



National Aeronautics and
Space Administration

John C. Stennis Space Center
Stennis Space Center, MS 39529-6000

SPR 8830.3 Rev A
November 2015

COMPLIANCE IS MANDATORY

John C. Stennis Space Center (SSC) Facilities Project Manual

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P.1 PURPOSE

- a. This Stennis Procedural Requirement (SPR) is intended for use by resident agency managers, facilities managers, contracted architects and engineers, and design and construction contractors and subcontractors at the John C. Stennis Space Center (SSC). It presents established Project Management criteria required to ensure proper management of planning, design, construction, acceptance and Operations and Maintenance (O&M) of onsite projects.
- b. This document shall be used in the development and coordination of each phase of facilities projects with National Aeronautics and Space Administration (NASA) or its designee and outside Architect & Engineer (A&E) firms.
- c. All planning, design and construction of facilities at SSC shall conform to the requirements of the SSC Master Plan, SSC Standards and this SPR, minimizing program impacts to new and existing facility projects at SSC.
- d. The NASA Stennis Control Board (SCB) shall approve all facilities projects involving SSC property.
- e. The impact of the project on SSC and existing utilities systems shall be evaluated as early as possible in the project planning phase of the project, no later than the 30% design review, to avoid possible costly impacts. The project shall be subject to environmental impact review according to the National Environmental Policy Act.
- f. During the planning and execution of facilities projects, applicable SSC objectives such as energy efficiency and conservation shall be goals.
- g. In order to prevent duplication, interferences and other complications detrimental to the process of the project, periodic revisions of plans and schedules, from concept through completion, shall be coordinated with the SSC Center Operations Directorate (COD).
- h. A Point of Contact (POC) from the SSC COD shall be assigned to assist the resident agency and/or its design firm with basic information, emergency numbers, access to clinic/cafeteria and in resolving conflicts with SSC Standards and Procedures. The assigned SSC COD POC must be kept up-to-date during the design process.

P.2 APPLICABILITY

- a. This SPR applies to all SSC NASA organizations, contractors, subcontractors, resident agencies, and organizations and their contractors and subcontractors.

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- b. If any requirement established herein results in a conflict with a resident agency's policies or procedures, the assigned SSC COD POC shall be notified immediately in order to resolve the issue with minimum adverse program impact.

P.3 AUTHORITY

- a. When standards and specifications are not explicitly identified, the normal order of precedence is as follows:
1. Stennis Procedural Requirements
 2. SSC Standards
 3. Original construction specifications
 4. Military specifications
 5. Federal codes and specifications
- b. This SPR shall be controlled, maintained, updated and used in accordance with the requirements of SPR 1440.1, *Records Management Program Requirements*.

P.4 REFERENCES

Referenced documents shall be the latest edition unless otherwise specified. The documents listed below are a representative list. This list is not intended to be all-inclusive. Please contact the SSC COD for assistance in determining if other documents will affect specific onsite projects.

SSC Facilities Requirements:

NPD 1050.1, *Authority to Enter into Space Act Agreements*
 SPD 1050.1, *Agreement Preparation, Processing, and Management*
 SPR 1440.1, *Records Management Program Requirements*
 SSC MASTER PLAN (located in Building 8000, Central Engineering Files upon request)
 SSC SORD DWG 51000-A002, *Protection Fence and Detail*
 SSC SORD DWG 51000-A003, *Standard Fence Details*
 SSC SORD DWG 51000-A004, *Signs*
 SSTD-8070-0001-CONFIG, *Facilities Engineering Documentation Standard*
 SSTD-8070-0002-CONFIG, *Facilities Drafting Manual*
 SSTD-8070-0005-CONFIG, *Preparation, Review, Approval and Release of SSC Standards*
 SSTD-8070-0006-CONFIG, *Component Servicing Processes and Documentation*
 SSTD-8070-0007-CONFIG, *SSC Standard for Variance and Alternate Standard Requests*
 SSTD-8070-0081-ELEC, *Facilities Electrical Standard*
 SSTD-8070-0084-EMCS, *HVAC and Domestic Hot Water Design Standard*
 SWI-8834-0001, *SSC Lifting Devices and Equipment Instructions*

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SSC Environmental/Conservation:

NPR 8553.1, *NASA Environmental Management System*
 SCWI-8500-0018-ENV, *Lead Hazard Control Program*
 SCWI-8500-0019-ENV, *Asbestos Hazard Control Plan*
 SCWI-8500-0020-ENV, *Environmental Integrated Contingency Plan with Spill Prevention Control and Countermeasures (SPCC) Plan*
 SCWI-8500-0026-ENV, *SSC Environmental Resources Document*
 SPLN-8500-0090, *Integrated Cultural Resources Management Plan*
 SPR 8500.2, *Environmental Operations and Implementation Program Procedural Requirements*
 SSC/FED-75-002-011, *SSC Site-Wide Environmental/Industrial Hygiene program Plans*
 SSTD-8070-0085-EMCS, *Lighting Design, Operation, and Maintenance Standard for Energy Conservation*
 SWI-8500-0036-EMS, *SSC Facility Construction, Operations and Maintenance Environmental Desk Guide*

