SECTION 13 11 13 - POOL GENERAL

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Project administrative requirements that relate to Division 13 11 Pools.

1.2 RELATED DOCUMENTS

A. Drawings and Contracting Requirements, including General and Supplementary Conditions and Division 01 - General Requirements, apply to this Section.

B. Refer to Alternate Descriptions as they apply to 13 11 sections.

C. The following contain requirements that relate in Division 13 11:
   1. Mechanical/Electrical/Equipment Coordination: General Conditions, Supplementary General Conditions and Division 01 General Requirements
   2. Earth Work and Pool Excavation: Division 31
   3. Concrete Deck Work: Division 32
   4. Mechanical: Plumbing Systems - Division 22, HVAC Systems and Equipment - Division 23
   5. Electrical: Division 26

D. Applicable requirements of the following Codes and Standards apply to Work in Division 13 11:
   1. National Spa and Pool Institute (NSPI)
      a. Minimum Standard for Public Swimming Pools
   2. National Electrical Code (NEC)
   3. National Sanitation Foundation (NSF): Seal of Approval Program
   4. American Society for Testing and Materials (ASTM): Specifications referenced herein
   5. Governmental Health and Building Codes
   6. ADA Accessibility Guidelines for Buildings and Facilities
   7. American National Standards Institute

1.3 REFERENCES

A. Refer to individual Division 13 11 sections.

1.4 DESCRIPTION OF WORK

A. Work of Division 13 11 includes, but is not limited to, the following:
   1. Layout of all pool(s) and pool related work required under Division 13 11.
   2. Project benchmarks and control points.
   3. Excavation and stone fill as required for pool structure and pipe trenching. Refer to Division 01 and 31 for special conditions.
   4. Pool vessels, as detailed on Contract Drawings and Shop Drawings.
   5. Pool mechanical systems, including piping, recirculation system, filtration system, activity mechanical systems and water chemical treatment system.
   6. Water activity mechanical systems including all piping.
   7. Pool subsurface drainage system, coordinate with civil contractor.
   8. Pool finishes, light broom finish.
   9. Pool deck equipment and accessory equipment shown and/or specified, including required anchors embedded within the pool deck and coordination with Deck Contractor.

10. Coordination of all electrical interlocks and control wiring for pool and pool related equipment.
11. Miscellaneous pool testing, safety and control equipment.
12. Spray Pad water feature balancing. The “Basis of Design” for the base bid design is based on a lower flow that cannot operate all the features @ 100% capacity. Various spray features will need to be throttled down or closed. The contractor shall coordinate with the owner on field adjustments required to accommodate desired affects.

B. Definitions
1. The term "pool" as used in Division 13 11 shall refer to the following
   a. Pool A – Spray Pad: Classified as “Interactive Water Features” with Florida pool code.
2. The term "concrete" as used in Division 13 11 refers to concrete for pool construction only.
3. The term "Architect/Engineer" as used in Division 13 11 refers to the pool designer only.
4. The term "Contractor" as used in Division 13 11 refers to the swimming pool contractor only.

C. Applicable Permit and Inspection Fees
1. State and/or County Health Department permit fees by Owner.
2. Local Departments of Health inspection fees by Contractor.
3. Other permits/fees required paid by Contractor.

D. Related Work Not in Division 13 11 Specified Elsewhere
1. Pool deck construction, including finishes, sealants, and drains.
2. Potable water or fresh water: Fresh water connection to auto fill and waste water connections (see Contract Drawings).
3. Pool electrical work: Electrical connections shall be by the General Construction Contract Electrical Sub-Contractor. The Pool Contractor shall provide the filter pumps, motors, solenoids, relays, water level probes (with housing), motorized valves, etc., as shown on Contract Drawings and required by pool systems equipment manufacturer. The Electrical Contractor shall install and wire electrical equipment furnished by the Pool Contractor and shall provide motor starters and disconnect switches as indicated or required by Codes. The Electrical Contractor shall provide grounding and bonding per NEC Article 680.

1.5 QUALITY ASSURANCE

A. Qualifications of Pool Contractor: Work of Division 13 11 shall be performed by a contractor who has a minimum of five (5) projects with a proven five (5) year record of competence and experience in the construction of similar facilities of this size and complexity.

B. Performance Criteria: Certain sections of Division 13 11 contain performance criteria rather than product descriptions. It shall be the obligation of the Pool Contractor to ensure that all criteria are satisfied and the burden or proof of conformance shall rest with the Pool Contractor. The Architect/Engineer shall require complete calculations, past performance records and, if required, inspection trips of similar facilities to substantiate conformance with these criteria. The Architect/Engineer shall be sole judge of conformance, and the Pool Contractor is cautioned that he will be required to provide a finished product meeting all stated criteria and meeting or exceeding Department of Public Health requirements.

C. All work of Division 13 11 shall be performed by the qualified Pool Contractor or a Subcontractor to the qualified Pool Contractor unless otherwise pre-approved in writing by the Architect/Engineer. A representative of the Pool Contractor shall oversee work subcontracted by the Pool Contractor.

D. The following shall be performed during construction of the project.
   1. Refer to General Conditions, Division 01, and other Division 13 11 sections for further requirements.

