

Thompson Engineering Company Services

PLANNING / PROJECT DEVELOPMENT

Facilities Master Planning
Site Assessment and Selection
Comprehensive and Special District Plans
Zoning Ordinances
Grant Writing
Subdivision Regulations
Landscaping Requirements
Signage Standards
Roadway and Pedestrian Facility Design
Urban Design
Community Visioning

ENGINEERING DESIGN

Civil / Site / Transportation Engineering

- Civil / Site Development
- Civil / Site Development Studies (Feasibility, Comparison, etc.)
- Site Construction Estimating
- Stormwater Management Systems
- Drainage Analysis (Site and Watershed)
- Drainage Design
- Stream Restoration Design
- Flood Studies
- Detention / Retention Ponds
- Water Distribution Systems Modeling
- Water Distribution and Treatment
- Wastewater Collection and Treatment
- Roadways / Parking / Sidewalks
- Resurfacing / Restoration / Rehabilitation Design (3R)
- Traffic / Signalization / Signage

Structural Engineering

- Buildings / Administrative Offices
- Manufacturing / Industrial Facilities
- Shallow and Deep Foundations
- Earth Retention Systems
- Marine Structural Design
- Shore Protection Systems
- Hurricane Protection Systems
- Bridges and Interchanges
- Damage / Failure Assessments
- Strain Gauge Studies
- Renovations and Additions

Electrical and Instrumentation Engineering
Mechanical and Piping Design

MANAGEMENT AND PROJECT CONTROLS

Program, Project, and Construction Management
Design/Build Capabilities
Field Management (Superintendents, Inspection)
Reporting (Daily, Personnel, Costs, Equipment, Progress of Work, Safety, Scheduling, Forecasts)
Cost Estimating
Building Information Modeling
3-D, 4-D, and 5-D Constructability Analysis
Integrated Project Delivery Consulting
Engineering, Procurement, Construction Scheduling
Procurement (Pre-Qualifications, Screening, Contract Administration with Audit Protocols)

MARINE ENGINEERING

Permitting
Design of Piers and Bulkheads
Design of Cofferdams
Design of Ship / Barge Dock Systems
Design of Loading / Unloading Systems
Design of Earthen Dikes and Levees
Design of Mooring / Breasting and Fendering Systems
Development of Dredging and Disposal Plans
Flood Rise Analysis - HEC-II (HEC/RAS) Program
Storm Surge Analysis and Shore-Protection System Design
Coastal Zone Consistency Statements
Use of Dredged Material in Site Development
Coastal Restoration

GEOTECHNICAL ENGINEERING

Building Foundation, Bearing Capacity and Settlement Analysis
Foundation Pile Integrity
Pile Driving Analysis
Pile Load Testing
Bulkhead and Waterfront Structure Design Criteria
Retaining Wall and Bracing System Criteria
Pile Foundation Analyses and Driving Criteria, CAPWAP Analysis and PDA
Slope Stability and Seepage Analysis
Computer Analysis of Soil Mechanics Problems
Ground Modifications for Construction in Weak Foundation Soils
Pavement Design and Construction Recommendations
Seismic Response and Seepage Analyses
Post-Construction Monitoring
Instrumentation (Inclinometers, Piezometers, Strain Gages, Settlement Monitoring)



LABORATORY / DRILLING

Onshore / Offshore Drilling
Standard Penetration Testing
Cone Penetrometer Testing
Aquifer Tests
Shelby Tube Undisturbed Sampling
USACE Undisturbed Sampling
Piston and Continuous Sampling
Vibracore Sampling
Piezometer and Inclinator Installation
Monitoring Well Installation / Abandonment
Soil Boring Rigs, All Terrain Vehicle and Truck Mounted Units
Concrete Coring
Marine Borings
Specialized Wetland Access Clearing
Certified Soils and Aggregate Testing Laboratory
On-site Mobile Laboratory Units
ASTM and AASHTO Testing Protocols