SSC Safety/Security:

NASA-STD-8719.11, *NASA Safety Standard for Fire Protection*
 OSHA 29 CFR 1926, *Safety and Health Regulations for Construction*
 SPD 8715.4, *SSC Safety and Health Policy*
 SPLN-1040-0006, *Emergency Management Plan*
 SPLN-8838-0001, *Fire Protection/Prevention Program Plan*
 SPR 1600.1, *SSC Security Requirements Handbook*
 SPR 8715.1, *SSC Safety and Health Program Requirements*

Forms:

DD Form 1354, *Transfer and Acceptance of DoD Real Property*
 NF-1046, *Transfer and/or Notification of Acceptance of Accountability of Real Property*
 NF-1509, *Facility Project – Brief Project Document*
 NF-1510, *Facility Project Cost Estimate*
 NF-1627, *NASA SSC Mishap Report*
 SSC-46, *Visitor Badge Request*
 SSC-618, *Dig Permit*
 SSC-625, *Certificate of Completion*
 SSC-696M, *Preliminary Environmental Survey*
 SSC-739, *Timber Removal Request*

National/International Standards/Specifications:

ADA *Americans with Disabilities Act*
 ANSI *American National Standards Institution*
 ARI *Air conditioning and Refrigeration Institute*
 ASCE *American Society of Civil Engineering*
 ASME *American Society of Mechanical Engineers*

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ASTM	<i>American Society of Testing and Materials</i>
ASHRAE 90.1,	<i>ASHRAE Journal, Energy Standard for Buildings Except Low-Rise Residential Buildings</i>
IBC	<i>International Building Code</i>
IESNA	<i>Illuminating Engineering Society of North America</i>
IFC	<i>International Fire Code</i>
IMC	<i>International Mechanical Code</i>
IPC	<i>International Plumbing Code</i>
LEED	<i>Leadership in Energy and Environmental Design</i>
NCS	<i>United States National CAD Standard</i>
NFPA 101	<i>Life Safety Code</i>
NFPA 70	<i>National Electrical Code</i>
NFPA 70E	<i>Standard for Electrical Safety in the Workplace</i>
NFS 1852.223	<i>Safety and Health</i>
SMACNA	<i>Sheet Metal and Air Conditioning Contractors' National Association</i>
SSPC	<i>Society for Protective Coatings</i>
UL	<i>Underwriters Laboratories</i>
USGBC	<i>United States Green Building Counsel</i>

P.5 MEASURE/VERIFICATION

Compliance will be measured through periodic audits such as ISO compliance, document management, and management reviews.

P.6 CANCELLATION

SPR 8830.3 Rev Basic dated April 2012.



Richard J. Gilbrech, Ph.D.
Director

DISTRIBUTION:

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CHAPTER 1. GENERAL

1.1 Requirements for Outside Architect and Engineer (A&E) Firm

All designs provided by outside A&E firms must adhere to all safety, fire protection, security and construction codes and standards which are applicable to the proposed facility. NASA requires all new buildings constructed at SSC to be Leadership in Energy and Environmental Design (LEED) Silver certified. For fire protection and life safety code requirements, the outside A&E firm shall contact the NASA SSC Authority Having Jurisdiction (AHJ) prior to the 30% design phase.

- a. All outside A&E firms shall seek the assigned SSC COD POC approval prior to use of any of the following:

1. Surveillance
2. Radio Spectrum
3. Laser
4. Radiation
5. Signs

- b. Landfill

With approval from SSC COD, the landfill will be made available to occupants, their contractors and subcontractors. The landfill may not be used for construction debris. Determination will be made by SSC Environmental Management if the landfill is available for use or if other disposal procedures must be followed.

- c. Timber Removal

All marketable timber at SSC belongs to the U.S. Government and, as such, shall get first cut option on any tree removal project. SSC Form 739, *Timber Removal Request*, shall be filled out and registered with SSC's COD before any cutting takes place.

1.2 Security

- a. Each organization, contractor, and subcontractor on the SSC installation shall:
1. Appoint in writing a security representative and an alternate who are responsible for the conduct and coordination of security activities.
 2. Include security indoctrination briefings and training in all personnel Security Clearance processes.