1.6 SUBMITTALS

A. Submittals Required
   1. Refer to General Conditions, Division 01, and individual Division 13 11 sections for number required.
   2. The Contractor shall submit for approval to the Architect/Engineer complete lists, including descriptions, catalogs, product cut sheets, etc., and where applicable dimensioned shop drawings of all material, fixtures and equipment to be furnished and installed as part of Division 13 11.
   3. Submittals shall adequately and completely describe the equipment, including where necessary or requested complete construction and installation dimensions, complete capacity and performance data, all accessories and auxiliary equipment and all pertinent details of manufacture.
   4. Submittals shall be provided complete and bound in a 3-ring binder or as pre-approved by Architect/Engineer.

B. Product Data: Provide manufacturer's/installer's written installation instructions.

C. Shop Drawings
   1. The drawings accompanying this Specification are diagrammatic in nature and show the general arrangement of all equipment, piping, ductwork, services, etc. Because of the small scale of the drawings, it is not possible to show all offsets, fittings and accessories that may be required. The Contractor shall carefully investigate the structural and finish conditions of his work and shall arrange such work accordingly; furnishing all fittings, pipe and accessories that may be required to meet such conditions. Where conditions necessitate a rearrangement, the Contractor shall obtain the Architect/Engineer's approval.
   2. Shop drawings for equipment shall be submitted, and Engineer’s review of shop drawing shall be obtained before proceeding with fabrication. Shop drawings shall not be "doctored" reproductions of Architect/Engineer’s drawings.

D. Samples: Submit samples of materials, finishes, and trim as requested by the Architect/Engineer.

E. Schedule of Values
   1. Provide Architect/Engineer with a copy of the Schedule of Values developed for this project relevant to Division 13 11 for approval.

F. Valve Charts: Submit two (2) copies of valve charts for each piping system, consisting of Isometric Drawings or piping layouts showing and identifying each valve and describing its function to the Architect/Engineer for approval.
   1. Upon completion of the Work, one (1) copy of each chart sealed to rigid backboard with clear lacquer placed under glass and framed, shall be hung in a conspicuous location in the equipment room.

G. Furnish to the Architect/Engineer the following:
   1. Refer to individual Division 13 11 sections for additional requirements.
   2. Submittals
      a. Concrete Mix Design
      b. Non-shrink Grouts

c. PVC and Pre-formed Plastic Adhesive Waterstop
d. Expansion/Construction Joint Materials
e. Caulking/Sealants
f. Pumps and Strainers

g. Chemical Controller
h. Chemical Feeders
i. Valves
j. Skimmers
k. Gauges
l. Flow Meters
m. Pool Water Test Kit
n. Grating
o. Pre-fabricated Submerged Outlets
p. Deck Equipment
q. Safety Equipment
r. Maintenance Equipment
s. Piping Materials (pipe, fittings, solvents, cements)
t. Wall Sleeves and Seals for Piping

3. Shop Drawings
   a. Reinforcing Steel
   b. Water Activities
   c. Filters
   d. ALTERNATE UV Disinfection System
4. Test Results
   a. Water Treatment Analysis
   b. Compaction
   c. Piping Pressure Testing
5. Guarantees/Warranties
   a. Standard 1-Year
   b. Special Equipment – Standard Manufacturer's Warranty
6. Close Out Documents
   a. O & M Manuals
   b. Record Drawings
   c. Owner's Certification of Instruction
   d. Extra Materials

1.7 SUBSTITUTIONS

A. Refer to General Requirements and Division 01.

B. Along with the Shop Drawings, the Contractor shall submit, in duplicate, a certificate properly attested, stating the material, equipment, and construction comply with the requirements of the Contract Documents, for all equipment and materials proposed as a Substitute for the specified equipment and materials.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Refer to General Requirements and Division 01 of the Specifications for additional requirements.

B. Deliver all materials and equipment to the work site in original packages, fully identified with manufacturer's label. Store off ground and protect from weather with a suitable covering.

C. Protect plastic pipe from exposure to chemicals (aromatic hydrocarbons, halogenated hydrocarbons and other esters and keytones) that might attack the material. Protect all pipes from mechanical damage and long exposure to sunlight during storage.

1.9 WARRANTIES

A. Warranty: Provide one (1) year warranty covering all pool workmanship, materials, and equipment. Refer to General Requirements and Division 01 of the Specifications for additional requirements.

B. All standard manufacturer's warranties shall apply to all equipment and products provided by this Contractor.

PART 2 PRODUCTS

2.1 NOT USED

PART 3 EXECUTION

3.1 EQUIPMENT BASES AND SUPPORTS

A. Provide for major equipment, reinforced concrete housekeeping bases poured directly on structural floor slabs (or as required by equipment manufacturer) 4 inches thick minimum; unless noted otherwise on plans, extended 4 inches beyond machinery bedplates. Provide templates, anchor bolts, vibration isolators, and accessories required for mounting and anchoring equipment. Anchorage system shall be in accordance with the equipment manufacturer's specifications and local code requirements. Consult with equipment manufacturer for length and installation of anchor bolts.

3.2 CLEAN UP AND PROTECTION

A. After work of Division 13 11 has been completed, clean up work areas and remove all equipment, excess materials, and debris. Protect pool from damage until substantial completion. Remove and replace equipment and finishes that are chipped, cracked, abraded, improperly adhered, or otherwise damaged.

B. At turnover to Owner, Contractor shall be responsible for, but not limited to, the following:
1. Vacuuming and cleaning all pool floors.
2. Cleaning and waxing of all pool deck equipment, water features and stainless steel products per Manufacturer’s instructions.
3. See also Division 01 Specification requirements.

END OF SECTION