SURVEYS / SUBSURFACE UTILITY ENGINEERING

Topographic and Boundary (Total Station, GPS)
Ground Penetrating Radar
Radar Frequency
Survey Mapping
Construction Stake-out
Hydro-excavation (Pot-holing)

BUILDING ENVELOPE SERVICES

Moisture Intrusion Investigations
Failure Analysis
System Design and Consultation
Quality Assurance Observations / Inspections
Property Condition Assessments
Damage Assessments
Roof and Wall Moisture Surveys (Infrared and Nuclear)
Wind Uplift Testing (FM Compliant)
Water Penetration Testing (Walls and Windows)
Project Management
Professional Witness / Legal Testimony

ENVIRONMENTAL SERVICES

Regulatory Compliance

Permitting (CWA Section 404, CAA, SDWA, Solid Waste, RCRA, UIC)

NPDES Storm Water Permitting and Planning
ADEM, FDEP, MDOT Stormwater Training
Storm Water Management and Inspection
Storage Tank Management (UST, AST)
Pollution Prevention Plans (SPCC, SWP3, BMP)

Investigation and Assessment

Phase I & II ESA
Environmental Assessments
Brownfields Redevelopment
Soil and Groundwater Contamination Assessments
Hydrogeological Investigations
Remedial Investigation/Feasibility Studies/Design
Risk Assessment/Risk-based Corrective Action
Asbestos, Lead-based Paint, Hazardous Building Materials
Indoor Air Quality

Water and Sediment Quality Studies

National Environmental Policy Act (NEPA)

Environmental Impact Statements / Environmental Assessments
Wetlands (Assessment, Mitigation)
Threatened and Endangered Species
Cultural Resources

Environmental Engineering

Corrective Action Plans
Feasibility Evaluations
Remedial Design
Closure / Post-Closure Plans
Landfills / Impoundments
Waste Treatment
Constructed Wetlands
Water/Waste Water Treatment

Wetlands Consulting

Location and Quantity of Impacted Wetlands
Location of Proposed Mitigation Site
Monitoring
Plant Species and Wildlife Habitat Modifications
Proposed Final Value of Mitigation
Proposed Mitigation Technique and Activities
Proposed Quantity of Mitigated Wetlands
Soils and Hydrologic Modifications
Value of Impacted Wetlands



CONSTRUCTION MATERIALS TESTING/QA

Asphalt Mix Design Verification
Asphalt Placement Inspection and Testing
Aggregate Testing
Classification - Index Properties of Soils
Concrete Mix Design Verification
Concrete Placement and Specimen Analysis
Construction Design ("Proctor" Compaction)
Crushed Stone Base Inspection and Testing
Earth Fill Placement Inspection and Testing
Load-Deformation Properties of Soils/Fill Materials
Petrographic Analysis of Concrete and Grout
Physical Properties of Organic & Inorganic Materials
Paint / Coatings Inspections
Welding / Bolted Inspections
Steel Inspections
Concrete – Rebar / Formwork Inspection
Vibration / Noise Monitoring

**CONSTRUCTION ENGINEERING AND
INSPECTION**

Structural Steel Frame and Connection Inspection
Detention/Retention Ponds
Electrical/Instrumentation
Grading and Drainage
Dredging
Mechanical/Piping
Roadway and Bridge
Utilities
Bridge Inspection

SAFETY AND HEALTH CONSULTING

Facility Safety, Health and Environmental (SH&E) Consulting,
Auditing and Training
Process Safety Management (PSM) and Risk Management
(RMP) Consulting and Auditing
OSHA Voluntary Protection Program (VPP) Consulting and
Auditing
ISO14000 Environmental Management System Consulting
and Auditing

ARCHITECTURE / INTERIOR DESIGN

Planning and Programming
Design and Construction
Furnishing and Finish Selection
Post-Occupancy Evaluations
New Buildings
Addition / Remodel
Preservation of Historic Structures

*Architectural and interior design services are provided through
a Thompson Holdings, Inc., company, Watermark Design Group.*

