CITY OF LAFAYETTE
3675 Mount Diablo Blvd., Suite 210
Lafayette, CA 94549

LAFAYETTE COMMUNITY CENTER PLAYGROUND IMPROVEMENTS

500 ST. MARY'S RD.
LAFAYETTE, CA 94549
PROJECT No. 012-9181

PROJECT SPECIFICATIONS

BID OPENING DATE
TUESDAY, APRIL 25, 2023, 2:00 P.M.

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NOTICE TO CONTRACTORS

Sealed proposals will be accepted at the office of the City Clerk, 3675 Mt. Diablo Boulevard, Suite 210, Lafayette, California until 2:00 P.M., Tuesday, April 25, 2023, at which time they will be publicly opened and read, for construction of **City of Lafayette, Community Center Playground Improvements, Project No. 012-9181**, including, but not limited to, the construction of new paver pathway, concrete curbs, and the installation of new play equipment with poured in place play surfacing and the installation of new benches, fencing, and lighting. Work generally includes but is not limited to, mobilization, pedestrian and traffic control and public convenience; locating and protecting utilities; clearing & grubbing including tree and root protection, tree & shrub trimming and removals; removal and disposal of paver pathways, concrete surfacing, curbs, walls, planters, existing lights; excavating, grading and compacting subgrade and base materials; installation of permeable base; construction of concrete walls; installation of park furnishings, play equipment, fencing and lighting; and finally installation of poured in place play surfacing, and all other related miscellaneous work as shown on the Plans and as described in the Specifications to provide a complete project.

The Engineer's cost estimate is $927,000.00

Beginning March 20, 2023, Contract Documents, including the Plans and Specifications, may be obtained through the City of Lafayette Recreation Department by contacting jwarshaw@ci.lafayette.ca.us or (925)284-0830

This project shall be constructed in accordance with the March 2013 edition of the City of Lafayette Standard Specifications, which may be obtained at the City of Lafayette Engineering Services Division.

Bids shall be submitted in a sealed envelope titled **"Proposal: Community Center Playground Improvements Project No. 012-9181."** The Contractor shall possess a Class "A" license at the time this contract is awarded.

City will conduct a non-mandatory pre-bid conference. It is the Bidder's responsibility to attend and observe the existing site conditions to fully understand the restriction which may impact the project. The pre-bid conference will be held at 10 am on April, 4, 2023 at the Lafayette Community Center Playground, 500 Saint Mary's Road Lafayette, CA 94549.

Bidder's attention is directed to requirements in Sections 2 and 3 of the Standard Specifications General Provisions. All bids shall be accompanied by a cashier's or certified check, or a bidder's bond executed by a corporate surety insurer. The bidder's guarantee shall be in the amount equal to at least ten (10) percent of the total bid and shall be made payable to the City of Lafayette. The successful bidder shall furnish a payment bond and a performance bond.

Bidder's attention is also directed to Section SP-23 of these the Project Special Provisions for the new Playground Equipment to be installed. Play Equipment shall conform to the details on the Plans, as provided in the Project Special Provisions and manufactured by Landscape Structures Inc. (or approved equal). Should the Bidder decide to propose Play Equipment from an alternative manufacturer, Bidder must submit the alternative Play Equipment **at least 10 days prior to the bid opening date stated above.** The City will review the alternative proposal and if acceptable will issue an addendum to all bidders notifying them of the alternative Play Equipment option.

The City Council has ascertained the General Prevailing Rates of Wages applicable to this work, and these rates are on file in the office of the City of Lafayette Engineering Services Division.

Time of completion allowed for this project will be forty-five (45) working days per Section SP 8-03 of the Special Provisions. Bidder's attention is directed to the order of work stated in Section 5 of the Special Provisions.

The City of Lafayette reserves the right to waive any informalities or to reject any or all bids. Questions regarding the project Plans or Specifications may be directed to City of Lafayette Recreation Department Supervisor John Warshaw at jwarshaw@ci.lafayette.ca.us or (925) 284-0830.

The plan holders list, as well as the City Standard Specifications, the Project Special Provisions and the General Prevailing Rates of Wages applicable to this work may be downloaded free of charge from the City of Lafayette web page at http://www.ci.lafayette.ca.us (click on *Public Works and Construction* under Quick Links on the homepage, then *City Construction Projects*).

CITY OF LAFAYETTE

Date: 3/15/2023 By: _____

Jonathan Katayanagi, Director
Parks, Trails and Recreation Dept.

CITY OF LAFAYETTE
CALIFORNIA

BID PROPOSAL

City of Lafayette
Community Center Playground Improvements
Project No. 012-9181

TO THE CITY COUNCIL OF THE CITY OF LAFAYETTE:

In compliance with the annexed notice inviting sealed proposals, the undersigned bidder hereby proposes and agrees to perform the work therein described and to furnish all labor, materials and equipment necessary therefor, in accordance with the Plans and Specifications therefor, and further agrees to enter into a contract therefor, at the following prices:

ITEM NO.	ITEM DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY	ITEM PRICE	TOTAL

(SEE ATTACHED BID SCHEDULE)

NOTES:
- All unit prices shall be considered the prices for providing a complete, in-place facility.
- In the event of a discrepancy between the unit price and item total on the Bid Schedule, the unit price shall be used.

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Bidder acknowledges the receipt of the following addenda to the drawings and specifications.

Addendum No.	Date	Addendum No.	Date
_____	_____	_____	_____
_____	_____	_____	_____

o o o

BID SCHEDULE

Item No.	Item Description		Unit	Estimated Quantity	Unit Price	Total
1	Mobilization	(SP-9)	LS	1		
2	Project Identification Sign & Construction Fencing	(SP-9)	LS	1		
3	Traffic Control & Public Convenience	(SP-10)	LS	1		
4	Locate & Protect Existing Utilities	(SP-7)	LS	1		
5	Clearing, Grubbing & Tree Protection	(SP-11)	LS	1		
6	Adjust Area Drain & Install Traffic Rated Grate	(SP-12)	EA	3		
7	Adjust Area Light Box	(SP-12)	EA	1		
8	Remove Irrigation & Relocate Quick Connect	(SP-12)	LS	1		
9	Cap Water Line & Remove Fountain Concrete Pad	(SP-12)	LS	1		
10	Remove Light Pole/Bollard	(SP-12)	EA	5		
11	Remove Concrete Bench	(SP-12)	EA	3		
12	Remove Paver Walkway	(SP-12)	SF	2,530		
13	Remove Concrete Surfacing	(SP-12)	SF	411		
14	Remove Concrete Wall	(SP-12)	SF	50		
15	Remove Rubber Play Surfacing	(SP-12)	SF	3,438		
16	Remove Concrete Curb	(SP-12)	LF	620		
17	Remove Fence/Gate	(SP-12)	LF	252		
18	Remove & Salvage Play Equipment	(SP-12)	LS	1		
19	Permeable Base, Class 2	(SP-15)	CY	115		
20	12” Concrete Flush Curb with 4’ Fence	(SP-17)	LF	190		
21	6” Concrete Flush Curb	(SP-17)	LF	300		
22	6” Concrete Retaining Curb, 6” High	(SP-17)	LF	71		
23	6” Concrete Retaining Curb, 8” High	(SP-17)	LF	85		
24	Brick Paver Walkway	(SP-18)	SF	2,303		
25	Mulch	(SP-20)	CY	20		
26	4’ Vinyl Coated Black Chain Link Fence	(SP-23)	LF	142		
27	6’ Vinyl Coated Black Chain Link Fence	(SP-23)	LF	75		
28	12’ Vehicle Gate	(SP-23)	EA	3		
29	5’ Pedestrian Gate	(SP-23)	EA	3		
30	Black Metal Bench	(SP-23)	EA	7		
31	Poured-In-Place Play Surfacing, 2” Basemat	(SP-23)	SF	1,743		
32	Poured-In-Place Play Surfacing, 4” Basemat	(SP-23)	SF	4,472		
33	Playground Equipment	(SP-23)	LS	1		
34	14’ Light Pole (for String Lights)	(SP-24)	EA	1		
35	Single Area Light, Type A1	(SP-24)	EA	10		
36	Double Area Light, Type A2	(SP-24)	EA	1		
37	Conduits, Wires, Boxes, Supports	(SP-24)	LF	1,000		
38	Concrete Pull Box	(SP-24)	EA	11		

