

1. COVER LETTER

To the Selection Committee,

We are pleased to submit this response to Cooper University Health Care's Request for Proposals for Structural Engineering Services in support of the Master Campus Plan and associated phased development program.

We understand this engagement represents not a single building, but a long-term, multi-phase transformation of an active healthcare campus. Structural engineering decisions made during early phases will directly influence constructability, operational continuity, lifecycle performance, and the feasibility of future expansions.

Our firm specializes in structural engineering for complex healthcare environments where phased construction, deep foundations, underground infrastructure, and integration with existing facilities are critical drivers of success. We approach this engagement as a long-term partnership focused on enabling Cooper's strategic objectives while maintaining uninterrupted healthcare operations.

We are prepared to provide comprehensive structural engineering services beginning with Phase A and extending through future phases as the campus plan evolves.

Respectfully submitted,

[Firm Name]

Structural Engineering Team

2. EXECUTIVE SUMMARY

The Cooper University Health Care Master Campus Plan is a technically complex, multi-year development program that demands a disciplined, forward-looking structural engineering approach.

We understand that Phase A includes:

- Full structural engineering services for **Tower A**
- Structural design of associated **pedestrian bridges**

- Structural coordination of **campus infrastructure and basement systems**
- Schematic-level structural support for **future towers (B and C)**

The defining characteristics of this program include:

- Construction adjacent to fully operational healthcare facilities
- Significant below-grade construction with groundwater considerations
- Integration of new structures with existing buildings
- Long-term planning for future vertical and lateral expansion
- Coordination with geothermal and campus-wide MEP infrastructure

Our approach emphasizes early validation of assumptions, clarity of structural load paths, constructability-driven design, and continuity across phases to ensure that early decisions do not constrain future development.

3. UNDERSTANDING OF THE MASTER CAMPUS PROGRAM

3.1 CAMPUS-WIDE STRUCTURAL CONTEXT

The Cooper campus is an interconnected system of buildings, infrastructure, and utilities rather than a collection of independent structures. Structural engineering decisions must therefore be evaluated in the context of the overall campus, not solely individual buildings.

Key campus-wide considerations include:

- Existing structural systems and foundation types
- Subsurface utility corridors
- Pedestrian and service connectivity
- Emergency access and redundancy
- Phased demolition and replacement strategies

Our team approaches the campus as a living system that must remain functional throughout all phases of construction.

3.2 PHASE A – TOWER A

Tower A represents the first major vertical element of the master plan and will establish structural precedents influencing future towers.

Key structural considerations include:

- Vertical load paths and lateral system selection
- Foundation systems compatible with future adjacent construction
- Basement construction with hydrostatic uplift considerations
- Integration of pedestrian bridge connections
- Structural accommodations for MEP and clinical program demands

We recognize that Tower A must not only function independently, but also serve as a structural anchor for future phases.

3.3 FUTURE PHASES – TOWERS B & C

While Towers B and C are currently anticipated at a schematic level, early structural planning is essential to avoid conflicts and inefficiencies later.

Our schematic-phase services will:

- Establish column grid strategies compatible across towers
- Evaluate shared foundation or basement opportunities
- Identify structural interfaces between phases
- Preserve flexibility for program evolution

4. MANAGEMENT OF THE WORK

The complexity of the Cooper Master Campus Plan requires a disciplined management approach grounded in clarity, documentation, and proactive coordination.

4.1 STRUCTURAL PROJECT GOVERNANCE

We establish a clear governance structure that defines:

- Decision authority
- Communication pathways
- Documentation standards
- Escalation procedures

A dedicated Structural Project Manager will serve as the primary point of contact and maintain continuity across phases.

4.2 PRE-DESIGN & EARLY VALIDATION

Early structural validation is critical for a project of this scale. During pre-design, our team will:

- Review all available master plan documentation
- Evaluate existing structural and geotechnical information
- Identify constraints imposed by adjacent facilities
- Confirm design criteria with Cooper stakeholders
- Establish a documented structural Basis-of-Design

This phase is essential to reducing downstream risk.

4.3 EXISTING CONDITIONS & SUBSURFACE INVESTIGATION

Given the anticipated depth of basements and infrastructure, existing conditions represent a major risk area.

Our approach includes:

- Review of existing foundation systems
- Evaluation of adjacent building sensitivity
- Coordination with geotechnical engineers on groundwater conditions
- Identification of underpinning or shoring requirements

- Validation of assumptions through targeted investigation as required