

MCS has over 25 years of engineering design experience in the transportation and aerospace industries. Engineering Services provided by MCS are outlined below.

## **Engineering Services:**

- Engineering Drawings:
  - Review Drawings for Dimensional and BOM Accuracy.
  - Develop and/or review drawings for fabrication, assembly, and installation of mechanical assemblies, including:
    - Manufacturability,
    - Tolerance Analysis,
    - Material Selection,
    - Finish Requirements.
- Review Mechanical Stress and Deflection Analysis for compliance with design criteria.
- Engineering Specifications:
  - Develop and/or review engineering specifications for fabrication, assembly, and installation of mechanical assemblies.
- Test Planning:
  - Develop and/or review engineering test plans for fabrication, assembly, and installation of mechanical assemblies, including:
    - Overall Test Plan/Strategy (i.e. factory acceptance, installation verification, site acceptance, integration, and final acceptance test phases),
    - Test Procedures, Data Collection Sheets, and Test Reports.
- Proposal and Presentation Support:
  - Develop text, figures, and drawings for use in proposals.
  - Develop/conduct/review engineering design presentations.

## **Project/Engineering Management Services:**

- Design Process and Project Management:
  - Direct activities of design staff according to project requirements.
  - Prepare project status reports and prepare, conduct, and review project presentations.
- Engineering Input to Project Schedule Development:
  - Project activity sequence using predecessor/successor logic.

## **Site Installation Services:**

- Review On-site Activities and Progress:
  - Verify Fabrication/Installation/Construction/Installation is in accordance with design.
  - Troubleshoot Problems because of Field Conditions.

## **Design/Drafting Services:**

- Create Fabrication/Construction/Installation/Electrical Packaging Drawings/BOM:
  - AutoCAD

*MCS*