Statement of Proposal to the City of Fort Collins

7494 Parking Structures Conditions Assessment

Submitted by:

MARTIN / MARTIN
CONSULTING ENGINEERS

April 2, 2013
Mr. Mike Breeze  
Mr. John Stephen, CPPO, LEED AP  
City of Fort Collins  
Purchasing Division  
215 North Mason Street, 2nd Floor  
Fort Collins, Colorado 80524  
purchasing@fcgov.com

Re: Statement of Proposal  
7494 Parking Structures Conditions Assessment

Dear Mr. Breeze, Mr. Stephen and Selection Committee Members:

Providing safe and well maintained parking facilities to the City of Fort Collins is a top priority. Martin/Martin, Inc. can help you achieve this goal by providing quality structural investigative engineering and repair evaluation services for the two parking garages identified in your RFP. We therefore submit our proposal for the review and consideration by you and your selection committee.

Just as we have provided structural investigative engineering services to hundreds of past clients, most of whom come back to us again and again, we hope to use the experience and expertise we have gained over the years to your benefit. The following pages will demonstrate our capabilities in evaluating and recommending repairs to your parking structures that safely extend the useful life of the facilities. You will see outlined our particular knowledge in evaluating and recommending structural repairs to large, multi-level, concrete parking structures, as well as several references that will verify the quality of our work. As Chairman of the ACI Concrete Repair Committee, I have been recognized nationally for my knowledge in the evaluation and repairs of all types of concrete structures. We will apply this expertise to your two garages and develop cost effective recommendations for the needed repairs.

Parking garages, by design, are exposed to much more severe stresses to their structures then other buildings. They are open to the elements, water infiltration, freeze and thaw cycles, as well as the changing live loads carried by the structure due to the automobiles that occupy them. Our understanding of the year-round nature of parking facilities, and of construction materials and processes, helps to maximize your resources for this project. Trust, proactive communication, coordination, innovation and long-term solutions are what we bring and offer you today.

We are highly motivated to perform this investigative work for you. The attached qualifications respond to all of the requirements you outlined in your RFP. Just as you are vested in the community you serve, we are committed to serving you. Please contact me if you have any questions or need additional information. I can be reached at 303.431.6100 x520 or by email at jlund@martinmartin.com.

Respectfully submitted,

John S. Lund, PE  
Principal/Investigative Engineering
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SECTION 1 – Scope of Proposal

The following narrative will further outline our proposal for investigative engineering services for the two parking garages located in Fort Collins, Colorado. Based on our meeting at the site and our experience with similar structures, our team will perform the necessary services to address the City of Fort Collins needs through the following approach:

Parking Garage Engineering Investigation and Report:

1. Structural Assessment:
   a. Pre-Assessment Review: The original design/construction drawings are very useful in determining the cause of the damage. We will spend time reviewing the existing structural and architectural drawings for both the Civic Center and Old Towne parking garages in order to familiarize ourselves with the details of the original construction. However, based on our previous walkthrough of both garages during the pre-proposal meeting on-site, we do not believe it is necessary to perform a complete, in-depth review of the drawings or the structural design, and have not included this time or fee in our proposal. We will attend a meeting with the City of Fort Collins to review all known existing building issues specific to each garage, and to outline our proposed protocol for our on-site investigation. In addition, we will review previous condition assessments, repair documents, and other related materials available for the garages.