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3. Ensure that security awareness and SSC security requirements are a part of employee orientations and addressed in personnel briefings.
 4. Ensure that all personnel under their cognizance adhere to SSC security requirements.
- b. The following information shall be submitted fifteen (15) days in advance of the contract start date, notice to proceed, or date of employment, by the Contractor procurement officer(s) to the SSC Security Office for each employee, representing a contractor organization, who requires regular access to SSC:
1. Name of employee
 2. Citizenship of the employee
 3. Social Security Number/Driver's License Number/Company ID Number
 4. Date of hire of the employee
 5. Contract completion date
- c. Contractor/Resident Agency Badges are distinctive picture badges issued to and worn by contractor and resident agency personnel. These are typically issued for the term of employment or contract but may be revalidated periodically. Contractor badges shall be formally requested in writing using SSC Form 46, *SSC Visitor Badge Request*, or by email to the Security Office. Badge applications will be processed in Building 8000.
- d. Contractor security representative will verify through SSC Security that all security badges have been returned to the SSC Security Office prior to authorization of final payment on applicable contracts.

1.3 Public Relations

All press releases and any other public affairs event regarding planning, design, construction, acceptance, and O&M of onsite projects must be approved by NASA SSC Office of Communications prior to the event or release of information.

1.4 Clinic Use

- a. Regular Clinic hours of operation are 8 a.m. to 4 p.m. Monday through Friday. The clinic is located in Building 8000.
- b. Ambulance and Emergency Medical Technician (EMT) services are available on call 24-hrs/day, 7-days/week. For medical emergencies, call 911 using a SSC landline phone (or 228-688-3636 using a cell phone).

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1.5 Safety

- a. All designs shall conform to the personnel and equipment safety requirements established in Stennis Procedural Requirements (SPR) 8715.1, *SSC Safety and Health Program Requirements*; Stennis Policy Document (SPD) 8715.4, *SSC Safety and Health Policy*; OSHA 29 CFR 1926, *Safety and Health Regulations for Construction*; and NASA-SSTD-8719.11, *NASA Safety Standard for Fire Protection*.
- b. SSC contractors and subcontractors shall know and comply with all applicable OSHA and SSC Safety requirements including OSHA 29 CFR 1926, *Safety and Health Regulations for Construction*; SPD 8715.4, *SSC Safety and Health Policy*; and SPR 8715.1, *SSC Safety and Health Program Requirements*.
- c. Accident Site Action
 1. NASA SSC employees, contractors and subcontractors shall comply with the requirements of NPR 8621.1, *NASA Procedural Requirements for Mishap and Close Call Reporting, Investigating and Recordkeeping*, and Stennis Plan (SPLN)-8621-0003, *Mishap Preparedness and Contingency Plan*.
 2. All accidents, incidents including first aid, and close calls shall be reported.
 - i. Report accidents, injuries, or mishaps through the NASA Mishap Information System (NMIS) website within 24 hours of the incident. NMIS is accessed via the website <https://nmis.sma.nasa.gov/>. Click the "Report an Event" button to submit a new event report.
 - ii. Mishaps may also be documented on form SSC-1627 if NMIS is unavailable.
 - iii. A corrective action is required to be submitted in NMIS within 10 working days for review by the SSC Safety and Mission Assurance Directorate.
 - iv. Report close calls through the Close Call Reporting System (CCRS) website, <https://ssccampus.ssc.nasa.gov/ccrs/Default.asp>. Close calls may also be reported through the paper form in the Stennis Common Work Instruction (SCWI)-8715-0016 Close Call Reporting System document or the CCRS hotline: (228) 688-7233.
- d. Close Call

An occurrence in which there is no injury, no significant equipment/property damage (less than \$20,000), and no significant interruption of productive work, but which possesses a high severity potential for any of the mishaps defined as Type A, B, or C Mishap, a Mission Failure and Incident (document) must be reported to SSC Safety and Mission Assurance Directorate.

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e. Stop Work Authority

All employees and subcontractors have the authority and responsibility to stop any work, job or process that is judged to be immediately dangerous to life or health at SSC.

- f. Weapons as defined by SPR 1600.1, Section 7.0, *SSC Security Requirements Handbook*, are forbidden on SSC site.
- g. The use of cellular phone/smart phone or other hand held devices is forbidden while driving on SSC site.
- h. All SSC resident agencies, contractors and subcontractors shall comply with all site alarm and warning notifications (i.e. fire alarms and wind or lightning warnings).
- i. Emergency Management

SPLN 1040-0006, *SSC Emergency Management Plan*, deals with emergency management situations at SSC, including but not limited to hurricanes, tornadoes and other adverse weather situations.

j. Asbestos

- Asbestos containing material (ACM) is present in some buildings at SSC. ACM includes spray applied insulation, thermal system insulation, and miscellaneous materials such as floor tiles. Floors plans for buildings where ACM is present can be found by accessing the following link:
<http://sscodyyssey.ssc.nasa.gov/environmental/asbestos.htm>
- Any modifications, handling of ducts, pipes, and penetrations above ceiling levels in buildings containing asbestos or suspected to contain asbestos shall comply with SSC Safety and Mission Assurance Directorate Requirements and SCWI-8500-0019-ENV, *Asbestos Hazard Control Plan* and must be coordinated with the SSC Environmental Management/Industrial Hygiene and project manager personnel.

k. Lead

- Lead-containing materials such as pipes and paint are present throughout SSC. Building plans where suspect lead materials have been sampled can be found by accessing the following link:
<http://sscodyyssey.ssc.nasa.gov/environmental/lead.htm>
- All activities that may disturb lead-containing material shall comply with SCWI

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8500-0018-ENV, *Lead Hazard Control Program* and must be coordinated with SSC Environmental Management/Industrial Hygiene and project manager personnel.

