

GLENCOE PARK DISTRICT

999 Green Bay Road

Glencoe, IL 60022



Request for Bid
Spray Ground Construction & Installation

September 2, 2011

**BID PACKAGE
TABLE OF CONTENTS**

Invitation for Bidder's Proposals	Section 00001
District Bid & Legal Requirements	Section 00002
Project Bid Schedule	Section 00003
Project Construction Timeline	Section 00004
General Instruction to Bidders	Section 00005
Bidders's Proposal	Section 00006
-Bidder's Sworn Acknowledgment	
-Bidder's Sworn Work History Statement	
Contract	Section 00007
Contract Supplementary Conditions	Attachment A
Table of Paragraphs	
Technical Specifications	

GLENCOE PARK DISTRICT

999 Green Bay Road
Glencoe, Illinois 60022
(847) 835-3030

Request for Bid – Spray Ground Construction & Installation

Section 00001

The Glencoe Park District is accepting proposals for Spray Ground Construction at the Glencoe Beach located at 55 Hazel St., Glencoe Illinois, 60022. A pre-bid meeting will be held at Glencoe Beach on September 9, 2011 at 10 am. Sealed proposals are due by **Friday, September 16, 2011 at 2:00 P.M.**

The District intends to find a construction firm to provide general construction and installation services of a Spray Ground at the Glencoe Beach – 55 Hazel St., Glencoe, Illinois 60022

The purpose of this Bid is to obtain pricing and company information that will enable the District to select a Construction Firm. Each responder to this Bid should be prepared and equipped to provide full project assembly and installation services to the District in an expeditious and timely manner and on relatively short notice so as to enable the District to meet critical time deadlines and schedules.

Proposals are to be submitted to:

Glencoe Park District
Attn: Steven Nagle, Director of Operations
Spray Ground Project
999 Green Bay Road
Glencoe, Illinois 60022

Failure to comply with these Bid requirements may lead to disqualification of your firm from consideration.

Steven Nagle
Director of Operations
847-835-7540

SECTION 00002
DISTRICT BID/LEGAL REQUIREMENTS

DEFINITIONS:

Owner and District shall mean the Glencoe Park District – 999 Green Bay Road, Glencoe
Architect of Record is Thompson & Dyke and Associates – PO Box 88 Glencoe
Contractor/Construction Firm/Team – Winning Bidder

1. QUALIFICATIONS: Each Bidder is expected to have the following minimum experience.

- 1.1. **Team:** Construction firm must have a minimum of FIVE successfully completed public playground installation projects within the last five (5) years of similar size and complexity to this project.
- 1.2. **Schedule Compliance:** The Bidder must have a demonstrated record of projects completed as part of a Construction team within the last five (5) years.
- 1.3. **Budget Compliance:** The Bidder must have a demonstrated record of completing projects in accordance with the basis of design and the anticipated scope of work within the projected budget.

2. BID PACKAGE: A Bidders Response shall include two (2) copies of all of the following information:

The Bid Package consists of the following documents, all of which are by this reference made a part of this Invitation for Bidder's Proposals as though fully set forth herein:

- (1) Invitation for Bidder's Proposals;
- (2) General Instructions to Bidders;
- (3) Addenda, if issued;
- (4) Bidder's Proposal;
- (5) Bidder's Sworn Acknowledgement;
- (6) Bidder's Sworn Work History Statement;
- (7) Other Information Submitted by Bidder, if requested;
- (8) Contract, including all of its Attachments and Appendices, if any.

The Bid Package may be examined on the Owner's website and downloaded from there. Other arrangements to receive a paper copy may be made with the Owner and may include additional expense. In making copies of the Bid Package available to prospective Bidders, Owner does so only for the purpose of obtaining Bidder's Proposals and such provision does not confer a license or grant for any other use.

The construction drawings and specifications were prepared by Thompson Dyke & Associates, Ltd., PO Box 88 Glencoe, IL 60022. Phone: (312) 664-6500. *Questions concerning the construction documents should be addressed to Liz Dafoe (edafoe@tdaplan.com) or Peter Dyke (pdyke@tdaplan.com) of Thompson Dyke and Associates, and should be delivered in writing by email no later than 12:00 p.m., September 12, 2012.*

3. BID OPENING

Owner will receive sealed Bidder's Proposals for the Work until 2:00, p.m., local time, September 16, 2012, at Owner's office listed above, at which time, or as soon thereafter as possible, all Bidder's Proposals will be publicly opened and read aloud. Bidders or their agents are invited to be present.

4. BID SECURITY, BONDS AND INSURANCE

- A. Bid Security. Each Bidder's Proposal shall be accompanied by a security deposit of at least five percent of the Bidder's Price Proposal in the form of (1) a Cashier's Check or Certified Check drawn on a solvent bank insured by the Federal Deposit Insurance Corporation and payable without condition to Owner or (2) a Bid Bond in a form satisfactory to Owner from a surety company licensed to do business in the State of Illinois with a general rating of A minus and a financial size category of Class X or better in Best's Insurance Guide.
- B. Performance and Payment Bonds. The successful Bidder will be required to furnish a Performance Bond and a Labor and Material Payment Bond upon award of the Contract, each in the penal sum of the full amount of the Contract Price, on forms provided by, or otherwise acceptable to, Owner, from a surety company meeting the requirements set forth above. Each Bidder's Proposal must be accompanied by a letter from such a surety company stating that it will execute Bonds on forms provided by, or otherwise acceptable to, Owner, upon award of the Contract to Bidder.
- C. Insurance. The Firm actually selected to undertake work on behalf of the District shall be required to maintain and provide certification of adequate insurance coverage in the amount and form specified by the District in the attached contract form.

5. AWARDING OF CONTRACT

The winning bidder will be required to sign a contract with the district. Supplemental Conditions Document, AIA A105-2007 will be used. A copy is included in this Bid Package.

- 6. **EXAMINATION OF SITE**. Each bidder shall visit the site of the proposed work and fully acquaint himself with conditions as they exist so that he may fully understand the difficulties and restrictions attending the execution under the contract. Bidders shall also thoroughly examine and be familiar with the specifications. The failure or omission of

any bidder to receive or examine any form, instrument, or to visit the site and acquaint himself with conditions there existing, shall in no way relieve any bidder from any obligation with respect to his bid. By submitting a bid, the bidder agrees and warrants that he has examined the site and specifications, and where the specifications require in any part of the work a given result to be produced, that the specifications are adequate and the desired result can be produced under the specifications.

Special Site Notes:

1. There is limited parking at the Beach area. Roads and drives cannot be blocked by contractor vehicles or worker's vehicles. Staff cars must be parked in designated spaces.
 2. Access roads to the Beach area are steep and narrow. Medium to Large/Full size trailer trucks will not be able to drive down this road.
 3. There is no locked storage area available at the Beach – for equipment or tools.
 4. The Beach Board Walks cannot be driven on with any heavy machinery.
7. **REQUIREMENTS OF BIDDER** The Contractor bidding the project shall be actively engaged in work of the nature and size of the project described, and have adequate specialized man and machines to do the work. Each bidder shall submit with his proposal a list of no less than three different construction projects of similar or larger size he has finished in the last two years. Prior to an award of the contract, the low bidders may be required to submit financial statements of their present and past conditions, and such other business information as may be requested.
8. **PROPOSAL FORM** Bidder shall use the proposal form provided, which shall be filled out completely and returned in a sealed envelope marked "Bid Proposal, Glencoe Beach Spray Ground" to 999 Green Bay Road, Glencoe, IL 60022.
9. **ASSIGNMENTS AND SUBCONTRACTS** Nothing contained in the contract documents shall create any contractual relation between any subcontractor and the Owner. Before commencing, the Contractor shall submit to the Owner a certified list of his subcontractors. The bidder will be required to establish to the satisfaction of the Owner, the reliability and responsibility of the proposed subcontractors.
10. **CHANGES IN THE WORK**
- 10.1 Minor field changes to facilitate ease of construction in the best interest of the Owner may be made in the field by the Owner's duly appointed representative, with the understanding of both parties that no change in contract price is involved.
 - 10.2 At the award of the contract, the Contractor shall be advised as to whom the Owner's representative shall be on this project.

10.3 Where adjustment of contract price is sought, a written "Change Order" needs to be submitted to and accepted by the Glencoe Park Board of Commissioners before any change is made.

11. PAYMENT Final payment may be made after final acceptance and completion of the project. No partial payment shall be authorized unless all applicable waivers of lien and Contractor's affidavit are submitted to the Glencoe Park District. Contractors should submit payment requests to the Landscape Architect five working days prior to the end of the month for their review process to be completed in time to get approved pay requests. An amount equal to ten percent (10%) shall be withheld from the partial payments until thirty (30) days after final acceptance of the project has been made by the Owner.

11.1.1. Prior to final payment, Contractor shall complete all punch list items, shall deliver final waivers of lien, showing payment for materials and shall provide a Contractor's affidavit from all suppliers and subcontractors, indicating all indebtedness on account of the performance of this contract has been paid in full, and one set of 11" x 17" as-built drawings showing work completed under this contract. The District will make final payment to the Contractor, after review and acceptance of all of the foregoing documents.

11.1.2. The final payment or any provision in the contract documents shall not relieve the Contractor of the responsibility for the correction of any and all defects in the work performed. He shall correct all defects as notified for a period of one year after final payment. The Performance Bond shall be written to include this one year period within its guarantee.

12. GUARANTEE

12.1.1. **Except as otherwise specified**, the Contractor shall guarantee workmanship and materials for a period of one (1) year from date of final acceptance by the Owner. The work shall be left in perfect order at completion and acceptance. Neither the final payment nor termination of the guarantee period, nor any provision in the contract documents shall relieve the Contractor of the responsibility for negligence, faulty materials or workmanship within the extent of any period provided by law, and upon written notice he shall remedy any defects due thereto, and shall pay all expenses for any damage, direct or consequential, resulting therefrom.

12.1.2. **If the Specifications provide for methods** of construction, installation, materials, etc., which the Contractor cannot guarantee for the indicated period, it shall be the responsibility of the Contractor to so inform the Owner in writing before submitting his bid. Otherwise, the Contractor shall be held responsible to provide the method of construction, installation, materials etc., which will be guaranteed for the indicated period of time.

13. SUBSTITUTIONS All specifications must be met, or exceeded. When a trade name product is specified, however, it is implied that an equal product will be accepted. But before furnishing any substitution for that which is specified, the supplier shall:

13.1.1. Note on his proposal form what substitutes he is making, and

13.1.2. Be prepared to provide adequate information to establish that the substitute is indeed equivalent to that which is specified.

13.1.3. All substitutions shall be approved by the Owner before the proposal is submitted.

- 14. ELECTRICAL POWER, WATER AND STORAGE** If presently available at the site, the Owner shall furnish adequate electrical power, and water. The Contractor shall bear the cost of hook-up and removal of temporary lines or piping that may be required.
- 15. PROTECTION OF THE PUBLIC** The Contractor shall erect and maintain barricades, canopies, guards, warning lights and signs to the extent determined by the Contractor to be necessary for the protection of the public. The Owner has the right, but not the obligation, to direct the Contractor to enhance or reduce the safety barricades erected at the construction site.
- 16. CLEAN-UP** The Contractor shall leave each site in a neat and presentable condition. Areas shall be free from dirt and debris, and washed if necessary. Turf areas disturbed during the construction process shall be filled, leveled and re-sodded or reseeded per drawings. Damage to fences, sidewalks, curbs, lighting standards, or pavement shall be repaired, and all trash shall be removed from the site and disposed of legally at no cost to the district.

SECTION 00003

SPRAY GROUND BID SCHEDULE

9/2/2011		Notification made - Bid Packets released
9/9/2011	10:00 PM	Pre-Bid Meeting at Glencoe Beach (Optional)
9/12/2011	12:00 PM	Deadline for questions
9/12/2011	5:00 PM	Issue response to questions
9/16/2011	2:00 PM	RFP Opening/deadline - Glencoe Park District (999 Green Bay Road)
9/20/2011	7:30 PM	Recommendations made to Park District Board – Contract Awarded

SECTION 00004

PROPOSED SPRAY GROUND PROJECT TIMELINE

9/26/2011 – 10/7/2011	Demolition (completed by District Staff or Alternate 1)
9/26/2011	Order equipment
10/10/2011 – 11/11/2011	Site Prep, Concrete, Assembly, Installation
11/14/2011 – 11/18/2011	Product Testing, Utilities
11/18/2011 – 11/23/2011	Site Restoration, Inspections
11/23/2011	Substantial Completion
11/28/2011	Punch List Review

SECTION 00005:
GENERAL INSTRUCTION TO BIDDERS
TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
1. Interpretation of Documents Included in Bid Package	1
2. Calculation of Unit Price Proposals	2
3. Prevailing Wages	2
4. Taxes and Benefits	2
5. Permits and Licenses	3
6. Preparation of Bidder's Proposal	3
7. Signature Requirements	4
8. Bid Security	4
9. Submission of Bidder's Proposals	5
10. Withdrawal of Bidder's Proposals	5
11. Qualification of Bidders	6
12. Disqualification of Bidders	6
13. Award of Contract	7
14. Notice of Award; Effective Date of Award	7
15. Closing of Contract	7
16. Failure to Close	8

GENERAL INSTRUCTIONS TO BIDDERS

1. Interpretation of Documents Included in Bid Package

- A. Defined Terms. All terms capitalized in these General Instructions to Bidders and in the other documents included in the Bid Package are defined in the documents included in the Bid Package and shall have such defined meanings wherever used.
- B. Implied Terms. If any personnel, equipment, materials, or supplies that are not directly or indirectly set forth in the Contract are nevertheless necessary to the proper provision, performance, and completion of the whole of the Work in accordance with the intent of the Contract, each prospective Bidder shall understand such personnel, equipment, materials, or supplies to be implied and shall provide for such personnel, equipment, materials, or supplies in its Bidder's Proposal as fully as if it were particularly described.
- C. Information Provided by Owner. When information pertaining to subsurface, underground or other concealed conditions, soils analysis, borings, test pits, utility locations or conditions, buried structures, condition of existing structures, and other preliminary investigations is distributed with the Bid Package, or such information is otherwise made available to any prospective Bidder by Owner, such information is distributed or made available solely for the convenience of such prospective Bidder and is not part of the Bid Package. Owner assumes no responsibility whatever in respect to the sufficiency or accuracy of any such information, and there is no guaranty or warranty, either expressed or implied, that the conditions indicated are representative of those existing throughout the Work or the Work Site, or that the conditions indicated are representative of those existing at any particular location, or that unanticipated conditions may not be present.
- D. Addenda. No interpretation of the documents included within the Bid Package will be made except by written addendum duly issued by Owner ("Addendum"). No interpretation not contained in an Addendum shall be valid or have any force or effect whatever, nor entitle any Bidder to assert any claim or demand against Owner on account thereof.

All Addenda issued prior to the opening of Bidder's Proposals shall become a part of the Bid Package. Each prospective Bidder shall be responsible for inquiring from time to time as to the availability of Addenda.

If any prospective Bidder is in doubt as to the true meaning of any part of the Bid Package, such prospective Bidder shall submit to Owner a written request for an interpretation thereof as far in advance of the scheduled opening of Bidder's Proposals as possible.

INSTRUCTIONS

Owner shall use its best efforts to issue Addenda in response to all valid, appropriate, and timely inquiries, but accepts no responsibility for doing so. Inquiries not answered by Addenda shall be considered invalid, inappropriate, or untimely inquiries.

2. **Calculation of Unit Price Proposals**

On all items for which Bidder's Proposals are to be received on a unit price basis, the approximate quantities stated in the Schedule of Prices are Owner's estimate only for Owner's convenience in comparing Bidder's Proposals and shall not be relied upon by prospective Bidders. Each prospective Bidder shall, before submitting its Bidder's Proposal, make its own estimate of the quantities of Unit Price Items required to complete the Work and shall determine its Price Proposal for each Unit Price Item in light of its own estimate.

3. **Prevailing Wages**

All Contracts for work under this Bid will obligate the Contractor and his Sub Contractors to the prevailing wage provisions of Chapter 820, Act 130, Illinois Compiled Statutes, providing for the payment of the prevailing rate of wage to all laborers, workmen and mechanics engaged on the Project and all obligations accessory and related thereto. The winning bidder can access the Illinois Department of Labor's website for current wage information at: www.state.il.us/agency/idol/rates

4. **Taxes and Benefits**

Owner is exempt from state and local sales, use, and excise taxes. Bidder's Price Proposal shall not include any such taxes. A letter of exemption will be provided to the successful Bidder, if necessary. Owner will not reimburse, nor assist the successful Bidder in obtaining reimbursement for, any state or local sales, use or excise taxes paid by the successful Bidder.

Bidder's Price Proposal shall include all other applicable federal, state, and local taxes of every kind or nature applicable to the Work as well as all taxes, contributions, and premiums for unemployment insurance, old age or retirement benefits, pensions, annuities or other similar benefits.

5. **Permits and Licenses**

Except as otherwise expressly provided in Attachment A to the Contract, Bidder's Price Proposal shall include the cost of obtaining all permits, licenses, and other approvals and authorizations required by law for performance of the Work. It shall be the sole responsibility of each prospective Bidder to determine the applicable permits, licenses, and other approvals and authorizations and no extra

INSTRUCTIONS

compensation shall be paid by Owner for the successful Bidder's failure to include these costs in its Bidder's Proposal.

6. **Preparation of Bidder's Proposal**

Bidder's Proposals to enter into the Contract for the Work shall be made only on the blank Bidder's Proposal form furnished by Owner and included in the Bid Package. The Bidder's Proposal form included in the Bid Package shall be removed from the Bid Package prior to preparation for submission.

Entries on the Bidder's Proposal form shall be typed or legibly written in ink. Price Proposals are to be written by words and by figures as provided on the Bidder's Proposal form. In case of any conflict, words shall prevail. In case of any error in adding or multiplying individual items, the prices listed for individual items shall control over any incorrect total of such items. A Bidder's Proposal may be rejected if it does not contain a requested price for each and every item named in the Bidder's Proposal form or may be interpreted as bidding "no charge" to Owner for any item left blank.

Prospective Bidders are warned against making alterations of any kind to the Bidder's Proposal form or to any entry thereon. Bidder's Proposals that contain omissions, conditions, alterations, or additions not called for may be rejected or interpreted so as to be most favorable to Owner.

Each Bidder shall securely staple into its Bidder's Proposal a copy of each Addendum issued and shall include in the place provided therefor in the Bidder's Proposal form a listing of all such Addenda.

Each Bidder shall complete and securely staple into its Bidder's Proposal the Bidder's Sworn Acknowledgement and the Bidder's Sworn Work History Statement included in the Bid Package, and shall staple into its Bidder's Proposal the Bid Security and the surety and insurance commitment letters as specified in the Invitation for Bidder's Proposals.

Every Bidder submitting a Bidder's Proposal shall be conclusively deemed to have evidenced an intention to be bound thereby whether or not the requirements for signing Bidder's Proposals found in Section 7 of these General Instructions to Bidders are satisfied. However, any Bidder's Proposal that fails to comply with Section 7 of these General Instructions to Bidders may nevertheless be rejected.

Bidder's Proposals that are not submitted on the Bidder's Proposal form furnished by Owner or that are not prepared in accordance with these General Instructions to Bidders may be rejected. If a deficiently prepared Bidder's Proposal is not rejected, Owner may demand correction of any deficiency and award the Contract to Bidder upon satisfactory compliance with these General Instructions to Bidders.

INSTRUCTIONS

7. Signature Requirements

- A. Bidder's Proposals. The following requirements shall be observed in the signing of each Bidder's Proposal:
- (1) Corporations. Each Bidder's Proposal submitted by a corporation shall be signed by the President or other authorized officer of the corporation and shall also bear the attesting signature of the Secretary or Assistant Secretary of the corporation.
 - (2) Partnerships. Each Bidder's Proposal submitted by a partnership shall be signed by all of its general partners or by an attorney-in-fact.
 - (3) Individuals. Each Bidder's Proposal submitted by an individual shall be signed by such individual or by an attorney-in-fact.
 - (4) Joint Ventures. Each Bidder's Proposal submitted by a joint venture shall be signed by each signator of the joint venture agreement by which such joint venture was formed in accordance with the applicable provisions of (1), (2), and (3) above or by an attorney-in-fact.

When requested by Owner, satisfactory evidence of the authority of the person or persons signing on behalf of Bidder shall be furnished.

- B. Other Documents. The signature requirements set forth in Subsection 7A shall apply to all other documents in the Bid Package required to be executed by Bidder, Bidder's sureties and Bidder's insurance representatives as well as to the Contract, the Contractor's Certification, and all other required documentation related to the Contract.

8. Bid Security

- A. Required Bid Security. Every Bidder's Proposal shall be accompanied by bid security in the form of a Cashier's Check, Certified Check or Bid Bond as specified in the Invitation for Bidder's Proposals ("Bid Security"), which Bid Security shall stand as a guaranty that (1) Bidder will submit all additional information requested by Owner; (2) if such Bidder's Proposal is accepted, Bidder will timely file the Bonds and the certificates and policies of insurance required by the Contract; and (3) if such Bidder's Proposal is accepted, Bidder will timely execute the Contract, the Contractor's Certification, and all other required documentation related to the Contract.

