

May 28, 2015

Patricia L. Jackson, PE, RAS Facilities Construction Manager City of McKinney 221 N. Tennessee Street, McKinney, TX 75070

Re: McKinney Downtown Parking Structure (MDPS) - Project Phase 2

City of McKinney Project #: FC1203

Carl Walker, Inc. Proposal for Architectural & Engineering Design Services

Dear Ms. Jackson,

*Carl Walker, Inc. (Carl Walker)* is pleased to present this proposal to the City of McKinney for architectural and engineering design and construction administration services associated with the McKinney Downtown Parking Structure.

### **PROJECT UNDERSTANDING**

Subsequent to Project Phase 1 Site Evaluations and Recommendations, we understand that the City has selected Parking Structure Concept Design 1B which includes the following project

programming requirements and features:

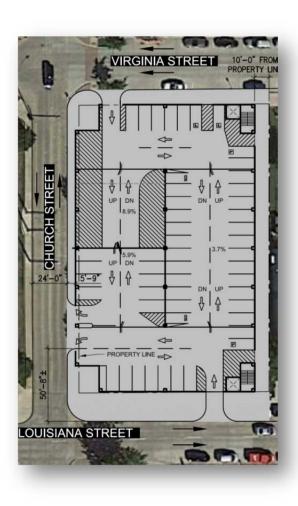
- New parking structure to be built on Site #1 (City Parking Lot #2), located between Virginia Street and Louisiana Street, east of Church Street.
- The parking structure will have a capacity of approximately 413 parking spaces.
- The parking structure dimensions will be 125 ft in the east-west direction and 200 ft in the northsouth direction.
- 5 Levels above grade and
   1 Level below grade





(basement level), pending geotechnical investigation and recommendations.

- Vehicular entry lanes will be provided from Virginia Street and Louisiana Street.
- Two vehicular exit lanes will be provided for access out onto Church Street.
- Pedestrian access points onto the east setback (alley) will be provided at the northeast and southeast corners of the facility.
   Pedestrian access directly onto Virginia and Louisiana will be considered.
- Access to the structure will not be controlled initially (free parking). We understand that the City would like to provide infrastructure for potential future access control. Our scope of services will include design for empty raceways for power and data from and to agreed upon locations for future installation of access control equipment.
- Two elevator/stair cores, one located at the northeast corner and the other located at the southeast corner of the structure.
- Standard parking space dimensions: 9'-0" x 18'-0"
- Angle of parking spaces: 90-degrees
- Storage and MEP rooms will be located in the basement level.
- Automatic sprinkler system: We understand that the McKinney Fire Code Amendments require an automatic sprinkler system <u>for an open parking garage</u>. We also understand that a fire pump will be required since the proposed structure is 4 stories above grade.
- Church Street will require modifications (offsetting curb/gutter to the west by approx. 2 feet) in order to provide a 5 ft wide sidewalk along the west side of the parking new structure.
- The parking structure will start at 10 feet from the eastern property line in order to provide the
  required fire separation for an "open parking structure". This 10 ft setback will be paved with
  concrete.
- Opportunities for covered and/or uncovered bicycle parking will be considered.
- The lighting system will consist of energy efficient LED light fixtures.
- A Parking Guidance Systems (PGS) that keeps track of the available number of parking spaces in the facility will be considered during the schematic design phase.
- We understand that the city intends to retain a Construction Manager for this project.
- The anticipated construction duration is approximately 12 months.







Every parking structure project has unique challenges and understanding these challenges is important to the success of the project. Based on our understanding of the McKinney Downtown Parking Structure, primary design considerations include:

