The St. Luke Church worship space is a square room having relatively short wall heights, and with the altar set beneath the central peak of the pyramidal roof. While the floor plan facilitates an intimate seating arrangement focusing on the altar, the square and pyramidal geometric form makes even sound distribution difficult to achieve. Further, the floor was partly carpeted, and the ceiling was entirely clad in sound absorbing “Tectum” material, so the “dead” environment did not support vibrant speech, inspiring music, or participation by the congregation in sung and spoken liturgy. The church’s small neo-Baroque style organ with low wind pressure, narrow scaling, and few 8’ or 16’ stops, did not have the capacity to lead hymnody or accompany the choir well.

Acoustic improvements included re-surfacing the ceiling deck with hard and sound reflective materials, and changing from carpet to slate flooring, all to increase the reverberation period. Further, brick features were added to side walls to diffuse sound energy and eliminate flutter echoes.

A used/heritage Möller pipe organ, having electric-slider action as well as a stop-list and pipe scaling/voicing attributes commensurate to the St. Luke space and Choral liturgy, was reconditioned and installed into an enlarged organ chamber on the central axis of the room, behind choir singers.
St. Luke’s Episcopal Church
Durham, North Carolina
Acoustic and Organ Consultation

**Great**
- 16' Bourdon
- 8' Hohlflore
- 8' Principal
- 4' Octave
- 4' Koppel flote
- 2' Super octave
- IV Mixture
- 8' Trompete
- Chimes
- 8' Festival Trumpet (Swell)

**Swell**
- 8' Rohrflote
- 8' Viola
- 8' Viola Celeste
- 4' Prestant
- 2' Blockflote
- II Cornet
- III-IV Plein Jeu
- IV Mixture
- 8' Hautbois
- Tremulant

**Pedal**
- 32' Untersatz
- 16' Principal
- 16' Bourdon
- 8' Octave
- 8' Flote
- 4' Choral bass
- III Mixture
- 16' Posaune
- 8' Trompete (Posaune)
- 4' Klarine

**Positiv**
- 8' Holz Gedeckt
- 8' Erzahler
- 4' Spitz flote
- 2' Principal
- 1 1/3 Quint
- 8' Dulzian
- 8' Festival Trumpet
- Tremulant

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