   b. On-Site Assessment: Our investigative team of engineers will perform a thorough visual structural evaluation of the Civic Center and Old Towne parking garages. The scope of our inspection will include, but not be limited to a visual evaluation documenting signs of structural distress, damaged waterproofing elements, poor drainage and other problems potentially affecting the safety, durability, maintenance, or performance of the structures. We will pay special attention to the unique details of each garage and outline our recommendations accordingly. For example, we will address the positives and negatives of the current snow melt system installed at the Civic Center parking garage (Figure 1) and address any recommendations we have for possible structural modifications in our report. In addition, we will perform a limited chain-drag survey of the top slabs to identify concrete delaminations that may not be visually apparent. (Figure 2 – Old Towne top deck) This information will be collected for the purpose of defining the scope of needed repairs, preventative maintenance or other work needed at this time. While on site, we will locate areas of distress that are considered to be critical or emergency in nature. No conditions of this severity were observed during our initial time on-site, however, we will notify the City of Fort Collins immediately if our observations prove otherwise during our more thorough walkthrough. We will mark these areas at the time of our visit on a plan view of the structures to clearly identify any areas that need to be addressed, for the maintenance staff or contractors who will perform any recommended repair work. Based on our initial site walkthrough we do not believe that destructive testing will be necessary, however, if our detailed investigation indicates otherwise, we will coordinate a third party testing agency to perform tests on the existing concrete for physical and chemical property evaluation. If this service is engaged, Martin/Martin will retain the testing company under the terms and conditions outlined in our contract agreement with the City of Fort Collins.
c. **Report of Findings:** We will evaluate the information obtained from our investigation and prepare a detailed written engineering report with photographs outlining our findings. Our report will describe in detail our site investigation, the areas of distress/deterioration and our recommendations for repair or renovation work as appropriate for the continued safety and future performance of both of the structures. We will evaluate specific problem areas, like the existing traffic coating on the top deck of the Old Town parking garage that has begun to fail (Figure 3) and provide recommendations within our report as to how to best remedy the current condition. The report will provide the City of Fort Collins with sufficient information as to the specific repair work recommended, and a preliminary engineer’s estimate of probable cost for the various recommendations and alternative recommendations offered. We will prioritize our recommended repairs by the severity of the problems found, identifying the areas that require the most critical attention.

2. **Team Findings and Report Presentation:** Martin/Martin will participate in a concluding meeting with the City of Fort Collins after our draft report is issued to receive and answer any questions that are presented. At the meeting, we will be prepared to clarify any portions of our report that may have been unclear and to provide our suggestions, if requested, regarding prioritization, scheduling, and logistics for completing the needed repairs along with recommendations of qualified contractors.
SECTION 2 – Assigned Personnel

JOHN S. LUND, PE
Principal, Investigative Engineering

Relevant Experience: Mr. Lund has over 25 years of experience in the structural assessment, evaluation and investigation of buildings, including field observations and due diligence services. He has been involved in the design, construction, remodel and renovation of various parking garage projects. Select experience includes:

- 1001 17th Street Garage, Denver, Colorado
- 116 Inverness Garage, Englewood, Colorado
- 1670 Broadway Parking Garage, Denver, Colorado
- 183 Inverness Parking Garage, Englewood, Colorado
- 1900 Grant Street Parking Garage, Denver, Colorado
- 300 Union Park Parking Garage, Lakewood, Colorado
- 3151 South Vaughn Way Parking Garage, Aurora, Colorado
- 600 Grant Parking Garage, Denver, Colorado
- 693 Urban Court Parking Garage, Lakewood, Colorado
- 675 South University Boulevard Parking Garage Assessment, Denver, Colorado
- 702 South 12th Street Parking Garage Investigation for Repairs, Golden, Colorado
- 770 Grant Street Parking Garage Structural Condition Assessment, Denver, Colorado
- 15013 Denver West Parkway Parking Garage Condition Assessment, Golden, Colorado
- AMLI at Inverness Structural Condition Assessment of Parking Garage, Greenwood Village, Colorado
- Capitol Authority Parking Structure, Denver, Colorado
- Centerpoint II Garage, Denver, Colorado
- Cherry Creek Place III Parking Garage Investigation for Repairs, Aurora, Colorado
- City Market Parking Garage, Vail, Colorado
- Denver Corporate Center Parking Garage, Denver, Colorado
- Peakview Tower Parking Garage, Centennial, Colorado
- St. Joseph Hospital – Franklin Street Parking Garage, Denver, Colorado
- Staples Parking Garage, Broomfield, Colorado
- Tamarac Office Park Parking Garage, Denver, Colorado
- Terrace Building Parking Garage Ongoing Investigations, Greenwood Village, Colorado
- United Bank Parking Structure, Denver, Colorado

General Experience: Mr. Lund has been with Martin/Martin for over 21 years and manages Martin/Martin’s Structural Investigations Group where he leads a team of 14 investigative engineers.