Base Bid Total | |

Bidder agrees that in case of default in executing and returning the required contract and bonds within ten (10) calendar days after having received the contract, proceeds of the guarantee accompanying his bid will become the property of the City of Lafayette.

o o o

In conformance with Subsection 2-13 "Listing of Proposed Subcontractors" of the Standard Specifications, the name and location of the place of business of each subcontractor is as follows:

NAME	DIR NUMBER	ADDRESS	WORK TO BE PERFORMED
1.			
2.			
3.			
4.			
5.			

o o o

Bidder certifies that he is licensed in accordance with an act providing for the registration of Contractors as follows:

License No. _____ Class _____

o o o

Bidder certifies that he has not, nor have any of his or its agents, officers, representatives, or employees, been guilty of collusion with any officer or representative of the City of Lafayette or with any other party or parties in the submission of this Proposal; nor has said bidder received any preferential treatment by any officer or employee of the City of Lafayette in the matter of making or submitting this proposal. The undersigned declares under penalty of perjury that the foregoing is true and correct.

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Bidder certifies that there will be no discrimination in employment with regard to race, color, religion, sex, sexual orientation, or national origin; that all Federal, State, and local directives and executive orders regarding nondiscrimination in employment will be complied with and that the principle of equal opportunity in employment will be demonstrated positively and aggressively.

All bidders that have not had a contract with the City of Lafayette during the past three (3) years shall list below previous jobs that they have successfully completed and shall also show the amount of the contract therefor.

Name and Address of Agency or Individual for Whom Work was Done	Phone Number	Date Completed	Contract Price
1.			
2.			
3.			
4.			
5.			
6.			

NONCOLLUSION DECLARATION

The undersigned declares:

I am the _____ of _____, the party making the foregoing bid.
Title *Firm*

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on _____, at
Date

_____, _____.
City *State*

By:_____
Signature

Name:_____
Printed or Typed

Date:_____

Title:_____

PROPOSAL GUARANTEE
BID BOND

CITY OF LAFAYETTE
COMMUNITY CENTER PLAYGROUND IMPROVEMENTS
PROJECT NO. 012-9181

KNOW ALL PERSONS BY THESE PRESENTS that _____, as BIDDER, and _____, as SURETY, are held and firmly bound unto City of Lafayette, as Owner, in the penal sum of _____ dollars ($) which is ten percent of the total amount bid by BIDDER to Owner for the above stated project, for the payment of which sum, BIDDER and SURETY agree to be bound, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH that, whereas BIDDER is about to submit a bid to Owner for the above stated project, if said bid is rejected, or if said bid is accepted and a contract is awarded and entered into by BIDDER in the manner and time specified, then this obligation shall be null and void, otherwise it shall remain in full force and effect in favor of Owner.

IN WITNESS WHEREOF the parties hereto have set their names, titles, hands, and seals this ____ day of _____, 2023.

BIDDER _____

_____

_____

SURETY _____

_____

_____

Subscribed and sworn to this ___ day of _____, 2023.

NOTARY PUBLIC _____

PROPOSAL SIGNATURE SHEET

The completed proposal submitted herewith includes all sheets numbered "P-1 through P-10" at the bottom. The following required attachments have been executed and are included:

a. Bid Proposal (with Addenda acknowledgement)
b. Bid Schedule
c. Noncollusion Declaration
d. Proposal Guarantee "Bid Bond" with Notarized Signatures
e. Proposal Signature Sheet
f. Public Works Contractor Registration Certification

Legal Name of Firm: _____

Business Address: _____

Telephone Number: ( ) _____

Type of Organization: ( ) Individual ( ) Partnership ( ) Corporation

Joint Venture Proposal?: ( ) Yes ( ) No

Authorized Signature: _____

Name: _____

Position: _____

Date of Execution: _____

For a partnership, name all co-partners below,
For a corporation, name president, secretary, treasurer and manager.

NAME	**TITLE**
_____	_____
_____	_____
_____	_____
_____	_____

Corporate Seal:

PUBLIC WORKS CONTRACTOR REGISTRATION CERTIFICATION

Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. See http://www.dir.ca.gov/Public-Works/PublicWorks.html for additional information.

No bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work.

Contractor hereby certifies that it is aware of the registration requirements set forth in Labor Code sections 1725.5 and 1771.1 and is currently registered as a contractor with the Department of Industrial Relations.

Name of Contractor: _____

DIR Registration Number:_____

Contractor further acknowledges:

1. Contractor shall maintain a current DIR registration for the duration of the project.

2. Contractor shall include the requirements of Labor Code sections 1725.5 and 1771.1 in its contract with subcontractors and ensure that all subcontractors are registered at the time of bid opening and maintain registration status for the duration of the project.

3. Failure to submit this form or comply with any of the above requirements may result in a finding that the bid is non-responsive.

Signature:_____

Name and Title: _____

Dated: _____

CITY OF LAFAYETTE

CONTRACT AGREEMENT FOR CONSTRUCTION

THIS AGREEMENT is made and entered into as of _____, 2023, by and between the CITY OF LAFAYETTE ("City") and _____ ("Contractor").

RECITALS

A. City desires to retain the services of Contractor to provide services for construction of **Community Center Playground Improvements, Project No. 012-9181**, ("Project") for the construction of the Playground at the Lafayette Community Center in the City of Lafayette. Work generally includes but is not limited to, the construction of new paver pathway, concrete curbs, and the installation of new play equipment with poured in place play surfacing and the installation of new benches, fencing, and lighting. Work generally includes but is not limited to, mobilization, pedestrian and traffic control and public convenience; locating and protecting utilities; clearing & grubbing including tree and root protection, tree & shrub trimming and removals; removal and disposal of paver pathways, concrete surfacing, curbs, walls, planters, existing lights; excavating, grading and compacting subgrade and base materials; installation of permeable base; construction of concrete walls; installation of park furnishings, play equipment, fencing and lighting; and finally installation of poured in place play surfacing, and all other related miscellaneous work as shown on the Plans and as described in the Specifications to provide a complete project.

B. Contractor has represented to City that it has the expertise, experience and qualifications to perform the services described in Paragraph A, above, and those services which are more fully described below.

NOW, THEREFORE, in consideration of the foregoing and the covenants and agreements set forth below, City and Contractor agree as follow:

1. Contract Documents. The contract documents for the aforesaid project shall consist of the Notice to Contractors, Bid Proposal, General Provisions, Technical Provisions, Special Provisions including appendices, Design Drawings, and all referenced specifications, details, standard drawings, and their appendices; together with this Contract Agreement and all required bonds, insurance certificates, permits, notices and affidavits; and also including any and all addenda or supplemental agreements clarifying, amending, or extending the work contemplated as may be required to insure its completion in an acceptable manner. All of the provisions of said contract documents are made a part hereof as though fully set forth herein.

1. Services. For and in consideration of the payments and agreements to be made and performed by City, Contractor agrees to furnish all materials and perform all work required for the above-stated project, and to fulfill all other obligations as set forth in the aforesaid contract documents. Contractor agrees to receive and accept the prices set forth in the Proposal as full compensation for

furnishing all materials, performing all work, and fulfilling all obligations hereunder. Said compensation shall cover all expenses, losses, damages, and consequences arising out of the nature of the work during its progress or prior to its acceptance including those for well and faithfully completing the work and the whole thereof in the manner and time specified in the aforesaid contract documents; also including those arising from actions of the elements, unforeseen difficulties or obstructions encountered in the prosecution of the work, suspension or discontinuance of the work, and all other unknowns or risks of any description connected with the work.

3. Employment by City. City hereby promises and agrees to employ, and does hereby employ, Contractor to provide the materials, do the work, and fulfill the obligations according to the terms and conditions herein contained and referred to, for the prices aforesaid, and hereby contracts to pay the same at the time, in the manner, and upon the conditions set forth in the contract documents.

