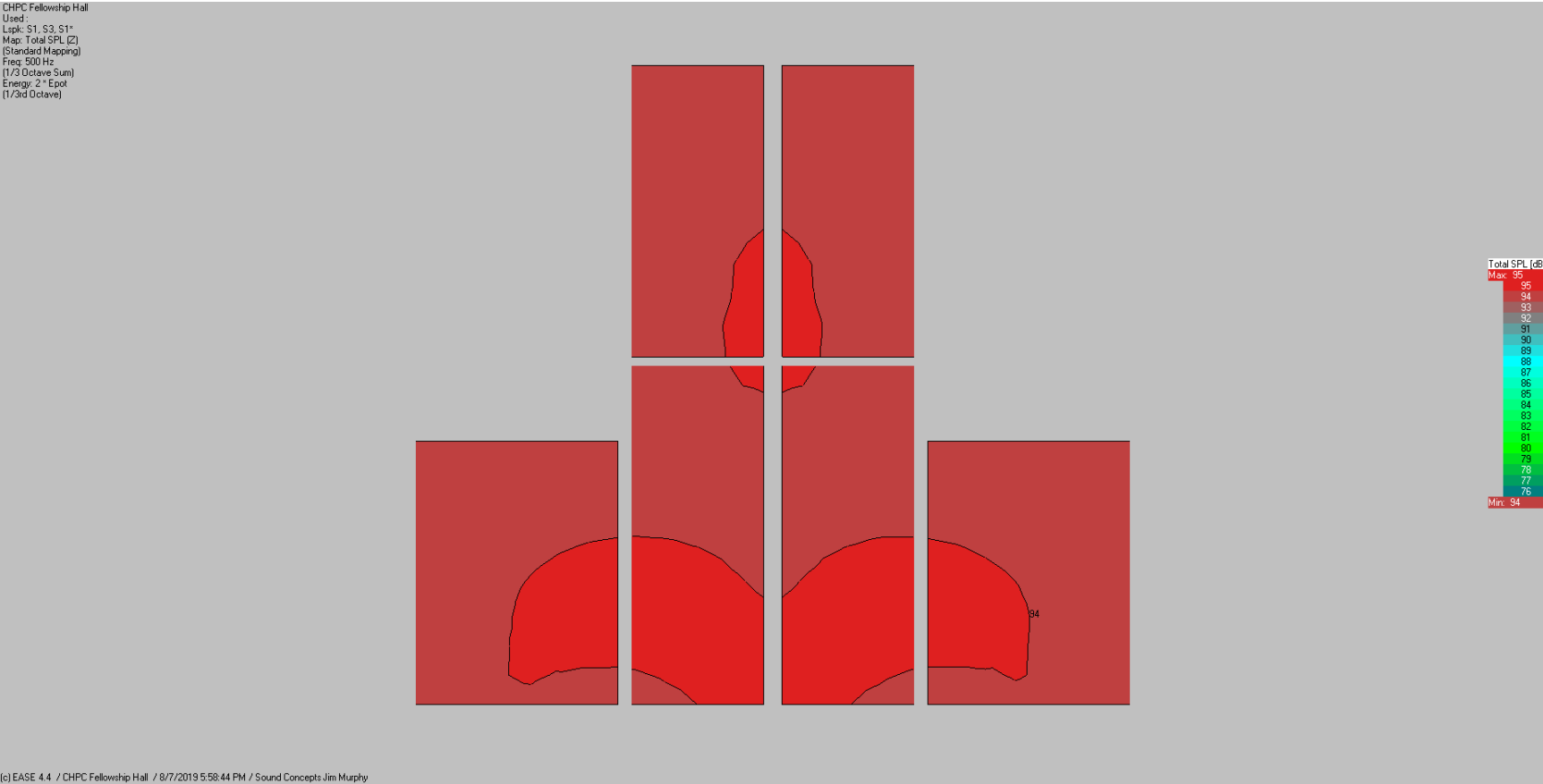


Steerable array @ 500Hz

CHPC Fellowship Hall
Used:
Lspk: S1, S3, S1*
Map: Direct SPL (Z)
(Standard Mapping)
Freq: 500 Hz
(1/3 Octave Sum)
Energy: 2" Epot
(1/3rd Octave)



Total sound including reflections @ 500Hz: +/- .5db. We are generally looking for +/- 3db as optimal.



Here is the cost sheet for the steerable array system. See notes on page 11 for installation notes.



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Customer:

College Hill Presbyterian

Project Number:

50868

Revision:

Project:

Steerable array system

By:

J Murphy

Date:

8/6/2019

Line	Mfr.	Model	Description	Qty	Unit	Sell Price	Ext.
1	Renkus Heinz	DC12/2-RN-BK	Speaker Steerable Array	2.00	Ea	2,550.00	5,100.00
2	Renkus Heinz	CX62	Speaker cabinet 6" Woofer	1.00	Ea	600.00	600.00
3	Renkus Heinz	UBRKT/CT62-81B	U bracket	1.00	Ea	74.00	74.00
4	BSS	Blue50	DSP	1.00	Ea	1,425.00	1,425.00
5				1.00	Ea	-	-
6	N/A	N/A	Misc wire & hardware	-	Ea	-	-
7	SC	Shipping		-	Ea	-	125.00
8	SC	Design & Drawings		4.00	Ea	150.00	600.00
9	SC	Programming		-	man/hrs	125.00	-
10	SC	Training		-	Ea	99.00	-
11	SC	Labor, Lead		48.00	man/hrs	97.50	4,680.00
12	SC	Labor, Helper		-	man/hrs	65.00	-
13	Notes:				Sub Total		\$ 12,604.00
14					Sales Tax	-	-
15							
16	* Items supplied by the customer.				Total		\$ 12,604.00
17							

Notes:

1. Labor is figured at 48 hours for the installation of the speakers.
2. Labor to reinstall console desk will be figured as time and materials.
3. If we do not use all of the 48 hours then any balance will apply toward time and materials work.
4. I suggest the use of sub-woofers in addition of both systems but especially with the steerable array system.
5. We can use the subwoofer cabinets that you already own.
6. I suggest cutting a hole(s) in the wall at the rear of the stage recess and install a grille there and housing the subs in the storage area behind the stage.
7. If the conventional system is used, the existing amps would be used to power the new speakers.
8. If the steerable array speakers are selected, they are self powered and will not require use of an external amp.
9. However, electric power must be provided at the location of the steerable speakers.
10. There is an amp for stage monitors and I am sure that there are jacks and wiring for them to the stage. I recommend leaving that portion of the system in place.
11. The fill speaker for the west wing will be mounted to the west of the dividing doors and as tight to the ceiling as possible.
12. The existing switching system for the rear speakers will be left in place.
13. The west wing fill speakers will be put on a time delay commensurate with the distance from the front speakers.
14. The existing west wing speakers will be removed but the current wiring will remain.