INSTRUCTIONS

- B. Return of Bid Security. Bid Security submitted in the form of Cashier's Checks or Certified Checks will be returned within five days after execution of the Contract by Owner. Bid Bonds will not be returned unless otherwise requested by Bidder.
- C. Liquidated Damages. If a Bidder fails to timely submit all additional information requested by Owner, or if the successful Bidder fails to timely and properly submit all required Bonds, certificates and policies of insurance, or if the successful Bidder fails to timely and properly execute the Contract, the Contractor's Certification, and all other required documentation related to the Contract, it will be difficult and impracticable to ascertain and determine the amount of damage that Owner will sustain by reason of any such failure. For such reason, every Bidder shall, by submitting its Bidder's Proposal, be deemed to agree that Owner shall have the right, at its option in the event of any such default, to retain or recover as reasonably estimated liquidated damages, and not as a penalty, the entire amount of the Bid Security or ten percent of the Bidder's Price Proposal, whichever is greater, or to exercise any and all equitable remedies it may have against the defaulting Bidder.

9. **Submission of Bidder's Proposal**

One copy of each Bidder's Proposal, properly signed, together with all other required documents, shall be enclosed in a sealed envelope or package and shall be addressed and delivered to the place, before the time, and in the manner designated in the Invitation for Bidder's Proposals. All Bidder's Proposals received after the time for the opening of bids specified in the Invitation for Bidder's Proposals will be returned unopened.

Each sealed envelope or package containing a Bidder's Proposal shall be identified as such and shall be marked with the title of the Contract and Bidder's full legal name. All Addenda will be considered part of each Bidder's Proposal whether attached or not.

10. **Withdrawal of Bidder's Proposal**

Any Bidder's Proposal may be withdrawn at any time prior to the opening of any Bidder's Proposal, provided that a request in writing, executed by Bidder in the manner specified in Section 7 of these General Instructions to Bidders, for the withdrawal of such Bidder's Proposal is filed with Owner prior to the opening of any Bidder's Proposal. The withdrawal of a Bidder's Proposal prior to opening of any Bidder's Proposal will not prejudice the right of Bidder to file a new Bidder's Proposal.

No Bidder's Proposal shall be withdrawn without the consent of Owner for a period of 60 days after the opening of any Bidder's Proposal. Any Bidder's Proposal may be withdrawn at any time following the expiration of said 60 day period, provided that a request in writing, executed by Bidder in the manner

INSTRUCTIONS

specified in Section 7 of these General Instructions to Bidders, for the withdrawal of such Bidder's Proposal is filed with Owner after said 60 day period. If no such request is filed, the date for acceptance of such Bidder's Proposal shall be deemed to be extended until such a request is filed or until Owner executes a Contract pursuant to the Invitation for Bidder's Proposals or until Owner affirmatively and in writing rejects such Bidder's Proposal.

11. ACCEPTANCE OR REJECTION OF BID

The Glencoe Park Board of Commissioners may elect to accept or reject any or all bids, or to combine or separate any of the specified sections of work if it is found to be in the best public interest. In determining the lowest responsible bidder for purposes of award of the contract, the Owner will consider the following in addition to the dollar amount of the bid:

- 1) The bidder's reputation for quality work.
- 2) The bidder's reputation for completion on time.
- 3) The bidder's reputation for working cooperatively with subcontractors and suppliers.
- 4) The bidder's reputation for promptly paying labor suppliers and subcontractors.
- 5) The bidder's reputation for filing excess change orders.
- 6) The bidder's financial responsibility and performance reliability.

The Glencoe Park District reserves the right to reject any bid and waive any informalities, irregularities or technicalities in bidding, and to accept any bid it determines in its sole discretion to be in the best interest of the Glencoe Park District. The Owner retains the right to perform portions of the project using its own staff, equipment and manpower and the Owner will coordinate that portion or portions of the work.

13. Award of Contract

- A. Reservation of Rights. Owner reserves the right to accept the Bidder's Proposal that is, in its judgment, the best and most favorable to the interests of Owner and the public; to reject the low Price Proposal; to accept any item of any Bidder's Proposal; to reject any and all Bidder's Proposals; to accept and incorporate corrections, clarifications or modifications following the opening of the Bidder's Proposals when to do so would not, in Owner's opinion, prejudice the bidding process or create any improper advantage to any Bidder; and to waive irregularities and informalities in the bidding process or in any Bidder's Proposal submitted; provided, however, that the waiver of any prior defect or informality shall not be considered a waiver of any future or similar defects or informalities, and Bidders should not rely upon, or anticipate, such waivers in submitting their Bidder's Proposals.

INSTRUCTIONS

- B. Firm Offers. All Bidder's Proposals are firm offers to enter into the Contract and no Bidder's Proposals shall be deemed rejected, notwithstanding acceptance of any other Bidder's Proposal, until the Contract has been executed by both Owner and the successful Bidder or until Owner affirmatively and in writing rejects such Bidder's Proposal.

- C. Time of Award. It is expected that the award of the Contract, if it is awarded, will be made within 60 days following the opening of the Bidder's Proposals. Should administrative difficulties be encountered after the opening of the Bidder's Proposals, including the annulment of any award, that may delay an award or subsequent award beyond such 60 day period, Owner may accept any Bidder's Proposal for which the date for acceptance has been extended as provided in Section 10 of these General Instructions to Bidders in order to avoid the need for readvertisement. No Bidder shall be under any obligation to extend the date for acceptance of its Bidder's Proposal. Failure of one or more of the Bidders or their sureties to extend the date for acceptance of its Bidder's Proposal shall not prejudice the right of Owner to accept any Bidder's Proposal for which the date for acceptance has been extended.

14. **Notice of Award; Effective Date of Award**

If the Contract is awarded by Owner, such award shall be effective when a Notice of Award in the form included in the Bid Package has been delivered to the successful Bidder ("Effective Date of Award"). Owner will prepare five copies of the Contract based upon Bidder's Proposal and will submit them to the successful Bidder with the Notice of Award.

15. **Closing of Contract**

- A. Closing Date. Unless otherwise stated in the Notice of Award, the successful Bidder shall satisfactorily complete all Conditions Precedent to Closing before, and the Contract and all related documents shall be executed, submitted and exchanged by Owner and Bidder ("Closing") on, the tenth day following the Effective Date of Award or within such extended period as Owner may, in the exercise of its sole discretion, authorize in writing after issuance of the Notice of Award ("Closing Date").

- B. Conditions Precedent to Closing. On or before the Closing Date, the successful Bidder shall: (1) sign (see Section 7), date as of the Closing Date, and submit to Owner all five copies of the Contract, the Contractor's Certification, and all other required documentation related to the Contract on or before the Closing Date; and (2) submit five executed copies of all required Bonds dated as of the Closing Date and all certificates and policies of insurance (see Contract, Article IV) ("Conditions Precedent to Closing").

INSTRUCTIONS

Failure to timely execute or submit any of the aforesaid documents shall be grounds for the imposition of liquidated damages as more specifically set forth in Section 8 above. If the submitted documents or any of them fail to comply with these General Instructions to Bidders or the Contract or are not timely executed and submitted, Owner may, in its sole discretion, annul the award or allow the successful Bidder an opportunity to correct the deficiencies.

In no event will Owner execute the Contract until any and all such deficiencies have been cured or Owner has received adequate assurances, as determined by Owner, of complete and prompt performance.

- C. Closing. At the Closing, and provided that all documents required to be submitted prior to or at the Closing have been reviewed and determined by Owner to be in compliance with these General Instructions to Bidders and the Contract, or assurances of complete and prompt performance satisfactory to Owner have been received, Owner shall execute all copies of the Contract, retain three copies of the completed Contract, and tender two copies to the successful Bidder at the Closing. The successful Bidder shall tender one copy to its surety company or companies. The successful Bidder or its agent shall be present at the Closing.

16. **Failure to Close**

- A. Annulment of Award; Liquidated Damages. The failure or refusal of a successful Bidder to comply with the Conditions Precedent to Closing or to Close shall be just cause for the annulment of the award and the imposition of liquidated damages or the exercise of equitable remedies, both as more specifically set forth in Section 8 above.
- B. Subsequent Awards. Upon annulment of an award, Owner may accept, and award a Contract based on, any other Bidder's Proposal as Owner, in its sole judgment, deems to be the best or may invite new Proposals or may abandon the bidding process or the Work.

BIDDER'S PROPOSAL

Full Name of Bidder _____ (“Bidder”)

Principal Office Address _____

Local Office Address _____

Contact Person _____ Telephone _____

TO: 999 Green Bay Road, Glencoe, IL 60022. (“Owner”)

Bidder warrants and represents that Bidder has carefully examined the Work Site described below and its environs and has reviewed and understood all documents included, referred to, or mentioned in this bound set of documents, including Addenda Nos. _____, which are securely stapled to the end of this Bidder's Proposal [if none, write “NONE”] (“Bid Package”).

Bidder acknowledges and agrees that all terms capitalized in this Bidder's Proposal shall have the meaning given to them in the documents included in the Bid Package.

1. **Work Proposal**

- A. Contract and Work. If this Bidder's Proposal is accepted, Bidder proposes, and agrees, that Bidder will contract with Owner, in the form of the Contract included in the Bid Package: (1) to provide, perform and complete at the site or sites described in the Bid Package (“Work Site”) and in the manner described and specified in the Bid Package all necessary work, labor, services, transportation, equipment, materials, apparatus, machinery, tools, fuels, gas, electric, water, waste disposal, information, data and other means and items necessary for the GLENCOE BEACH SPRAYGROUND CONSTRUCTION AND INSTALLATION; (2) to procure and furnish all permits, licenses and other governmental approvals and authorizations necessary in connection therewith except as otherwise expressly provided in Attachment A to the Contract included in the Bid Package; (3) to procure and furnish all Bonds and all certificates and policies of insurance specified in the Bid Package; (4) to pay all applicable federal, state and local taxes; (5) to do all other things required of Contractor by the Contract; and (6) to provide, perform and complete all of the foregoing in a proper and workmanlike manner and in full compliance with, and as required by or pursuant to, the Contract; all of which is herein referred to as the “Work.”

PROPOSAL

- B. Manner and Time of Performance. If this Bidder's Proposal is accepted, Bidder proposes, and agrees, that Bidder will perform the Work in the manner and time prescribed in the Bid Package and according to the requirements of Owner pursuant thereto.
- C. General. If this Bidder's Proposal is accepted, Bidder proposes, and agrees, that Bidder will do all other things required of Bidder or Contractor, as the case may be, by the Bid Package.

2. Contract Price Proposal

If this Bidder's Proposal is accepted, Bidder will, except as otherwise provided in the Contract, take in full payment for all Work and other matters set forth under Section 1 above, including overhead and profit; taxes, contributions, and premiums; and compensation to all subcontractors and suppliers, the compensation set forth on the following "Cost Proposal" which Schedule of Prices Bidder understands and agrees will be made a part of the Contract:

PROPOSAL

Cost Proposal

The undersigned declares he/she has carefully examined the General Conditions, Technical Specification, Drawings, the Site and Bid form for Glencoe Beach in the Glencoe Park District and hereby proposes to furnish all labor, materials and equipment as outlined in the construction documents.

BASE BID PRICE

The undersigned proposes to do all work shown, exclusive of Additive and Deduct bids on drawings in contract documents:

The total LUMP SUM PRICE is:

_____ DOLLARS
(Written Amount)

\$_____, which constitutes the aggregate amount upon which the
(Numbers) accompanying Proposal Deposit is based.

ADD ALTERNATE ITEM #1: Identify the LUMP SUM PRICE for all work described in the contract documents as Alternate #1, complete and in place. ADD to the contract all work associated with the demolition of the existing equipment, surfacing and utilities. The ADD LUMP SUM PRICE, if awarded to the undersigned, shall be:

_____ DOLLARS

\$_____
(Numbers)

ADD ALTERNATE ITEM #2: Identify the LUMP SUM PRICE for all work described in the contract documents as Alternate #2, complete and in place. ADD to the contract all work associated with the supplying and installing tile soft surfacing and base of the accessible surfacing to the custom ship theme play structure. The ADD LUMP SUM PRICE, if awarded to the undersigned, shall be:

_____ DOLLARS

\$_____
(Numbers)

BID BOND

PROPOSAL IN EXCESS OF \$25,000.00 MUST HAVE A 5% BID DEPOSIT.

PROPOSAL LESS THAN \$25,000.00 DOES NOT REQUIRE A BID DEPOSIT.

In accordance with the requirements of this specification, there is deposited herewith a bid bond, certified check, cashier's check, or money order payable to the order of the Glencoe Park District in the sum of

\$ _____,
(Numbers)

which is at least 5 percent of the aggregate amount of the foregoing total base bid. In the event that the performance and payment bonds or other acceptable guarantee, as well as other documents listed in the Bidding Requirements, are not submitted within the time specified, the bid deposit will become the property of the Glencoe Park District as liquidated damages for the delay and additional expenses caused hereby.

PROPOSAL

UNIT PRICE BID WORKSHEET

The award is not determined on the basis of unit prices. The unit prices will be utilized during the execution of the Project scope only. The amount shown in the unit cost columns shall be applied to the Lump Sum Price at the discretion of the Owner. This section must be completely filled in, in order for the submission to be considered complete. Prices specified below are understood to be installed prices.

	Description	Quantity	Unit	Unit Price
A	Demolition (ALTERNATE)			
1	Mobilization		l.s.	
2	Construction fencing		l.s.	
3	Removal of Exist. Tiles and conc. Base		sf	
4	Remove Exist. Play equip.		ls	
5				
6				
7				
8				
B	Grading/Drainage/Utilities			
1	Site excavation & grading		l.s.	
2	Water connection		Ls	
3	Electrical Connection		Ls	
4	Hot Box with base		Ls	
5	Backflow Preventer		ea	
6	Valve Replacement		ea	
7	Supply and Install Meter vault		Ea.	
8				
C	General Construction			
1	Supply and Install Safety Tiles		s.f.	
2	Supply and Install Kompan Play equip		ls	
3	Supply and Install Landscape Structures		ls	
4	Supply and Install Water Odyssey equip		ls	
5	Supply and Install Shade Structure		Ls	
6	Paint and Repair Exist. Structures		ls	
7				
8				
9				
10				
11	General Overhead, Fees and Insurance		LS	
12				
13				
14				

C. **BASIS FOR DETERMINING PRICES**

It is expressly understood and agreed that:

1. The payment for each Unit Price Item shall be made only on the actual number of acceptable units of such Unit Price Item installed complete in place, measured on the basis defined in the Contract;
2. Owner is not subject to state or local sales, use and excise taxes and no such taxes are included in this Schedule of Prices;
3. All other applicable federal, state, and local taxes of every kind and nature applicable to the Work as well as all taxes, contributions, and premiums for unemployment insurance, old age or retirement benefits, pensions, annuities, or other similar benefits are included in this Schedule of Prices; and
4. All costs, royalties, and fees arising from the use on, or the incorporation into, the Work of patented equipment, materials, supplies, tools, appliances, devices, processes, or inventions are included in this Schedule of Prices.

All claim or right to dispute or complain of any such estimated quantity, or to assert that there was any misunderstanding in regard to the nature or amount of any Unit Price Item to be provided or performed, or to claim any additional compensation by reason of the payment of any such tax, contribution, or premium or any such cost, royalty or fee is hereby waived and released.

3. **Contract Time Proposal**

If this Bidder's Proposal is accepted, Bidder will commence the Work not later than the "Commencement Date" set forth in Attachment A to the Contract and will perform the Work diligently and continuously and will complete the Work not later than the "Completion Date" set forth in Attachment A to the Contract.

4. **Firm Proposal**

All prices and other terms stated in this Bidder's Proposal are firm and shall not be subject to withdrawal, escalation, or change for a period of 60 days after the date on which any Bidder's Proposal is opened or such extended acceptance date for Bidder's Proposals as may be established pursuant to Sections 10 and 13 of the General Instructions to Bidders.

5. **Bidder Representations**

- A. **No Collusion.** Bidder warrants and represents that the only persons, firms, or corporations interested in this Bidder's Proposal as principals are those named in Bidder's Sworn Acknowledgment attached hereto and that this Bidder's Proposal is made without collusion with any other person, firm or corporation.

PROPOSAL

- B. Not Barred. Bidder warrants, represents and certifies that it is not barred by law from contracting with Owner or with any unit of state or local government.
- C. Qualified. Bidder warrants and represents that it has the requisite experience, ability, capital, facilities, plant, organization and staff to enable Bidder to perform the Work successfully and promptly and to commence and complete the Work within the Contract Price and Contract Time Proposals set forth above. In support thereof, Bidder submits the attached Sworn Work History Statement. In the event Bidder is preliminarily deemed to be one of the most favorable to the interests of Owner, Bidder hereby agrees to furnish upon request, within two business days or such longer period as may be set forth in the request, such additional information as may be necessary to satisfy Owner that Bidder is adequately prepared to fulfill the Contract.
- D. Owner's Reliance. Bidder acknowledges that Owner is relying on all warranties, representations and statements made by Bidder in this Bidder's Proposal.

6. Surety and Insurance

Bidder herewith tenders surety and insurance commitment letters as specified in Section 6 of the Invitation for Bidder's Proposals.

7. Bid Security

Bidder herewith tenders a Cashier's Check, Certified Check, or Bid Bond as specified in Section 6 of the Invitation for Bidder's Proposals for the sum of _____ dollars (\$_____), which is equal to at least five percent of Bidder's Price Proposal ("Bid Security").

8. Owner's Remedies

Bidder acknowledges and agrees that should Bidder fail to timely submit all additional information that is requested of it; or should Bidder, if Owner awards Bidder the Contract, fail to timely submit all the Bonds and all the certificates and policies of insurance required of it; or should Bidder, if Owner awards Bidder the Contract, fail to timely execute the Contract, Contractor's Certification and all other required documentation related to the Contract, it will be difficult and impracticable to ascertain and determine the amount of damage that Owner will sustain by reason of any such failure and, for such reason, Owner shall have the right, at its option in the event of any such default by Bidder, to retain or recover as reasonably estimated liquidated damages, and not as a penalty, the entire amount of the Bid Security or ten percent of Bidder's Price Proposal, whichever is greater, or to exercise any and all equitable remedies it may have against Bidder.

9. Owner's Rights

PROPOSAL

Bidder acknowledges and agrees that Owner reserves the right to reject any and all Bidder's Proposals, reserves the right to accept or reject any item of any Bidder's Proposal and reserves such other rights as are set forth in Section 13 of the General Instructions to Bidders.

10. **Bidder's Obligations**

In submitting this Bidder's Proposal, Bidder understands and agrees that it shall be bound by each and every term, condition or provision contained in the Bid Package, which are by this reference incorporated herein and made a part hereof.

DATED this _____ day of _____, 200__.

Attest/Witness: _____
Bidder

By: _____ By: _____

Title: _____ Title: _____

**SEE GENERAL INSTRUCTIONS TO BIDDERS, SECTION 7,
FOR SIGNATURE REQUIREMENTS**

BIDDER'S SWORN ACKNOWLEDGEMENT

_____ (“Deponent”), being first duly sworn on oath, deposes and states that the undersigned Bidder is organized as indicated below and that all statements herein made are made on behalf of such Bidder in support of its Bidder's Proposal for the above Contract and that Deponent is authorized to make them.

Deponent also deposes and states that Bidder has carefully prepared, reviewed and checked its Bidder's Proposal and that the statements contained in its Bidder's Proposal and in this Acknowledgement are true and correct.

COMPLETE APPLICABLE SECTION ONLY

1. Corporation

Bidder is a corporation that is organized and existing under the laws of the State of _____, that is qualified to do business in the State of Illinois, and that is operating under the legal name of _____.

The officers of the corporation are as follows:

<u>TITLE</u>	<u>NAME</u>	<u>ADDRESS</u>
President	_____	_____
Vice President	_____	_____
Secretary	_____	_____
Treasurer	_____	_____

2. Partnership

Bidder is a partnership that is organized, existing and registered under the laws of the State of _____ pursuant to that certain Partnership Agreement dated as of _____, that is qualified to do business in the State of Illinois, and that is operating under the legal name of _____.

The general partners of the partnership are as follows:

<u>NAME</u>	<u>ADDRESS</u>
_____	_____
_____	_____

ACKNOWLEDGEMENT

3. **Individual**

Bidder is an individual whose full name is _____,
whose residence address is _____ and
whose business address is _____. If operating under a trade
or assumed name, said trade or assumed name is as follows: _____.

4. **Joint Venture**

Bidder is a joint venture that is organized and existing under the laws of the State
of _____ pursuant to that certain Joint Venture Agreement dated as of _____, that
is qualified to do business in the State of Illinois, and that is operating under the legal name of
_____.

The signatories to the aforesaid Joint Venture Agreement are as follows:

<u>NAME (and ENTITY TYPE)</u>	<u>ADDRESS</u>
_____()	_____
_____()	_____
_____()	_____

[For each signatory, indicate type of entity (Corporation = "C"; Partnership = "P"; and Individual = "I") and provide, on separate sheets, the information required in Paragraph 1, 2, or 3 above, as applicable]

ACKNOWLEDGEMENT

DATED this _____ day of _____, 200__.

Attest/Witness:

Bidder

By: _____

By: _____

Title: _____

Title: _____

Subscribed and Sworn to
before me this ____ day
of _____, 200__.

My Commission Expires: _____

Notary Public

[SEAL]

**SEE GENERAL INSTRUCTIONS TO BIDDERS, SECTION 7,
FOR SIGNATURE REQUIREMENTS**

BIDDER'S SWORN WORK HISTORY STATEMENT

_____ (“Deponent”), being first duly sworn on oath, deposes and states that all statements made in this Sworn Work History Statement are made on behalf of the undersigned Bidder in support of its Bidder's Proposal for the above Contract and that Deponent is authorized to make them.