4. Worker's Compensation. Contractor acknowledges the provisions of the State Labor Code requiring every employer to be insured against liability for worker's compensation, or to undertake self-insurance in accordance with the provisions of that Code and certifies compliance with such provisions. Limits shall be not less than those specified in the insurance requirements contained in the General Provisions of the Standard Specifications, and as modified in these Special Provisions.

5. Insurance. With respect to performance of work under this contract, Contractor shall maintain and shall require all of its subcontractors to maintain insurance as required in the General Provisions of the Standard Specifications, and as modified in these Special Provisions.

6. Indemnity. Contractor shall comply with the indemnification requirements contained in the General Provisions of the Standard Specifications.

7. Assignment. This contract is not assignable nor the performance of either party's duties delegable without the prior written consent of the other party. Any attempted or purported assignment or delegation of any of the rights or obligations of either party without the prior written consent of the other shall be void and of no force and effect.

8. Non-discrimination. Contractor shall not discriminate in the hiring of employees or the employment of subcontractors on any basis prohibited by law.

9. Independent Contractor. Contractor is and shall at all times remain as to City, a wholly independent contractor. Neither City nor any of its agents shall have control of the conduct of Contractor or any of the Contractor's employees, except as herein set forth. Contractor shall not at any time or in any manner represent that it or any of its agents or employees are in any manner agents or employees of City.

10. Contractor and Subcontractor Registration. Effective March 1, 2015, pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public works must be registered with the Department of Industrial Relations. No bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to

perform public work. Contractor is directed to review, fill out and execute the Public Works Contractor Registration Certification contained in the Bid Proposal prior to contract execution.

11. Labor Compliance. This Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. It shall be the Contractor's sole responsibility to evaluate and pay the cost of complying with all labor compliance requirements under this Contract and applicable law.

12. Notices. All notices and communications shall be sent to the parties at the following addresses:

CITY: City Engineer
City of Lafayette
3675 Mount Diablo Boulevard, Suite 210
Lafayette, California 94549

CONTRACTOR: _____
_____
_____
_____

13. Authorized Signature. Contractor affirms that the signatures, titles, and seals set forth hereinafter in execution of this contract agreement represent all individuals, firm members, partners, joint ventures, and/or corporate officers having a principal interest herein.

14. Entire Agreement; Modification. This contract supersedes any and all other agreements either oral or written, between the parties and contains all of the covenants and agreements between the parties pertaining to the work of improvements described in Paragraph A of the Recitals herein above. Each party to this contract acknowledges that no representations, inducements, promises, or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any parties, which are not embodied herein, and that any other agreement, statements or promise not contained in this contract shall not be valid or binding. Any modification of this contract will be effective only if signed by the party to be charged.

15. Claims Procedure. In the event of a dispute between the parties regarding a) a time extension demand, b) payment arising for work performed by or on behalf of the contractor which is not otherwise expressly provided for, or c) an amount the payment of which is disputed by the City, the procedure in Section 10 of the City of Lafayette Standard Specifications shall be used.

IN WITNESS WHEREOF the parties hereto for themselves, their heirs, executors, administrators, successors, and assigns do hereby agree to the full performance of the covenants herein contained and have caused this Contract Agreement to be executed in duplicate by setting hereunto their names, titles, hands, and seals this ____ day of _____ 2023.

Contractor: _____

<***Type Business Name Here***>

Name:_____

Title: _____

Contractor's License No. _____

Agency Business License No. _____

Federal Tax Identification No. _____

Subscribed and sworn to this ___ day of _____ 2023.

Notary Public _____

Agency: _____
City Manager of the City of Lafayette

Attested: _____
City Clerk of the City of Lafayette

Date: _____

PAYMENT BOND

(TO BE EXECUTED WITHIN TEN [10] CALENDAR DAYS OF CONTRACT AWARD)

WHEREAS, the City of Lafayette (Owner) has awarded to _____, as Contractor, a contract for the work described as follows: Construction of **Community Center Playground Improvements, Project No. 012-9181**, ("Project") including, but not limited to, the construction of new paver pathway, concrete curbs, and the installation of new play equipment with poured in place play surfacing and the installation of new benches, fencing, and lighting. Work generally includes but is not limited to, mobilization, pedestrian and traffic control and public convenience; locating and protecting utilities; clearing & grubbing including tree and root protection, tree & shrub trimming and removals; removal and disposal of paver pathways, concrete surfacing, curbs, walls, planters, existing lights; excavating, grading and compacting subgrade and base materials; installation of permeable base; construction of concrete walls; installation of park furnishings, play equipment, fencing and lighting; and finally installation of poured in place play surfacing, and all other related miscellaneous work as shown on the Plans and as described in the Specifications to provide a complete project.

AND WHEREAS, said Contractor is required to furnish a bond in connection with said contract, to secure the payment of claims of laborers, mechanics, materials persons, and other persons as provided by law;

NOW, THEREFORE, we, the undersigned Contractor and surety, are held firmly bound unto the Owner in the sum of _____Dollars ($_____), for which payment well and truly to be made we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH:

That if said Contractor, its heirs, executors, administrators, successors, or assigns, or subcontractors, shall fail to pay any of the persons named in Civil Code Section 3282, or amounts due under the Unemployment Insurance Code with respect to work or labor performed by any such claimant, or any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Contractor and its subcontractors pursuant to Section 13020 of the Unemployment Insurance Code, with respect to such work and labor, that the surety or sureties herein will pay for the same in any amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void. In case suit is brought upon this bond, the said surety will pay a reasonable attorney's fee to the Owner in an amount to be fixed by the court.
This bond shall insure to the benefit of any of the persons named in Civil Code Section 3181 as to give a right of action to such persons or their assigns in any suit brought upon this bond.

IN WITNESS WHEREOF, we have hereunto set our hands and seals on this ____ day of _____, 2023.

CONTRACTOR:_____ SURETY_____
Print Name:_____ NAME_____
Title:_____ ADDRESS_____
TELEPHONE_____

PERFORMANCE BOND

(TO BE EXECUTED WITHIN TEN [10] CALENDAR DAYS OF CONTRACT AWARD)

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, the City of Lafayette (Owner) has awarded to _____, as Contractor, a contract for the work described as follows: Construction of **Community Center Playground Improvements, Project No. 012-9181**, ("Project") including, but not limited to, the construction of the Playground at the Community Center in the City of Lafayette. Work generally includes but is not limited to, the construction of new paver pathway, concrete curbs, and the installation of new play equipment with poured in place play surfacing and the installation of new benches, fencing, and lighting. Work generally includes but is not limited to, mobilization, pedestrian and traffic control and public convenience; locating and protecting utilities; clearing & grubbing including tree and root protection, tree & shrub trimming and removals; removal and disposal of paver pathways, concrete surfacing, curbs, walls, planters, existing lights; excavating, grading and compacting subgrade and base materials; installation of permeable base; construction of concrete walls; installation of park furnishings, play equipment, fencing and lighting; and finally installation of poured in place play surfacing, and all other related miscellaneous work as shown on the Plans and as described in the Specifications to provide a complete project.

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AS WHEREAS, the Contractor is required to furnish a bond in connection with said contract guaranteeing the faithful performance thereof;

NOW, THEREFORE, we, the undersigned Contractor and surety, are held firmly bound unto the Owner in the sum of _____Dollars ($_____), to be paid to the Owner, its successors and assigns, for which payment well and truly to be made we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH:

That if said Contractor, its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by and well and truly keep and perform the covenants, conditions, and agreements in the foregoing contract and any alteration thereof made as therein provided on its or their part to be kept and performed at the time and in the manner therein specified and in all respects according to their true intent and meaning, and shall indemnify and save harmless the Owner, its officers, and agents, as therein stipulated, then this obligation shall become and be null and void; otherwise it shall be and remain in full force and effect. In case suit is brought upon this bond, the said surety will pay a reasonable attorney's fee to the Owner in an amount to be fixed by the court. Surety, for value received, hereby stipulates and agrees that no amendment, change, extension of time, alteration, or addition to said contract, and of any feature or item or items of performance required therein or thereunder, shall in any manner affect its obligations on or under this bond; and said surety does hereby waive notice of any such amendment, change, extension of time, alteration, or addition to said contract, and of any feature or item or items of performance required therein or thereunder, shall in any manner affect its obligations on or under this bond; and said surety does hereby waive notice of any such amendment, change extension of time, alteration, or addition to said contract, and of any feature or item or items of performance required therein or thereunder.