1. Safety Conscious Performance

1. Pursuant to NASA FAR Supplement (NFS) 1852.223, *Safety and Health*:

- i. "Safety is the freedom from those conditions that can cause death, injury, occupational illness, damage to or loss of equipment or property, or damage to the environment. NASA's safety priority is to protect: the public, astronauts and pilots, the NASA workforce (including contractor employees working on NASA contracts), and high-value equipment and property.
- ii. The Contractor shall take all reasonable safety and occupational health measures in performing this contract. The Contractor shall comply with all Federal, state, and local laws applicable to safety and occupational health and with the safety and occupational health standards, specifications, reporting requirements, and any other relevant requirements of this contract."

2. Contractor Monthly Safety Meeting

- i. Attendance at the monthly safety meeting is mandatory for all contractors.
- ii. Those required to attend the meetings are prime and subcontractors supervisors, job foremen, and safety representatives.

1.6 **Project Ready Technology Park Status**

SSC has been distinguished with a Project Ready Technology Park designation by Mississippi Power Company, which utilized a nationally recognized site selection consulting firm, McCallum Sweeney and Wagoner Engineering, Inc. They analyzed SSC for its development characteristics, its suitability, its costs, and infrastructure in presenting this first-of-its-kind designation in this program. This certification follows a national trend to have sites pre-certified for development, assuring that the company or agency looking to relocate at SSC has basic capabilities available onsite and within a reasonable distance from the site, such as major transportation capabilities. Just under 3,000 acres are ready for development (excluding the acreage that is reserved for the SSC rocket engine testing and support, any areas within the 100 year flood plain, and planned development only along existing horizontal infrastructure).

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CHAPTER 2. PLANNING

2.1 Project Planning Requirements

a. General

The planning activities by all resident agencies, and their contractors and subcontractors, involving SSC property shall conform to the NASA planning cycle, the SSC Master Plan, environmental regulations, and the administrative functions required for SSC SCB approval.

b. The SSC Master Plan has six land use categories:

1. Administration

Land use is for office and technical space. Except for the tower at Building 1200, the height of Administration buildings shall be three (3) stories or smaller.

2. Marine Operations

Land use is for office, industrial and infrastructure dependent on a large measure of waterway accessibility. Height requirements shall be maintained at six (6) stories or smaller.

3. Propulsion Test Operations

Land use is for office, industrial and infrastructure in the Propulsion Test area. The height of the A-3 and B-1 and B-2 dual position test stands is nineteen (19) stories. The A-1 and A-2 test stands are ten (10) stories each, and the E-1 test stand is five (5) stories.

4. Industrial Services

Land use is for office, industrial, solid waste and infrastructure. Height requirements shall be three stories or smaller.

5. Data Operations

Land use is for technical and infrastructure. Height requirements shall be three (3) stories or smaller.

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6. Public Outreach

Land use is for community services. As these structures are disconnected from the rest of SSC, buildings should be three (3) stories or smaller to better blend in with the surrounding environment.

c. Rights-of-Way and building setbacks are as follows:

Road Classification	Rights-Of-Way	Building Setback
4 Lane Arterials	125 feet	220 feet
2 Lane Arterials	90 feet	180 feet
4 Lane Parkway	150 feet	300 feet
2 Lane Collector	80 feet	160 feet
2 Lane Local	40 feet	65 feet

d. Landscaping at SSC, according to the SSC Master Plan, lists the following guidelines:

1. Complement existing and planned structures.
2. Emphasize a unified site pattern, help define traffic arteries, and create an overall consistent unity in the choice of trees, shrubs and lawns.
3. Contribute to safety at intersections and crossings.
4. Consider the ultimate in the growth, form, size and color of the plants selected, and the cultural requirements such as moisture, drainage and maintenance.
5. Correlate design with utility lines, storm drains and sewer systems.
6. Utilize native species.

e. Building Identification Signs

1. Building identification signs will not be limited to a specific design to encourage unique agency images and identifications. However, according to the SSC Master Plan, building identification signs which are placed on open lawns will be of a low profile. All directional information on Trent Lott Boulevard and Saturn Drive will also be low profile. All signage must be pre-approved by the assigned SSC COD POC.
2. Maximum dimensions of these signs will be five feet in height and ten feet in width.
3. Materials used for these signs will be limited to concrete, masonry or aluminum sheets with an enamel background with appropriate contrasting lettering and logos. Any other materials must have approval from the assigned SSC COD POC.
4. Building signs shall be per SSC SORD DWG 51000-A004.