- Aesthetic Impact The parking garage is to have a highly articulated façade in harmony with the historic character of Downtown McKinney. The parking facility will be highly attractive, functional, flexible, durable, sustainable, and low maintenance.
- o **Functional Design** A successful project will balance user comfort, parking efficiency, and cost. A well-designed parking structure will provide efficient circulation, comfortable parking geometry, and well-defined vehicle and circulation routes. Ease of entry/exiting, integration of building services, passive security, efficient circulation, and user comfort are important parking design considerations.
- o Reduce Vehicular Congestion on Adjacent Roadways It is important that vehicle access in and out of the parking structure be as efficient as possible. Getting cars off the roadways and into the parking structure also requires attention to the entry/exit capacity, internal ramping capacity, ease of internal circulation and ease of parking.
- o Convenient Access to Final Destinations The design of the new parking structure will account for safe and identifiable pedestrian routes and convenient access to the Historic Town Square. Pedestrian access/egress requirements have been considered when determining location, size, and number of stair/elevator elements. We have also considered pedestrian/vehicle interface, and user safety.
- Structural System It is anticipated that long-span cast-inplace post-tensioned concrete construction will be used.
   Design objectives will include:
  - ✓ Balance initial cost with long-term economy
  - ✓ Durability systems to match owner's long-term plans
  - ✓ Structural system considerations and impact on user comfort











User-friendly design must consider openness and line of sight





- ✓ Integrate structural system with security (line-of-sight); reduce wall and column obstructions
- ✓ Detailing to reduce volume change restraint often associated with early deterioration of parking structures
- o Waterproofing The parking garage will be exposed to the rain, ice and snow, and maintaining a leak-free facility is important for user comfort, facility durability, and reduced city of McKinney liability. The waterproofing systems (sealants, sealers, expansion joint systems, coatings) will be selected based on structural system, initial cost, reliability, durability, and long-term maintenance costs.
- An Economical, Low Maintenance Facility The city of McKinney is a long-term owner, and long-term economy is an important design consideration. While initial construction cost is an important design factor, a durable design will reduce long-term maintenance and repair costs.
- o Signage & Wayfinding Vehicle and pedestrian wayfinding is an important aspect of a safe and efficient parking facility. The design team will provide both exterior and interior signage for this project. Primary objectives are to assist parking patrons with:
  - ✓ Identifying the parking structure entrance from adjacent roadways
  - ✓ Locating the appropriate vehicular entrance
  - ✓ Identifying nested parking areas, if applicable
  - ✓ Remembering where their car is parked
  - ✓ Locating pedestrian exits, stairs, and elevators that are appropriate to the user's destination
  - ✓ Defining pedestrian paths
  - ✓ Locating the vehicular exit
- Provide a Safe and Secure Environment Design for security may include both passive and active security measures.
  - ✓ Passive Security The parking structure is to be open with painted ceilings (optional), uniform lighting (energy-efficient LED fixtures are anticipated), and a design to maximize line-of-sight for users (minimize visual obstructions). In addition, we anticipate glass-enclosed stair towers and glass-backed elevators.
  - ✓ Active Security Active security may include security cameras (CCTV), call for assistance (emergency phones) stations, and security patrols.



Energy Efficiency - Lighting is generally the largest component of energy consumption in a parking structure, and low energy consumption fixtures (and circuiting) will be provided. It is important to consider low energy light fixtures such as LED, as well as a circuiting design to maximize daylighting, without compromising safety or user comfort. Additional energy savings may be achieved by the use of a wireless lighting control system. This system would allow the city of McKinney to further manage the light performance through dimming, light sensing, and motion detection.

### **PROJECT DESIGN TEAM**

The design team will be led by *Carl Walker*, with primary discipline responsibility as shown in the table below.

| Project Phase       | Design Discipline                        | Firm                      |  |
|---------------------|--|---------------------------|--|
|                     | Prime Consultant                         | Carl Walker, Inc.         |  |
|                     | Parking Consultant                       | Carl Walker, Inc.         |  |
| Phase 2 – Schematic | Structural Engineer                      | Carl Walker, Inc.         |  |
| Design Through      | Architect                                | Moody Nolan/Vai, LLC      |  |
| Construction        | Civil Engineer                           | Garver, LLC               |  |
| Administration      | Mechanical/Electrical/Plumbing           | CCRD                      |  |
|                     | Texas Accessibility Standards Specialist | Johnson Kelley Associates |  |

## PROJECT SCOPE OF WORK

- A. Schematic Design Through Project Close-out: Please refer to the attached Exhibit A
- **B.** Anticipated Meetings & Site Visits The design team will attend and document meetings with the city of McKinney and project stakeholders, attend and document meetings with governmental agencies having jurisdiction over different aspects of the project. We will participate in project presentations to the City's Planning and Zoning Departments, as well as presentations to City Council. We will assist the city of McKinney with the administration of construction, with various meetings and site observations. The number of anticipated meetings and site visits are summarized in the table below; this number of meetings may be adjusted to reasonably accommodate the needs of the project.