IN WITNESS WHEREOF, we have hereunto set our hands and seals on this ____ day of _____, 2023.

CONTRACTOR:_____ SURETY_____

Print Name:_____ NAME_____

Title:_____ ADDRESS_____

TELEPHONE_____

CITY OF LAFAYETTE
Community Center Playground Improvements
Project No. 012-9181

SPECIAL PROVISIONS

The special provisions contained herein have been prepared by or under the direction of the following Registered Person:

March 10, 2023

Mariam M. Virani **DATE**
REGISTERED CIVIL ENGINEER

SPECIAL PROVISIONS

GENERAL

(NO BID ITEM)

The work to be done under this contract, except as modified or supplemented herein, shall conform to the following:

- The City of Lafayette General Provisions of the Standard Specifications dated March 2013, herein referred to as the "General Provisions of the Standard Specifications".

- The City of Lafayette Technical Provisions of the Standard Specifications dated March 2013, herein referred to as the "Technical Provisions of the Standard Specifications".

Where specifically referred to, the work shall also conform to the following:

- The State of California Department of Transportation (Caltrans) Standard Specifications, For Construction of Local Streets and Roads, 2018 Edition, herein referred to as the "State Specifications" or "State Standard Specifications".

- The State of California Department of Transportation (Caltrans) Standard Plans, 2018 Edition, herein referred to as the "State Standard Plans".

- The Contra Costa County Public Works Department Standard Plans, most current edition, herein referred to as the "County Standard Plans".

These Special Provisions are additions, modifications, or clarifications to the referenced Standard Specifications and generally supersede the referenced or applicable sections of said Standard Specifications. Refer to Section 5-4, "Precedence of Contract Documents", of the General Provisions of the Standard Specifications for the order of precedence of Contract Documents. Where ambiguity or conflict exist in the interpretation of precedence, the provision resulting in the highest quality or most expensive grade of construction or product shall govern.

SPECIAL PROVISIONS SECTION SP-1

TERMS, DEFINITIONS AND ABBREVIATIONS

(NO BID ITEM)

The provisions of Section 1- Terms, Definitions and Abbreviations, of the General Provisions of the Standard Specifications, shall apply in their entirety.

SPECIAL PROVISIONS SECTION SP-2

BID PROPOSAL REQUIREMENTS

(NO BID ITEM)

SP2-01 GENERAL

The provisions of Section 2 – "Bid Proposal Requirements," of the General Provisions of the Standard Specifications, shall apply in their entirety.

SPECIAL PROVISIONS SECTION SP-3

AWARD AND EXECUTION OF CONTRACT

(NO BID ITEM)

SP3-01 GENERAL

The provisions of Section 3 - Award Execution of Contract, of the General Provisions of the Standard Specifications, shall apply in their entirety.

SPECIAL PROVISIONS SECTION SP-4

PLANS AND SPECIFICATIONS (GENERAL)

(NO BID ITEM)

The provisions of Section 4 – "Plans and Specifications (General)," of the General Provisions of the Standard Specifications, shall apply in their entirety.

SP4-01 SCOPE OF WORK

The work includes the construction of a playground at the Community Center in the City of Lafayette generally including but not limited to the construction of new paver pathway, concrete curbs, and the installation of new play equipment with poured in place play surfacing and the installation of new benches, fencing, and lighting. Work generally includes but is not limited to, mobilization, pedestrian and traffic control and public convenience; locating and protecting utilities; clearing & grubbing including tree and root protection, tree & shrub trimming and removals; removal and disposal of paver pathways, concrete surfacing, curbs, walls, planters, existing lights; excavating, grading and compacting subgrade and base materials; installation of permeable base; construction of concrete walls; installation of park

furnishings, play equipment, fencing and lighting; and finally installation of poured in place play surfacing, and all other related miscellaneous work as shown on the Plans and as described in the Specifications to provide a complete project.

SP4-02 PAYMENT

No separate payment will be made for preparing and submitting "As-Built Drawings." Full compensation for preparing and submitting "As-Built Drawings" shall be considered as included in the prices paid for various contract items of work, and no additional compensation shall be allowed therefor.

SPECIAL PROVISIONS SECTION SP-5

CONTROL OF WORK AND MATERIALS

(NO BID ITEM)

The provisions of Section 5 – "Control of Work and Materials," of the General Provisions of the Standard Specifications, shall apply in their entirety, except as modified or supplemented herein.

SP5-01 CONSTRUCTION SURVEY STAKING

The City will provide construction survey staking for basic controls and alignment and grades of curb, gutter, and other items which, in the opinion of the Engineer, require survey staking. The Contractor shall submit staking requests in writing at least five (5) working days in advance of beginning work that requires construction survey staking. The Contractor shall be responsible for paying the cost of resetting survey stakes which are damaged or obliterated by the Contractor's operations.

If required, the Contractor will be responsible for providing traffic control for the City's survey crew as necessary for any required offset stakes which will need to be set in the roadway, including providing a lane closure and/or flaggers when required. The Engineer will notify the Contractor a minimum of 48 hours prior to the required survey staking in order to coordinate traffic control.

SP5-02 MATERIAL SAMPLING AND TESTING

Compaction tests and/or material sampling and testing may be performed by the City's representatives on subgrade, aggregate base, portland cement concrete, asphalt concrete, and other work and materials, which in the opinion of the Engineer, require sampling or testing. Test locations shall be determined by the Engineer. The Contractor shall coordinate and cooperate with the Engineer and testing personnel, and no claims of delays or inconvenience due to testing and/or sampling shall be allowed.

SP5-03 SUBMITTALS

At a minimum the Contractor shall provide the following submittals to the Engineer

1. Water Pollution Control Plan
2. Waste Management Plan (Contractor shall use Green Halo Systems)
3. Traffic Control Plan and certification of "Qualified Personnel"
4. Pedestrian Access Plan
5. Complete list of Construction Equipment
6. Construction Area Fencing and Staging Plan
7. Portland Concrete Cement (PCC) mix designs for all items requiring PCC

8. All landscape and irrigation materials and components as required by the Technical Provisions of the Standard Specifications and these Special Provisions
9. Park Furnishings (Bench)
10. Play Equipment
11. Poured in Place Surfacing (All components)
12. Aggregate Base
13. Class 2 Permeable Base
14. 3" PVC SDR 35
15. Mulch
16. Lighting Components (fixtures, poles, foundations, conduits, wires and boxes)
17. Fencing and Gates
18. Paint Colors for various items
19. Additional submittals as noted in each section of these Special Provisions

SP5-04 ORDER OF WORK

Unless otherwise directed by the Engineer, the following major items of work shall be performed in the following general order. Not every item of Contract Work is shown. Contractor shall accordingly coordinate miscellaneous and coincidental work related to or associated with major work items in order to avoid out-of-sequence construction and conflicts. Not all stages of work apply to every location within the Project. Contractor may submit alternative Order of Work for review and approval by the City prior to the start of construction.

1) Submittals
2) Notify Underground Service Alert (USA) to have utilities marked.
3) Install water pollution control measures.
4) Install tree protection.
5) Install construction fencing around project area as approved and install project identifications sign.
6) Submit waste management plan prior to commencing any demolition work.
7) Perform utility potholing work if required, to confirm depths of existing utility lines, water lines, electrical lines, irrigation and/or subdrains. No additional excavation work will be permitted until Contractor's Utility Pothole Log (Appendix to Standard Specifications) is submitted to the Engineer.
8) Clearing, grubbing, tree trimming and tree removal.
9) Reference utility boxes of all kinds. Initiate coordination of necessary relocations and adjustments with various utilities if required.
10) Demolition/Removals of existing paving and miscellaneous items
11) Grading/Earthwork
12) Irrigation adjustments as needed
13) Installation of Drainage
14) Installation of Concrete Curb, Walls

15) Electrical Work for new Lighting
16) Installation of Permeable Material in Play Areas
17) Paving – (Concrete, Brick Pavers)
18) Installation of Park Furnishings
19) Install Play Equipment
20) Fencing & Gates
21) Install Play Surfacing
22) Landscape restoration as needed
23) Complete all other construction work and punch list items.
24) Remove tree protection, construction area signs and project identification signs.
25) Submit completed waste assessment summary report form.
26) Submit as-built plans.