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5. To the extent possible, signage applied directly to buildings will be limited to building numbers. Buildings such as agency headquarters or other major functional facilities may have appropriate verbiage applied thereon. All signage other than building numbers must be submitted and approved by the assigned SSC COD POC. Building numbers will not be larger than twelve (12) inch height lettering.
6. Due to the location of SSC and its operations, no lighted signs are permitted. Spot and flood lighted signs will be considered and evaluated by the assigned SSC COD POC.

f. Fences

1. The SSC SCB must approve all fences before construction.
2. Fences shall conform to SORD DWG 51000-A002, *Protection Fence and Detail*, and SORD DWG 51000-A003, *Standard Fence Details*.

g. Environmental Aspects

1. A SSC-696M, *Preliminary Environmental Survey (PES)*, shall be developed no later than the 30% design review and submitted to SSC Environmental Management for determination of the beneficial/adverse impacts of the project on the environment. Stennis Work Instruction (SWI)-8500-0036-EMS, *SSC Facility Construction, Operations and Maintenance Environmental Desk Guide*, and SPR 8500.2, *Environmental Operations and Implementation Program Procedural Requirements*, are references for more detail on particular environmental aspects.
2. The Record of Environmental Considerations (REC) is provided by the assigned SSC COD POC to project and program planning managers in order for them to recognize the environmental permits or regulations that apply to their project or program. The environmental aspects that are considered include: air emissions, wastewater discharges, wetlands disturbance, ground water usage, drinking water usage, storm water discharges, hazardous materials usage, generation of solid waste, modification to historic property or landmarks, installation of storage tanks, disturbance of asbestos containing material and disturbance of lead based paint. Additionally, in order to comply with Presidential Executive Orders, energy conservation and sustainable acquisitions, native plant landscaping must be considered.

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h. Project Plan shall include:

1. Schedules and roles/responsibilities.
2. A SSC-696M, *Preliminary Environmental Survey*, shall be developed no later than the 30% design review, to determine the beneficial/adverse impact of the project. This assessment shall include a “finding of no significant impact” statement or a “notice of intent to prepare an environmental impact” statement. Strict compliance with Federal and state environmental regulations is mandatory.
 - i. The REC for environmental impact should include, as applicable: SSC dig permit; DEQ Permit; burn permit, including process, timeline, and cost with overtime if any; storm water permit; SSC/FED-75-002-11 SSC, *Site-wide Environmental/Industrial Hygiene Program Plans*, including all industrial hygiene considerations; archeological considerations required by the 30% design review; and asbestos/lead considerations.
 - ii. Sewer and potable water tie-ins, including sanitary sewer, storm stain, and chemical waste disposal. A letter stating approval or no approval of the design for connection into the site water and/or sanitary system is required from the Mississippi Department of Health (MDH) or Mississippi Department of Environmental Quality (MDEQ).
 - iii. Historic Significance. Appendix B shows the Gainesville Historic District located within SSC. Historical impact must be considered as part of the PES. Final determination shall be made by SSC Environmental Management. Contact SSC Environmental Management for survey coordinate information.
3. Risk Management.
4. Energy efficiency and water conservation considerations.

2.2 Equipment/Spare Parts

If heavy equipment is necessary, SWI-8834-0001, *SSC Lifting Devices and Equipment Instructions*, shall be followed and coordinated with COD O&M and SSC Safety and Mission Assurance Directorate.

2.3 Temporary Structures

- a. Resident agency facility manager shall contact the assigned SSC COD POC prior to commencing planning on a temporary facility to ensure proper requirements are met and all costs to NASA, resident agencies, contractors and subcontractors are identified in a timely manner.

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- b. The assigned SSC COD POC must approve the installation of a temporary facility used to fulfill interim space requirements only until an approved permanent structure is available, and will coordinate requirements with the resident agency.
- c. When a temporary structure is used, the structure shall have a predictable, short-term duration with a time schedule submitted with date of removal from site and replacement with a permanent structure included.

