


## **Sample Strengthening and Repair Projects**

- Louisville Water Company (LWC) - Zorn Avenue Pump Station; Louisville, KY
- LWC - Allmond Avenue Storage Facility; Louisville, KY
- Bowling Green Wastewater Treatment Plant Water Storage Tank Strengthening; Bowling Green, KY
- Metropolitan Sewer District (MSD) - MFWTP Decant Tanks Roof Slabs; Louisville, KY
- MSD - WCWTP Pump Station; Louisville, KY
- MSD - MFWTP Sedimentation Tank; Louisville, KY
- Audubon West Parking Garage; Louisville, KY
- Norton Hospital Parking Garage; Louisville, KY
- Samaritan Hospital Parking Garage; Lexington, KY
- Audubon East Parking Garage; Louisville, KY
- Norton Hospital Mechanical and Electrical Rooms; Louisville, KY
- Jewish Hospital Slab Opening; Louisville, KY
- Floyd Memorial Hospital Roof Openings; New Albany, IN
- Norton Hospital Floor Slab Openings; Louisville, KY
- Eastern Kentucky University Combs Hall Floor; Strengthening; Richmond, KY
- Stewart Home Dormitory; Frankfort, KY
- Goodwill Store Retrofit and Repair; Somerset, KY



 **Beam Repair and Strengthening**



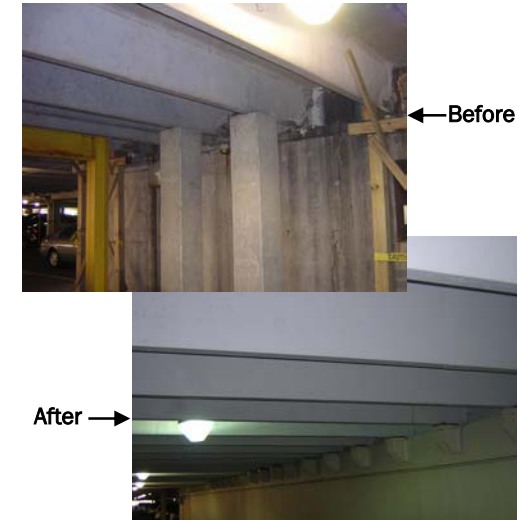
 **Water Storage Tank Strengthening**



 **Reinforced Concrete Slab and Beam Strengthening**



## Our Strengthening Expertise



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## **Company Profile**

Cornerstone Engineering, Inc. is a professional consulting engineering firm offering structural engineering and project management services to a wide array of clients. We have extensive experience both in design of new buildings and in evaluation, renovation, and repair of existing structures.

CEI is committed to providing our clients with a positive working relationship founded on personal and professional integrity, technical excellence, and practical solutions. As a result, many of our clients are repeat clients including architects, engineers, contractors, governmental entities, utility companies, industries, and institutions.

We are certified as a Minority Business Enterprise (MBE) by various agencies and are registered as a Minority Vendor with the Kentucky State Finance Cabinet. We maintain professional affiliations with ACI, ASCE, the Structural Engineers Association of Kentucky (SEAOK), and the Society of American Military Engineers (SAME). We are also a member of the Kentucky Construction Users Council (KCUC) and a member of Greater Louisville, Inc. (GLI).

## **Areas of Expertise**

- Structural Engineering Design
- Structural Inspections and Evaluation
- Structural Strengthening, Repair, and Restoration
- Structural Special Inspections
- Computer Modeling and Drafting (2D and 3D)
- Construction Management Services

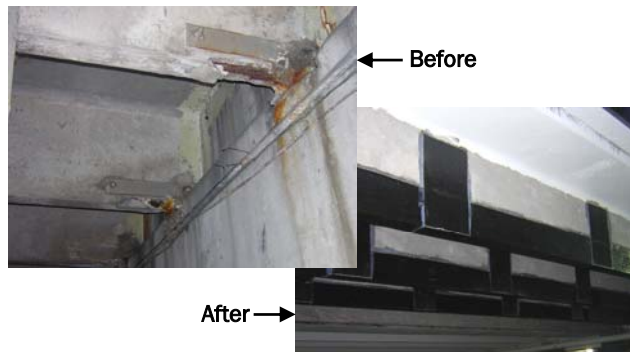
## **Inspections and Evaluations**

Each strengthening project begins with an evaluation of existing conditions. CEI's experience in evaluation and inspection of existing conditions includes water and wastewater treatment facilities, parking garages, as well as healthcare and educational facilities. CEI is also equipped with staff experienced and certified to perform confined space entry inspections as needed.



## **Strengthening Design**

The design of any strengthening project requires skill and creativity. CEI uses the latest analysis and design tools to produce practical and long-lasting solutions. Giving consideration to project needs site conditions, and cost effectiveness, we utilize state-of-the-art technologies including carbon fiber reinforcement (CFRP) and glass fiber reinforcement (GFRP) and conventional methods of strengthening such as steel, concrete, masonry, and timber.



## **Prestressed Double Tee Strengthening**

## **Construction Management**

Following evaluation and design, each strengthening must be implemented for concepts to become reality. CEI is equipped to function as project managers during construction in order to provide clients with a final repair/strengthening solution that addresses site specific issues and details which can arise during strengthening of existing facilities.



## **Slab Strengthening**



Before

After

## **Column Strengthening**