SP5-05 PAYMENT

No separate payment will be made for conforming to the provisions of this section. Full compensation for conforming to all the provisions of this section shall be considered as included in the prices paid for various contract items of work and no additional compensation will be allowed therefor.

SPECIAL PROVISIONS SECTION SP-6

LEGAL RELATIONS AND RESPONSIBILITIES

(NO BID ITEM)

The provisions of Section 6 – "Legal Relations and Responsibilities," of the General Provisions of the Standard Specifications, shall apply in their entirety, except as modified or supplemented herein.

SP6-01 NOTIFICATIONS

Notification requirements in Section 6-10, 6-12.3 and 6-13 of the General Provisions of the Standard Specifications shall apply.

SP6-02 PAYMENT

No separate payment will be made for conforming to the provisions of this section. Full compensation for conforming to all the provisions of this section shall be considered as included in the prices paid for various contract items of work and no additional compensation will be allowed therefor

SPECIAL PROVISIONS SECTION SP-7

EXISTING UTILITIES & FACILITIES

(BID ITEM NO. 4)

The provisions of Section 7 – "Existing Utilities," of the General Provisions of the Standard Specifications, shall apply in their entirety, except as modified or supplemented herein.

Contractor shall notify Underground Service Alert (USA) to have utilities marked prior to start of construction. Contractor shall pothole any potential utility conflicts and protect all existing utilities marked, shown and not shown on the Plans and as required by these contract documents, the Engineer and the respective utility agency.

Contractor's attention is directed to the electrical lines for the existing lighting in the Park. Contractor shall locate, disconnect and remove existing system as required for the new improvements to be connected to existing system as provided in the Electrical Plans and elsewhere in these Special Provisions.

Contractor shall locate, disconnect and remove existing irrigation system as needed for new improvements including removing existing water valve and relocating existing quick connect in irrigation box to an area outside of the proposed play area as directed by the Engineer.

Contractor shall locate and protect the existing drainage in project area.

Contractor shall locate, and cap existing water lateral which is connected to an abandoned water fountain.

SP7-03 MEASUREMENT AND PAYMENT

The contract lump sum price paid for **"Locate & Protect Existing Utilities"** shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals, and for doing all the work involved in locating existing utilities and protecting them as needed during construction as specified in the Standard Specifications, State Specifications, Project Contract Documents as directed by the Engineer and no additional compensation will be allowed therefor.

Payment for disconnection, removal, capping and/or adjustment of existing facilities including portions of electrical, irrigation and water systems will be included in various items of work as further described in these Special Provisions.

SPECIAL PROVISIONS SECTION SP-8

PROGRESS OF WORK

(NO BID ITEM)

The provisions of Section 8 - Progress of Work, of the General Provisions of the Standard Specifications, shall apply in their entirety and as supplemented below.

SP8-01 PRE-CONSTRUCTION MEETING

A pre-construction meeting for this project will be held on May 18, 2023 at 2:30 pm at the Lafayette Community Center. The contractor shall submit all required bonds, insurance, and signed contracts prior

to this meeting. The Notice to Proceed will be issued to the Contractor at this meeting. **The prime contractor's full-time on-site superintendent and foremen for the project, along with any major subcontractors, are required to attend the preconstruction meeting.**

At the pre-construction meeting, representatives of the Owner, the Contractor, Subcontractors, and the Engineer will discuss in detail certain procedural aspects of the Work, including, but not limited to:

- Administrative procedures for transmittals, submittals, approvals, change orders, and similar items;
- Review of the method of application for payment, progress payments, retention; and final payment;
- Review of the Contractor's construction progress schedule and order of work;
- Clarifications of any questions regarding the contract Plans and Special Provisions;
- Review of traffic control procedures

SP8-02 PROGRESS SCHEDULE

The Contractor shall submit the construction progress schedule to the Engineer at the pre-construction meeting. Contractor shall also submit an updated schedule by no later than Friday morning of each work week, and as requested by the Engineer per Section 8-2, "Progress Schedule," of the General Provisions of the Standard Specifications.

SP8-03 TIME OF COMPLETION AND LIQUIDATED DAMAGES

The Contractor shall complete the entire Work in this Contract within forty-five (45) working days from the start date, including completion of all "Punch List" work. Liquidated damages shall be assessed per Section 8-10, "Liquidated Damages," of the General Provisions of the Standard Specifications.

The count of working days on this Contract shall start Monday, September 25, 2023.

Working days shall be suspended while waiting for the Play Equipment, and all other work is complete except for the installation of the Play Equipment, Poured in Place Play Surfacing and Final Fencing.

SP8-04 WORKING HOURS

Without prior written approval by the Engineer, and except for emergency work, work or activity of any kind shall be limited to the hours from 8:00 a.m. to 5:00 p.m. Monday through Friday. Contractor's attention is directed to hours for lane/road closures in Section SP-11 of these Special Provisions.

SPECIAL PROVISIONS SECTION SP-9

MOBILIZATION

(BID ITEMS 1 – 2)

The provisions of Section 1 – "Mobilization," of the Technical Provisions of the Standard Specifications, shall apply in their entirety, except as modified or supplemented herein.

Contractor is hereby reminded to have Underground Service Alert (USA) mark utilities prior to start of any work including installation of project signs and construction fencing. Contractor shall pothole any potential utility conflicts and protect all existing utilities as required by these contract documents, the Engineer and the respective utility agency as specified in Section 7 above, as shown on the Plans and as directed by the Engineer.

Contractor shall submit plan for the approval of the Engineer which provides details on construction area fencing, staging and installation of City Project Signs prior to the start of construction. Contractor shall obtain Project Identification Sign from the City and install as provided herein and as directed by the Engineer. Construction fencing shall also conform to the City Standard Provisions and as directed by the Engineer.

Contractor's attention is directed to the existing creek adjacent to the project area. Contractor shall prepare a Water Pollution Control Plan (WPCP) prior to the start of construction for review and approval by the Engineer and as required by State and County regulations. Contractor shall implement the approved WPCP prior to the start of any construction. Temporary creek protection measures include but are not limited to temporary fencing and installing waddles 10 to 15 feet away from top of the bank to protect the creek and keep construction activities from getting too close to the bank. Contractor shall not store materials and equipment within the said creek setback area.

SP9-01 MEASUREMENT AND PAYMENT

The contract lump sum price paid for "**Mobilization**" shall include full compensation for furnishing all labor, supervision, materials, tools, equipment, and incidentals, for all the work involved in mobilization of forces, equipment, materials, and meeting all general conditions and provisions of Contract Documents, and for doing all the work involved in developing, preparing, obtaining approval of, revising, and amending the Water Pollution Control Plan (WPCP), submittals and contract documents as specified in the State Specifications and these Special Provisions, and as directed by the Engineer and no additional compensation will be allowed therefor.

The Contract Lump Sum Price paid for **"Project Identification Sign & Construction Fencing"** shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals, and for doing all the work involved in coordinating with the City to obtain the City provided "Project Identification Sign", transporting, installing signs on barricades or posts, maintaining signs, installing construction fencing, removing signs and barricades or posts and fencing, and returning City's signs to the City as specified in the Standard Specifications and these Special Provisions and as directed by the Engineer and no additional compensation will be allowed therefor.

SPECIAL PROVISIONS SECTION SP-10

TRAFFIC CONTROL AND PUBLIC CONVENIENCE

(BID ITEM NO. 3)

SP10-01 GENERAL

Traffic Control may not be required for this park project. Should minor traffic control be required, the Contractor shall prepare and submit to the Engineer a Traffic Control Plan prior to the start of Construction. Work shall conform to the requirements of Section 6-12, "Traffic Control," Section 6-12.7, "Temporary Traffic Striping & Pavement Markings," of the General Provisions and Section 15-4, "Removal of Existing and Temporary Traffic Stripes and Pavement Markings," of the Technical Provisions of the Standard Specifications. Nothing in these Special Provisions shall be construed as relieving the Contractor from his/her responsibilities as specified in said sections. Any traffic striping or markings that are removed due to any phase of work shall be replaced, or re-aligned if required, with temporary traffic stripes or pavement markings. All temporary striping and markings shall be placed the same day the permanent striping or markings are removed and they shall be placed before opening the roadway to public traffic.