Deponent also deposes and states that Bidder has carefully prepared, reviewed and checked this Sworn Work History Statement and that the statements contained in this Sworn Work History Statement are true and correct.

IF NECESSARY FOR FULL DISCLOSURE, ADD SEPARATE SHEETS

**JOINT VENTURES MUST SUBMIT SEPARATE
SWORN WORK HISTORY STATEMENTS FOR THE JOINT VENTURE
AND FOR EACH SIGNATORY TO THE JOINT VENTURE AGREEMENT**

1. **Nature of Business**

State the nature of Bidder's business: _____

2. **Composition of Work**

During the past three years, Bidder's work has consisted of:

_____% Federal	_____% As Contractor	_____% Bidder's Forces
_____% Other Public	_____% As Subcontractor	_____% Subcontractors
_____% Private		_____% Materials

3. **Years in Business**

State the number of years that Bidder, under its current name and organization, has been continuously engaged in the aforesaid business: _____ years

4. **Predecessor Organizations**

If Bidder has been in business under its current name and organization for less than five years, list any predecessor organizations:

ACKNOWLEDGEMENT

NAME

ADDRESS
YEARS

_____	_____	_____
_____	_____	_____

5. **Business Licenses**

List all business licenses currently held by Bidder:

ISSUING AGENCY

TYPE

NUMBER

EXPIRATION

_____	_____	_____	_____
_____	_____	_____	_____

6. **Related Experience**

List three projects most comparable to the Work completed by Bidder, or its predecessors, in the past five years:

PROJECT ONE

PROJECT TWO

PROJECT THREE

Owner Name

_____	_____	_____
-------	-------	-------

Owner Address

_____	_____	_____
-------	-------	-------

_____	_____	_____
-------	-------	-------

Reference

_____	_____	_____
-------	-------	-------

Telephone Number

_____	_____	_____
-------	-------	-------

Type of Work

_____	_____	_____
-------	-------	-------

_____	_____	_____
-------	-------	-------

PROJECT ONE

PROJECT TWO

PROJECT THREE

Contractor

(If Bidder was)

(Subcontractor)

_____	_____	_____
-------	-------	-------

_____	_____	_____
-------	-------	-------

_____	_____	_____
-------	-------	-------

Amount of Contract

_____	_____	_____
-------	-------	-------

ACKNOWLEDGEMENT

Date Completed _____

DATED this _____ day of _____, 200__.

Attest/Witness: _____
Bidder

By: _____

By: _____

Title: _____

Title: _____

Subscribed and Sworn to
before me this _____ day
of _____, 200__.

My Commission Expires: _____

Notary Public

[SEAL]

**SEE GENERAL INSTRUCTIONS TO BIDDERS, SECTION 7,
FOR SIGNATURE REQUIREMENTS**

Glencoe Park District
Contract for the Construction of
Glencoe Beach Sprayground Construction and Installation

AGREEMENT made as of the _____ day of _____ in the year _____

BETWEEN the Owner:

and the Contractor:

for the following Project:

Glencoe Beach Sprayground Construction and Installation

The Architect:

Thompson Dyke and Associates
PO Box 88
Glencoe, IL 60022

The Owner and Contractor agree as follows.

TABLE OF ARTICLES

- 1 THE CONTRACT DOCUMENTS
- 2 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION DATE
- 3 CONTRACT SUM
- 4 PAYMENT
- 5 INSURANCE
- 6 GENERAL PROVISIONS
- 7 OWNER
- 8 CONTRACTOR
- 9 ARCHITECT
- 10 CHANGES IN THE WORK
- 11 TIME
- 12 PAYMENTS AND COMPLETION
- 13 PROTECTION OF PERSONS AND PROPERTY
- 14 CORRECTION OF WORK
- 15 MISCELLANEOUS PROVISIONS
- 16 TERMINATION OF THE CONTRACT
- 17 OTHER TERMS AND CONDITIONS

Attachment A Supplementary Conditions

ARTICLE 1 THE CONTRACT DOCUMENTS

§ 1.1 The Contractor shall complete the Work described in the Contract Documents for the Project. The Contract Documents consist of

- .1 this Agreement signed by the Owner and Contractor;
- .2 the drawings and specifications prepared by the Architect, dated [REDACTED], and enumerated as follows:

Drawings:

Number	Title	Date
[REDACTED]	[REDACTED]	[REDACTED]

Specifications:

Section	Title	Pages
[REDACTED]	[REDACTED]	[REDACTED]

- .3 addenda prepared by the Architect as follows:

Number	Date	Pages
[REDACTED]	[REDACTED]	[REDACTED]

- .4 written orders for changes in the Work issued after execution of this Agreement; and

.5 other documents, if any, identified as follows:

<< >>

ARTICLE 2 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

The number of calendar days available to the Contractor to substantially complete the Work is the Contract Time. The date of commencement of the Work shall be the date of this Agreement unless otherwise indicated below. The Contractor shall substantially complete the Work, no later than << >> (<< >>) calendar days from the date of commencement, subject to adjustment as provided in Article 10 and Article 11. *(Insert the date of commencement, if it differs from the date of this Agreement.)*

<< >>

ARTICLE 3 CONTRACT SUM

§ 3.1 Subject to additions and deductions in accordance with Article 10, the Contract Sum is:

<< >> (\$ << >>)

§ 3.2 For purposes of payment, the Contract Sum includes the following values related to portions of the Work: *(Itemize the Contract Sum among the major portions of the Work.)*

Portion of Work	Value

§ 3.3 Unit prices, if any, are as follows:

Item	Units and Limitations	Price per Unit (\$ 0.00)

§ 3.4 Allowances included in the Contract Sum, if any, are as follows:

Item	Price

§ 3.5 The Contract Sum is based upon the following alternates, if any, which are described in the Contract Documents and hereby accepted by the Owner:

<< >>

§ 3.6 The Contract Sum shall include all items and services necessary for the proper execution and completion of the Work.

ARTICLE 4 PAYMENT

§ 4.1 Based on Contractor's Applications for Payment certified by the Architect, the Owner shall pay the Contractor, in accordance with Article 12, as follows:

<< >>

§ 4.2 Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at the rate below, or in the absence thereof, at the legal rate prevailing at the place of the Project.

<< >> << >>

ARTICLE 5 INSURANCE

§ 5.1 The Contractor shall provide Contractor's general liability and other insurance as follows:

Type of insurance	Limit of liability (\$ 0.00)

§ 5.2 The Owner shall provide property insurance to cover the value of the Owner's property, including any Work provided under this Agreement. The Contractor is entitled to receive an increase in the Contract Sum equal to the insurance proceeds related to a loss for damage to the Work covered by the Owner's property insurance.

§ 5.3 The Contractor shall obtain an endorsement to its general liability insurance policy to cover the Contractor's obligations under Section 8.12.

§ 5.4 Each party shall provide certificates of insurance showing their respective coverages prior to commencement of the Work.

§ 5.5 Unless specifically precluded by the Owner's property insurance policy, the Owner and Contractor waive all rights against (1) each other and any of their subcontractors, suppliers, agents and employees, each of the other; and (2) the Architect, Architect's consultants and any of their agents and employees, for damages caused by fire or other causes of loss to the extent covered by property insurance or other insurance applicable to the Work.

ARTICLE 6 GENERAL PROVISIONS

§ 6.1 THE CONTRACT

The Contract represents the entire and integrated agreement between the parties and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a written modification in accordance with Article 10.

§ 6.2 THE WORK

The term "Work" means the construction and services required by the Contract Documents, and includes all other labor, materials, equipment and services provided, or to be provided, by the Contractor to fulfill the Contractor's obligations.

§ 6.3 INTENT

The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all.

§ 6.4 OWNERSHIP AND USE OF ARCHITECT'S DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS

Documents prepared by the Architect are instruments of the Architect's service for use solely with respect to this Project. The Architect shall retain all common law, statutory and other reserved rights, including the copyright. The Contractor, subcontractors, sub-subcontractors, and material or equipment suppliers are authorized to use and reproduce the instruments of service solely and exclusively for execution of the Work. The instruments of service may not be used for other Projects or for additions to this Project outside the scope of the Work without the specific written consent of the Architect.

ARTICLE 7 OWNER

§ 7.1 INFORMATION AND SERVICES REQUIRED OF THE OWNER

§ 7.1.1 If requested by the Contractor, the Owner shall furnish all necessary surveys and a legal description of the site.

§ 7.1.2 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, the Owner shall obtain and pay for other necessary approvals, easements, assessments and charges.

§ 7.2 OWNER'S RIGHT TO STOP THE WORK

If the Contractor fails to correct Work which is not in accordance with the Contract Documents, the Owner may direct the Contractor in writing to stop the Work until the correction is made.

§ 7.3 OWNER'S RIGHT TO CARRY OUT THE WORK

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a seven day period after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies, correct such deficiencies. In such case, the Contract Sum shall be adjusted to deduct the cost of correction from payments due the Contractor.

§ 7.4 OWNER'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS

§ 7.4.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project.

§ 7.4.2 The Contractor shall coordinate and cooperate with the Owner's own forces and separate contractors employed by the Owner.

§ 7.4.3 Costs caused by delays or by improperly timed activities or defective construction shall be borne by the party responsible therefor.

ARTICLE 8 CONTRACTOR

§ 8.1 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

§ 8.1.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become familiar with local conditions under which the Work is to be performed and correlated personal observations with requirements of the Contract Documents.

§ 8.1.2 The Contractor shall carefully study and compare the Contract Documents with each other and with information furnished by the Owner. Before commencing activities, the Contractor shall (1) take field measurements and verify field conditions; (2) carefully compare this and other information known to the Contractor with the Contract Documents; and (3) promptly report errors, inconsistencies or omissions discovered to the Architect.

§ 8.2 CONTRACTOR'S CONSTRUCTION SCHEDULE

The Contractor, promptly after being awarded the Contract, shall prepare and submit for the Owner's and Architect's information a Contractor's construction schedule for the Work.

§ 8.3 SUPERVISION AND CONSTRUCTION PROCEDURES

§ 8.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures, and for coordinating all portions of the Work.

§ 8.3.2 The Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner through the Architect the names of subcontractors or suppliers for each portion of the Work. The Contractor shall not contract with any subcontractor or supplier to whom the Owner or Architect have made a timely and reasonable objection.

§ 8.4 LABOR AND MATERIALS

§ 8.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work.

§ 8.4.2 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Contract Work. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.

§ 8.5 WARRANTY

The Contractor warrants to the Owner and Architect that: (1) materials and equipment furnished under the Contract will be new and of good quality unless otherwise required or permitted by the Contract Documents; (2) the Work will be free from defects not inherent in the quality required or permitted; and (3) the Work will conform to the requirements of the Contract Documents.

§ 8.6 TAXES

The Contractor shall pay sales, consumer, use and similar taxes that are legally required when the Contract is executed.

§ 8.7 PERMITS, FEES AND NOTICES

§ 8.7.1 The Contractor shall obtain and pay for the building permit and other permits and governmental fees, licenses and inspections necessary for proper execution and completion of the Work.

§ 8.7.2 The Contractor shall comply with and give notices required by agencies having jurisdiction over the Work. If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume full responsibility for such Work and shall bear the attributable costs. The Contractor shall promptly notify the Architect in writing of any known inconsistencies in the Contract Documents with such governmental laws, rules and regulations.

§ 8.8 SUBMITTALS

The Contractor shall promptly review, approve in writing and submit to the Architect Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents. Shop Drawings, Product Data, Samples and similar submittals are not Contract Documents.

§ 8.9 USE OF SITE

The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits, the Contract Documents and the Owner.

§ 8.10 CUTTING AND PATCHING

The Contractor shall be responsible for cutting, fitting or patching required to complete the Work or to make its parts fit together properly.

§ 8.11 CLEANING UP

The Contractor shall keep the premises and surrounding area free from accumulation of debris and trash related to the Work. At the completion of the Work, the Contractor shall remove its tools, construction equipment, machinery and surplus material; and shall properly dispose of waste materials.

§ 8.12 INDEMNIFICATION

To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder.

ARTICLE 9 ARCHITECT

§ 9.1 The Architect will provide administration of the Contract as described in the Contract Documents. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§ 9.2 The Architect will visit the site at intervals appropriate to the stage of construction to become generally familiar with the progress and quality of the Work.

§ 9.3 The Architect will not have control over or charge of, and will not be responsible for, construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, since these are solely the Contractor's responsibility. The Architect will not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents.

§ 9.4 Based on the Architect's observations and evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor.

§ 9.5 The Architect has authority to reject Work that does not conform to the Contract Documents.

§ 9.6 The Architect will promptly review and approve or take appropriate action upon Contractor's submittals, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

§ 9.7 The Architect will promptly interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request from either the Owner or Contractor.

§ 9.8 Interpretations and decisions of the Architect will be consistent with the intent of and reasonably inferable from the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either and will not be liable for results of interpretations or decisions rendered in good faith.

§ 9.9 The Architect's duties, responsibilities and limits of authority as described in the Contract Documents shall not be changed without written consent of the Owner, Contractor and Architect. Consent shall not be unreasonably withheld.

ARTICLE 10 CHANGES IN THE WORK

§ 10.1 The Owner, without invalidating the Contract, may order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Sum and Contract Time being adjusted accordingly in writing. If the Owner and Contractor can not agree to a change in the Contract Sum, the Owner shall pay the Contractor its actual cost plus reasonable overhead and profit.

§ 10.2 The Architect will have authority to order minor changes in the Work not involving changes in the Contract Sum or the Contract Time and not inconsistent with the intent of the Contract Documents. Such orders shall be in writing and shall be binding on the Owner and Contractor. The Contractor shall carry out such orders promptly.

§ 10.3 If concealed or unknown physical conditions are encountered at the site that differ materially from those indicated in the Contract Documents or from those conditions ordinarily found to exist, the Contract Sum and Contract Time shall be subject to equitable adjustment.

ARTICLE 11 TIME

§ 11.1 Time limits stated in the Contract Documents are of the essence of the Contract.

§ 11.2 If the Contractor is delayed at any time in progress of the Work by changes ordered in the Work, or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties or other causes beyond the Contractor's control, the Contract Time shall be subject to equitable adjustment.

ARTICLE 12 PAYMENTS AND COMPLETION

§ 12.1 CONTRACT SUM

The Contract Sum stated in the Agreement, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

§ 12.2 APPLICATIONS FOR PAYMENT

§ 12.2.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment for Work completed in accordance with the values stated in the Agreement. Such Application shall be supported by data substantiating the Contractor's right to payment as the Owner or Architect may reasonably require. Payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment stored, and protected from damage, off the site at a location agreed upon in writing.

§ 12.2.2 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment, all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information and belief, be free and clear of liens, claims, security interests or other encumbrances adverse to the Owner's interests.

§ 12.3 CERTIFICATES FOR PAYMENT

The Architect will, within seven days after receipt of the Contractor's Application for Payment, either issue to the Owner a Certificate for Payment, with a copy to the Contractor, for such amount as the Architect determines is properly due, or notify the Contractor and Owner in writing of the Architect's reasons for withholding certification in whole or in part.

§ 12.4 PROGRESS PAYMENTS

§ 12.4.1 After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner provided in the Contract Documents.

§ 12.4.2 The Contractor shall promptly pay each subcontractor and supplier, upon receipt of payment from the Owner, an amount determined in accordance with the terms of the applicable subcontracts and purchase orders.

§ 12.4.3 Neither the Owner nor the Architect shall have responsibility for payments to a subcontractor or supplier.

§ 12.4.4 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the requirements of the Contract Documents.

§ 12.5 SUBSTANTIAL COMPLETION

§ 12.5.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so the Owner can occupy or utilize the Work for its intended use.

§ 12.5.2 When the Work or designated portion thereof is substantially complete, the Architect will make an inspection to determine whether the Work is substantially complete. When the Architect determines that the Work is substantially complete the Architect shall prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion, shall establish the responsibilities of the Owner and Contractor, and shall fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 12.6 FINAL COMPLETION AND FINAL PAYMENT

§ 12.6.1 Upon receipt of a final Application for Payment, the Architect will inspect the Work. When the Architect finds the Work acceptable and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment.

§ 12.6.2 Final payment shall not become due until the Contractor submits to the Architect releases and waivers of liens, and data establishing payment or satisfaction of obligations, such as receipts, claims, security interests or encumbrances arising out of the Contract.

§ 12.6.3 Acceptance of final payment by the Contractor, a subcontractor or material supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

ARTICLE 13 PROTECTION OF PERSONS AND PROPERTY

The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs, including all those required by law in connection with performance of the Contract. The Contractor shall take reasonable precautions to prevent damage, injury or loss to employees on the Work, the Work and materials and equipment to be incorporated therein, and other property at the site or adjacent thereto. The Contractor shall promptly remedy damage and loss to property caused in whole or in part by the Contractor, or by anyone for whose acts the Contractor may be liable.

ARTICLE 14 CORRECTION OF WORK

§ 14.1 The Contractor shall promptly correct Work rejected by the Architect as failing to conform to the requirements of the Contract Documents. The Contractor shall bear the cost of correcting such rejected Work, including the costs of uncovering, replacement and additional testing.

§ 14.2 In addition to the Contractor's other obligations including warranties under the Contract, the Contractor shall, for a period of one year after Substantial Completion, correct work not conforming to the requirements of the Contract Documents.

§ 14.3 If the Contractor fails to correct nonconforming Work within a reasonable time, the Owner may correct it in accordance with Section 7.3.

ARTICLE 15 MISCELLANEOUS PROVISIONS

§ 15.1 ASSIGNMENT OF CONTRACT

Neither party to the Contract shall assign the Contract as a whole without written consent of the other.

§ 15.2 TESTS AND INSPECTIONS

§ 15.2.1 At the appropriate times, the Contractor shall arrange and bear cost of tests, inspections and approvals of portions of the Work required by the Contract Documents or by laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities.

§ 15.2.2 If the Architect requires additional testing, the Contractor shall perform those tests.

§ 15.2.3 The Owner shall bear cost of tests, inspections or approvals that do not become requirements until after the Contract is executed.

§ 15.3 GOVERNING LAW

The Contract shall be governed by the law of the place where the Project is located.

ARTICLE 16 TERMINATION OF THE CONTRACT

§ 16.1 TERMINATION BY THE CONTRACTOR

If the Architect fails to certify payment as provided in Section 12.3 for a period of 30 days through no fault of the Contractor, or if the Owner fails to make payment as provided in Section 12.4.1 for a period of 30 days, the Contractor may, upon seven additional days' written notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed including reasonable overhead and profit, and costs incurred by reason of such termination.

§ 16.2 TERMINATION BY THE OWNER FOR CAUSE

§ 16.2.1 The Owner may terminate the Contract if the Contractor

- .1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the subcontractors;
- .3 persistently disregards laws, ordinances, or rules, regulations or orders of a public authority having jurisdiction; or
- .4 is otherwise guilty of substantial breach of a provision of the Contract Documents.

§ 16.2.2 When any of the above reasons exist, the Owner, after consultation with the Architect, may without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' written notice, terminate employment of the Contractor and may

- .1 take possession of the site and of all materials thereon owned by the Contractor, and
- .2 finish the Work by whatever reasonable method the Owner may deem expedient.

§ 16.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 16.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 16.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor shall pay the difference to the Owner. This obligation for payment shall survive termination of the Contract.

§ 16.3 TERMINATION BY THE OWNER FOR CONVENIENCE

The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause. The Contractor shall be entitled to receive payment for Work executed, and costs incurred by reason of such termination, along with reasonable overhead and profit on the Work not executed.

ARTICLE 17 OTHER TERMS AND CONDITIONS

(Insert any other terms or conditions below.)

This Agreement entered into as of the day and year first written above.
(If required by law, insert cancellation period, disclosures or other warning statements above the signatures.)

<< >>

OWNER (Signature)

<< >><< >>
<< >>

(Printed name, title and address)

CONTRACTOR (Signature)

<< >><< >>
<< >>

(Printed name, title and address)

LICENSE NO.:

JURISDICTION:

**SUPPLEMENTARY CONDITIONS
(Glencoe Park District – Glencoe Beach Playground Project)**

GENERAL

The following supplementary conditions modify the “Standard Form of Agreement Between Owner and Contractor for a Residential or Small Commercial Project,” AIA Document A105 - 2007. Where a portion of the Agreement is modified or deleted by these Supplementary Conditions, the unaltered portions of the Agreement shall remain in effect. To the extent there is a conflict between this document and the A105-2007, the terms of this document shall prevail.

ARTICLE 4 PAYMENT

- 4.2 Delete paragraph 4.2 in its entirety. No interest (0% interest) shall be payable by the Owner under the Agreement.

ARTICLE 5: INSURANCE AND BONDS

Delete Article 5, and all subparagraphs thereto, in their entirety and replace with the following new Article 5:

5.1 CONTRACTOR'S LIABILITY INSURANCE

- 5.1.1 Contractor shall maintain commercial general liability (CGL) and, if necessary, commercial umbrella insurance with a limit of not less than \$1,000,000 each occurrence. If such CGL insurance contains a general aggregate limit, it shall apply separately to this project/location.

5.1.1.1 CGL insurance shall be written on Insurance Services Office (ISO) occurrence form CG 00 01 10 93, or a substitute form providing equivalent coverage, and shall cover liability arising from premises, operations, independent contractors, products-completed operations, personal injury and advertising injury, and liability assumed under an insured contract *(including the tort liability of another assumed in a business contract).

