

Institutional



Vanderbilt University Medical Research Building IV
Nashville, Tennessee

Medical Research

The Medical Research Building IV project, located on the medical campus of the Vanderbilt University, is a 2 phase project to fulfill the needs of the client by providing a state of the art facility on a tightly constrained site.

Phase I of the project consists of adding 4 framed floors to the top of the existing Light Hall facility. Carpenter Wright Engineers outlined an exhaustive investigation of the existing structure and provided a thin, light weight, two-way post-tensioned concrete slab solution to maximize the possibility of new framing for increased program space.

Phase II of the project utilizes the adjoining property, occupied by the Langford Auditorium. To keep the existing auditorium functioning and to not intrude into its functional space, Carpenter Wright Engineers proposed and designed a 132' span transfer level consisting of post-tensioned concrete trusses to envelope the existing auditorium and provide a platform for the new structure above which reduces the total span vertical deflection to the order of 1 inch. A post-tensioned concrete framing system above allows to the existing floor to floor height of Light Hall to be matched to mesh the two phases of the project into a single functional facility.

The total project includes 378,000 square feet with a construction budget of approximately \$120,000,000.



Architect: *Donald Blair Architects and Davis Brody Bond Architects*

CWE Design Offices:

Nashville
Knoxville