SP10-02 CONSTRUCTION AREA SIGNS

Work shall conform to Section 1-3, "Construction Area Signs," of the Technical Provisions of the Standard Specifications.

The Engineer shall approve all locations prior to the Contractor installing signs. Construction Area signs shall be in place on the project site at least two (2) days prior to the start of work, but not more than seven (7) days. Signs shall be removed within five (5) days of completing all work. The Contractor shall notify the regional notification center for operators of subsurface installations (USA-Underground Service Alert: 1-800-227-2600), at least four (4) working days, but not more than fourteen (14) calendar days, prior to commencing any excavation for construction area sign posts.

The bottom of the mounted sign panels shall be seven (7) feet above existing grade.

SP10-03 LANE CLOSURE HOURS

If lane closures are required, Contractor's attention is directed to noticing requirements in Section SP6-01 should lane closures be required. Lane closures will be limited to hours between 9:00 am and 3:00 pm.

SP10-04 FLAGGING

If flagging is required, the contractor shall pay 100% of the cost of furnishing all flaggers and pilot cars, including transporting flaggers; furnishing stands and towers for flaggers, and operating pilot cars to provide for the passage of pedestrian and traffic through the work.

SP10-05 MAINTAINING TRAFFIC, PEDESTRIAN AND DRIVEWAY ACCESS

Contractor shall stage his work so as to provide a continuous ADA-compliant pedestrian pathway adjacent to the playground site at all times and the Contractor shall not be allowed to close the sidewalk without providing a reasonable alternative route.

Contractor shall coordinate all work with the Engineer and adjacent City Community Center to support the Center in continuing its programs during construction.

Where necessary and required to maintain pedestrian access, Contractor shall provide temporary ADA-compliant access ramps through work zones and over demolished areas. Each ramp shall consist of a sturdy non-slip walking surface at least 5 feet wide and 6 feet long, with cross-slopes less than 1.5% and running grades less than 7.5%. Ramps shall have handrails constructed from timber of 2"x4" nominal size. Contractor shall submit shop drawings of a typical Access Ramp for review and approval prior to fabrication.

Where sidewalk closure is necessary, Contractor shall provide temporary "SIDEWALK CLOSED" signs mounted on barricades at a location approaching the closure as determined by the Engineer to best minimize pedestrian traffic attempting to walk through the closure.

SP10-06 MEASUREMENT AND PAYMENT

The contract lump sum price paid for **"Traffic Control & Public Convenience"** shall be considered as full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals needed to perform all traffic control work, for all phases and stages of the work performed by the Contractor or the Contractor's "subcontractors" including, but not limited to, construction area signs, special construction signs, barricades, steel plates, traffic control plan, maintaining traffic, lane closures, flagmen, maintaining driveway and pedestrian access, including temporary access ramps, and all other traffic control devices; and all other work as shown on Standard Plans, as specified in the Standard Specifications, the State Specifications, these Special Provisions, and as directed by the Engineer and no additional compensation shall be allowed therefor. There shall be no additional compensation for traffic control due to an increase in the quantities shown on the bid proposal for pay items within the project limits.

Traffic Control required by work which is classified as extra work, as provided in Section 9.3, "Extra Work", of the General Provisions of the Standard Specifications, will be paid for as part of said extra work.

SPECIAL PROVISIONS SECTION SP-11

CLEARING AND GRUBBING

(BID ITEM NO. 5)

The provisions of Section 2 – "Clearing and Grubbing," Section 21, "Tree Trimming and Removal," and Section 22-3, "Tree and Plant Protection," of the Technical Provisions of the Standard Specifications, shall apply in their entirety, except as modified or supplemented herein.

All cleared and grubbed areas shall be approved by the Engineer before commencing the next stage of construction and shall include removal of all objectionable materials, including but not limited to, trash, debris, rocks, shrubs, lawn, sand and vegetation for which a separate contract pay item is not provided elsewhere in these Special Provisions. Contractor's attention directed to four existing trees to be removed as part of the clearing and grubbing work. All other trees and tree roots shall be protected as provided herein, the Contract Plans, the Arborist and as directed by the Engineer.

Contractor's attention is directed to the Tree Protection Notes on the Contract Plans. Contractor shall provide an arborist and conform to the requirements of the arborist and Contract Plans in protecting existing trees and roots. Contractor shall perform hand excavation within the drip line of existing trees.

Removal and/or salvaging of certain existing facilities including existing play surfacing, benches, play equipment, paver walkways, concrete facilities, irrigation, lighting and fencing shall be measured and paid for as provided elsewhere in these Special Provisions and are not included in the payment for "Clearing, Grubbing & Tree Protection".

SP11-01 MEASUREMENT AND PAYMENT

The contract lump sum price paid for "**Clearing, Grubbing & Tree Protection"** shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals, and for doing all the work involved in clearing and grubbing, tree trimming, tree removal, and tree and root protection including, but not limited to providing an arborist and conforming to arborist recommendations in protecting and pruning existing trees and roots for new improvements, removal and disposal of all existing trash, debris, rocks, shrubs, lawn, sand and vegetation; trimming of vegetation, shrubs, and trees indicated on Plans; removing, salvaging, and/or relocating landscape borders and decorative rock if encountered and all other work as shown on the Plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefor.

SPECIAL PROVISIONS SECTION SP-12

EXISTING FACILITIES

(BID ITEM NO. 6-18)

SP12-01 GENERAL

Work shall consist of removing and disposing of, relocating, or protecting existing facilities which interfere with construction. Work performed in connection with various existing facilities shall conform to the applicable provisions of Section 7, "Existing Utilities," of the General Provisions, Section 2, "Clearing and Grubbing," and Section 22, "Protection and Restoration of Existing Improvements," of the Technical Provisions of the Standard Specifications, these Special Provisions, and as directed by the Engineer.

The Contractor shall fully document pre-construction conditions at all points around the work area. This documentation shall consist of notes, still photographs, and video. Special effort shall be made to document the existing pathways, paver areas, curbs, fencing, lights, and trees to be protected. These documents shall be available to the City upon request.

If Contractor damages or destroys materials or facilities designated on the Plans, in these Special Provisions, or by the Engineer to be protected, salvaged or reused, he/she shall repair or replace them in kind at his sole expense.

SP12-02 MONUMENTS AND PROPERTY CORNERS

All monuments and property corners are to be preserved unless designated on the plans to be replaced. The Contractor shall bear the expense of replacing and recording with the County any monument or benchmark that is encountered and disturbed and was not designated to be replaced. Replacement shall be done only under the direction of and in the presence of the Engineer or a licensed surveyor.

SP12-04 ADJUST EXISTING FACILITIES

Existing area drains are to be protected in the project area. Contractor's attention is directed to existing area drains in landscape areas which will need to be raised to new paver walkway grades. Contractor shall also install new traffic rated grates at these area drains.

Contractor's attention is also directed to an existing area light box within the project area (possible connection point) which will need to be protected and adjusted to grade as shown on the Plans, specified herein, and directed by the Engineer.

SP12-03 REMOVALS

Contractor's attention is directed to Section 6-11, "General Safety," of the General Provisions, of the Standard Specifications, and Section SP-11-05, "Traffic Control and Public Convenience," of these Special Provisions.

Removals of existing facilities not considered to be included in other Contract Work include removal of existing paver walkways, concrete surfacing, rubber play surfacing, concrete curb (various heights), concrete wall, fencing/gates (3' high, chain-link), water fountain pad, light poles/bollards and concrete benches as shown on the Plans and directed by the Engineer. Removals of these items include all components including hardware and foundations.

Play equipment shall be removed and *salvaged* as provided for separately and described below.