5.1.1.2 Owner shall be included as an insured under the CGL, using ISO additional insured endorsement CG 20 10 or a substitute providing equivalent coverage, and under the commercial umbrella, if any. This insurance shall apply as primary insurance with respect to any other insurance or self-insurance afforded to Owner.

5.1.1.3 There shall be no endorsement or modification of the CGL limiting the scope of coverage for liability arising from explosion, collapse, or underground property damage.

5.1.2 Contractor shall maintain business auto liability and, if necessary, commercial umbrella liability insurance with a limit of not less than \$500,000 each accident. Such insurance shall cover liability arising out of any auto including owned, hired and non-owned autos.

5.1.2.1 Business auto insurance shall be written on Insurance Services Office (ISO) form CA 00 01, CA 00 05, CA 00 12, CA 00 120, or a substitute form providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage equivalent to that provided in the 1990 and later editions of CA 00 01.

5.1.3 Contractor shall maintain workers' compensation as required by statute and employers liability insurance. The commercial umbrella and/or employers liability limits shall not be less than \$500,000 each accident for bodily injury by accident or \$500,000 each employee for bodily injury by disease.

5.1.4 Prior to beginning work, Contractor shall furnish Owner with a certificate(s) of insurance and applicable policy endorsement(s), executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements set forth above.

5.1.5 All certificates shall provide for 30 days' written notice to Owner prior to the cancellation or material change of any insurance referred to therein. Written notice to Owner shall be by certified mail, return receipt requested.

5.1.6 Failure of Owner to demand such certificate, endorsement or other evidence of full compliance with these insurance requirements or failure of Owner to identify a deficiency from evidence that is provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

5.1.7 Owner shall have the right, but not the obligation, of prohibiting Contractor from entering the project site until such certificates or other evidence that insurance has been placed in complete compliance with these requirements is received and approved by Owner.

5.1.8 Failure to maintain the required insurance may result in termination

of this contract at Owner's option.

- 5.1.9 Contractor shall provide certified copies of all insurance policies required above within 10 days of Owner's written request for said copies.
- 5.1.10 For insurance companies which obtain a rating from A.M. Best, that rating should be no less than A VII using the most recent edition of the A.M. Best's Key Rating Guide. If the Best's rating is less than A VII or a Best's rating is not obtained, the Owner has the right to reject insurance written by an insurer it deems unacceptable.
- 5.1.11 If Contractor's liability policies do not contain the standard ISO separation of insureds provision, or a substantially similar clause, they shall be endorsed to provide cross-liability coverage.
- 5.1.12 Any deductibles or self-insured retentions must be declared to the Owner. At the option of the Owner, the Contractor may be asked to eliminate such deductibles or self-insured retentions as respects the Owner, its officers, officials and employees or required to procure a bond guaranteeing payment of losses and other related costs including but not limited to investigations, claim administration and defense expenses.
- 5.1.13 Contractor shall cause each subcontractor employed by the Contractor to purchase and maintain insurance of the type specified above. When requested by the Owner, Contractor shall furnish copies of certificates of insurance evidencing coverage for each consultant.
- 5.1.14 Under no circumstances shall the Owner be deemed to have waived any of the insurance requirements of this Contract by any action or omission, including but not limited to:
- (a) allowing any work to commence by the Contractor before receipt of certificates of insurance;
 - (b) failing to review any certificates of insurance received from the Contractor;
 - (c) failing to advise the Contractor that any certificate of insurance fails to contain all the required insurance provisions, or is otherwise deficient in any manner.
- 5.1.15 Contractor agrees that the obligation to provide the insurance required by these documents is solely its responsibility and that this is a requirement which cannot be waived by any conduct, action, inaction or omission by the Owner.

- 5.1.16 Nothing contained in this Contract is to be construed as limiting the liability of the Contractor. The Owner does not, in any way, represent that the coverages or limits of insurance specified is sufficient or adequate to protect the Owner, or the Contractor, but are merely minimums. The obligations of the Contractor to purchase insurance shall not, in any way, limit its obligations to the Owner in the event that the Owner should suffer an injury or loss in excess of the amount recoverable through insurance, or any loss or portion of a loss which is not covered by the Contractor's insurance.
- 5.1.17 In the event the Contractor fails to furnish and maintain the insurance required by this Contract, the Owner may purchase such insurance on behalf of the Contractor and the Contractor shall pay the cost thereof to the Owner upon demand or shall have such cost deducted from any payments due the Contractor. The Contractor agrees to furnish to the Owner the information needed to obtain such insurance.
- 5.1.18 All insurance provided by the Contractor shall provide that the insurance shall apply separately to each insured against whom a claim is made or a suit is brought, except with respect to the limits of the insurer's liability.

5.2 OWNER'S LIABILITY INSURANCE

5.2.1 Owner shall maintain its usual insurance for liability for claims which may arise from operations under the Contract and that will protect the Owner from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the work, provided that any such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury or to destruction of tangible property (other than the work itself) including the loss of use resulting therefrom.

5.1.20 PERFORMANCE AND PAYMENT BOND

5.1.20.1

The Contractor, before commencing the Work, shall furnish a Performance Bond and a Labor and Material Bond. The Performance Bond shall be in an amount equal to 110% of the full amount of the Contract Sum as security for the faithful performance of the obligation of the Contract Documents, and the Labor and Material Payment Bond shall be in an amount equal to 110% of the full amount of the Contract Sum as security for the payment of all persons performing labor and furnishing materials in connection with the Contract Documents. Such bonds shall be on standard AIA Documents, issued by the American Institute of Architects, shall be issued by a surety satisfactory to the Owner, and shall name the Owner as a primary co-obligee. The cost of the bonds is to be included in the Bid Proposal. The Performance Bond and Labor and Material Payment Bond will become a part of the Contract. Each Bidder shall list the name of the surety company that will be furnishing the Bonds on its Bid Proposal. The failure of a Bidder to list the name of its surety company on its Bid Proposal shall be a non-responsive bid. The failure of the successful Bidder to enter into a Contract and supply the required Bonds within ten (10) days after the Notice of Award or within such extended period as the Owner may grant if the forms do not meet its approval shall constitute a default, and the Owner may either award the Contract to the next responsible, responsive Bidder or re-advertise for bids. A charge against the defaulting Bidder may be made for the difference between the amount of the bid and the amount for which a contract for the work is subsequently executed, irrespective of whether the amount thus due exceeds the amount of the bid guarantee.

5.1.20.2 The Contractor shall deliver the required bonds to the Owner not later than three days following the date the Agreement is entered into, or if the Work is to be commenced prior thereto in response to a letter of intent, the Contractor shall, prior to the commencement of the Work, submit evidence satisfactory to the Owner that such bonds will be furnished.

5.1.20.3 The contractor shall require the attorney-in-fact who executed the required bonds on behalf of the surety to affix thereto a certified and current copy of the power of attorney.

5.1.20.4

Whenever the Contractor shall be and is declared by Owner to be in default under the Contract, the Surety and the Contractor are each responsible to make full payment to the Owner or any and all extra Work incurred by the Architect as a result of the Contractor's default, and to pay to Owner all attorney's fees and

court costs incurred by Owner as a result of the Contractor's default, and in protecting Owner's rights under the Agreement to remedy Contractor's default.

- 5.1.20.5 The Contractor shall (i) furnish all Surety Company's bonds through Surety Company's local agents approved by and/or as directed by Owner; (ii) fully covered and guarantee with said bond the faithful performance and completion of the entire Contract, including without limitation, the faithful performance of prevailing wage requirements; and (iii) guarantee with said bond payment in all cases by the Contractor or by the Surety Company for all labor performed, material and supplies furnished with the entire Work in the Contract. Said Bond shall remain in full force and effect during the entire period of all general guarantees given by the Contractor with the Contract as called for in the Specifications and Contract, except in cases where other bonds are specifically called for in the specifications and Contract in connection with special guarantees.

ARTICLE 6 GENERAL PROVISIONS

Delete and Replace Paragraph 6.4 as follows:

Documents delivered by Owner and/or prepared by Architect are instruments of service for use by Contractor solely with respect to this project. They are not to be used by the Contractor or any Subcontractor (of any level) or material or equipment supplier for other projects or for additions to this project outside the scope of the Work without the specific written consent of the Owner and Architect.

ARTICLE 7: OWNER

Delete and Replace Subparagraph 7.1.1 as follows:

7.1.1. Contractor freely waives all of its rights under the Illinois Public Construction Contract Act of 1999.

ADD Paragraph 7.5

7.5 OWNER'S REMEDIES NOT EXCLUSIVE

The rights and remedies of Owner stated in this Article shall be in addition to and not in limitation of any other rights of the Owner granted in the Contract Documents or at law or in equity.

ARTICLE 8: CONTRACTOR

Delete and replace Subparagraph 8.1.1 as follows:

8.1.1 Execution of the Contract by the Contractor is a representation by the Contractor, that the Contract Documents are full and complete, are sufficient to enable the Contractor to determine the cost of the Work and that the Contract Documents are sufficient to enable it to construct the Work outlined therein, in accordance with applicable laws and regulations, and otherwise to fulfill all its obligations hereunder, including, but not limited to, Contractor's obligations to construct the Work for an amount not in excess of the Contract Sum on or before the date(s) of Completion established in the Agreement. The Contractor further acknowledges and declares that it has visited and examined the Project site, examined all physical and other conditions affecting the Work and is fully familiar with all of the conditions thereon and thereunder affecting the same. In connection therewith, Contractor specifically represents and warrants to Owner that prior to the submission of its bid it has: (a) thoroughly examined the location of the work to be performed, is familiar with local conditions, and has read and thoroughly understands the Contract Documents as they relate to the physical conditions prevalent or likely to be encountered in the performance of the work at such location; (2) examined the nature, location and character of the general area in which the Project is located, including without limitation, its climatic conditions, available labor supply and labor costs, and available equipment supply and equipment costs; and (3) examined the quality and quantity of all materials, supplies, tools, equipment, labor, and professional services necessary to complete the Work in the manner and within the cost and time frame required by the Contract Documents.

ADD to Paragraph 8.1.2 the following:

8.1.2.1 The exactness of grades, elevations, dimensions, or locations given in any drawings issued by the Architect or the work installed by other contractors is not guaranteed by the Architect or Owner.

8.1.2.2 The Contractor shall, therefore, satisfy itself as to the accuracy of all grades, elevations, dimensions and locations. In all cases of interconnection of its work with existing or other work, it shall verify at the site all dimensions relating to such existing or other work. Any errors due to the Contractor's failure to so verify all such grades, elevations, locations or dimensions shall be promptly rectified by it without additional cost to the Owner.

8.1.2.3 Prior to any excavation, the Contractor shall determine the

locations of all existing water, gas, sewer, electric, telephone, telegraph, television, irrigation, petroleum pipelines, and other underground utilities and structures. Where the locations of existing underground and surface utilities and structures are indicated, these locations are generally approximate, and all items that may be encountered during the work are not necessarily indicated. The Contractor shall determine the exact locations of all items indicated, and the existence and locations of all items not indicated.

8.3 SUPERVISION AND CONSTRUCTION PROCEDURES

ADD Subparagraphs 8.3.3 and 8.3.4 as follows:

8.3.3 The Contractor has the responsibility to ensure that all material suppliers and Subcontractors, their agents, and employees adhere to the Contract Documents, and that they order materials on time, taking into account the current market and delivery conditions and that they provide materials on time. The Contractor shall coordinate its Work, including without limitation, deliveries, storage, installations, and construction utilities with that of all others on the Project. The Contractor shall be responsible for the space requirements, locations, and routing of its equipment. In areas and locations where the proper and most effective space requirements, locations and routing cannot be made as indicated, the Contractor shall meet with all others involved, before installation, to plan the most effective method of overall installation.

8.3.4 After commencing the work, the Contractor shall use every precaution to avoid interferences with existing underground and surface utilities and structures, and protect them from damage. The Contractor shall repair or pay for all damage caused by his operations to all existing utility lines, public property, and private property, whether it is below ground or above ground, and he shall settle in total cost of all damage suits which may arise as a result of his operations at no additional costs to the Owner. To avoid unnecessary interferences or delays, the Contractor shall coordinate all utility removals, replacements and construction with the appropriate utility company. The cost of temporarily relocating utilities for convenience of the Contractor, shall be paid by Contractor.

8.4 LABOR AND MATERIALS

ADD Subparagraph 8.4.3 through 8.4.5 as follows:

8.4.3 All manufactured articles, material and equipment shall be applied,

installed, connected, erected, used, cleaned, and conditioned as directed by the manufacturer, unless herein specified to the contrary.

8.4.4 After the Contract has been executed, the Owner and the Architect will consider a formal request for the substitution of products in place of those specified only under the conditions set forth in the General Requirements.

8.4.5 The Contractor and each Subcontractor shall pay not less than the general prevailing rate of hourly wages for work of a similar character in the locality in which the work is performed and not less than general prevailing rate of hourly wages for legal holidays and overtime work in the performance of work under this Contract, as established by the Illinois Department of Labor, pursuant to an act of the General Assembly of the State of Illinois. In accordance with applicable law, Contractor and each Subcontractor shall keep an accurate record showing the names and occupation of all laborers, workers and mechanics employed by them, and also showing the actual hourly wages paid to each such individual, which record shall be open at all reasonable hours to inspection by the Owner, its officers and agents, and to agents of the Illinois Department of Labor. The Contractor and each Subcontractor hereby agree, jointly and severally, to defend, indemnify and hold harmless the Owner from any and all claims, demands, liens or suits of any kind or nature whatsoever (including suits for injunctive relief) by the Illinois Department of Labor under the Illinois Prevailing Wage Act, or by any laborer, worker or mechanic employed by the Contractor or the Subcontractor who alleges that he has been paid for his services in a sum less than prevailing wage rates required by Illinois law. The Owner agrees to notify the Contractor or Subcontractor of the pendency of any such claim, demand, lien or suit. Contractor must pay prevailing wages in effect at time labor is performed.

8.6 TAXES

Delete Subparagraph 8.6 in its entirety and insert the following:

The Owner is exempt from the Illinois Use Tax Act and the Retailer's Occupation Tax.

8.8 SUBMITTALS

Add to the end of Subparagraph 8.8 the following:

Contractor shall be entitled to one resubmittal of any submittal or shop drawing rejected by Architect or returned by the Architect for further action. Thereafter, Contractor shall pay the cost of all further reviews of such submittal or shop drawing and agrees to execute a Change Order

reducing the Contract Sum by the amount charged by Architect to Owner for the additional reviews. Likewise, Contractor agrees to reimburse Owner for any additional costs incurred by Owner to pay Architect arising out of any delay or acts of the Contractor in completing the work (including additional observations and testing expenses).

8.12 INDEMNIFICATION

Delete Paragraph 8.12 and Replace as follows:

To the fullest extent permitted by law, the Contractor shall waive any right of contribution against the Owner and shall indemnify and hold harmless the Owner and the Architect and their officers, officials, employees, volunteers and agents from and against all claims, damages losses and expenses, including, but not limited to, legal fees (attorney's and paralegal's fees, expert fees and court costs), arising out of or resulting from the performance of the Contractor's work provided that any such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or injury to or destruction of property, other than the work itself, including the loss of use resulting therefrom, or is attributable to misuse or improper use of trademark or copyright protected material or otherwise protected intellectual property, to the extent it is caused in whole or in part by any wrongful or negligent act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable. Such obligation shall not be construed to negate, abridge or otherwise reduce any other right to indemnity which the Owner would otherwise have. The Contractor shall similarly, protect, indemnify and hold and save harmless, the Owner, its officers, officials, employee, volunteers and agents against and from any and all claims, costs, causes, actions and expenses, including, but not limited to, legal fees, incurred by reason of Contractor's breach of any of its obligations under, or Contractor's default of any provisions of the Contract. The indemnification obligations under this paragraph shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the Contractor or any subcontractor under Workers' Compensation or Disability Benefit Acts or Employee Benefit Acts.

ARTICLE 12: PAYMENTS AND COMPLETION

12.4 PROGRESS PAYMENTS

ADD Subparagraph 12.4.5 as follows:

12.4.5 Until substantial completion, the Owner shall pay 90 percent of the amount due the Contractor on account of progress payments.

ARTICLE 17 REGULATIONS

- 17.1 The Contractor warrants it is familiar with and shall comply with Federal, State and local laws, statutes, ordinances, rules and regulations and the orders and decrees of any courts or administrative bodies or tribunals in any manner affecting the performance of the Contract including without limitation Workers' Compensation Laws, minimum salary and wage statutes and regulations, laws with respect to permits and licenses and fees in connection therewith, laws regarding maximum working hours. No plea of misunderstanding or ignorance thereof will be considered.
- 17.2 Whenever required, the Contractor or Subcontractor shall furnish the Architect and Owner with satisfactory proof of compliance with said Federal, State and local laws, statutes, ordinances, rules, regulations, orders, and decrees.
- 17.3 Contractor shall carefully examine the Occupational Safety and health Act as issued by the Federal Register (OSHA), and the specific regulations governing procedures, techniques, safety precautions, equipment design, and the configuration of the same as required under this Act and shall comply with all terms of the Act and to perform and complete in a workmanlike manner all work required in full compliance with said Act.
- 17.4 Contractor shall comply with all terms of the Illinois Preference Act and all terms of the Equal Employment Opportunity Clause of the Illinois Fair Employment Practices Commission.
- 17.5 At all times Contractor shall remain in compliance with the Illinois Public Works Employment Discrimination Act (775 ILCS 10/1, et seq.) and the Illinois Human Rights Act (775 ILCS 5/2-101, et seq.) and in addition shall at all times comply with Section 2-105 of the Illinois Human Rights Act requiring a written sexual harassment policy as defined therein.
- 17.6. Contractor agrees to maintain all records and documents for projects of the Owner in compliance with the Freedom of Information Act, 5 ILCS 140/1 et seq. In addition, Contractor shall produce, without cost to the Owner, records which are responsive to a request received by the Owner under the Freedom of Information Act so that the Owner may provide records to those requesting them within the time frames required. If additional time is necessary to compile records in response to a request, then Contractor shall so notify the Owner and if possible, the Owner shall request an extension so as to comply with the Act. In the event that the Owner is found to have not complied with the Freedom of Information Act based upon Contractor's failure to

produce documents or otherwise appropriately respond to a request under the Act, then Contractor shall indemnify and hold the Owner harmless, and pay all amounts determined to be due including but not limited to fines, costs, attorneys' fees and penalties.

- 17.7 The Contractor shall comply with and cause all subcontractors to comply with the requirements and provisions of the Illinois Substance Abuse Prevention on Public Works Projects Act (820 ILCS 265/1 et. seq.) (the "Act").

17.8 **PREVAILING WAGES**

Contractor and each of its Subcontractors shall pay prevailing wages as established by the Illinois Department of Labor for each craft or type of work needed to execute the contract in accordance with 820 ILCS 130/.01 et seq. The Contractor shall prominently post the current schedule of prevailing wages at the Contract site and shall notify immediately in writing all of its Subcontractors, of all changes in the schedule of prevailing wages. Any increases in costs to the Contractor due to changes in the prevailing rate of wage during the terms of any contract shall be at the expense of the Contractor and not at the expense of the Owner. The change order shall be computed using the prevailing wage rates applicable at the time the change order work is scheduled to be performed. The Contractor shall be solely responsible to maintain accurate records as required by the prevailing wage statute and shall be solely liable for paying the difference between prevailing wages and any wages actually received by laborers, workmen and/or mechanics engaged in the Work.

- 17.9 By execution of this Contract, the Contractor understands, represents and warrants to the Owner that the Contractor and its Subcontractors (for which the Subcontractor takes responsibility to insure that they comply with the above-mentioned Acts) are in compliance with all requirements provided by the Acts set forth in Article 17 and that they will remain in compliance for the entirety of the Work. A violation of any of the Acts set forth in this Article is cause for the immediate cancellation of the Contract. However, any forbearance or delay by the Owner in canceling this Contract shall not be considered as, and does not constitute, Owner's consent to such violation and a waiver of any rights the Owner may have, including without limitation, cancellation of this Contract.

**TECHNICAL SPECIFICATIONS OF THE CONTRACT
TABLE OF PARAGRAPHS**

DIVISION 1 - GENERAL REQUIREMENTS

Section 00850 - Drawing List
Section 01000 – Special Provisions
Section 01010 – Summary

DIVISION 2 - SITE WORK

Section 02100 – Demolition Clearing and Grubbing
Section 02270 - Erosion Control
Section 02610 - Water Play Equipment
Section 02793 – Playground Surfacing System

DIVISION 3 - CONCRETE

Section 03200 - Concrete Reinforcement
Section 03300 - Cast-In-Place Concrete

DIVISION 6 - WOOD AND PLASTICS

Section 06171 - Play Equipment

DIVISION 12 - FURNISHINGS

Section 12001 - Site Furnishings

DIVISION 16 - Electrical

Section 16050 – Basic Electrical materials and Methods
Section 16140 – Wiring Devices
Section 16442 - Panelboards

**SECTION 00850
DRAWING LIST**

PART I GENERAL

1.01 SCHEDULE

The project work shall be done in accordance with and in conformity to the drawings listed in the following tabulation.