Registrations: Professional Engineer, Colorado, Alabama, New Jersey, Texas, Wisconsin, South Dakota, Wyoming, Mississippi, Louisiana

Education: B.S. Architectural Engineering, University of Texas, Austin, Texas, 1982 emphasis in structural engineering

Affiliations: Chairman of the ACI Committee 546, Concrete Repair - American Concrete Institute
               International Concrete Repair Institute
               American Institute of Steel Construction
KEVIN S. DUNHAM, PE
Associate, Structural Engineering

Relevant Experience:
Mr. Dunham has experience in engineering design, project management, analysis, investigation and renovation of various projects including many different garage projects. His investigations have included assessment of current conditions, investigations for repairs, maintenance programs for upkeep and waterproofing. Representative project experience includes:

- 1801 Wynkoop Parking Garage Investigation and Repair
  Denver, Colorado
- 455 Sherman Street Garage, Denver, Colorado
  Structural evaluation, analysis, and design of repairs to post-tension parking garage
- 675 South University Boulevard Parking Garage Assessment
  Denver, Colorado
- 15013 Denver West Parkway Parking Garage Condition Assessment
  Golden, Colorado
- 12300 W. Dakota Avenue Parking Garage Investigation for Repairs
  Lakewood, Colorado
- Bellevue Avenue Parking Garage Condition Assessment (8200 E. Bellevue Avenue)
  Greenwood Village, Colorado
- Denver Museum of Nature and Science Parking Garage Investigation for Repairs
  Denver, Colorado
- Denver Performing Arts Complex Parking Garage, Denver, Colorado
  Structural analysis and concrete repairs.
- Great-West Life & Annuity Insurance Company Parking Garage 1 Assessment
  Greenwood Village, Colorado
- Majorca Condominiums Garage Investigation
  Denver, CO
- St. Joseph’s Franklin Street Garage, Denver, Colorado
  Structural evaluation, analysis, and design of repairs to existing post-tension parking garage
- UCAR Experience:
  - Building CG-2 Garage, Broomfield, Colorado
  - Building CG-1 Parking Garage Repairs

General Experience:
Mr. Dunham’s experience includes responsibility for various analysis and design projects including office office, religious, educational, commercial buildings and existing structures. Mr. Dunham is also experienced in the design of reinforced cast-in-place concrete, precast and post-tensioned concrete, structural steel, reinforced masonry, and wood structures.

Registration: Professional Engineer – Colorado 37194, Alabama 27326

Education: Metropolitan State College Of Denver, BSCE, 1997

Affiliations: Exterior Design Institute (EDI) Certification
Historic Preservation Commission (City of Brighton)
International Concrete Repair Institute (ICRI)
Sealant Waterproofing and Restoration Institute (SWRI)
Structural Engineers Association/Colorado (SEA/CO)
BEN J. BROMIEL, PE
Senior Project Engineer, Structural Investigative Engineering

Relevant Experience: Mr. Bromiel has been involved in the structural design of a wide variety of structures from concept design through construction administration. Within the Structural Department Investigative Team, he specializes in structural assessments and repairs. Mr. Bromiel has performed detailed investigations and prepared reports and repair documents for numerous existing structures. His project experience includes a wide variety of parking garage investigations. Representative projects include:

- 675 South University Boulevard Parking Garage Assessment (House of Rothschild)
  Denver, Colorado
- Bellevue Avenue Parking Garage Condition Assessment
  Greenwood Village, Colorado
- 1099 Eighteenth Street Parking Garage Structural Assessment
  Denver, Colorado
- Terrace Building Parking Garage Ongoing Investigations
  Greenwood Village, Colorado
- 7900 East Union Avenue – Denver Corporate Center Parking Garage Investigation for Repairs
  Denver, Colorado
- Denver Museum of Nature and Science Parking Garage Investigation for Repairs
  Denver, Colorado
- Exempla St. Joseph Hospital, Denver, Colorado
  - Humboldt Parking Garage Evaluation and Repairs
  - Midtown/Medpark Demolition Drawings
  - West Campus Parking Garage Evaluation and Repairs
- Exempla St. Joseph Hospital Heritage Project (Replacement Hospital), Denver, Colorado
  - East of Downing Parking Garage
- Kaiser Franklin, Denver, Colorado
  - Parking Garage Evaluation and Repairs
- Level 3 Parking Garage Investigation for Repairs
  Broomfield, Colorado
- Stanford Place II Parking Garage, Denver, Colorado
  - DSGAA Generator Addition Conditions Assessment
  - Investigation for Repairs
  - Construction Administration
- Staples Parking Garage Maintenance Manual
  Broomfield, Colorado
- Tamarac Office Park, Denver, Colorado
  - Evaluation of (3) Parking Garages for Buildings 3515, 3525, & 3545
  - Exterior Remodel Design Services

General Experience: Mr. Bromiel has nine years of structural engineering experience. He has been responsible for all project phases from concept design through construction administration of steel, concrete, masonry and wood framed structures.