2.4 Documentation

- a. During the planning phase of the project and prior to design initiation, a letter of intent shall be forwarded to the assigned SSC COD POC and must contain the following data:
 - 1. A request for site approval that includes the project location.
 - 2. Other functional project documentation including, but not limited to, statement of purpose, description/justification, statement of work, and funding source.
 - 3. NASA Form 1509, *Facility Project-Brief Project Document*, is required for all projects with a construction estimate of \$25,000 or greater. For NASA-funded projects or projects with a construction estimate of \$75,000 or greater, NASA Form 1510, *Facility Project Cost Estimate*, is required.
- b. Ten (10) days prior to the scheduled preliminary resident agency design review, three (3) sets of prints, three (3) sets of specifications, and two (2) sets of calculations shall be submitted to the assigned SSC COD POC.
- c. Final copies of construction drawings, specifications and calculations shall be submitted to Central Engineering Files (CEF) upon the completion of the design, and the assigned SSC COD POC shall be notified
 - 1. The assigned SSC COD POC shall be informed of and shall assess any deviations between the final design documents and the SSC design criteria.
 - 2. Within ten (10) days, the assigned SSC COD POC will forward any comments or concurrence with the proposed facility project construction.
- d. For NASA projects, vendor submittals and associated data shall be provided to the assigned SSC COD POC. Early submittals are encouraged to allow facility operations personnel to familiarize themselves with the project.

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CHAPTER 3. DESIGN

3.1 Drawings

- a. For complete design and drawing requirements, reference SSTD-8070-0002-CONFIG, *SSC Facilities Drafting Manual*. All designs shall be submitted in electronic format.
- b. Submission is required of 30-day/60-day/90-day review for SSC review for compliance with site standards.
- c. For all Life Safety requirements, SSC Fire Protection Engineers (FPE) and the AHJ should review the system for compliance with NASA-STD-8719.11, *NASA Safety Standard for Fire Protection*, and issue a judgment.

3.2 Specifications

- a. The four design control elements that shall be adhered to are architectural compatibility, standard and code compliance, environmental, and energy conservation.
- b. Specific criteria for design include:
 1. All building structures shall be designed to comply with all applicable building codes and SSTD-8070-0002-CONFIG, *SSC Facilities Drafting Manual*.
 2. Mechanical
 - i. Building mechanical systems shall conform to all applicable codes.
 - ii. HVAC loads and system designs shall be in compliance with SSTD-8070-0084-EMCS, *HVAC and Domestic Hot Water Design Standard*, must be Siemens compatible, and comply with the Energy Conservation Act that mandates exceeding the requirements of ASHRAE 90.1 by 30 percent. If these goals cannot be met, a cost analysis showing that compliance is not cost effective must be provided.
- c. Electrical
 - i. Building electrical systems shall meet the requirements of SSTD-8070-0081-ELEC, *SSC Facility Electrical Standard*.
 - ii. Lighting designs shall comply with the SSTD-8070-0085-EMCS, *Lighting Design, Operation, and Maintenance Standard for Energy Conservation*.

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- iii. New construction or modification designs for instrumentation and control of electrical and mechanical systems, including stop/start functions and analog data, shall be compatible with the SSC Energy Management and Control System (EMCS) and comply with SSTD-8070-0081-ELEC, *SSC Facilities Electrical Standard*.
- iv. Meters shall be compatible with and connected to the site EMCS.

3.3 Operations and Maintenance

- a. The design shall require the construction contractor or subcontractor to prepare and deliver five (5) complete sets of maintenance and operating instructions if NASA or its designee is to perform the operations and maintenance as defined in the NASA contract.
- b. The design shall provide access to operating equipment in order to support an extensive preventive and corrective maintenance effort. Equipment specified in the design shall minimize maintenance activity.
- c. The design shall provide for onsite training of designated SSC personnel in the operation and maintenance of all systems.

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CHAPTER 4. CONSTRUCTION

Prior to the start of all construction activities, the following documentation must be presented to the SCB for approval. Construction may not begin until written approval from the SCB Chair is obtained.

The following documents must be submitted:

- a. A letter of intent stating the scope of the project, who will be performing the work, the cost of the project, and when the work is scheduled to take place.
- b. A PES clearly identifying all known hazards.
- c. A REC signed by SSC Environmental Management. The REC will be sent directly to the requesting agency or organization.
- d. A completed NF-1509, *Facility Project-Brief Project Document*/NF-1510, *Facility Project Cost Estimate*. Please contact the assigned SSC COD POC for assistance in completing these forms and to determine if they are required.
- e. A drawing or sketch depicting the area involved in the project and the overall design characteristics.

4.1 Schedule

- a. The construction schedule shall be prepared and updated throughout construction.
- b. The construction schedule shall include contractor or subcontractor representatives and contacts for emergency or security. A copy of the schedule will be provided to the SSC project coordinator.