DRAWING NUMBER	TITLE
L-0.0	Cover
L-0.1	Survey
L-1.0	Demolition Plan
L-2.0	General Construction Plan
L-3.0	Layout Plan
D-1.0	Site Details

The said drawing are signed accompany the agreement and are made a part hereof. The specifications and drawings are intended to be correlative and complementary. All work appearing upon the drawings and omitted in the specifications or mentioned in the specifications and omitted from the drawings, shall be executed in the accordance with the true intent and meaning of said specifications and drawings, as determined by the authorized representative of the Park District, the same as though said work were contained and described in each.

Special drawings and details with respect to any item of the work will be furnished within a reasonable time in response to a written request by the Contractor provided such drawings are necessary to the proper and expeditious performance of the contract. This does not cover drawings to be furnished by the Contractor.

END OF SECTION 00850

**SPECIAL PROVISIONS
SECTION 01000**

SUMMARY OF WORK

The work under the Contract shall consist of those items designated in the drawings and as specified in the Agreement between the Owner and the Contractor and also as specified in the following divisions (Technical Specifications).

It is the intention of these specifications to supply the Contractor with all of the information necessary for a complete and operational development.

Technical Specifications may make reference to specific manufacturer's products or they may make reference to specific performance requirements. The Technical Specifications used throughout these documents are absolute minimum requirements and under no circumstances will bids be accepted which do not meet these minimum requirements.

Prior to execution of the Agreement between the Owner and the Contractor, a meeting will be scheduled in order that the Owner and Contractor may discuss any requirements of the Contract Documents which need clarification, and to discuss the construction schedule. Various other meetings may be scheduled by the Owner throughout the duration of the contract in order to discuss or to point out certain aspects of the work under Contract.

SUBMITTALS AND SUBSTITUTIONS

Manufacturer's literature pertaining to: 1) Installation procedures; 2) Maintenance information; 3) Warranty/guarantee information shall all be submitted prior to ordering materials.

Shop Drawings may be required by the Owner or Owner's Representative for the installation of certain materials or equipment. Shop Drawings shall be approved by the Owner's Representative prior to installation.

Substitutions may be made only upon the Contractor's receiving written approval from the Owner's Representative for such substitutions. This requirement applies to all items referred to as "or equal" and "or approved equal" in the drawings or specifications.

Timing and Submittals shall be made far enough in advance for the Owner's and Owner's Representative's review and approval and for the Contractor's revisions and resubmittals and for placing orders or for securing deliveries. Allow at least ten working days for review of all items.

Delays which occur as the result of tardiness in receipt of submittals will not be an acceptable basis for extension of the Contract completion date.

Owner's Review shall not constitute a complete check but shall be an attempt to guard the Owner against errors and omissions in the work under the Contract. It shall in no way relieve the Contractor of his responsibilities under the Contract.

PROTECTION OF EXISTING FACILITIES

Locating existing utilities shall be the responsibility of the Contractor. He shall notify all utilities of his intention to perform contracted work on the site and shall meet with utility company personnel on-site to review the work with them. The Contractor shall not commence with the work until **all** utilities have been located.

Responsibility for injury, damage or death as a result of disruption of existing utilities shall be the Contractor's. He shall have adequate insurance coverage as specified in the Agreement between Owner and Contractor, and he shall replace or repair utilities at his own expense if disruption occurs.

Existing Facilities shall not be disturbed in any way during work under the Contract except as specified in the drawings and Technical Specifications. It shall be the responsibility of the contractor to replace or repair any damage which may accidentally occur at his expense. All repairs and/or replacement shall occur before final acceptance. The existing boardwalk and flagstone paving shall not be driven on at any time and shall be protected along with all stone walls on site at all time.

Existing Landscaping including existing trees, shrubs, lawns and beach shall be adequately protected by the Contractor so as to avoid destruction and/or damage to them as a result of operations under this Contract. Trees, shrubs, lawns and beach destroyed by negligence of the Contractor or any of his employees or subcontractors shall be replaced at the expense of the Contractor. Replacement stock shall be similar in size or age, shall be planted or installed during the proper season and shall be subject to the approval of the Owner and Owner's Representative.

MEASUREMENT

Dimensions of new facilities have been indicated in the drawings or have been specified in the Contract Documents. For all practical purposes, these shall be the exact dimensions of the facilities as built unless otherwise approved by the Owner or Owner's Representative. All new construction shall be square, level, and/or plumb as appropriate and only the most precise and accurate craftsmanship shall be accepted for all work. Any discrepancies in dimensions with existing or to manufacturer's recommendations shall be brought to the attention of the Owner's representative before construction takes place or as soon as the discrepancies are found.

Land elevations may have been specified throughout the Contract Documents. These shall be met to insure that the most precise installation possible has been completed and to insure proper drainage and safety of facility users. The Contractor shall use only the most precise surveying equipment for elevational measurements. The Owner's Representative may deem it necessary to check these elevations during the course of construction. Any discrepancies in elevations with existing or to manufacturer's recommendations shall be brought to the attention of the Owner's representative before construction takes place or as soon as the discrepancies are found. Due to the nature of the existing surface, beach sand, elevations shall be confirmed on site by contractor. Contractor shall not leave any holes or exposed footings on site.

Weather Limitations: Do not excavate, transport, or place backfill when weather conditions are sufficiently wet to produce excessive ponding, puddling such that free liquid is found in truck beds or such that placement and compaction cannot be evaluated via standard proctor.

Traffic Control: Maintain vehicular and pedestrian traffic control during demolition, excavation, and backfill. Provide all traffic control, included but not limited to, flagmen, road barriers, lane closures, signage, etc. for the work.

Project Site Maintenance:

1. Construction housekeeping including, but not limited to securing the site each night; daily collection of debris, litter and trash; daily broom-sweeping of the site; and weekly street sweeping or as required.
2. Install all necessary storm water pollution prevention best management practices. Maintain and repair sediment and erosion controls filled or damaged as a result of the work of this Agreement.
3. The contractor is responsible for providing a means at the Site entrance/exit to minimize the amount of dirt transported off-Site on truck tires. The contractor must incorporate a staging area to inspect and either wash or knock off excess dirt from truck tires. Trucks leaving the Site should have a tarp or other cover to prevent blowing of dirt during transportation and to minimize damage claims from car windshields in the neighborhood. The contractor is responsible for daily cleanup at the Site, including but not limited to collection of all trash, debris and waste and sweeping up excessive dirt on the street and sidewalk. The contractor is responsible for providing a street washer a minimum of once per week during the project.

4. This subcontractor shall provide dust control while on site, including water trucks. The perimeter erosion control shall be installed by this subcontractor, and maintained by this subcontractor to the extent damaged by this subcontractor.

Work Time: The contractor shall provide the specified services as part of a standard 8-hour work day at the project Site beginning at 8:00 AM. On-Site work cannot begin until 7:00 AM.

Maintenance: The contractor shall provide means at the Site entrance/exit to minimize the amount of dirt transported off-site on truck tires. The contractor shall use a staging area to inspect and either wash or knock off excess dirt from truck tires. Trucks leaving the Site should have a tarp or other cover to prevent blowing of dirt during transportation and to minimize damage claims from car windshields in the neighborhood. Daily cleanup at the Site, including but not limited to collection of all trash, debris and waste and sweeping up excessive dirt on the street and sidewalk. The contractor shall provide a street washer a minimum of once per week during the project.

Demobilization: The contractor shall be responsible for restoring the Site following completion of backfill and grading. This shall include collection and off-Site disposal of all trash, debris, equipment, tools and other materials that may have collected or remain from Site activities and removal of the temporary construction fencing and parking restrictions. The contractor shall at all times refrain from leaving trash, debris or tools at the Site during performance of the project.

CLEANING

Safety and progress cleaning. The Contractor shall be responsible for safety cleaning and for progress cleaning which shall include, but is not limited to the following: Keeping work areas and adjacent roadways free of dirt and rubbish; backfilling progressively after underground utility or other construction; removing spills of oil, grease, or other liquids immediately and sprinkling of sand.

Final Cleaning shall occur prior to final construction review. The Contractor shall perform a final cleaning so as to put all work and surroundings in a neat, finished condition which is ready for final acceptance and for the use intended.

The Work shall be reviewed by the Owner's Representative. The Contractor shall give at least 48 hours notice before the review is to occur. The finished work shall comply with all of the requirements of these Contract Documents and the facility shall be ready for the Owner to use in the manner which it was intended.

A punch list shall be prepared by the Owner's Representative in order that the Contractor is made aware of any items which do not comply with the Contract Documents. All of the items on the punch list shall be remedied prior to final payment.

MISCELLANEOUS REQUIREMENTS

Building Code. It shall be the responsibility of the Contractor to comply with the building code governing the city, township, county, village etc. within which the project site is located whether or not the requirements stated therein have been mentioned in the contract documents. The Contractor shall review all proposed work prior to submitting his bid, and shall bring any noncompliance to the attention of the Owner's Representative. No additional compensation shall be given to the Contractor for work which is changed under this Contract in order to comply with the building code. If the governing body has not adopted a building code, the code for which the Contractor is responsible for following is the IBC specified above in these technical specifications.

Americans with Disabilities Act Accessibility Guidelines. It shall be the responsibility of the Contractor to comply with the ADA Accessibility Guidelines. The Contractor shall review all proposed work prior to submitting his bid and shall notify the Owner's Representative of any noncompliance. No additional compensation shall be given to the contractor for work which is changed under this Contract in order to comply with these guidelines.

Permits. Contractor shall obtain any and all permits required by the local governing body for the scope of this work including for delivery of materials over streets, boulevards and drives. No additional compensation or extension of time will be allowed because of restrictions that may be imposed on routes or truck operations.

Contractor's Shelter. Contractor shall provide such shelter and accessories as are necessary, for this forces him to handle the work most advantageously. He shall provide adequate shelter for the protection of all materials liable to damage by exposure and shall be responsible for all loss and damage to materials and equipment in connection with his work.

Port-O-Let. Contractor shall provide a Port-O-Let portable restroom for use by contractor's crews. Crews shall not use any restroom or Port-O-Let provided by the Owner for park patron use.

Equipment and hoisting. Contractor shall furnish adequate equipment and use great care in the hoisting and handling of materials and equipment so as not to damage existing construction and turf areas. All damage to existing construction and turf areas shall be repaired or replaced by the Contractor, as required and as approved by the Owner's Representative, at no additional cost to the Owner.

Conditions at the site. The existing conditions and configuration of adjacent land area and other conditions may be seen and examined at the site of the work. Contractor shall take the site as he finds it and shall furnish and place all materials and all incidentals and accessories required hereunder, as specified herein, for the contract price agreed upon, regardless of the difficulties encountered by reason of the nature of the existing conditions.

As Built Documents.

1. Records. As the work progresses, the Contractor and the Subcontractor for each trade or division of Work under the direction of the Contractor, shall keep a complete and accurate record of the following:
 - a. Changes and deviations between the Work as shown on the Contract and Shop Drawings indicating the Work as actually installed.
 - b. The specific locations of piping, valves, ductwork equipment, and other such Work which were not located on or changed location from the locations indicated on the Drawings and Shop Drawings.
 - c. Equipment schedules indicating manufacturer's names and model numbers.
2. Changes. Changes and deviations and other records shall be neatly and correctly recorded on blue line prints of the Contract, Drawings, the Specifications and Shop Drawings affected, with appropriate supplementary notes. This record set of Drawings, Shop Drawings and Specifications shall be kept at the Site for inspection by the Owner. At the completion of the Work the Contractor shall provide mylar sepias of the Contract Drawings to the Owner at the Contractor's expense. The Contractor shall transfer all information and notations from the blue line prints to the sepia mylars and copies of the Specifications and Shop Drawings. These will constitute the As-Built Documents.
3. Organization and Endorsement. The As-Built Documents shall be arranged in order, in accordance with the various sections of the Specifications, and properly indexed. The Contractor shall review them for completeness prior to submittal to the Owner. At the completion of the Work, the Contractor and each Subcontractor shall certify by endorsement thereof that each of the revised sepia mylars of the Drawings and copy of Specifications and Shop Drawings is complete and accurate.
4. Delivery of Copies. Prior to the Contractor's Application for Final Payment, and as a condition to its review by the Owner, the Contractor shall deliver to the Owner, in suitable transfer cases clearly marked, "As-Built Documents", the as-built record sepia mylar Drawings, Specifications and Shop Drawings arranged in proper order, indexed and marked for each division of the Work.

Additional Parts and Vendor Lists. At completion of work, the Contractor shall provide the Owner with any spare parts from site amenities and features left over after installation, plus a list of the vendors from which all site amenities and features were purchased.

END OF SECTION 01000

SECTION 01010

SUMMARY OF WORK

Part I - General

1.1 Related Documents

Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this section.

1.2 Work Covered by Contract Documents

- A. The Project consists of services associated with park development including a new playground with rubber soft surfacing.

Project Location:
55 Hazel Ave., Glencoe, Illinois 60022

2. Owner: Glencoe Park District
999 Green Bay Road
Glencoe, IL 60022
- B. Contract Documents were prepared for the project by:
Thompson Dyke & Associates, Ltd.
PO Box 88
Glencoe, IL 60022
- C. The Work consists of renovations and additions to an existing beach play area. The scope of work includes the following: installation of standard play equipment and site amenities, installation of spray equipment, installation of resilient rubber tile surfacing, utility work for water and electric and miscellaneous work as identified in the drawings and specifications.

- 1.3 Reference will be made throughout the Contract Documents to the following Technical Specifications and standards. It shall be the Contractor's responsibility to have at least one copy of the Technical Specifications on hand at all times for easy reference by himself and Subcontractors. In addition, the Contractor shall refer to the following as appropriate:

1. (SSRBC): **Standard Specifications for all Road and Bridge Construction**, published by the Illinois Department of Transportation, most current edition or as noted in the Technical Specifications.
2. (BOCA): **The BOCA Building Code**, published by the Building Official & Code Administration's International, Inc., 17926 South Holland Street, Homewood, IL 60430.
3. (ASTM): **The American Society for Testing and Materials**, published by the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.
4. (ANNSI): **The American National Standards Institute**, published by the American National Standards Institute, Inc. 1450 Broadway, New York, NY 10018
5. (ADA): **Accessibility Guidelines for Building and Facilities**, as published in federal Register.
6. Other references standards of the industry and as specified in the Technical Specifications.

END OF SECTION 01010

**SUMMARY OF WORK
01010-2**

**DEMOLITION, CLEARING AND GRUBBING
SECTION 02100**

PART I - GENERAL

1.01 DESCRIPTION

- A. Work included: Provide labor, material, equipment and services required to complete all demolition, clearing and grubbing work shown or specified including but not necessarily limited to:
1. Removing concrete and asphaltic concrete pavement
 2. Removing playground equipment and footings
 3. Removing miscellaneous items
 4. Dust control
 5. Disconnecting and removing existing utility lines on site, except those designated to remain
 6. Removing debris
- B. Definitions: The term "demolition, clearing and grubbing" as used herein includes removal of existing objects (except those objects designated to remain) down to existing ground level, plus such other work as described in this section.

1.02 QUALITY ASSURANCE

Contractor's qualifications: In addition to complying with pertinent codes and regulations, this Contractor shall have a minimum of five years experience in demolition of comparable structures.

1.03 SUBMITTALS

Permits: Obtain permits as required for building demolition, certificates of severance of utility service and permits for transporting and disposing of debris.

1.04 JOB CONDITIONS

- A. Dust control: Prevent spread of dust during performance of work of this section. Thoroughly moisten surfaces to prevent dust causing a nuisance to the public, neighbors and concurrent performance of work on site.
- B. Burning: On-site burning will not be permitted.
- C. Protection: Protect existing objects designated to remain and in the event of damage, immediately make repairs and replacements necessary to approval of Landscape Architect at no additional cost to Owner.
- D. Maintaining traffic:
1. Ensure minimum interference with roads, streets, driveways, sidewalks and any adjacent facilities.
 2. Do not close or obstruct streets, sidewalks, alleys or passageways without permission from authorities having jurisdiction.
 3. If required by governing authorities, provide alternate routes around closed or obstructed traffic ways.

PART II - PRODUCTS

2.01 MICELLANEOUS

Other materials not specifically described but required for proper completion of work of this section shall be as selected by Contractor, subject to approval of Landscape Architect.

PART III -EXECUTION

3.01 PREPARATION

A. Notification: Notify Landscape Architect at least two full working days prior to commencing work of this section.

B. Site inspection:

1. Prior to work of this section, inspect entire site and identify objects designated to be removed and objects to be preserved, per construction documents.
2. Locate existing utility lines and determine requirements for disconnecting and capping or for their protection.
3. Locate existing utility lines traversing site and determine requirements for their protection.

C. Clarification:

1. Drawings do not purport to show all objects existing on site.
2. Before commencing work of this section, verify with Landscape Architect objects to be removed and objects to be preserved.

D. Scheduling:

1. Schedule all work in a careful manner with necessary consideration for neighbors and the public.
2. Avoid interference with the use of, and passage to and from, adjacent buildings and facilities.

E. Disconnection of utilities: Before starting site operations, disconnect or arrange for disconnection of utility service designated to be removed, performing such work in accordance with requirements of utility company or agency involved.

F. Protection of utilities: Preserve in operating condition, active utilities traversing site and designated to remain.

3.02 DEMOLITION AND REMOVAL

Demolish and remove concrete slabs, asphaltic concrete pavement designated to be removed, utility lines designated to be abandoned and all other items designated to be removed prior to commencement of new construction.

3.03 CLEARING

Limit of clearing: Limit of clearing shall be all areas within (4'-0" of building lines) (Lines designating limits of construction)

3.04 GRUBBING

Limits of grubbing shall coincide with limits of clearing.

3.05 REMOVAL OF DEBRIS

- A. Remove debris from site daily as it accumulates.

- B. Materials to be removed shall not be allowed to accumulate for more than 48 hours.

END OF SECTION 02100

SECTION 02270
EROSION CONTROL

PART I - GENERAL

- 1.01 Soil erosion control measures in accordance with the "Illinois Urban Manual" and NPDES general permit no. ILR10 shall be followed. Any soil erosion control measures, in addition to those outlined in these plans and which are deemed necessary by the owner, Landscape Architect and/or the Owner shall be implemented immediately by the contractor.
- 1.02 Streets adjacent to the site shall be kept free of dirt, mud and debris.
- 1.03 No sediment shall be allowed to enter the existing storm sewer system.
- 1.04 In accordance with these construction plans, erosion control measures shall be installed and maintained around storm sewer structures, in swale areas or along property lines until vegetation is established and/or construction is complete.
- 1.05 Topsoil stockpiles shall be located to avoid erosion of said stockpile onto offsite areas i.e. the stockpile shall be located so that an onsite drainage swale is between the stockpile and the downstream offsite property. If a stockpile is to remain in place for more than 45 days, it is required that the stockpile be seeded so as to minimize soil erosion by both wind and water.
- 1.06 All storm sewer, catch basins, sumps and/or detentions basins provided within this project are to be cleaned at the end of construction of the project and prior to final acceptance. Cleaning may also be required during the course of the construction of the project if it is determined that the silt and debris traps are not properly functioning and their performance is impaired.
- 1.07 A stabilized construction entrance for mud and dust control shall be established at the onset of construction activity and shall be maintained throughout the course of the project. The construction entrance shall be located generally as shown on the plans, or at any other points where construction traffic frequently leaves the public roadway to enter the site. The stabilized construction entrance shall be typically 30 feet wide (with a minimum width of 14 feet), 50 feet long and shall consist of a 6" thick minimum layer of 2" angular crushed aggregate (IDOT gradation CA-4) compacted in place, underlain with a geotextile filter fabric.
- 1.08 Unless soil erosion control items are specifically referred to as bid items (such as topsoil respread, seeding, etc.), they are to be considered as incidental to the cost of the contract.
- 1.09 Upon completion of topsoil respread operations, all disturbed areas shall be seeded, sodded, or landscaped as noted on the plan.
- 1.10 Seeding and mulching shall be in accordance with sections 250 and 251 of the IDOT standard specifications. Seed mixture shall be Class 1 or as noted on the plan, or in specifications.
- 1.11 Sequence for Soil Erosion Control Items:

Each respective contractor is responsible for the installation, maintenance and necessary corrective action associated with the erosion control measures so designated for that contractor. The following items are to be provided by the designated contractor at the time and in the general sequence indicated below.

- I. Mass Grading/Earthwork Contractor
 - A. Provide construction entrance and silt fence prior to the start of construction.

- B. Provide diversion swales around site perimeter as necessary to prevent /intercept storm water runoff to offsite areas. As part of initial mass grade improvements.

II. Underground Contractor

- A. Provide straw bales, siltation/debris collection "channel", synthetic filter fabric, etc., around all yard/detention basin inlets immediately upon installation of said inlets.
- B. Provide cleaning of storm sewer system, catch basins, and storm sewer structures in accordance with these soil erosion control specifications.
- C. Provide filter fabric at all curb inlets during construction. Fabric to be placed between grate and cast iron frame to allow maintenance or replacement of fabric by removing grate with frame to remain in place. Said filter fabric to be maintained until all "upstream" lot areas to a respective inlet have been completed through establishment of a grass turf.

END OF SECTION 02270

**WATER PLAY EQUIPMENT
SECTION 02610**

PART I - GENERAL

1.01 DESCRIPTION OF WORK

- A. This work shall consist of supply and installation of the water play structure(s) as shown in the drawings.

