

City of Merced**MKN & Associates, Inc's
Scope of Services for
On-Call Engineering Services for Design Engineering Services****Background**

As part of the City of Merced's (City) request for qualifications (RFQ) process, the City has selected MKN & Associates, Inc. (MKN) to be one of the on-call engineers for the General Civil Engineering category. The RFQ stated the scope or services to be performed under the General Civil Engineering category may include:

1. Provide construction plans and specifications of various road projects.
2. Provide construction plans and specifications for various utility projects (i.e. water, sewer, storm, etc.).
3. Provide construction support/inspection on various projects.
4. Provide alignment studies and cost estimates.
5. Prepare application for various grants.
6. Prepare various studies that is related to roads, water, sewer, and storm drains.
7. Assist with regulatory compliance and negotiation with Federal, State, and other agencies as necessary.
8. Other tasks that may be requested by the City (i.e. Structural).
9. Manage sub-consultant to complete the projects (geotechnical, traffic, environmental, etc.)

The following is a detailed scope of services of work to be performed by MKN on an on-call basis.

A. Scope of Services**Task Group 100 – Provide Construction Plans and Specifications of Various Road Projects**

MKN and its subconsultant Drake Haglan & Associates will perform the following Task Group 100 services:

- Planning and design of roadways, bridges, traffic signals, intersections, and
- Review and/or develop engineering details, standards, and technical specifications
- Permitting and coordination with other stakeholders (e.g. Merced Irrigation District, UC Merced)
- Utility coordination by contacting utility companies and agencies that may have existing utilities at the project site to discuss potential utility relocations needed for projects

Task Group 100 Example Deliverables:

- *Plans and technical specifications*
- *Engineer's estimate of probable construction costs*
- *Design details*

Task Group 200 – Provide Construction Plans and Specifications for Various Utility Projects (i.e. water, sewer, storm, etc.)

- Planning and design of transmission pipelines, water distribution pipelines, pump stations, wells, treatment facilities, surface water treatment facilities, tanks, pressure relief/sustaining stations, and surge control facilities.

- Planning and design of sewer trunk lines, sewer collection systems, lift stations, odor control facilities, wastewater treatment plants, and sewer rehabilitation of pipelines and manholes.
- Review and/or develop engineering details, standards, and technical specifications
- Permitting and coordination with other stakeholders (e.g. Merced Irrigation District, UC Merced)

Task Group 200 Example Deliverables:

- *Plans and technical specifications*
- *Engineer's estimate of probable construction costs*
- *Design details*

Task Group 300 – Provide Construction Support/Inspection on Various Projects

- Conduct and/or attend preconstruction meetings
- Review and respond to contractor shop drawings/submittals
- Construction management/resident engineering
- Construction observation and inspection
- Materials testing and special inspection (performed by a MKN teaming partner)
- Conduct construction meetings
- Construction site visits
- Construction administration
- Review change orders

Task Group 300 Example Deliverables:

- *Walkthrough punchlists*
- *Submittal review forms*
- *Construction meeting agenda and notes*
- *Site Visit reports*

Task Group 400 – Provide Alignment Studies and Cost Estimates

- Evaluation of pipeline alignment alternatives
- Utility investigations
- Site investigations along alignment corridors
- Schematic design of pipelines
- Develop cost estimates and perform cost comparisons for different pipeline alignments

Task Group 400 Example Deliverables:

- *Alignment analysis figures*
- *Schematic design plans*
- *Cost estimates*

Task Group 500 – Prepare Application for Various Grants

- Developing funding applications
- Research funding opportunities
- Develop technical, managerial, and financial (TMF) assessments
- Contact funding administration authorities

Task Group 500 Example Deliverables:

- *Funding applications*
- *TMF assessments*

Task Group 600 – Prepare Various Studies Related to Roads, Water, Sewer, and Storm Drain

- Developing hydraulic models and performing hydraulic analyses
- Water age analysis
- Tracer Studies
- Transient (surge) analyses
- Developing Capital Improvement (CI) Programs
- Developing cost estimates for CI Projects
- Master planning
- Condition assessment
- Asset management
- GIS Mapping/Utility Atlas Development
- Flow monitoring (performed by a MKN teaming partner)
- Performing traffic counts
- Traffic analyses
- Pavement analysis

Task Group 600 Example Deliverables:

- *Hydraulic models*
- *Master plan reports*
- *Condition assessment reports*
- *Asset management systems*
- *Capital Improvement Program*
- *Plan Lines*
- *GIS maps*

Task Group 700 – Assist with Regulatory Compliance and Negotiation with Federal, State, and Other Agencies as Necessary

- Preparing Report of Waste Discharge
- Preparing Title 22 Engineering Reports
- Evaluating Waste Discharge Requirements
- Coordination with the State Water Resources Control Board Division of Drinking Water
- Coordination with the Regional Water Quality Control Board
- Coordination with the Air Quality Control Board
- Preparing Stormwater Pollution Prevention Plans (performed by a MKN teaming partner)

Task Group 700 Example Deliverables:

- *Report of Waste Discharge*
- *Title 22 Engineering Reports*
- *Water System Permit Amendments*
- *Air Permits*

Task Group 800 – Other Tasks that may be Requested by the City (i.e. Structural)

- Structural engineering (performed by a MKN teaming partner)
- Mechanical engineering
- Electrical engineering
- Fire protection engineering
- Performing plan-check reviews of plans

Task Group 800 Example Deliverables:

- *Structural calculations*
- *Mechanical calculations*

Task Group 900 – Manage Subconsultants to Complete the Projects (geotechnical, traffic, environmental, etc.)

- General management and coordination with subconsultants
- Solicit fee proposals from subconsultants
- Review subconsultant deliverables



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FEE SCHEDULE FOR PROFESSIONAL SERVICES

ENGINEERS AND TECHNICAL SUPPORT STAFF

Project Manager	\$180/HR
Senior Project Engineer	\$170/HR
Project Engineer	\$150/HR
Water Resources Planner	\$138/HR
Assistant Engineer	\$127/HR
GIS Specialist	\$130/HR
GIS Technician	\$110/HR
Senior Design Technician	\$97/HR
Administrative Assistant	\$57/HR

Routine office expenses such as computer usage, telephone charges, office equipment and supplies, incidental postage, copying, faxes, etc., are included in the hourly rates.

DIRECT PROJECT EXPENSES

Outside Reproduction	Cost + 10%
Subcontracted or Subconsultant Services	Cost + 10%
Travel & Subsistence (other than mileage)	Cost
Auto Mileage	Current IRS Rate - \$.54/mi.