| McKinney Downtown Parking Structure  Meetings & Site Visits |   | Moody<br>Nolan/VAI | Garver | ccrd |                        |
|---|---|--------------------|--------|------|------------------------|
|   |   |                    |        |      | Schematic Design Phase |
| Design Development Phase                                    |   | 2                  | 2      | 2    |                        |
| Construction Documents Phase                                |   | 3                  | 1      | 3    |                        |
| Bidding and Negotiation Phase                               |   | 1                  |        | 1    |                        |
| Construction Administration Phase                           |   |                    |        |      |                        |
| Preconstruction Meetings                                    | 2 | 1                  | -      | 1    |                        |
| Owner-Architect-Contractor Progress Meetings                |   | -                  | -      | 2    |                        |
| Site Visits (in addition to Progress Meetings)              |   | 4                  | 2      | 10   |                        |
| Punch Lists & Substantial Completion                        |   | 2                  | 1      | 2    |                        |
| Total Meetings & Site Visits                                |   | 16                 | 8      | 22   |                        |

- C. Clarifications & Exclusions Services that are specifically excluded from this proposal include:
  - 1. Topographic, ALTA/ACSM Surveys, and as-built surveys including GIS surveys. The City has provided a site survey developed by others; the design team may require additional information from the survey and we understand that the City will provide any required additional information.
  - 2. Underground utility locating and marking including determining the location or elevation of existing underground utilities or any other underground obstruction.
  - 3. Cost estimates to relocate utilities. We understand that the City has been working with utility companies to obtain such estimates.
  - 4. Soils investigation and geotechnical engineering consulting will be provided by others retained by the City under a separate contract.
  - 5. Special Inspections and Construction Testing has not been included in the design team scope of services. We understand that the city of McKinney will retain these services under a separate contract.
  - 6. Environmental Evaluation Environmental assessments or evaluations to identify the presence of hazardous and/or contaminated materials have not been included.
  - 7. Street illumination and private utility design.
  - 8. Storm water detention design.
  - 9. Water or sewer main design, excluding service connections.
  - 10. Fire line calculations.
  - 11. Analysis of the existing domestic water, storm water and sanitary sewer utility systems.
  - 12. Storm water pollution prevention (SWPPP): Our scope of work does not include erosion control inspection. We will include an erosion control plan that shows BMP's and have a bid item for the contractor to bid the SWPPP. The City normally has its own forms to



include into the spec; we can fill out some of the information as to the disturbed area, order of construction and the BMPs that will be recommended.

- 13. Efforts related to asbestos/lead/PCB abatement.
- 14. Building permit, variances or other administrative fees.

## ANTICIPATED (APPROXIMATE) PROJECT SCHEDULE

### Task

Design Phases
Bidding Phase / Contract Award
Construction Start
Construction Completion

### **Schedule**

Mid-June to December 2015 January to Mid-March 2016 March 2016 March 2017

### DESIGN TEAM FEE SUMMARY

*Carl Walker, Inc.* proposes to provide professional services for the referenced project as described in this proposal on a lump sum fee basis plus reimbursable expenses as shown in the table below.

| Carl Walker <i>Design Team</i> Professional Fees & Expenses<br>McKinney Downtown Parking Structure |           |                         |  |  |  |
|--|-----------|-------------------------|--|--|--|
| Scope of Work  | Fee       | Expenses <sup>1,2</sup> |  |  |  |
| Schematic Design Phase   | \$96,500  |                         |  |  |  |
| Design Development Phase   | \$135,500 |                         |  |  |  |
| Construction Document Phase  | \$391,000 |                         |  |  |  |
| Bidding and Negotiation Phase  | \$28,000  |                         |  |  |  |
| Construction Administration Phase  | \$173,000 |                         |  |  |  |
| Texas Accessibility Standards (plan review, post-construction inspection and filing fees)          | \$2,000   |                         |  |  |  |
|  |           |                         |  |  |  |
| Design Team Basic Services Total   | \$826,000 | \$17,200                |  |  |  |
|  |           |                         |  |  |  |

<sup>1.</sup> Estimated Reimbursable expenses include printing, shipping, travel, etc. Printing expenses for bid document distribution are not included in this estimate.