4.2 Construction

- a. Close coordination shall be maintained between the resident agency, its construction contractors or subcontractors, and SSC in order to minimize conflict in the construction and post-construction periods.
- b. Building construction shall comply with the latest version of the following codes and standards:
 1. Americans with Disabilities Act (ADA)
 2. American National Standards Institution (ANSI)

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3. Air conditioning and Refrigeration Institute (ARI)
4. American Society of Civil Engineering (ASCE)
5. ASHRAE 90.1, ASHRAE Journal, Energy Standard for Buildings except Low Rise Residential Buildings.
6. American Society of Mechanical Engineers (ASME)
7. American Society of Testing and Materials (ASTM)
8. International Building Code (IBC)
9. Illuminating Engineering Society of North America (IESNA)
10. International Fire Code (IFC)
11. International Mechanical Code (IMC)
12. International Plumbing Code (IPC)
13. NFPA 101, Life Safety Code
14. NFPA 70, National Electrical Code
15. NFPA70E, Standard for Electrical Safety in the Workplace
16. Sheet Metal and Air Conditioning Contractors' National Association (SMACNA)
17. Society for Protective Coatings (SSPC)
18. Underwriters Laboratories (UL)
19. United States Green Building Counsel and LEED Certification (USGBC)

c. Utilities

NASA or its designee shall do an analysis of the utility systems and a site preparation shall be prepared to determine if existing systems are adequate or if new facilities are required. All final hookups to existing utilities shall be completed by NASA or its designee's personnel. These services should be coordinated with NASA or its designee and NASA's project POC, and include, but not be limited to:

1. Roads and grounds including parking areas
2. Water and sewerage including potable water
3. High-pressure gas, including the distribution requirements for nitrogen, hydrogen, helium or high-pressure air. No activity shall reduce the operational capacity of any of these systems.
4. Electrical, including the load requirements for power distribution systems
5. Connections to the site domestic water and sanitary sewer system shall be witnessed by NASA or its designee's Plumbing Shop.

d. Modifications

1. All modifications and changes from the original design shall have the assigned SSC COD POC approval.
2. Contractor submittals deviating from the approved drawings and specifications shall be made in accordance with SSTD-8070-0007-CONFIG, *SSC Standard for*

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Variance and Alternate Standard Requests, and approved by the SSC COD POC prior to approval by the construction agency.

- e. No new construction or renovation facility or portion thereof shall be occupied until the AHJ has approved a Certificate of Occupancy. Request should be made through the SSC Fire Department.

4.3 Equipment Acceptance and Handoff Baselines

SSC COD or its designee's personnel shall perform final inspections for acceptance of any new construction and joint or beneficial occupancy of incomplete facilities.

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CHAPTER 5. FINAL PACKAGE DOCUMENTATION

- a. The resident agency shall prepare and furnish the assigned SSC COD POC reproducible record drawings depicting the actual configuration of the facility.
- b. The resident agency or its construction contractor shall provide the SSC coordinator with a copy of the following:
 1. Advertising package
 2. Award notice
 3. Official contract and all changes
 4. Contractor schedule for performance
- c. A copy of all accepted data submitted by the construction contractor shall be provided to the assigned SSC COD POC including:
 1. Vendor data on equipment, hardware, or systems
 2. Shop drawings on contractor-fabricated equipment
 3. Initial spares list identifying all spare parts by the contractor
 4. Special tool list identifying all special tools provided by the contractor
- d. The inspection and completion of all outstanding items with a joint operation period of not less than two (2) weeks for building systems shall be required prior to SSC's final acceptance of the completed facility project.
- e. NF 1046, *Transfer and/or Notification of Acceptance of Accountability of Real Property*, shall be submitted to transfer accountability for new facilities. For military departments and other government agencies, use DD Form 1354, *Transfer and Acceptance of DoD Real Property*. Interim acceptance of facilities can be accomplished within twenty-four (24) hours of submittal. Final acceptance of the facility by SSC is made only after receipt of final transfer documents and the following data:
 1. Record drawings, as-built drawings
 2. Vendor submittal date
 3. Dated warranties and guarantees
 4. Operational data and instructions
 5. Maintenance manuals
 6. Punch lists
- f. Submittals of final transfer documents and supporting data, including SSC-625, *Certificate of Completion (COC)*, shall be made to the assigned SSC COD POC within thirty (30) days of completion of construction.

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APPENDIX A – ACRONYMS, ABBREVIATIONS AND DEFINITIONS

A&E	Architect & Engineer
AHJ	Authority Having Jurisdiction
ARI	Air Conditioning and Refrigeration Institute
Arterials (Roads)	A major traffic artery for movement of large numbers of vehicles with the least amount of interference possible
ANSI	American National Standards Institution
ASCE	American Society of Civil Engineering
ASME	American Society of Mechanical Engineers
ASTM	American Society of Testing and Materials
ADA	Americans with Disabilities Act
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
CADD	Computer Aided Design and Drafting
CEF	Central Engineering Files
COC	Certificate of Completion
COD	Center Operations Directorate
Collector (Roads)	The function of this road is the collecting and providing for passage of vehicles from local road systems to the arterial roads
DWG	Drawing
EMCS	Energy Management and Control System
EMT	Emergency Medical Technician
FPE	Fire Protection Engineer
IBC	International Building Code
IESNA	Illuminating Engineers Society of North America
IFC	International Fire Code
IMC	International Mechanical Code
IPC	International Plumbing Code
LEED	Leadership in Energy and Environmental Design
Locals (Roads)	These roads provide direct access to the building sites
MDEQ	Mississippi Department of Environmental Quality
MDH	Mississippi Department of Health
NASA	National Aeronautics & Space Administration
NF	NASA Form
NFPA	National Fire Protection Act
NFS	National Fire Safety
O&M	Operations & Maintenance
OSHA	Occupational Safety & Health Administration
Parkway (Roads)	A semi-limited access and restricted vehicle-type road
PES	Preliminary Environmental Survey
POC	Point Of Contact

