

**SCOPE OF WORK
NEW NORMAN SKATEPARK ON THE EAST SIDE OF ANDREWS PARK
IN THE CITY OF NORMAN**

CREATE A DESIGN TEAM TO PREPARE ENGINEERING PLANS AND SPECIFICATIONS FOR THE AREA AROUND THE NEW SKATEPARK, IN ORDER TO COMPLETE ALL SITE WORK AROUND THE SKATEPARK, AND TIE ALL OTHER PARK FEATURES INTO THE AREA WHERE A SEPARATE CONTRACTOR WILL DESIGN AND CONSTRUCT A NEW SKATEPARK IN ANDREWS PARK.

General Project Scope:

The Engineer will prepare engineering plans and specifications for the area around the new skatepark, in order to complete all site work around the skatepark, and tie all other park features into the area where a separate contractor will design and construct a new skatepark in Andrews Park. The overall design program will include, but not be limited to, demolition plans for the existing water storage tank in the park; geotechnical investigation of the existing soils at the site to determine suitability of the chosen site for the new skatepark construction; work with designers from a professional skatepark construction company hired by the City of Norman to aid their design program at the site. The Engineer will also work with the city's on-staff Landscape Architect to finalize plans for any optional site landscape features and details as necessary to achieve the project goal of placing the new skatepark in an existing community park in an aesthetically pleasing manner. Engineering team will prepare all construction plans necessary to bid those parts of the project not covered in the construction scope of the skatepark construction company. The City of Norman will coordinate demolition of the existing underground water storage tank and other site prep work prior to the new skatepark construction via the drawings and specifications.

It is understood the scope of work will encompass, but not be limited to: topographical survey; geotechnical engineering testing; research of existing plats and utility easements; research of existing public and private utility owners; participation in review meetings with staff, the skatepark designers and other stake holders; development of a preliminary engineering report that will include initial design concepts, identification of potential construction issues and preliminary estimated construction costs; completion of final construction plans for review; assist the City in obtaining all necessary permits required for construction; participate in a final review meeting with staff; prepare bid documents for the owner to advertise and take competitive bids; provide limited construction administration support services; and the culmination of the project by the delivery of as-built plans.

Task 1 ~ Project Reconnaissance, Field Survey and Geotechnical Engineering

Sub-Task 1A ~ Project Reconnaissance: The Engineer or members of the design team will coordinate and hold a project kickoff meeting with the owner to outline the project scope and anticipated project schedule. The meeting will include gathering of project expectations by the owner staff members and the design team. Additionally, the design team will conduct a field

reconnaissance of the project area looking at above ground features and potential construction issues that may require additional design efforts.

Sub-Task 1B ~ Topographical Survey: The Engineer or members of the design team will conduct a topographic and boundary survey of the project area with elevations and contours as well as establish the right of way lines for James Garner Avenue. The survey will be from right of way line to right of way line along the existing streets, locating visible aboveground improvements and utility lines as marked by an Okie locate. Sufficient property corner monuments will be recovered to show existing right-of-way, property lines, easements and any special plat information pertaining to right-of-way and/or property lines. The survey will be in accordance with the “Oklahoma Minimum Standards for the Practice of Land Surveying” as adopted by the Oklahoma State Board of Licensure for Professional Engineers and Land Surveyors.

Sub-Task 1C ~ Geotechnical Engineering: The Engineer or members of the design team will drill soil bores (approximately four (4) locations) to obtain soil and ground water information that will be used in the engineering and design of the new skatepark and associated amenities. The soil bores will be logged and profiled in the field then soil samples returned to the testing lab to determine the soil properties required for construction.

Task 2 ~ Preliminary Engineering Design

Sub-Task 2A ~ Preliminary Engineering Report: The Engineer and members of the design team will prepare a Preliminary Engineering Report (PER) supported by design calculations and functional construction plans of the new skatepark. The PER will provide the owner with enough detailed information (design and project layout, constructability potential, impact to the public and environment, order of magnitude construction costs, etc.) to determine which design/construction option will be best suited for this project. The Engineer will provide three (3) hard copies and one (1) electronic copy (PDF file format) of the PER to the owner. A design conference meeting will be held at the owner’s office to review the findings of the PER. At this meeting, the owner will have the opportunity to make additions or changes to the project’s overall design. The Preliminary Engineering Report must be approved by the owner prior to the Engineer or the design team proceeding to the next contractual task.

Sub-Task 2B ~ Preliminary Construction Plans (65% Complete): The Engineer and members of the design team will prepare Preliminary Construction Plans (65% Complete) for review by the owner. The preliminary construction plans will show the existing topographical ground features, existing utilities, proposed skatepark layout, anticipated site amenities, impacts to the existing floodway and floodplain of Imhoff Creek, preliminary construction quantities, and a preliminary construction cost. These plans will also be used to coordinate with the City, the skatepark designers, and the existing private utility owners to confirm any conflicts that may impact construction or services to the public.

Sub-Task 2C ~ Public Meetings: The Engineer and members of the design team will be available to attend a public meeting with City staff, the skatepark designers and other interested parties associated with this project. It is anticipated there will be three (3) small group meetings and one (1) large public meeting. The small group meetings will be held mostly with the skatepark designers, city staff, park patrons, and potential skatepark end users. The one large public meeting will be used to convey the project scope, anticipated construction and anticipated project timeline to all other affected property owners and stakeholders within the project boundary. Dates, times and locations of these meetings will be scheduled at the owner's convenience.