<sup>2.</sup> Building Permit Fees have not been included.



We look forward to working with the city of McKinney. Please let us know if you have any questions, or if you would like additional information.

Very truly yours, CARL WALKER, INC.

Gary Cudney, P.E. President & CEO

Fabio J. Serrato, P.E. Principal

Enclosure: Exhibit A – Scope of Work

CC: Michael Ortlieb, Carl Walker, Inc.

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# PROJECT SCOPE OF WORK

### A. Schematic Design

- 1. Conduct an introductory meeting with the City to:
  - Establish communication channels for the project.
  - Review site plans, site survey, soil investigation report.
  - Review parking structure concept design, confirm design objectives and criteria.
  - Confirm project schedule and establish specific target dates for each task.
- 2. Chair and document periodic design coordination meetings with the city and the design team.
- 3. Perform a code analysis review Building code, zoning regulations, site restrictions, ADA, etc.
  - Travel Distances
  - Life Safety Concerns (e.g., quardrails, vehicle barriers, stair enclosures)
  - Fire Separation
  - Openness Requirements
  - Minimum Headroom Clearances
  - Americans with Disabilities Act
- 4. Meet with City staff to review code requirements, zoning regulations, design guidelines, etc. and assess their impact on the project.
- 5. Coordinate the work of our team, including architecture, structural, mechanical/plumbing, electrical, and civil engineering. Confirm conformance with project requirements.
- 6. Coordinate our work with the project traffic engineer (if required) to help evaluate the impact of increased traffic volume on adjacent roadways.
- 7. Prepare Schematic Design functional drawings.
  - a. Prepare functional drawings that include parking space layouts, circulation requirements, and details of entrances/exits.
  - b. Prepare design narrative or outline specifications for signage and pavement markings.



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- 8. Develop primary parking structure architectural elements, including the building façade and stair/elevator towers. Prepare parking structure elevations (as appropriate), and computer generated perspectives.
- 9. Prepare architectural plans and elevations. Provide preliminary design of the exterior building elevations and detailing for the façade and stair/elevator towers. Develop facade details interfacing with functional and structural systems, and provide schematic design level architectural exterior building elevations. Provide a written description of preliminary architectural features and materials.
- 10. Prepare Schematic Design structural drawings, including the incorporation of recommended durability criteria. These documents will include:
  - Preliminary structural criteria for structural system, including durability features, and waterproofing systems.
  - Preliminary foundation drawings based on geotechnical consultant recommendations.
- 11. Provide preliminary selection and sizing of structural elements.
- 12. Prepare preliminary utility and site plans and design narrative/outline specification, including utility coordination, to be prepared by the civil engineer.
- 13. Prepare preliminary MEP plans and design narrative/outline specification to be prepared by MEP consultant (mechanical and electrical systems, including lighting, ventilation, and plumbing).
- 14. Design Deliverables for the Schematic Design Phase
  - a. Preliminary Functional Floor Plans
  - b. Preliminary Parking Structure Structural Plans and typical conceptual details
  - c. Architectural Concept, Perspectives and Elevations
  - d. Design Narrative all disciplines

### B. Design Development Through Construction Documents

- 1. Chair and document periodic design coordination meetings with the city and the design team.
- 2. Functional Prepare Design Development and Final Design parking space and circulation layout drawings and specifications, including entry and exit layouts.