Removals of areas or items shown on plans shall extend to a depth that is sufficient to accommodate the new improvements to be constructed including removal of concrete base for paver walkways, foundations, sub-drains, base and subgrade materials of all kinds and as additionally specified on Plans.

For removals that involve sawcutting, all sawcut lines shall be approved by the Engineer prior to sawcutting. Where existing curb and/or concrete wall/planter is to be removed and replaced, and the adjacent pavement is intended to remain, removal work shall include the removal of said curb and gutter and a sufficient area of the adjacent pavement to a proper depth to allow the forming and construction of the replacement new curb and gutter.

Contractor's attention is directed to the irrigation facilities for the existing lawn area which will need to be removed for the proposed playground. Contractor shall locate, cap and remove existing irrigation lines and water valves in conflict with new improvements. Contractor shall relocate existing quick connect in irrigation box to an area outside of the proposed play area as shown on the Plans and directed by the

Engineer. Contractor shall coordinate and review this work with the Engineer prior to the start of construction.

Contractor's attention is directed to the existing drinking water fountain concrete pad that is to be disconnected from existing electrical and water system and removed. Contractor shall locate and cap water and electrical services as required by local water utility district (EBMUD) and as approved by the Engineer.

Contractor's attention is directed to the Contract Plans for removal and replacement of existing Lighting components including the removal of three bollard lights, two area lights, and related foundations, hardware and conduits and wiring. Work shall conform to the provisions Section 86-1.06, "Maintaining Existing and Temporary Electrical Systems," of the State Standard Specifications in addition to Section SP-23 "Street Light and Electrical Systems" of these Special Provisions, the Plans and as directed by the Engineer**. See Section SP-24 for** additional provisions relating to new lighting and electrical work.

All other removals as shown on the drawings and as directed by the Engineer to accommodate new construction as intended by Contract, for which no specific Bid Item is shown, shall be considered as incidental work and compensation for the removal of this items shall be included in the payment for the various contract items of work.

SP12-04 REMOVE & SALVAGE PLAY EQUIPMENT

All play equipment shall be removed and stored on site for a non-profit organization to re-use. Contractor shall coordinate location where the equipment may be stored on site with the City and the Engineer. Contractor shall protect, remove, salvage and store existing play equipment and all components as shown on the Plans, as specified herein, and as directed by the Engineer. Removal shall include all components of the items for proper re-installation including hardware. Existing foundations shall be disposed of by the Contractor.

Items shall be removed and re-installed or salvaged in a manner to avoid damage. Should any items be deemed damaged by the Engineer, Contractor shall provide a new item at his own expense.

SP12-05 MEASUREMENT AND PAYMENT

No separate payment shall be made for conforming to the provisions of this section, with the exception of the items specified below or provided elsewhere in these Special Provisions.

The contract price paid per each for **"Adjust Area Drain & Install Traffic Rated Grate"**, shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals necessary to adjust existing storm drain area drains to new paver walkway grades and to replace the grates with traffic rated grates including but not limited to furnishing and installing grade rings, mortar, grout, grates, backfill and protecting the existing system shown on the Plans, as specified by these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefor.

The contract price paid per each for **"Adjust Area Light Box"**, shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals necessary to protect and adjust existing light box to new paver walkway grade including but not limited to furnishing and installing grade ring, mortar, grout,

and protecting the existing system shown on the Plans, as specified by these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefor.

The contract lump sum price paid for **"Remove Irrigation & Relocate Quick Connect"**, shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals necessary to locate existing irrigation system, and review with the Engineer plan to cap and remove portions in conflict with new improvements including remove existing irrigations lines and water valve and relocating existing quick connect and valve as shown on the plans, as specified by these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefor.

The contract lump sum price paid for **"Cap Water Line & Remove Fountain Concrete Pad"**, shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals necessary to excavate, remove and dispose of the existing water fountain foundation and base materials including the proper disconnection and capping of water and electrical systems from the water fountain location as shown on the plans, as specified by these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefor.

The contract price paid per each for **"Remove Light Pole/Bollard"**, shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals necessary to excavate, remove and dispose of the existing lighting pole/bollard, fixture, foundation, hardware and base materials including the proper disconnection and removal of electrical systems and protection of existing systems to remain as shown on the plans, as specified by these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefor.

The contract price paid per unit for "**Remove Concrete Bench**"shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals necessary to fully remove and dispose of bench, related components, hardware, foundations, base material and dewatering, as shown on the Plans, specified herein and directed by the Engineer and no additional compensation shall be allowed therefor.

The contract price paid per square foot for "**Remove Paver Walkway", "Remove Concrete Surfacing", "Remove Concrete Wall" and "Remove Rubber Play Surfacing"** shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary to remove and dispose of existing pavers, concrete, steel reinforcement, rubber surfacing and base material including sawcutting, excavating, removing, loading, off-hauling, and disposal of surfacing material, pavers, concrete, base, subgrade, and sub-base materials of all kind as shown on the Plans, specified in these Special Provisions, and as directed by the Engineer; and no additional compensation shall be allowed therefor.

The contract prices paid per linear foot for **"Remove Concrete Curb"** shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary to remove and dispose of existing concrete curb at various heights, base material and adjacent asphalt pavement or other paving as necessary to accommodate form boards, and all excavation and backfill as required to accommodate new improvements as shown on the contract plans, as specified in these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefor. Contract quantities may be reduced or eliminated based on work to be performed by others. No adjustment in the bid item price shall be allowed due to any change in contract quantities.

The contract price paid by the linear foot for **"Remove Fence/Gate"** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals necessary to fully remove, and dispose of the existing 3' chain link fence and gates in the project area including all components such as the fabric, posts, hardware, foundations, base material and dewatering as shown on the Plans, specified herein and directed by the Engineer and no additional compensation shall be allowed therefor.

The contract lump sum price paid for "**Remove & Salvage Play Equipment**" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals necessary to fully remove, salvage and store existing play equipment related components and hardware, and remove foundations, base material and dewatering, as shown on the Plans, specified herein and directed by the Engineer and no additional compensation shall be allowed therefor.

SPECIAL PROVISIONS SECTION SP-13

EARTHWORK
(NO BID ITEM)

Earthwork including excavations, grading, backfill and compaction shall conform to the provisions of Section 3 – "Earthwork," of the Technical Provisions of the Standard Specifications, and shall apply in their entirety except as modified or supplemented herein.

The provisions of Section 6 – "Subgrade Preparation," of the Technical Provisions of the Standard Specifications, shall apply in their entirety, except as modified or supplemented herein on the Plans or directed by the Engineer.

The Contractor shall provide for the public safety and public convenience in accordance with the provisions of Sections 7-1.03, "Public Convenience", and 7-1.04, "Public Safety", of the State Specifications and these Special Provisions.

SP13-01 EXCAVATION

Excavation consists of sawcutting, removing, and disposing of existing pavers, concrete flatwork, walls and curbs, rubber surfacing, base, subgrade and subbase of all kinds, soil, and any other materials encountered to excavate to the required depths to install improvements shown on the plans, including new paver walkways and play area.

All excavated material, base material, and native material shall be disposed of outside the right-of-way as required in Section 6-16 of the General Provisions of the Standard Specifications. All excavated material to be disposed of shall be off-hauled from the site as it is generated. The excavated material will consist of pavers, concrete, steel reinforcement, rubber surfacing base material and native material, and may contain reinforcing fabric, subdrains, and/or other items. The City makes no guarantee that the material will be reusable or recyclable. No additional compensation shall be allowed to the Contractor if the material is deemed not reusable or recyclable. Any testing, if required, by the disposal site shall be arranged and paid for by the Contractor. No stockpiling at the site is permitted.

Unsuitable material encountered below the grading plane shown on the Plans shall be excavated and disposed of per Section 19-1.03B of the State Specifications and at the direction of the Engineer. Sub-excavation shall not begin without prior approval from the Engineer. The cost of removal and disposal of unsuitable material and replacement material shall be paid for at force account as provided in Section 4-1.05 and 9-1.04 of the State Specifications.