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REC	Record of Environmental Considerations
SCB	Stennis Control Board
SMACNA	Sheet Metal and Air Conditioning Contractor's National Association
SORD	Sitewide Operational and Repair Documentation
SPCC	Spill Prevention Control and Countermeasures
SPD	Stennis Policy Directive
SPLN	Stennis Plan
SPR	Stennis Procedural Requirement
SSC	John C. Stennis Space Center
SSPC	Society for Protective Coatings
SSTD	John C. Stennis Space Center Standard
SWI	Stennis Work Instruction
TSI	Thermal System Insulation
UL	Underwriters Laboratories
USGBC	United States Green Building Counsel and LEED Certification

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APPENDIX B – GAINESVILLE HISTORIC DISTRICT

B-1: Gainesville Historic Area

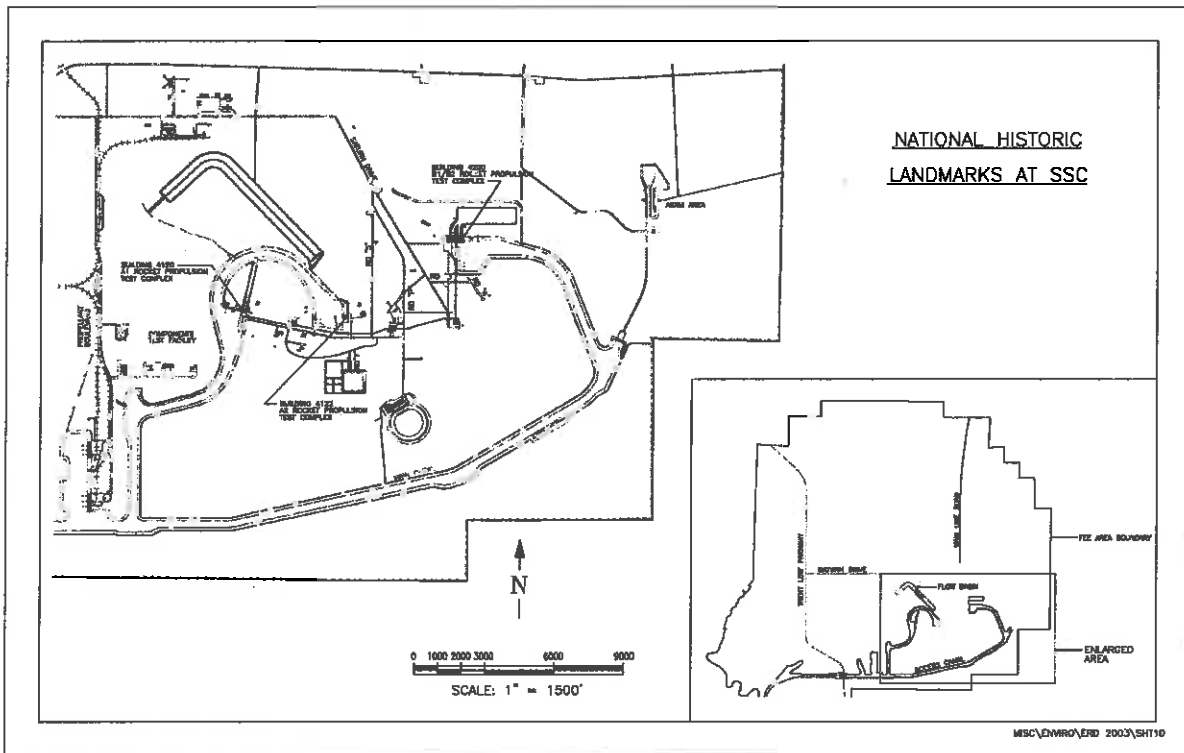


All ground disturbing activity within the yellow line requires consultation with SSC Environmental Management.

All ground disturbing activity within the white line, or core area, requires mitigation prior to any disturbance per Section 106 of the National Historic Preservation Act.

Red indicates longitudinal/latitudinal survey coordinates.

B-2: National Historic Landmark



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B-3: SSC Archaeological Site Map