Task 3 ~ Final Design and Construction Bid Documents

Sub-Task 3A ~ Final Design and Construction Bid Documents: The Engineer and members of the design team will provide a complete set of final construction plans, special provision specifications and supporting documents for the project. The final construction plans will encompass the overall scope of work and incorporate any owner comments from the preliminary construction plan review. The final design and construction plans will incorporate, where applicable, all City of Norman Construction Standards and Construction Specifications. The final construction plans will include, but not limited to, a professional engineer's sealed and signed title sheet, location map, estimated quantities and pay items, general construction notes, construction quantity summary sheets, site design plan sheets, plan and profile sheets, construction detail sheets, erosion control sheets, and storm water management plan. The final construction plans will also incorporate the skatepark designer's plans. The final construction plans, special provision specifications and supporting documents will be submitted for the owner's final review and approval. Upon owner approval of the final plans, final bid documents (final construction plans, special provisions, supporting documents, spreadsheet of bid items, etc....) will be submitted to the owner in electronic and hard copy format to be used for bidding the project. The Engineer will provide three (3) hard copies and one (1) electronic copy (PDF file format) of all bid documents to the owner. The Engineer will assist the owner with any pre-bid meetings, address any questions and discrepancies with addendums to the bid documents, review the bids received and prepare a bid tabulation with an award recommendation letter.

Task 4 ~ Limited Construction Administration

Sub-Task 4A ~ Limited Construction Administration: The owner will provide the overall project management and on-site construction inspection for the duration of the project's construction.

The Engineer and members of the design team will provide limited construction administration and assist the owner in monitoring the construction progress for the project. The Engineer and member of the design team will participate in a pre-construction meeting, review all shop

drawings, material submittals, and handle all requests for information (RFI's) from the general contractor. The Engineer will review and comment on request for information (RFI's) generated by the contractor and/or the owner's staff related to the plans and specifications. Additionally, the engineer will review monthly pay claims, change orders, or contract amendments, as well as the approval of the contractor's final pay claim. The engineer will attend monthly progress meetings as scheduled by the owner during construction and make visual inspections of the work progress at that time.

Sub-Task 4B ~ As-Built Drawings/Documents: Upon completion of construction and acceptance of the project by the owner, the Engineer and members of the design team will update the original construction plans to reflect the project's actual construction. The as-built plans will reflect the owner provided mark-ups that will be provided by the owner and/or contractor to the Engineer at the final inspection. All changes and deviations from the original construction plans will be highlighted in red ink in accordance with standard drafting practices. The Engineer will provide all as-built drawing files, in the most current AutoCAD format, as well as one (1) electronic copy (PDF file format) of the as-built plans.

Engineering Contract Fees:

The following tasks and progressive billing milestones will be performed by the Engineer and/or his design team for this project. The engineering contract fee will be apportioned as follows:

!Unexpected End of Formula	Task Fee	Percentage of Engineering Contract Fee
Task 1A – Project Reconnaissance (Hourly Not to Exceed)	\$1,502.50	1.57%
Task 1B – Topographic Survey (Lump Sum)	\$10,500.00	10.97%
Task 1B – Utility Potholing (Lump Sum)	\$1,000.00	1.05%
Task 1C – Geotechnical Engineering (Lump Sum)	\$3,900.00	4.07%
Task 2A – Preliminary Engineering Report		20.01%
Civil Site ~ Utilities (Lump Sum)	\$2,500.00	
Civil Site ~ Grading, Drainage and Paving (Lump Sum)	\$4,280.00	
Civil ~ Structural (Hourly Not to Exceed)	\$3,320.00	
Civil ~ Landscaping and Irrigation (Hourly Not to Exceed)	\$1,445.00	
Electrical Design (Hourly Not to Exceed)	\$2,142.00	
Design Meetings (Hourly Not to Exceed)	\$1,502.50	
Overall Project Management (Lump Sum)	\$3,963.00	

Task 2B – Preliminary Construction Plans (65% Complete)		20.01%
Civil Site ~ Utilities (Lump Sum)	\$2,500.00	
Civil Site ~ Grading, Drainage and Paving (Lump Sum)	\$4,280.00	
Civil ~ Structural (Hourly Not to Exceed)	\$3,320.00	
Civil ~ Landscaping and Irrigation (Hourly Not to Exceed)	\$1,445.00	
Electrical Design (Hourly Not to Exceed)	\$2,142.00	
Design Meetings (Hourly Not to Exceed)	\$1,502.50	
Overall Project Management (Lump Sum)	\$3,963.00	
Task 2C – Public Meetings (Hourly Not to Exceed)	\$1,502.50	1.57%
Task 3A – Final Design and Construction Documents		28.74%
Civil Site ~ Utilities (Lump Sum)	\$2,500.00	
Civil Site ~ Grading, Drainage and Paving (Lump Sum)	\$4,280.00	
Civil ~ Structural (Hourly Not to Exceed)	\$3,320.00	
Civil ~ Landscaping and Irrigation (Hourly Not to Exceed)	\$1,445.00	
Electrical Design (Hourly Not to Exceed)	\$2,142.00	
Prepare Permits and Exhibits (Hourly Not to Exceed)	\$6,440.00	
Prepare All Bid Documents (Lump Sum)	\$3,400.00	
Overall Project Management (Lump Sum)	\$3,963.00	
Task 4 A– Limited Construction Administration		8.88%
Pre-bid Services (Meeting and Addendums)(Hourly Not to Exceed)	\$1,000.00	
Post Bid Services (Bid Tabulations and Award Recommendation))(Hourly Not to Exceed)	\$1,000.00	
Construction Field Services (Site Visits and Inspections))(Hourly Not to Exceed)	\$6,500.00	
Task 4B – As-Built Drawings/Documents	\$3,000.00	3.13%
Totals	\$95,700.00	100%