1.02 RELATED SECTIONS

- A. 02210 – Site Grading, 02600 Exterior Water and Sewer Facilities, 03300 Poured in Place Concrete, Division 16, Lighting and Electrical

1.03 SUBMITTALS

- A. Installation Shop Drawings for each & colors where available

PART II - MATERIALS

2.01 WATER PLAY EQUIPMENT shall be supplied as indicated in the Drawings as follows: Water Odyssey as supplied by Reese Recreation Products, Inc., 3327 N. Ridge Avenue, Arlington Heights, Illinois 60004. Phone: 800.222.2268, or approved equal.

A. Water Play Equipment

- 1.F2019-SW – Fun Forms Sunken Dingy Aqua Sprayer with Wireless Activator (Water Odyssey)

B. Controller

1. Control Panel: DSC 0-8 –W wireless Controller with antenna (Water Odyssey)

C. Valve

1. Ground Enclosure Hot Box or approved equal. The basis of design is LOK-BOX HOT BOX VG3000.
2. 4" Stainless Steel Manifold for wall mount installation WM-01, solenoid and hammer arrestor shall be as part of VM 4 – Water Odyssey
3. PRV-15 High volume 1.5" cast bronze pressure reducing 05-0502 PRV15

PART III - EXECUTION

- 3.01 Contractor shall install per manufacturer's instructions, and as indicated in the drawings.
3.02 Contractor shall install per Standard Consumer Safety Performance Specification for Playground Equipment for Public Use ASTM F 1487-93.
3.03 Contractor shall barricade use of spray equipment during construction and prior to the installation of surface.
3.04 Contractor shall provide controller sequencing options and provide initial programming of controller per specification, or per owner's request.
3.05 Contractor shall provide initial start up / shut down services, and familiarize Owner's representative with operation and maintenance procedures for water play equipment.
3.06 Entire system shall be water pressure tested prior to substantial completion

END OF SECTION 02610

**SECTION 02793
PLAYGROUND SURFACING SYSTEM**

PART I - GENERAL

1.1 SECTION INCLUDES

- A. Playground Safety Surfacing System:
 - 1. Resilient, interlocking, playground safety surfacing tiles.
 - 2. Resilient, poured-in-place, playground safety surfacing.

1.2 RELATED SECTIONS

- A. Section 02880 – Playground Equipment.
- B. Section 03300 – Cast-in-Place Concrete: Concrete subsurface.

1.3 REFERENCES

- A. ASTM C 67 – Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile.
- B. ASTM C 501 – Standard Test Method for Relative Resistance to Wear of Unglazed Ceramic Tile by the Taber Abraser.
- C. ASTM D 395 – Standard Test Methods for Rubber Property--Compression Set.
- D. ASTM D 412 – Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers--Tension.
- E. ASTM D 624 – Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.
- F. ASTM D 2047 – Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as Measured by the James Machine.
- G. ASTM D 2859 – Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials.
- H. ASTM E 303 – Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester.
- I. ASTM F 1292 – Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment.
- J. US Consumer Product Safety Commission (CPSC) Handbook for Playground Safety.
- K. Comply with ASTM F1951 Standard Specification for determination of Accessibility of Surface Systems Under and around Playground Equipment

1.4 SUBMITTALS

- A. Product Data: Submit manufacturer's product data, including installation instructions and subsurface instructions.
- B. Samples: Required if other than the recommended manufacture.
 - 1. Surfacing Tiles: Submit manufacturer's sample of 2 full tiles including locking system.

2. Poured-in-Place Surfacing: Submit manufacturer's sample of poured-in-place playground safety surfacing showing texture, color, and thickness. Minimum 12" x 12"
 3. Playground Safety Surfacing System: Submit manufacturer's sample of playground safety surfacing system as installed in field, showing edge details and method of permanently fastening surfacing tiles to poured-in-place surfacing.
- C. Test Reports: Submit certified test reports from qualified independent testing agency indicating results of the following tests for Poured in place:
1. Impact Attenuation: ASTM F 1292.
 - a. G-max score.
 - b. Head injury criteria (HIC) score.
 - c. Surfacing tiles and poured-in-place surfacing as separate materials and in combination as a system.
 2. Freeze Thaw: ASTM C 67.
 3. IPEMA Certification. Slip Resistance: ASTM D 2047 and E 303.
 4. Tensile Strength: ASTM D 412.
 5. Elongation at Break: ASTM D 412.
 6. Tear Strength: ASTM D 624.
 7. Wear surface density (durability).
 8. Taber Abrasion: ASTM C 501.
 9. Flammability: ASTM D 2859
- D. Test Reports: Submit certified test reports from qualified independent testing agency indicating results of the following tests for Tiles:
1. Impact Attenuation: ASTM F 1292.
 - a. G-max score.
 - b. Head injury criteria (HIC) score.
 - c. Surfacing tiles and poured-in-place surfacing as separate materials and in combination as a system.
 2. IPEMA Certification
 3. Slip Resistance: ASTM D 2047 and E 303.
 4. Tensile Strength: ASTM D 412.
 5. Elongation at Break: ASTM D 412.
 6. Tear Strength: ASTM D 624.
 7. Taber Abrasion: ASTM C 501.
 8. Flammability: ASTM D 2859
- E. Certificate of Compliance: Submit manufacturer's certificate of compliance indicating materials comply with specified requirements.
- F. Manufacturer's Project References:
1. Submit list of 10 successfully completed projects.
 2. Include project name and location, contact and phone number, and type and quantity of playground safety surfacing tiles and poured-in-place playground safety surfacing furnished as a combined playground safety surfacing system.
- G. Installer's Project References:
1. Submit list of 10 successfully completed projects.
 2. Include project name and location, contact and phone number, and type and quantity of playground safety surfacing tiles and poured-in-place playground safety surfacing installed as a combined playground safety surfacing system.
- H. Maintenance Instructions: Submit manufacturer's maintenance and cleaning instructions.
- I. Warranty: Submit manufacturer's warranty to comply with Section 1.8 A below.

- J. Submit installation depth plan. Manufacturer submittal shall clearly indicate PIP (poured in place) and tile thickness, where the thickness change is located in relation to the play equipment and fall zones. The rubber thickness shall meet the required HIC and G max as indicated in this specification .

1.5 QUALITY ASSURANCE

A. Manufacturer's Qualifications:

1. Continuously engaged in manufacturing of playground safety surfacing tiles and poured-in-place playground safety surfacing of similar type to that specified, with a minimum of 10 years successful experience.
2. Furnished a minimum of 1,500,000 square feet of playground safety surfacing tiles and a minimum of 1,000,000 square feet of poured-in-place playground safety surfacing of similar type to that specified.

B. Installer's Qualifications:

1. Surfacing Tiles: Successful experience in installation of playground safety surfacing tiles of similar type to that specified, with a minimum of 20 projects completed within last 5 years.
2. Poured-in-Place Surfacing: Successful experience in installation of poured-in-place playground safety surfacing of similar type to that specified, with a minimum of 20 projects completed within last 5 years.
3. Playground Safety Surfacing System: Successful experience in installation of playground safety surfacing system of tiles and poured in place within the same field, with a minimum of 50,000 square feet completed within last 5 years.
4. Employ persons trained for installation of playground safety surfacing system.
5. Approved by manufacturer.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.

B. Storage:

1. Store materials in accordance with manufacturer's instructions.
2. Store materials in a dry area at a minimum temperature of 50 degrees F (10 degrees C) for a minimum of 72 hours before installation.
3. Surfacing Tiles: Protect tiles from direct sunlight before installation.
4. Surfacing Tile Adhesive: Store adhesive in a dry area at a minimum temperature of 50 degrees F (10 degrees C).

- C. Handling: Protect materials during handling and installation to prevent damage or contamination.

1.7 ENVIRONMENTAL REQUIREMENTS

A. Surfacing Tiles:

1. Tile Temperature: Ensure surface temperature of playground safety surfacing tiles is a minimum of 50 degrees F (10 degrees C) at time of installation.
2. Air Temperature: Ensure air temperature is a minimum of 40 degrees F (4 degrees C) for a minimum of 24 hours before and during installation.
3. Tile or Air Temperatures: Consult manufacturer's installation instructions for modified installation procedure when tile or air temperatures are above 85 degrees F (29 degrees C).

B. Poured-in-Place Surfacing:

1. Material Temperature: Ensure material temperature is a minimum of 50 degrees F (10 degrees C) at time of installation.
2. Air Temperature: Ensure air temperature is a minimum of 40 degrees F (4 degrees C) for a minimum of 24 hours before, during, and a minimum of 72 hours after installation.

1.8 WARRANTY

A. Playground Safety Surfacing System:

1. Surfacing Tiles:

- a. Materials and Workmanship: Playground safety surfacing tiles shall be warranted for defects in materials and workmanship for 10 years from date of completed installation.
- b. Performance: Playground safety surfacing tiles shall be warranted to meet drop height performance requirements of ASTM F 1292 for 10 years from date of completed installation.
- c. Playground tiles, materials and workmanship warranty for the connection system for 10 years.

2. Poured-in-Place Surfacing:

- a. Materials and Workmanship: Poured-in-place playground safety surfacing shall be warranted for defects in materials and workmanship for 5 years from date of completed installation.
- b. Performance: Poured-in-place playground safety surfacing shall be warranted to meet drop height performance requirements of ASTM F 1292 for 5 years from date of completed installation.

PART II - PRODUCTS

2.1 MANUFACTURER

- A. SofSURFACES, Inc. or approved equal, 4393 Discovery Line, PO Box 239, Petrolia, Ontario N0N 1R0, Canada. Toll Free 800.263.2363. Phone 519.882.8799. Fax 519.882.2697. Website www.sofsurfaces.com. E-mail alltinfo@sofsurfaces.com. Represented by Surface Solutions, Jean Savage 630.247.7308 and fax 630.553.2743.

Surface America or approved equal, P.O. Box 157, Williamsville, NY 14231, 800.999.0555 Fax 716.632.8324, www.surfaceamerica.com, Represented by NuToys Leisure Products, Moira Staggs 800.526.6197 and fax 708.579.0109.

- B. In order to maintain integrity of playground safety surfacing system, surfacing tiles and poured-in-place surfacing materials shall be from same manufacturer.

2.2 PLAYGROUND SURFACING SYSTEM

- A. Playground Safety Surfacing System: Resilient, playground safety surfacing tiles used in combination with resilient, poured-in-place, playground safety surfacing.

2.3 SURFACING TILES

- A. Surfacing Tiles: SofTile KrosLOCK Premium Series by SofSURFACES and Playbound Tile by Surface America or approved equal
 1. Description: Resilient, playground safety surfacing tiles.
 2. Compliance: Meet or exceed CPSC guidelines for impact attenuation.
 3. Material: Compression-molded, recycled rubber and binding agents.
 4. Top Edges: Chamfered.
 5. Wear Layer:
 - a. Virgin EPDM rubber granules. Minimum 0.250 inch thick.
 6. Thickness: As necessary to meet the impact attenuation requirements of this Section and ASTM F 1292
 7. Colors: As indicated on the drawings—shall match poured-in-place colors.
- B. Test Results (In field – post installation):
 1. Impact Attenuation: ASTM F 1292.
 - a. g-max Score: Less than 150.
 - b. Head Injury Criteria (HIC) Score: Less than 850.
 2. Freeze Thaw, ASTM C 67: No deterioration.
 3. Slip Resistance:
 - a. ASTM E 303:
 - 1) Dry: 89-102.
 - 2) Wet: 57-62.
 - b. ASTM D 2047:
 - 1) Dry: 1.00-0.81.
 - 2) Wet: 0.90-0.82.
 4. Tensile Strength, ASTM D 412: 60 - 107 psi.
 5. Elongation at Break, ASTM D 412: 140 - 165 percent.
 6. Flammability:
 - a. Burning Pill, ASTM D 2859: Pass.

2.4 POURED-IN-PLACE SURFACING

- A. Poured-in-Place Surfacing:
 1. Description: Dual-density, resilient, seamless, poured-in-place, playground safety surfacing.
 2. Compliance: Meet or exceed CPSC guidelines for impact attenuation.
 3. Material: SBR and EPDM rubber shreds and granules mixed with 100 percent solids, MDI polyurethane binding agent.
 4. Base Course: Mixture of SBR shredded rubber and MDI polyurethane binding agent.
 - a. Binder-to-Rubber Ratio: 14 percent. +/- 2% and within minimum required
 - b. Compacted Density: 28 pcf. +/- 2% and within minimum required
 - c. Thickness: Sufficient to meet impact attenuation requirements of 150 gmax and 850 HIC
 5. Wear Course: Mixture of EPDM rubber granules and MDI polyurethane binding agent.
 - a. Binder-to-Rubber Ratio: 18-25 percent.
 - b. Compacted Density: 50-60 pcf.
 - c. Thickness: 3/8 – 5/8 inch.
 6. Total Thickness: As necessary to meet the impact attenuation requirements of this Section and ASTM F 1292, for each given Critical Fall Height 150 gmax and 850 HIC
 7. Colors: As indicated on the drawings—shall match poured-in-place colors.
 - a. Granules on wear layer shall have full color through cross section.

- B. Test Results (In field – post installation):
 - 1. Impact Attenuation, ASTM F 1292:
 - a. g-max Score: Less than 150.
 - b. Head Injury Criteria (HIC) Score: Less than 850.
 - 2. Minimum Standard Coefficient of Friction, ASTM D 2047: dry 1.0 -.8 and wet .9 - .6
 - 3. Tensile Strength, ASTM D 412: 60-80 psi
 - 4. Tear Strength, ASTM D 624: 140 %
 - 5. Flammability, Burning Pill, ASTM D 2859: Pass.

2.5 SOURCE QUALITY CONTROL

- A. Tests: Test playground safety surfacing system in accordance with ASTM F 1292.
 - 1. Test surfacing tiles and poured-in-place surfacing as separate materials. Test shall include velocity indicator to confirm test was completed at proper height. Test shall be supervised by Owner.

PART III - EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive playground safety surfacing system. Notify Architect if areas are not acceptable. Do not begin installation until unacceptable conditions have been corrected.

3.2 PREPARATION – SURFACING TILES

- A. Prepare subsurface in accordance with manufacturer's instructions to ensure proper support and drainage for playground safety surfacing tiles.
- B. Concrete Subsurface:
 - 1. Concrete subsurface shall be as specified in Section 03300
 - 2. Apply light broom finish.
 - 3. Ensure concrete is sound with no loose material or cracks over 1/8 inch wide.
 - 4. Power wash existing concrete as necessary to clean subsurface in accordance with manufacturer's instructions.
- C. Variations in Elevation: Repair variations in elevation of completed subsurface greater than plus or minus 1/4 inch over 10 feet in any direction.

3.3 PREPARATION – POURED-IN-PLACE SURFACING

- A. Prepare subsurface in accordance with manufacturer's instructions to ensure proper support and drainage for poured-in-place playground safety surfacing.
- B. Compacted, granular aggregate subsurface shall be as indicated in the drawings and per manufacturer's recommendations.
- C. Variations in Elevation: Repair variations in elevation of completed subsurface greater than plus or minus 1/4 inch over 10 feet in any direction.

3.4 INSTALLATION

- A. Install playground safety surfacing system in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Surfacing Tiles:
 - 1. Ensure prepared subsurface and tiles are dry and clean.

2. Layout tile surface in accordance with manufacturer's instructions.
3. Install adjoining tiles in single installation session.
4. Layout tiles in advance and determine finish surface of the tiles is fully coordinated with the finish surface as required by the play manufacture and the poured in place rubber surface.
5. Apply adhesive in accordance with manufacturer's instructions for tile-to-tile and perimeter tile-to-base installation.

C. Poured-in-Place Surfacing:

1. Ensure prepared subsurface is dry and clean.
2. Install edges in accordance with manufacturer's instructions and as indicated on the Drawings.
3. Fasten poured-in-place surfacing to surfacing tiles in accordance with manufacturer's instructions.
4. Install cold seams in areas containing graphics and as indicated on the Drawings.

3.5 FIELD QUALITY CONTROL

A. In Field Post-Installation Safety Inspection:

1. Provide third-party inspection and testing of playground safety surfacing system within 30 days of installation. Contractor shall give the A/E and the owner 48 hours previous notice.
2. Conduct inspection by National Recreation and Parks Association/National Playground Safety Institute (NRPA/NPSI) Certified Playground Safety Inspector (CPSI).
3. Test shall be two "drops per 1000 s.f.". Test drops shall include drops on varying surface depths and on tiles and poured in place material.
4. Determine compliance with ASTM F 1292 unless otherwise specified in this section.
5. Provide written report of findings to Owner and Landscape Architect, with photographs.
6. If after installation inspection the surface does not meet specifications, contractor shall replace at no additional cost to the owner. Patches will not be accepted Contractor shall identify the limits of repair/replacement and solicit Architect's prior approval before proceeding.
7. Retest affected area and seams. Testing shall be completed at no cost to the owner. Contractor shall replace materials and re-test as necessary until a G- max score of 150 and HIC score of 850 is achieved.

3.6 CLEANING

- A. Clean playground safety surfacing system in accordance with manufacturer's instructions.
- B. Surfacing Tiles: Remove adhesive spills from surfacing tiles in accordance with manufacturer's instructions.

3.7 PROTECTION

- A. Protect completed playground safety surfacing system from damage during construction.
- B. Surfacing Tiles: Protect surfacing tiles from foot traffic for a minimum of 12 hours after installation.
- C. Poured-in-Place Surfacing: Do not allow foot traffic on poured-in-place surfacing until a minimum of 80 percent cure is obtained (6 to 48 hours depending on temperature and humidity).

3.8 REPAIR MATERIAL

- A. Per playground, Contractor shall supply Owner with +/- 11 sq.ft. minimum or four full tiles of each color blend, 100 square feet of each blended color of poured-in-place material and 200 square feet of base (for a 4" depth) and all adhesives and supplies required for future repair.

END OF SECTION 02793

SECTION 03200

CONCRETE REINFORCEMENT

PART I - GENERAL

1.01 DESCRIPTION

- A. Work included: Provide labor, material, equipment and services required to complete concrete reinforcement work and accessories for cast-in-place concrete work shown or specified but not necessarily limited to:
 - 1. Steel Bar Reinforcing.
 - 2. Reinforcing Fabric.
- B. Related work specified elsewhere:
 - 1. Expansion and Concrete Joints -Section 03300

1.02 QUALITY ASSURANCES

- A. Acceptable manufacturer shall be regularly engaged in manufacture of steel bars and welded fabric reinforcing.
- B. Referenced publications:
 - 2. ACI 315 "Manual of Standard Practice for Detailing Reinforced Concrete Structures."
 - 3. ACI 318 "Building Code Requirement of Reinforced Concrete."
 - 4. AWI 12.1 "Recommended Practice for Welding Reinforced Steel, Metal Inserts and Connections in Reinforced Concrete Construction."

1.03 SUBMITTALS

Submit drawings based on "Standard Practice for Detailing Reinforced Concrete" ACI 318, showing location, bending details, bar lists and bar spaces and supports for Architect's review before fabrication.

1.04 PRODUCT HANDLING

- A. Protection:
 - 1. Store material to prevent deterioration and intrusion of foreign matter. Do not use damaged or deteriorated materials.
 - 2. Use all necessary precautions to maintain identification after the bundles are broken.
- B. Replacements: In the event of damage, immediately make all repairs and replacements necessary to approval of Architect and at no additional cost to Owner.

PART II- PRODUCTS

2.01 CONCRETE REINFORCEMENT (Narrow Scope):

- A. Reinforcing bars: ASTM A615 deformed billet-steel grade 60-minimum yield strength 60,000 PSI.
- B. Bar supports: Bright basic (Class A/PS7-66 National Bureau of Standards).
- C. Welded wire fabric: ASTM A-185, bright basic wire. #11 wires.
- D. Tie Wire:

1. Comply with ASTM A-82.
2. Tie wire: 16-gauge, double annealed steel wire, black.

2.02 OTHER MATERIALS

- A. Other materials, not specifically described but required for a complete and proper installation of concrete reinforcement, shall be as selected by contractor, subject to approval of Architect.

PART III- EXECUTION

3.01 SURFACE CONDITIONS

- A. Inspection
 1. Prior to installation of the work of this section, carefully inspect the installed work of other trades and verify that such work is complete to the point where this installation may properly commence.
 2. Verify that concrete reinforcement may be installed in strict accordance with pertinent codes and regulations, the approved shop drawings and the original design.
- B. Discrepancies
 1. In the event of discrepancies, immediately notify the Architect.
 2. Do not proceed with installation in areas of discrepancies until they have been resolved.

3.02 PLACEMENT OF REINFORCEMENT

- A. Wire fabric sheets shall have an overlap, measured between outermost cross wire, equal to spacing of cross wires plus 2". Tie lapped sheets at 24" on center.
- B. Bar supports shall conform to "Bar Support Specifications" in the "Manual of Standard Practice" of the Concrete Reinforcing Steel Institute. Provide individual high chairs with sand plates, or concrete brick units for support of reinforcing over soil.

3.03 WELDING

- A. Where welding is required, comply with "Recommended Practices for Welding Reinforcing Steel, Metal Inserts and Connections for Reinforcing Concrete Construction" (AWS-D12.1) by the American Welding Society. Welders shall be qualified by tests as prescribed in the "Standard Qualification Procedures" (AWS-B3.0) by the American Welding Society.

3.04 CLEANING REINFORCEMENTS

- A. Steel reinforcements, at the time concrete is placed around it, shall be free from rust, scale, loose mill scale, oil, paint and all other coatings which will destroy or reduce bond between steel and concrete.