Registrations: Professional Engineer – Colorado 43194

Education: Georgia Institute of Technology, MS Civil Engineering, 2001
University of Illinois, BS Civil Engineering, 1999

Affiliations: American Council of Engineering Companies (ACEC), Chi Epsilon
SECTION 3 – Availability

The Martin/Martin team will make the necessary commitments to complete this project concurrent with its existing and projected workload. Consistent with the priority level the City of Fort Collins has placed on this investigative project, we will make ourselves available to begin work immediately and will commit the identified personnel, as needed, to meet the schedule requirements as described below. Additionally, Martin/Martin can enlist the help of an additional 11 investigative engineers if necessary to complete the work.

<table>
<thead>
<tr>
<th>Task</th>
<th>Duration</th>
<th>Total Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notice to Proceed</td>
<td>0 Weeks</td>
<td>0 Weeks</td>
</tr>
<tr>
<td>Prepare Drawings for Field Review</td>
<td>2 Weeks</td>
<td>2 Weeks</td>
</tr>
<tr>
<td>Field Review and Draft Report</td>
<td>2 Weeks</td>
<td>4 Weeks</td>
</tr>
<tr>
<td>Receive Test Results*</td>
<td>8 Weeks</td>
<td>8 Weeks</td>
</tr>
<tr>
<td>Meeting w/City and Prep of Final Report</td>
<td>2 Week</td>
<td>6-10 Weeks**</td>
</tr>
</tbody>
</table>

NOTES:

* Based on our initial site walkthrough we do not believe that destructive testing will be necessary, however, if our detailed investigation indicates otherwise, we will coordinate a third party testing agency to perform tests on the existing concrete for physical and chemical property evaluation.

** Provided no destructive testing is performed, the total project schedule can be completed within 6 weeks of receiving the Notice to Proceed.
**SECTION 4 – Motivation**

If you describe motivation as being “moved into action,” our engineers are already highly motivated to begin work on these parking garage projects for the City of Fort Collins. We began our forward momentum as soon as we heard about the request for proposal. We attended the preproposal meeting, asked questions, and documented the sites. Our engineers have met to discuss the projects, the potential issues in the parking garages and discussed the most appropriate schedule and fees with regards to the projects. We have written a thorough approach to the inspection of these specific parking garages which we have included as part of this Statement of Proposal.

Martin/Martin and our engineers are highly motivated to work on this project for the City of Fort Collins.

Our investigative team is passionate about preserving existing structures and helping owners receive the most benefit from their current buildings. We look forward to serving the City of Fort Collins on this project, as well as developing a relationship for the City’s future needs.
### SECTION 5 – Cost and Work Hours

The following fee relates directly to the project approach located in Section 1 – Scope of Proposal of this Statement of Proposal. If you have questions about the fee, or questions regarding our scope please contact us.

<table>
<thead>
<tr>
<th>Structural Assessment:</th>
<th>Fee</th>
<th>Reimbursables</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Pre-Assessment Review:</td>
<td>$1,500.00</td>
<td>$0</td>
</tr>
<tr>
<td>b. On-Site Assessment:</td>
<td>$8,000.00</td>
<td>$0</td>
</tr>
<tr>
<td>c. Report of Findings:</td>
<td>$4,000.00</td>
<td>$0</td>
</tr>
</tbody>
</table>

| Team Findings and Report Presentation:   | $1,000.00 | $0            |

| TOTAL FEES                               | $14,500.00 | $0*           |

Martin/Martin’s will not be charging reimbursable expenses for mileage.

* This fee does not include the cost of the third party concrete testing and laboratory analysis. We recommend the City of Fort Collins budget an additional $5,000.00 to $6,000.00 for this service. If this service is needed, Martin/Martin will retain the testing company under the terms and conditions outlined in our contract agreement with the City of Fort Collins. Based on our initial site walkthrough we do not believe that destructive testing will be necessary.
SECTION 6 – Firm Capability

Martin/Martin’s Investigative Team focuses on the evaluation and repair of existing buildings for clients such as Government Entities, Property Managers, Homeowners Associations, Building Owners, Architects, Attorneys, Contractors and Insurance Agencies. Unlike most investigative engineering firms, Martin/Martin staffs its investigative department with structural engineers who’s hands-on experience and education has not been exclusive to investigative work. Martin/Martin’s engineers actively apply knowledge and lessons learned from the structural design of new and renovated projects to their investigative work. Our engineers enjoy working closely with our clients to develop strategies that will be economical and meet the needs of the building owners and users.