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- a. Prepare functional drawings that include parking space layouts, details of entrances/exits, signage messages and layout, sign schedules and sign details.
- b. Prepare specifications for signage and pavement markings.
- 3. Structural Prepare design development and final design structural drawings and specifications. These documents will include:
  - a. Preliminary and final foundation design based on the geotechnical report and site requirements.
  - b. Preliminary and final sizing of structural elements.
    - Structural system detailing
    - Volume change and seismic design considerations
    - Development of structural durability systems
  - c. Develop and finalize floor elevations and floor drain locations.
  - d. Preliminary and final structural specifications for earthwork, foundations, superstructure system (including durability features). Excavation support system performance criteria will be provided (if needed); design shall be by contractor.
- 4. Parking Area Waterproofing Prepare design development and final design waterproofing drawings and specifications for the parking area floor slabs. These documents will include:
  - a. Concrete sealer application to reduce the infiltration of chloride and water.
  - b. Expansion joint waterproofing systems in the floor slabs.
  - c. Control joint caulking with elastomeric sealant
  - d. Traffic bearing membrane application to protect vulnerable structural, or to provide waterproofing over areas such as storage rooms and electrical rooms.
- 5. Architectural Prepare design development and final architectural plans, elevations, and details. Provide architectural specifications, including architectural precast, masonry, handrails, miscellaneous metals, wood and plastic (if applicable), flashing, roofing, architectural waterproofing for stair towers, damp proofing, vents, wire screens, storage room, electrical room, and elevator.
- 6. Coordinate the work of the design team to confirm conformance of our work with project requirements.
- 7. Civil Prepare design development and final utility and site plans, details, and specifications, including utility coordination.





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- 8. Mechanical, Electrical, Plumbing Prepare design development and final MEP plans, details, and specifications (mechanical and electrical systems, including lighting, ventilation, and plumbing).
- 9. Assist the Construction Manager in updating the probable construction cost budget based on design development and construction document submittals.

### 10. Design Deliverables:

- a. Design Development Phase
  - Functional Floor Plans illustrating parking layout, entry/exit layout, and interior signage.
  - Structural Plans, details and elevations, including foundations and superstructure
  - Parking Area Waterproofing Drawings
  - Architectural, MEP and civil plans and details
  - Draft specifications, all disciplines

#### b. Construction Document Phase

- Final Functional Plans and Details
- Final Structural Plans and Details
- Final Parking Area Waterproofing Drawings
- Final Architectural plans and details
- Final MEP plans and details
- Final civil/landscape plans and details
- Final specifications, all disciplines

### C. Bidding, Construction and Project Close-out

- 1. Consult with project team during the procurement phase, answer questions, and prepare addenda as required.
- 2. Attend preconstruction meeting to review specifications and design requirements with contractors.
- Review appropriate shop drawings and submittals during the Construction Phase of the project. Such review will be for general conformance with the design concept of the project and general compliance with the information given in the Construction Documents.





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- 4. Provide ongoing consultation to the city and the contractor or construction manager throughout the construction phase. Assist in preparing clarifications and interpretations of the contract documents, responding to contractor Requests for Information (RFI's) as required.
- 5. Review materials testing reports, including geotechnical, foundation bearing capacity, soil compaction, and concrete quality.
- 6. Participate in periodic progress meetings. Construction progress meeting minutes by Contractor or Construction Manager.
- 7. Participate in pre-concrete placement meeting, and other meetings necessary for communication of project expectations.
- 8. Conduct construction observation visits at intervals deemed appropriate for timely and proper performance of the work.
- 9. Assist in preparing and reviewing bulletin items to document changes in the work.
- 10. Assist in preparing punch list.
- 11. Prepare record drawings based on documentation provided by contractors.

#### D. Clarifications Regarding Design Scope of Services

- Infrastructure for Potential Future Access Control Access to the structure will not be controlled initially (free parking). We understand that the City would like to provide infrastructure for potential future access control. Our scope of services will include design for empty raceways for power and data from and to agreed upon locations for future installation of access control equipment.
- 2. Telecommunications & Security The electrical design will include a spec section for monitoring the ventilation system, we will need to identify whether the system is to be monitored locally within the structure or if it will be monitored at a remote location via telephone line. Our design documents will include a controls/monitoring specification section. Our design can also include power and data raceways for security systems (CCTV cameras) in the structure for no additional fee. However, our base services scope would not include design or specification of the security system, equipment or cable. Our electrical consultant has capability to offer this design service as an additional service.





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- 3. Fire Protection System Our scope of services includes performance specifications for the fire protection system including fire pump, standpipes and sprinkler system for the entire structure.
- 4. Storm Water Pollution Prevention (SWPPP) We will include an erosion control plan that shows BMP's and have a bid item for the contractor to bid the SWPPP. The City normally has its own forms to include into the specifications; we can fill out some of the information as to the disturbed area, order of construction and the BMPs that will be recommended. Our scope of work does not include erosion control inspection.