END OF SECTION 03200

**SECTION 03300
CAST-IN-PLACE CONCRETE**

PART I - GENERAL

1.01 DESCRIPTION

- A. Work included: Provide labor, material, equipment and services required to complete all cast-in-place concrete work shown or specified but not necessarily limited to:
1. Mix designs and testing.
 2. Spreading, compacting and trimming granular fill below slabs on grade.
 3. Construction and control joints.
 4. Cast-in-place plain and reinforced concrete footings, piers, walls and slabs.
 5. Exterior walks, curbs, ramps and drive approaches.
 6. Forms, centering, bracing, spacers, and accessories.
 7. Reinforcing, ties, chairs, accessories.
 8. Concrete bases for play equipment and fence posts.
 9. Concrete bases for mechanical and electrical equipment.
- B. Related work specified elsewhere:
1. Furnish Embedded Items not specified here-invarious

1.02 QUALITY ASSURANCE

- A. Codes and standards:
1. Comply with ASTM, ACI, AWI and CRSI governing codes and standards.
 - a. ACI 318 "Building Code Requirements for Reinforced Concrete," latest revisions.
 - b. ACI 301 "Specifications for Structural Concrete for Buildings."
 - c. ANSI/AWS D1.1-88 "Structural Welding Code - Steel."
 - d. ACI 305 "Hot Weather Concreting."
 - e. ACI 306 "Cold Weather Concreting."
 - f. ACI 304 "Guide for Measuring, Mixing, Transporting and Placing Concrete."
 - g. ACI 315 "Details and Detailing of Concrete Reinforcement."
 - h. AWS 12.1 "Recommended Practice for Welding Reinforced Steel Metal Inserts and Connections in Reinforced Concrete Construction."
 - i. ACI 347 "Guide to Formwork for Concrete."

1.03 SUBMITTALS

- A. Concrete mix designs:
Submit mix designs to Landscape Architect for approval before beginning work. Mix designs shall include required air entraining, water reducing and retarding agents.

1.04 PRODUCT HANDLING

- A. Store material to prevent deterioration and intrusion of foreign matter. Do not use damaged or deteriorated material. Remove loose rust and scale from reinforcing steel prior to installation.
- B. Protect formwork materials before, during and after installation. Protect the installed work and materials of other trades.
- C. Replacement: In the event of damage, immediately make repairs and replacements necessary to approval of Landscape Architect at no additional cost to Owner.

PART II- PRODUCTS

2.01 MATERIALS

- A. Portland Cement: ASTM C-150, Type I.
- B. Aggregate:
 - 1.Fine and coarse; standard weight ASTM C-33.
 - 2.Lightweight: ASTM C-330.
- C. Water: Potable, clean, free of deleterious materials.
- D. Ready mix procedures: ASTM C-94.
- E. Air-entraining agents: ASTM C-260, "Darex, AEA," by W.R. Grace or "ADZ-AIR" by Chem Masters. 6% air by mortar volume.
- F. Deformed bar reinforcement: ASTM A-615.
- G. Welded wire fabric: ASTM A-185.
- H. Tie wire: 16-gauge, double-annealed steel wire for tying reinforcement.
- I. Premolded joint filler: Carey Company, "Elastite," 1/2" thick equal to slab depth, ASTM D-1751 with strippable plastic cap at sealant locations.
- J. Curing compound: "Kure 'N' Seal 0800" by Sonneborn or "Super Floor Coat" by Euclid Mameco Co.
- K. Hardener: Dryshake, "Surflex" @ .5 psf, Euclid Co. or "Euconon-slip" @ .5 psf, Euclid Mameco Co.
- L. Construction joints: Formed wood, reusable metal or plastic key form, Contractor option.
- M. Forms: Form material in contact with exposed concrete shall be new and shall be one of the following:
 - 1.Plywood Class I or II, bearing the label of Douglas Fir Plywood Association.

2. Douglas Fir-Larch, #2 grade, seasoned, S4S.

- N. Water Stops: Poly-vinyl-chloride, "Plastigrip" by Progress Unlimited, Inc., "Water-stop" by Vinylex Corporation or "Duo PVC" by Meadows Co.
- O. Form release agents:
 - 1. "Magic-Kote", Symons Corporation
 - 2. "Nox-Crete", Nox-Crete Company
 - 3. "Synthex", Industrial Synthetics Corporation

2.02 OTHER MATERIALS

Other materials, not specifically described, but required for a complete and proper installation of cast-in-place concrete, shall be as selected by Contractor but subject to approval by Landscape Architect.

2.03 CONCRETE

- A. Provide concrete of compressive strength shown on the drawings. When such strengths are not shown provide the following as minimums:
 - 1. Concrete footings 3,000 psi @ 28 days
 - 2. Concrete slabs on grade 3,500 psi @ 28 days
- B. Provide air entrainment for all concrete to be exposed to the weather in the finished work.
- C. Provide water reducing agents and super plasticizers necessary for proper water/cement ratio to obtain durability without excessive slump.
- D. Maximum aggregate size shall be:
 - 1. Footings and Piers, 1"
 - 2. Slabs, 3/4"
 - 3. Reduce wall aggregate to smaller size if necessary to avoid honey-combing.
- E. Meter admixtures into batches per manufacturers approved requirements.

PART III-EXECUTION

3.01 SURFACE CONDITIONS

- A. Inspection:
 - 1. Prior to work of this section, carefully inspect installed work of other trades and verify that such work is complete to the point where this installation may properly commence.
 - 2. Verify that items to be embedded in concrete are in place.
 - 3. Verify that concrete may be placed to lines and elevations indicated on drawings with all required clearance from reinforcement.

3.02 FILL AND MEMBRANES

- A. Fill: Spread, trim and compact fill provided under section 02200 below interior slabs and exterior walks. Provide slopes to drains in fill to maintain uniform slab thickness. Exercise care placing fill around drainage piping. Support pipe haunches to maintain equal pressure on entire pipe. Replace pipe portions damaged during this fill work at this contractor's expense. Compact fill to 95% of maximum density by ASTM C-1557.

3.03 CONCRETE QUALITY

A. Mixing:

1. Use transit mix concrete from approved source with performance evidence of less than 15% variation for previous six months.
2. Remix transit mix concrete at site immediately before placement not less than five minutes. Arrange delivery so that no set begins before deposit. Do not place concrete that is in trucks more than one hour from plant to time of placement. Do not add water to any concrete mixture unless specifically approved by Landscape Architect.
3. Use as-mixed temperature not less than 55 degrees F. when mean temperature falls below 40 degrees F. If water or aggregate has been heated, combine water with aggregate in mixer before cement is added. Do not add cement to mixtures of water and aggregate when temperature of the mixture is greater than 100 degrees F.

3.04 FORM WORK

- A. Use solid forms constructed to retain poured concrete in form and position shown. Cross brace and tie forms to prevent bellies. Reject any concrete or forms that move. Provide vertical plane keyed bulkheads for each pour operation. Remove forms, reshore and remove shoring only when concrete has achieved sufficient strength to support loads.
- B. Locate slab construction joints at points shown or approved by Landscape Architect. Provide shearing strength by concrete keys or dowel bars.
- C. Provide water stops at all construction joints below grade. Place water stop in form and support to prevent its displacement during pouring operations.
- D. All footing forms shall be wood, unless otherwise specifically approved by Landscape Architect.

3.05 TRIMMING FOR FOOTINGS

- A. Hand dig final three (3) inches of soil within footing forms to remove disturbed or wet earth exposing firm dry surface suitable for bearing of foundations.
- B. Cooperate with Owner's inspection agency in the verification of soil bearing capacity.

3.06 EMBEDDED ITEMS

- A. Notify other contractors and subcontractors of pouring to facilitate cooperation in proper delivery, placement, anchorage of embedded inserts, slots, anchors and sleeves to be included in cast-in-place concrete.

- B. Provide anchors, anchor slots, sleeves and inserts indicated on drawings and provide installation access for items furnished and installed by others. Use zinc-coated ferrous items with plastic feet when exposed in concrete surfaces.
 - C. Accurately locate and fix items into forms and assure proper positioning during concrete placement.
- 3.07 METAL REINFORCEMENT
- A. Place only reinforcement free of loose rust, scale or other coatings. Accurately position and secure reinforcing against displacement with wire ties and metal supports.
 - B. Lap all bar splices 36 diameters, unless shown otherwise. Bend all horizontal bars at least 2'-0" around corners. Cut no reinforcing without approval. Provide minimum 3" cover for reinforcement in contact with ground.
 - C. Lap mesh one square plus 2" minimum. Cut alternate wires where mesh passes through slab construction and control joints to provide a plane of weakness.
- 3.08 PLACING CONCRETE
- A. Do not place concrete with temperature less than 50 degrees F. when mean temperature is below 40 degrees F.
 - B. Provide premolded joint filler for slabs on grade at perimeter inside face of exterior walls, around columns and as shown. Trim flush with top of slab. Pour slabs on grade in strip pattern with construction joints and saw cuts as shown and required. Area per pour shall not exceed 3,000 square feet.
 - C. Free forms from debris and water before placing concrete. Place concrete per ACI 301 chapter 8 and ACI 318 chapter 6. Handle concrete from transporting vehicle to place of final deposit as rapidly as practicable by methods preventing separation or loss of ingredients. Do not place partly hardened concrete. Deposit concrete continuously or in layers of such thickness that no concrete is deposited on hardened concrete causing planes of weakness. Use sectional chutes for drops greater than 5'-0". Thoroughly vibrate concrete with mechanical vibrators, sufficient to flow concrete.
 - D. Consolidate and work concrete into all areas by vibration and rodding to eliminate pockets and voids. Keep vibrators at least 2-1/2" away from form faces and embedded devices subject to dislocation. Do not move concrete with vibrator. Keep vibrator in upright position and move vertically from one section to next. Never drag vibrator. Take special care to avoid touching reinforcement disturbing bond in layers below as the vibration limit is being approached. Never force vibrator into concrete which has reached vibration limit.
- 3.09 FINISHING
- A. Formed Concrete
 - 1. Tops of forms:
 - 2. Strike concrete smooth at top of forms and float to a texture comparable to formed surfaces.
 - 2. Formed surfaces:

2. As cast finish with fins removed at form joints.
3. Patch tie holes per patching.
3. Exposed formed surfaces:
 2. Remove fins.
 3. Patch tie holes per patching.
 4. Rub surface of green concrete with rubbing stone to create a smooth surface with holes filled with rubbing mortar.

B. Flatwork

1. General:
 - a. Strike off and screed surface to finish floor levels and slopes.
 - b. Bull float surfaces to work concrete to fill and smooth the surface while concrete is plastic. Allow concrete to bleed excess water and remove excess prior to floating operation.
 - c. Power float surface on disappearance of water sheen.
 - d. Hand float areas inaccessible to power float.
 - e. Restraighten slab using a highway straightedge as necessary to achieve desired flatness and levelness.
2. Broom Finish:

After floating, draw broom across concrete to lightly scarify the surface.
3. Hardener:
 - a. After floating apply dry shake hardener to slab in two steps. Apply two thirds of material in first shake.
 - b. Allow first shake to remain unworked until it has absorbed moisture. Float with a hand float, bull float or power float.
 - c. Immediately apply second shake and allow to absorb moisture. Float and cross float to smooth uniform surface.
 - d. First trowelling shall have blades flat when surface has stiffened and will not blister.
 - e. Final trowelling when surface has set and no additional water or fines can be brought to surface shall be done with trowel raised to give a hard dense surface.

3.10 CURING

- A. Protect concrete so that surface temperature is above 50 degrees F. and prevent loss of moisture from the surface for seven days. Accomplish protection against moisture loss by leaving the forms in contact with the surface and covering exposed concrete with burlap, suitable paper or approved spray-on curing compounds.
- B. At air temperature averaging 40 degrees F. or below for one day or more, provide suitable protection preventing surface temperature of concrete from falling below 50 degrees F. until the concrete has thoroughly hardened. Do not mix salts, chemicals or other foreign materials with concrete to prevent freezing.
- C. Flat work concrete shall be moist cured under cover for seven days maintaining saturated surface condition without drying. Protect surfaces from damage or staining.
- D. Where flat work is to remain exposed, use membrane curing compound. Apply curing compound by roller or spray as soon as surface water has disappeared. Before building is to be occupied, clean floors thoroughly and apply second coat of curing compound.

- E. Where slabs are to receive a bonded fill or finish, cure shall be accomplished by saturating surface and covering with wet sand or sawdust. Keep wet for entire period of cure.
 - F. Where slabs are to receive finishes using unbonded setting beds, either of the above methods are acceptable.
 - G. Where slabs are to receive hardener, provide curing compound as recommended by hardener manufacturer.
- 3.11 DEFECTIVE WORK
- Inspection: Immediately after forms have been removed, inspect all concrete surfaces and patch all pour joints, voids, rock pockets, form tie holes and other imperfections before concrete is cured.
- 3.12 PATCHING
- A. Concrete shall be placed with care to avoid defects. If defects occur, and Landscape Architect approves, patching may be attempted without waiving right of Landscape Architect to reject defective work in the event patching is deemed unacceptable.
 - B. Patching mortar shall match concrete being patched as to color and texture and have zero slump.
 - C. Formed concrete surfaces: Chop out defective material a minimum of 1" below surface and remove loose aggregate and dust. Apply two part epoxy bonding agent to entire patch area. Pack mortar tightly and strike off flush with surface, trowel smooth and apply membrane curing compound to patched area.
 - D. Form tie holes: Shall be cleaned out, daubed with epoxy bonding agent and filled with mortar, flush with wall surface. Apply membrane curing compound to mortar plug.
 - E. All patching shall be completed on each wall surface before that surface receives final finish under this section.
 - F. Flat work to receive carpet or resilient tile shall be smooth and level. Defects such as ridges or trowel marks shall be ground flush using terrazzo grinding machines and coarse stones. Low spots, heel marks, etc., shall be filled with Vinyl Crete or equivalent bonding fill material as approved by Landscape Architect.

3.13 MISCELLANEOUS

Provide concrete pads for mechanical equipment, foundation of sizes and heights required to suit each item of equipment. Check for requirements with mechanical trades.

3.14 EXPANSION JOINTS

- A. Exterior walks and ramps: Approximately 20'-0" apart provide 1/2" expansion joint filler full depth of slab, or as shown on plans.
- B. Interior slabs: Provide 1/2" expansion joint filler full depth of slab for slabs on grade, at abutment to vertical surfaces and at column blockouts.
- C. Provide expansion joints at all points of concrete to concrete connections including existing concrete walks, curbs, walls and slabs.

3.15 CURBS AND GUTTERS

- A. Cast-in-place concrete:
 - 1. Construct concrete curb with slip form curb machine.
 - 2. Apply curing material and cure for seven days.
 - 3. Provide expansion joints full depth of curb at 60 feet on center or as otherwise noted. Provide contraction joints at 20 feet on center or as otherwise noted.
 - 4. Saw contraction joints after concrete has sufficiently hardened but within 24 hours of pour.

3.16 GROUTING

Mix, place and cure non-shrink grout in accordance with manufacturer's instructions.

3.17 INSULATION

- A. Adhere insulation to walls in a vertical position, closely butted with vertical joint staggered, use Styrofoam Brand Mastic #11 by Dow.
- B. At slab perimeter where shown, lay insulation tight to wall over granular fill. Butt joints tight.

3.18 SEALERS AND COATINGS

Where indicated, apply sealers and coatings to fully cured and dry concrete surfaces per the manufacturer's printed instructions and recommendations.

END OF SECTION 03300

**PREFABRICATED STRUCTURES
SECTION 06170**

PART I - GENERAL

1.1 DESCRIPTION OF WORK

This work shall consist of the permitting, supply and installation of a prefabricated steel frame Shelter. This work includes erection, footings, painting and other work as outlined below.

1.2 RELATED SECTIONS

03300 Poured in Place Concrete

1.3 SUBMITTALS

- a. Contractor shall submit shop drawings for shade structure construction plus lightening protection and grounding for approval prior to construction.

PART II - Materials

- 2.1 15' x 15' Shade Structure Product #1515 SK consisting of (3) 10' columns and (1) 20' column, pier mount, as manufactured by Shade Systems or approved equal. As distributed by Parkreation 27 East Palatine Road Prospect Heights, IL 60070. Phone 847.419.7744
- 2.2 Frame color shall be powder-coated to match existing and approved by owner.
- 2.3 Shade fabric color shall match existing and be approved by owner.
- 2.4 Fasteners shall be hot dipped galvanized or greater quality.

PART III - EXECUTION

- 3.1 The work shall be installed per governing codes and ordinances. All installations shall be per manufacturer instructions. Submit shop drawings prior to construction.
- 3.2 Shade structure shall be pier mounted in sand. Location to be verified on site by Owner or Owner's representative.
- 3.3 Existing shade structure on site by same manufacturer shall be power washed and/or cleaned as approved by manufacturer.

END OF SECTION 06170

**SECTION 06171
PLAY EQUIPMENT INSTALLATION**

PART I – GENERAL

1.1 SUMMARY

- A. Section includes installation of integrated playground equipment. Contractor shall accept delivery of these materials and install per the manufacturer instructions.

1.2 RELATED WORK

- 1. Section 02793 Resilient Rubber Playground Surface

1.3 PRODUCT DESCRIPTION

- A. Quality: Playground equipment to be a high – quality, safe, and attractive product manufactured and designed by the same company. Assemblages or combinations of products from two or more manufacturers will not be accepted. Playground equipment shall contain the components and be designed according to the layout shown on the drawings.
- B. Standards: Playground equipment shall be designed to meet all current and relevant standards.

1.4 QUALITY ASSURANCE

- A. Structural Integrity Requirements for Playground Equipment: Playground equipment shall comply with structural integrity requirements for playground equipment, as tested under ASTM F1487
- B. American Standards for Testing and Materials (ASTM): Playground equipment shall comply with relevant ASTM standards for playground equipment, components, and materials
- C. Americans with Disabilities Act (ADA): Playground equipment shall comply with the requirements of the Americans with Disabilities Act (ADA), as understood by most recent administrative and judicial rulings and clarifications(s) at the time of this specification.
- D. Consumer Products Safety Commission (CPSC): Playground equipment shall comply with the requirements of the Consumer Products Safety Commission (CPSC), latest version.
- E. Manufacturer's Experience: Playground equipment shall be furnished by a manufacturer with a minimum of ten (10) years' experience in design, fabrication, and assembly of integrated playground equipment.
- F. Installer's Experience: Playground equipment shall be installed by a contractor with a minimum of five (5) years' experience in the assembly and installation of the specified brand of integrated playground equipment.

1.5 MANUFACTURER'S REVIEW

- A. Punch List Review: A manufacturer's representative shall be present at the punch list review of the playground equipment. The manufacture's representative shall be or shall

be accompanied by a Certified Playground Inspector. Others present at the punch list review will be the Owner, the Owner's Representative, the Contractor, and, if applicable, the playground installer subcontractor. Manufacturer's representative shall not review the equipment without these other parties present.

Manufacturer's representative and/or Certified Playground Inspector shall note any items which are not in conformance with the playground equipment's specifications or instructions for installation, and which must be corrected before the playground equipment can be safely used, or which must be corrected in order for the manufacturer's warranties to be in effect.

PART II – MATERIALS

2.1 Contractor shall purchase all equipment for Glencoe Park Beach as indicated in these documents. Contractor shall accept delivery of these materials and install per the manufacturer instructions. These materials will be delivered curb side from the playground manufacture to a location determined by Contractor. Contractor shall coordinate with the manufacturer. Contractor will be responsible for unloading equipment, verification that the order is complete and materials are in satisfactory condition. Any product or order deficiencies should be identified at the time of the delivery and contractor shall notify the Owner or Owners rep.

Landscape Structures

<u>QTY.</u>	<u>NO.</u>	<u>DESCRIPTION</u>
BOAT STRUCTURE		
1	111397B	114 post
6	111397C	106 post
2	111396A	145 post for roof
1	153020B	Curved transfer module, 40" deck
1	111237A	Square tenderdeck
2	111238A	Square deck corner
3	111239A	Square deck extension
1	111287A	Zoo panel
1	132117B	Slidewinder2 40 deck
Custom items from request # 47768		
	CUSTO	
8	M	Tug boat 17" tall lower panels at grade
	CUSTO	
7	M	52" ps post for lower panels
	CUSTO	
2	M	150" ps post for driver panel
	CUSTO	
1	M	166" ps post for center of driver panels
	CUSTO	
2	M	Tall tugboat driver panel
	CUSTO	
1	M	Tall tugboat side panel
	CUSTO	
1	M	Tugboat panel above slide
	CUSTO	
1	M	Periscope panel with portholes
2	CUSTO	TUGBOAT PORTHOLE PANELS on 40" DECKS

	M	
	CUSTO	
6	M	Porthole panel below 40" decks
	CUSTO	
1	M	Ship mast. Mast to be centered on posts
	CUSTO	
1	M	40" chain ladder for ps, cr # 47727

SAND HOUSE AREA

2	111397D	98 post
1	111397E	90 post
1	111397F	82 post
4	111396D	121 post for roof
1	121948A	Kick plate for 8 rise
1	121949A	Kick plate for 8 rise - tri dk
1	111237A	Square tenderdeck
1	119977A	Transition handbar
2	117495A	Triangular tenderdeck
1	118110A	Square poly roof cust logo
2	111297A	Sand & water panel
1	117946B	Wire barrier w/wheel
1	117946A	Wire barrier
1	137966A	Critter canyon climber
1	119981A	Step deck d.b.
	CUSTO	
2	M	Sand chute bucket with custom rail to Bolt to face of playshaper post. Field drilling post required. Cr # 50495
1	111296	Playshaper sand chute panel db cr #50495

Kompan

1	K-M590P	Kompan Mermaid's Fountain
1	K-M591P	Kompan Waterfall

PART III – INSTALLATION

3.1 UNDERGROUND UTILITES

- A. Contractor shall contact the appropriate utility locating service(s) and shall request that all underground utilities be marked on the ground prior to commencing work. Contractor shall confirm the location of the drain tile prior to construction.