We have the extensive experience and special tools required to determine existing conditions, perform non-destructive testing and analyze the load capacity of existing structures. The Investigative Team prepares surveys, reports, cost estimates and repair documents for consultation, maintenance plans, permitting, negotiation during bidding and construction. We also provide on-site observations during the execution of repair work.

Martin/Martin personnel have completed a wide variety of facility condition assessment projects and repair investigations on parking garages. Often these assessments are performed as part of a due diligence process prepared for private buyers, municipalities and lending institutions. Similar studies have been performed for building owners, both in the private and public sectors, who are interested in the maintenance and protection of their parking facility to allow for long term use, or owners who are considering a renovation. Other times assessments are performed to address specific performance concerns of the owner.

Our work on condition assessments includes:
- Site investigation
- Review of construction documents
- Code compliance review
- Recommendations for testing or additional studies
- Repair recommendations
- Cost estimates
- Long-term maintenance plans

Capacity and Experience

Martin/Martin, established in 1988, has a staff of 163 in our Lakewood and Edwards, Colorado, California/Bay Area, and Cheyenne, Wyoming, offices. This capacity gives us the flexibility to address projects of all sizes. Our staff includes:
- 14 Investigative Engineers
- 117 total engineers, 49 with advanced degrees
- 91 registered professional engineers; 4 registered professional land surveyors
- 34 LEED Accredited Professionals; 120+ LEED Projects
- 65 employees with the firm 10+ years
- Registrations in 43 states & DC; Alberta, Manitoba, Ontario & Yukon, Canada
- Project experience in 49 states, Canada, Mexico and overseas
Project Experience Examples
Project: Stanford Place II Parking Garage
Location: Denver, Colorado
Description: Structural investigative engineering services for the repairs and continued maintenance of this 3 level parking garage. This 3 year project included structural repairs to columns, double tee beams and the top parking surface, as well as waterproofing efforts to prolong the life of the structure and protect the structural repairs performed. Martin/Martin designed drainage improvements for level A to reduce the impact on the structure of the water and ice that accumulates at the building entry on this level. Additionally Martin/Martin performed a chain drag of the north portion of the top level and the south main drive lane of level A to map out the delaminated portions of the concrete surface and provide an estimate quantity for bidding. The parking garage remained open to vehicles during the investigation/design phase. Martin/Martin developed the documents to include base bid items and add alternates for pricing and attended a pre-bid meeting with potential bidders to outline the nature and scope of repairs. Project included construction documents, bidding and construction administration.
Reference: Mr. Scott Hogy, RPA, Scott.Hogy@cbre.com
CBRE – Denver (303) 694-4650

Project: Terrace Building Parking Garage Ongoing Investigations
Location: Greenwood Village, Colorado
Description: Structural evaluation for a parking garage containing one parking level at grade and one elevated parking level. The elevated level consists of precast double-tees supported by precast inverted tee beams, spandrel beams, or cast-in-place concrete retaining walls. Martin/Martin was contacted when the property manager observed that concrete had spalled off of the faces of the double-tee stems at the bearing pockets in the east wall near the expansion joint. Martin/Martin installed crack monitors at nine locations on the structure in order to record the magnitude and direction of the movements reported by the property manager. The monitors were placed in different orientations throughout the structure to help determine the cause of these movements. Martin/Martin reviewed the original drawings, performed further observations and prepared a final report. The final report outlined recommendations for structural repairs and/or modifications to the expansion joint and deteriorated areas of concrete. As an additional service, Martin/Martin investigated the parking garage for any signs of damage or distress to the structure and waterproofing elements.
Reference: Mr. JR Loyd, JR.Loyd@cbre.com
CBRE – Greenwood Village (720) 407-6581

Project: Denver Corporate Center Parking Garage Condition Assessment (Phase IV Repairs)
Location: Denver, Colorado
Description: Martin/Martin performed a visual walk-through examination of the parking garage. Documented the work completed during Phases I, II and III repairs, identified any warranty repairs needed, and located signs of structural distress, and other problems that could potentially affect the safety, durability, maintenance, or performance of the garage. Martin/Martin’s engineers produced construction documents for the scope of the Phase IV repair work, assisted Transwestern in the bidding of this project and performed construction administration.
Reference: Ms. Lucia McCamey, lucia.mccamey@transwestern.net
Transwestern (303) 217-7614