3.2 LOCATION

- A. Location: Playground location is shown on the Drawings.

3.3 INVENTORY

- A. Inventory playground equipment prior to assembly, in order to ensure that all components and parts are available. Notify in writing the Owner, Owner's Representative, and Manufacturer's Representative of any missing components or parts. Do not proceed with assembly or installation until all components and parts are available.
- 3.4 LAYOUT
- A. Playground equipment within play area, indicating locations for footings and other components which are supported by concrete footings and proper spacing of structures and fall zones per ASTM F 1487-06. Layout shall be confirmed with the owner and owner's representative. Fall zone locations and proper spacing shall be confirmed with the manufacturer.
- 3.5 FOOTINGS – for Swingset
- A. Depth of Supporting Posts: below grade shall be forty (42") inches below ground or as per manufacturer's specifications, whichever requires greater depth.
 - B. Size and Depth of Footings for Supporting Posts / uprights shall be cast into a concrete footing, minimum 3,500 psi, minimum twelve (12) inches diameter, forty-two (42) inches below grade, installed on compacted or undisturbed subgrade.
- 3.6 ASSEMBLY
- A. Playground equipment shall be assembled strictly per the manufacturer's specifications, drawings, instructions, and recommendations.
 - B. Assemble playground equipment in correct orientation directly on site to avoid damaging the equipment when moving it.
 - C. Tighten, level and align playground equipment per the manufacturer's specifications, drawings, instructions, and recommendations. Brace, shim, and otherwise stabilize playground equipment such that it is not displaced from its correct horizontal and vertical alignment when expansion anchors are installed into concrete slab to secure the equipment in place.
- 3.7 SUPERVISION
- A. Maintain constant supervision of playground equipment until playground is fully and properly installed.

PART IV – EXECUTION

- 3.1 Contractor shall install per manufacturers instructions and as indicated in the drawings.
- A. Contractor shall be responsible for the layout.
 - B. Contractor shall be responsible for setting proper finished grades.
 - C. Contractor shall be responsible for construction site safety.

- 3.2 Contractor shall install per Standard Consumer Safety Performance specification for Playground Equipment for Public Use ASTM F 1487 latest edition and Glenco Park District Standards.
- 3.3 Contractor shall barricade use of play equipment during construction and prior to the installation of resilient surface.

END OF SECTION 06171

BASIC ELECTRICAL MATERIALS AND METHODS
SECTION 16050

PART I - GENERAL

1.1 Related Documents

Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 Summary

- A. This Section includes the following electrical materials and methods:
1. Building wire, connectors, and splices for branch circuits and feeders.
 2. Supporting devices for electrical components.
 3. Concrete equipment bases.
 4. Electrical identification.
 5. Electrical demolition.
 6. Touchup painting.
 7. Meter sockets.

1.3 Submittals

- A. General: Submit each item in this Article according to the Conditions of the Contract and Division 1 Specification Sections.
- B. Product Data for each type of product specified.

1.4 Quality Assurance

- A. Comply with National and Village of Glencoe Code for components and installation.
- B. Listing and Labeling: Provide products specified in this Section that are listed and labeled.
1. The Terms "Listed and Labeled": As defined in the National Electrical Code, Article 100.

1.5 Sequencing And Scheduling

- A. Coordinate electrical equipment installation with other components.
- B. Sequence, coordinate, and integrate installing electrical materials and equipment for efficient flow of the Work.
- C. Coordinate connecting electrical service to components furnished under other Sections.
- D. Coordinate connecting electrical systems with exterior underground and overhead utilities and services. Comply with requirements of governing regulations, franchised service companies, and controlling agencies.
- E. Coordinate installing electrical identification after completion of finishing where identification is applied to field-finished surfaces.
- F. Coordinate installing electrical identifying devices and markings prior to installing acoustical ceilings and similar finishes that conceal such items.

PART II - PRODUCTS

2.1 Building Wire

- A. Description: Single conductor, copper. Solid conductor for No. 10 AWG and smaller; stranded conductor for larger than No. 10 AWG.

- B. Thermoplastic Insulated Wire: Conform to NEMA WC 5.
 - C. Cross-Linked, Polyethylene Insulated Wire: Conform to NEMA WC 7.
 - D. Connectors and Splices: Units of size, ampacity rating, material, type, and class suitable for service indicated. Select to comply with Project's installation requirements.
- 2.2 Supporting Devices
- A. Channel and angle support systems, hangers, anchors, sleeves, brackets, fabricated items, and fasteners are designed to provide secure support for electrical components.
 - 1. Material: Steel, except as otherwise indicated, protected from corrosion with zinc coating or with treatment of equivalent corrosion resistance using approved alternative finish or inherent material characteristics.
 - 2. Metal Items for Use Outdoors or in Damp Locations: Hot-dip galvanized steel, except as otherwise indicated.
 - B. Steel channel supports have 9/16-inch (14-mm) diameter holes at a maximum of 8 inches (203 mm) o.c., in at least 1 surface.
 - 1. Fittings and accessories mate and match with channels and are from the same manufacturer.
- 2.3 Concrete Equipment Bases
- A. Forms and Reinforcing Materials: As specified in Division 3 Section "Cast-in-Place Concrete."
 - B. Concrete: 3000-psi (20.7-MPa), 28-day compressive strength as specified in Division 3 Section "Cast-in-Place Concrete."
- 2.4 Electrical Identification
- A. Manufacturer's Standard Products: Where more than one type is listed for a specified application, selection is Installer's option, but provide single type for each application category. Use colors prescribed by ANSI A13.1, NFPA 70, and these Specifications.
 - B. Raceway and Cable Labels: Conform to ANSI A13.1, Table 3, for minimum size of letters for legend and minimum length of color field for each raceway or cable size.
 - 1. Type: Preprinted, flexible, self-adhesive, vinyl. Legend is overlaminated with a clear, weather- and chemical-resistant coating.
 - 2. Color: Black legend on orange field.
 - 3. Legend: Indicates voltage.
 - C. Colored Adhesive Marking Tape for Raceways, Wires, and Cables: Self-adhesive vinyl tape not less than 3 mils thick by 1 inch wide (0.08 mm thick by 25 mm wide).
 - D. Underground Line Warning Tape: Permanent, bright-colored, continuous-printed, vinyl tape with the following features:
 - 1. Size: Not less than 4 mils thick by 6 inches wide (0.102 mm thick by 152 mm wide).
 - a. Compounded for permanent direct-burial service.
 - 2. Embedded continuous metallic strip or core.
 - a. Printed Legend: Indicates type of underground line.
 - E. Tape Markers: Vinyl or vinyl-cloth, self-adhesive, wraparound type with preprinted numbers and letters.
 - F. Color-Coding Cable Ties: Type 6/6 nylon, self-locking type. Colors to suit coding scheme.

- G. Engraved, Plastic-Laminated Labels, Signs, and Instruction Plates: Engraving stock, melamine plastic laminate punched for mechanical fasteners 1/16-inch (1.6-mm) minimum thick for signs up to 20 sq. in. (129 sq. cm), 1/8 inch (3.2 mm) thick for larger sizes. Engraved legend in black letters on white face.
 - H. Exterior Warning and Caution Signs: Weather-resistant, nonfading, preprinted, cellulose acetate butyrate signs with 0.0396-inch (1-mm), galvanized steel backing, with colors, legend, and size appropriate to the application. 1/4-inch (6.4-mm) grommets in corners for mounting.
 - I. Fasteners for Plastic-Laminated and Metal Signs: Self-tapping stainless-steel screws or No. 10/32 stainless-steel machine screws with nuts and flat and lock washers.
- 2.5 Meter Sockets
Meter sockets comply with serving utility company requirements.
- 2.6 Touchup Paint
- A. For Equipment: Provided by equipment manufacturer and selected to match equipment finish.
 - B. For Nonequipment Surfaces: Matching type and color of undamaged, existing adjacent finish.
 - C. For Galvanized Surfaces: Zinc-rich paint recommended by item manufacturer.

PART III - EXECUTION

- 3.1 Equipment Installation Requirements
- A. Install equipment to facilitate service, maintenance, and repair or replacement of components. Connect for ease of disconnecting, with minimum interference with other installations.
 - B. Give right of way to raceways and piping systems installed at a required slope.
- 3.2 Wiring Methods
- A. Feeders: Type THHN/THWN, copper conductor, in raceway, except as otherwise indicated.
 - B. Underground Feeders: Type XHHW, copper conductor, 90C insulation, in raceway, except as otherwise indicated.
 - C. Branch Circuits: Type THHN/THWN, in raceway.
 - D. Class 2 and Class 3 Control Circuits: Type THHN/THWN, in raceway.
- 3.3 Electrical Supporting Methods
- A. Damp Locations and Outdoors: Hot-dip galvanized materials, U-channel system components.
 - B. Dry Locations: Steel materials.
 - C. Conform to manufacturer's recommendations for selecting supports.
- 3.4 Installation
- A. Install wires in raceway according to manufacturer's written instructions and NECA's "Standard of Installation."
 - B. Conductor Splices: Keep to the minimum and comply with the following:
 - 1. Install splices and taps that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.
 - 2. Use splice and tap connectors that are compatible with conductor material.

- C. Connect outlets and components to wiring systems and to ground as indicated and instructed by manufacturer. Tighten connectors and terminals, including screws and bolts, according to equipment manufacturer's published torque-tightening values for equipment connectors. Where manufacturer's torquing requirements are not indicated, tighten connectors and terminals according to tightening requirements specified in UL 486A.
- D. Install devices to securely and permanently fasten and support electrical components.
- E. Sleeves: Install for cable and raceway penetrations of concrete slabs and walls, except where core-drilled holes are used. Install for cable and raceway penetrations of masonry and fire-rated gypsum walls and of all other fire-rated floor and wall assemblies. Install sleeves during erection of concrete and masonry walls.
- F. Install concrete pads and bases according to requirements of Division 3 Section "Cast-in-Place Concrete."
- G. Install utility-metering equipment according to utility company's written requirements. Provide grounding and empty conduits as required by company.
- H. Install identification devices where required.
 1. Install labels where indicated and at locations for best convenience of viewing without interference with operation and maintenance of equipment.
 2. Coordinate names, abbreviations, colors, and other designations used for electrical identification with corresponding designations indicated on the Contract Documents or required by codes and standards. Use consistent designations throughout the Project.
 3. Self-Adhesive Identification Products: Clean surfaces of dust, loose material, and oily films before applying.
 4. Identify Paths of Underground Electrical Lines: During trench backfilling, for exterior underground power, control, signal, and communication lines, install continuous underground plastic line marker located directly above power and communication lines. Locate **6 to 8 inches (150 to 200 mm)** below finished grade. Where multiple lines installed in a common trench or concrete envelope do not exceed an overall width of **16 inches (400 mm)**, use a single line marker.
 5. For panelboards, provide framed, typed circuit schedules with explicit description and identification of items controlled by each individual breaker.

3.5 Demolition

- A. Where electrical work to remain is damaged or disturbed in the course of the Work, remove damaged portions and install new products of equal capacity, quality, and functionality.
- B. Accessible Work Indicated to Be Demolished: Remove exposed electrical installation in its entirety.
- C. Abandoned Work: Cut and remove buried raceway and wiring indicated to be abandoned in place, **2 inches (50 mm)** below the surface of adjacent construction. Cap and patch surface to match existing finish.
- D. Removal: Remove demolished material from the Project site.
- E. Temporary Disconnection: Remove, store, clean, reinstall, reconnect, and make operational components indicated for relocation.

3.6 Touchup Painting

- A. Thoroughly clean damaged areas and provide primer, intermediate, and finish coats to suit the degree of damage at each location.

- B. Follow paint manufacturer's written instructions for surface preparation and for timing and application of successive coats.

END OF SECTION 16050

**WIRING DEVICES
SECTION 16140**

PART I - GENERAL

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Single and duplex receptacles, and ground-fault circuit interrupters.
 - 2. Single- and double-pole snap switches.
 - 3. Device wall plates.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: List of legends and description of materials and process used for premarking wall plates.
- C. Field quality-control test reports.

1.3 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with NFPA 70.

PART II – MATERIALS

2.1 MANUFACTURERS

- C. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work are limited to, the following:
 - 1. Wiring Devices:
 - a. Bryant Electric, Inc./Hubbell Subsidiary.
 - b. Eagle Electric Manufacturing Co., Inc.
 - c. Hubbell Incorporated; Wiring Device-Kellems.
 - d. Leviton Mfg. Company Inc.
 - e. Pass & Seymour/Legrand; Wiring Devices Div.

2.2 RECEPTACLES

- A. Straight-Blade-Type Receptacles: Comply with NEMA WD 1, NEMA WD 6, DSCC W-C-596G, and UL 498.

- B. Straight-Blade and Locking Receptacles: Heavy-Duty grade.
- C. GFCI Receptacles: Straight blade, feed-through type, Heavy-Duty grade, with integral NEMA WD 6, Configuration 5-20R duplex receptacle; complying with UL 498 and UL 943. Design units for installation in a 2-3/4-inch- deep outlet box without an adapter.

2.3 SWITCHES

- A. Single- and Double-Pole Switches: Comply with DSCC W-C-896F and UL 20.
- B. Snap Switches: Heavy-Duty grade, quiet type.

2.4 WALL PLATES

- A. Single and combination types to match corresponding wiring devices.
 - 1. Plate-Securing Screws: Metal with head color to match plate finish.
 - 2. Material for Unfinished Spaces: Smooth, high-impact thermoplastic.
 - 3. Material for Wet Locations: Thermoplastic with spring-loaded lift cover, and listed and labeled for use in "wet locations."

2.5 FINISHES

- A. Color:
 - 1. Wiring Devices Connected to Normal Power System: As selected by Architect, unless otherwise indicated or required by NFPA 70.

PART III - EXECUTION

3.1 INSTALLATION

- A. Install devices and assemblies level, plumb, and square with building lines.
- B. Arrangement of Devices: Unless otherwise indicated, mount flush, with long dimension vertical, and with grounding terminal of receptacles on top. Group adjacent switches under single, multigang wall plates.
- C. Remove wall plates and protect devices and assemblies during painting.

3.2 CONNECTIONS

- A. Ground equipment according to Division 16 Section "Grounding and Bonding."

3.3 FIELD QUALITY CONTROL

- A. Perform the following field tests and inspections and prepare test reports:
 - 1. After installing wiring devices and after electrical circuitry has been energized, test for proper polarity, ground continuity, and compliance with requirements.
 - 2. Test GFCI operation with both local and remote fault simulations according to manufacturer's written instructions.
- B. Remove malfunctioning units, replace with new units, and retest as specified above.

END OF SECTION 16140

**PANELBOARDS
SECTION 16442**

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes distribution and branch-circuit panelboards.

1.2 SUBMITTALS

- A. Product Data: For each type of panelboard, overcurrent protective device, accessory, and component indicated. Include dimensions and manufacturers' technical data on features, performance, electrical characteristics, ratings, and finishes.
- B. Shop Drawings: For each panelboard, including the following:
 - 1. Dimensioned plans, elevations, sections, and details. Show tabulations of installed devices, equipment features, and ratings. Include the following data:
 - a. Enclosure types and details for types other than NEMA 250, Type 1.
 - b. Bus configuration, and current, and voltage ratings.
 - c. Short-circuit current rating of panelboards and overcurrent protective devices.
 - d. Listing for series rating of installed devices.
 - e. Features, characteristics, ratings, and factory settings of individual overcurrent protective devices.
 - 2. Wiring Diagrams: Power, signal, and control wiring.
- C. Panelboard Schedules: For installation in panelboards. Submit final versions after load balancing.
- D. Field quality-control test reports.
- E. Operation and maintenance data.

1.3 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with NEMA PB 1.
- C. Comply with NFPA 70.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work are limited to, the following:
 - 1. Eaton Corp.; Cutler-Hammer Products.
 - 2. General Electric Co.; Electrical Distribution & Control Div.
 - 3. Siemens Energy & Automation, Inc.
 - 4. Square D Co.

2.2 FABRICATION AND FEATURES

- A. Enclosures: Surface-mounted cabinets. NEMA PB 1, Type 1, suitable for environmental conditions at installed location.
 - 1. Outdoor Locations: NEMA 250, Type 3R.
 - 2. Other Wet or Damp Indoor Locations: NEMA 250, Type 4.
- B. Front: Secured to box with concealed trim clamps. For surface-mounted fronts, match box dimensions; for flush-mounted fronts, overlap box.
- C. Finish: Manufacturer's standard enamel finish over corrosion-resistant treatment or primer coat.
- D. Directory Card: With transparent protective cover, mounted in metal frame, inside panelboard door.
- E. Bus: Hard-drawn copper, 98 percent conductivity.
- F. Equipment Ground Bus: Adequate for feeder and branch-circuit equipment ground conductors; bonded to box.
- G. Panelboard Short-Circuit Rating:
 - 1. Fully rated to interrupt symmetrical short-circuit current available at terminals.
- H. Panelboards with Main Service Disconnect: Listed for use as service equipment.
- I. Spaces for Future Devices: Mounting brackets, bus connections, and necessary appurtenances required for future installation of devices.
- J. Skirt for Surface-Mounted Panelboards: Same gage and finish as panelboard front with flanges for attachment to panelboard, wall, and ceiling or floor.
- K. Feed-through Lugs: Locate at opposite end of bus from incoming lugs or main device.

2.3 LIGHTING AND APPLIANCE BRANCH-CIRCUIT PANELBOARDS

- A. Branch Overcurrent Protective Devices: Bolt-on circuit breakers, replaceable without disturbing adjacent units.
- B. Doors: Front mounted with concealed hinges; secured with flush latch with tumbler lock; keyed alike.

2.4 DISTRIBUTION PANELBOARDS

- A. Doors: Front mounted, and secured with vault-type latch with tumbler lock; keyed alike.

- B. Branch overcurrent protective devices shall be one of the following:
 - 1. For Circuit-Breaker Frame Sizes 125 A and Smaller: Bolt-on circuit breakers.
 - 2. For Circuit-Breaker Frame Sizes Larger Than 125 A: Bolt-on circuit breakers; plug-in circuit breakers where individual positive-locking device requires mechanical release for removal.

2.5 OVERCURRENT PROTECTIVE DEVICES

- A. Molded-Case Circuit Breaker: NEMA AB 1, with interrupting capacity to meet available fault currents.
 - 1. Thermal-Magnetic Circuit Breakers: Inverse time-current element for low-level overloads, and instantaneous magnetic trip element for short circuits. Adjustable magnetic trip setting for circuit-breaker frame sizes 250 A and larger.
 - 2. GFCI Circuit Breakers: Single- and two-pole configurations with 5-mA trip sensitivity.
 - 3. Application Listing: Appropriate for application; Type SWD for switching fluorescent lighting loads; Type HACR for heating, air-conditioning, and refrigerating equipment.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install panelboards and accessories according to NEMA PB 1.1.
 - 1. Install flush unless otherwise indicated.
- B. Mounting Heights: Top of trim 74 inches above finished floor, unless otherwise indicated.
- C. Mounting: Plumb and rigid without distortion of box. Mount recessed panelboards with fronts uniformly flush with wall finish.
- D. Install filler plates in unused protective device spaces.
- E. Wiring in Panelboard Gutters: Arrange conductors into groups and bundle and wrap with wire ties after completing load balancing.

3.2 IDENTIFICATION

- A. Identify field-installed conductors, interconnecting wiring, and components; provide warning signs as specified in Division 16 Section "Basic Electrical Materials and Methods."
- B. Panelboard Nameplates: Label each panelboard with engraved metal or laminated-plastic nameplate mounted with corrosion-resistant screws.
- C. Circuit Directory: Create a directory to indicate installed circuit loads after balancing panelboard loads. Obtain approval before installing. Use a computer or typewriter to create directory; handwritten directories are not acceptable.

3.3 FIELD QUALITY CONTROL

- A. Testing and Inspection: After installing panelboards and after electrical circuitry has been energized, demonstrate product capability and compliance with requirements.
 - 1. Procedures: Perform each electrical test and visual and mechanical inspection indicated in NETA ATS, Section 7.5 for switches and Section 7.6 for molded-case circuit breakers.
 - 2. Test insulation resistance of panelboard bus with a megohmmeter, and ground continuity of cabinet and ground bus. Reject buses with insulation resistance less than 2 megohms.
 - 3. Correct defective and malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest.

- B. Balancing Loads: After Substantial Completion, but not more than 60 days after Final Acceptance, measure load balancing and make circuit changes as follows:
 - 1. Measure as directed during period of normal system loading.
 - 2. Perform load-balancing circuit changes outside normal occupancy/working schedule of the facility and at time directed. Avoid disrupting critical 24-hour services such as fax machines and on-line data-processing, computing, transmitting, and receiving equipment.
 - 3. After circuit changes, recheck loads during normal load period. Record all load readings before and after changes and submit test records.
 - 4. Tolerance: Difference exceeding 20 percent between phase loads, within a panelboard, is not acceptable. Rebalance and recheck as necessary to meet this minimum requirement.

END OF SECTION 16442