All roadway excavation and earthwork necessary to construct the proposed improvements, except as specifically provided for in other sections of these Special Provisions, shall be considered as included in the Contract Prices paid for the various items of work.

SP13-01 PAYMENT

No separate payment shall be made for conforming to the provisions in this section. Full compensation for conforming to all the provisions of this section shall be considered as included in the prices paid for various contract items of work and no additional compensation shall be allowed therefor.

SP13-02 STRUCTURE EXCAVATION

Earthwork shall conform to the provisions of Section 19-3, "Structure Excavation and Backfill," and Section 7-1.02k (6), "Occupational Health of Safety," of the State Specifications and these Special Provisions.

Work shall include, but not be limited to, all operations necessary to excavate, remove, off-haul, backfill (if required), and compact earth material to construct the new light pole locations, play equipment foundations, curbs and fencing as shown on the Plans and as directed by the Engineer. Stockpiling the spoils is not permitted.

Should structure backfill be required, it shall comply with Section 19-3.02c "Structure Backfill" of the State Specifications and shall be compacted to a relative compaction of no less than 90% as determined by the ASTM D-1557 test procedure. Backfill which does not meet the compaction requirement shall be scarified, moisture conditioned, and re-worked until the required relative compaction has been attained.

Measurement and payment for structure excavation and/or structure backfill as provided in these Special Provisions, required to perform the work shown on the Plans and directed by the Engineer shall be considered as included in the Contract Bid Item for the various items of work requiring structure excavation.

There is no separate measurement or payment for structure excavation and/or earthwork.

SPECIAL PROVISIONS SECTION SP-14

DUST CONTROL AND WATERING

(NO BID ITEM)

The provisions of Section 4 – "Dust Control & Watering," of the Technical Provisions of the Standard Specifications, shall apply in their entirety, except as modified or supplemented herein.

SP14-01 PAYMENT

No separate payment shall be made for conforming to the provisions in this section. Full compensation for conforming to all the provisions of this section shall be considered as included in the prices paid for various contract items of work and no additional compensation shall be allowed therefor.

SPECIAL PROVISIONS SECTION SP-15

BASE MATERIALS

(BID ITEM 19)

The provisions of Section 8 – "Aggregate Base" and Section 3 – "Earthwork," of the Technical Provisions of the Standard Specifications, shall apply in their entirety.

Aggregate for the various items of work requiring aggregate base including paver walkways shall be Caltrans Class 2 Aggregate Base as also provided in Section 8 "Aggregate Base" of the Technical Provisions of the Standard Specifications and shall be compacted as shown on the Plans.

Permeable base shall be Caltrans Class 2 Permeable Base as provided in Section 3-12.5 "Pervious Material" of the Technical Provisions of the Standard Specifications and shall be compacted as shown on the Plans.

Contractors attention is directed to the permeable base that is to be installed in the play areas. The permeable material will serve as a base for the Poured in Place (PIP) play surfacing system and will be installed in advance of the play equipment and play surfacing. Contractor shall protect the permeable base while constructing other items. The fill is approximately 6" deep and shall be graded so as to allow for proper drainage and installation of the play surfacing.

SP15-01 PAYMENT

Contract price paid per cubic yard for **"Permeable Base, Class 2**" shall include all labor, materials, and tools required to furnish and place Permeable Base as shown on the Plans, specified herein and directed by the Engineer including subgrade preparation, compaction and protection of the material during construction.

No separate payment shall be made for furnishing aggregate base for the various items of work requiring aggregate base. Payment shall be included in the items of work required the aggregate base.

SPECIAL PROVISIONS SECTION SP-16

HOT MIX ASPHALT (ASPHALT CONCRETE)

(NO BID ITEM)

Items of work do not require new hot mix asphalt construction in this Project.

If required, the provisions of Section 9 – "Asphalt Concrete," of the Technical Provisions of the Standard Specifications, shall apply in their entirety, except as modified or supplemented herein should HMA be required.

SP16-01 ASPHALT CONCRETE PAVEMENT

Asphalt concrete shall be Type A Hot Mix Asphalt (HMA), 1/2-inch maximum size aggregate for finish course, PG64-10 Asphalt. Contractor shall not place the uppermost layer of new asphalt concrete pavement until all underlying conduits and any other underground facility have been installed. Finish Course over all areas to be paved shall be constructed as a single course between 0.17' and 0.25' in depth, conforming to design finish elevations as shown on the Plans.

SP16-02 MEASUREMENT AND PAYMENT

No separate payment shall be made for conforming to the provisions in this section as HMA is not required in this Project.

SPECIAL PROVISIONS SECTION SP-17

CONCRETE CONSTRUCTION

(BID ITEM NO. 20-23)

The provisions of Section 17 – "Concrete Construction" of the Technical Provisions of the Standard Specifications, shall apply in their entirety, except as modified or supplemented herein.

SP17-01 GENERAL

Concrete curbs (various heights and widths) shall be constructed of Portland Cement Concrete of the class and other requirements prescribed in Section 17 of the Technical Provisions of the Standard Specifications and shall conform to the latest applicable Caltrans and Contra Costa County (CCC) Public Works Department Standard Plans and Details unless otherwise specified or modified by Contract Documents.

Contractor is hereby advised that 4-foot high vinyl coated black chain link fence shall be constructed within 12" Concrete Flush Curb as shown on the Plans. Chain link fence shall conform to the provisions provided in Section "Miscellaneous Items" below. Measurement and payment for the 12" Concrete Flush Curb shall include the cost of the 4' chain link fence.
Contractor's attention is directed to the weepholes, including 3" PVC sleeves, wire mesh and Class 2 Permeable Material dissipator to be installed during construction of 6" concrete retaining curb of various heights along the east perimeter of the playground. Weepholes shall be installed as shown on the Plans, provided herein as and as directed by the Engineer. Measurement and payment shall be included in the payment for the 6" concrete retaining curb (various heights) contract pay items.

Unless specifically indicated, ie for concrete base at pavers or light pole and fence foundations, concrete for Contract Items shall be Class 564-C-3250, maximum four (4)-inch slump as specified in Section 17-1.13 Concrete Specified by Compressive Strength of the Technical Provisions of the Standard Specifications.

Concrete work shall not be backfilled within seventy-two (72) hours of placement, unless otherwise directed by the Engineer.

Before placing concrete, Contractor shall verify that forms and site constraints allow construction to the required dimensioning and slopes shown. Contractor shall immediately notify the Engineer if site conditions will not accommodate the design details.

Void spaces along the back of new concrete curbs and similar constructions, such as those created by form work, shall be backfilled to match existing surrounding material. This material is typically topsoil, gravel or base rock. Fill material shall be placed and compacted to the top of the new concrete improvements and sloped at a maximum of 3:1 (33%) to conform to the existing terrain. The fill material shall be compacted to 90% relative compaction.

All new concrete construction shall include installation of a subbase consisting of a minimum six (6)-inch-thick layer of Class 2 aggregate base, conforming to SP-15, compacted to 95% relative compaction unless shown otherwise on Plans or directed otherwise by the Engineer.

At locations shown on the Plans where new curbs are constructed to join with existing concrete facilities, the Contractor shall install eighteen (18) inch long No. 4 rebar dowels. The dowels shall be placed at 12 inches on center in drilled holes at least six (6) inches into the existing concrete.

Although not required for this project, conform paving adjacent to curb and/or gutter shall be as shown on the Plans and shall conform to SP-16 and shall be included in the measurement and payment for the concrete curb construction.

No new curb ramps are required for this Project.

SP17-02 STRUCTURAL CONCRETE

Contractor's attention is directed to the new light pole foundation details on the Plans which shall conform to the provisions of Section 17 "Concrete Construction" of the Technical Provisions of the Standard Specifications, Section 24 of these Special Provisions, and Section 51, "Concrete Structures," Section 52, "Reinforcement," and Section 90, "Concrete," of the State Specifications and these Special Provisions.

Measurement and payment for light pole foundations shall be included in the contract unit price for the various lights described in Section 24 of these Special Provisions. Work shall include, but not be limited to, excavation, removal, off-haul, and compaction of earth material, backfill (if necessary), placement of steel reinforcement and portland cement concrete for the construction of the light pole foundations.

Concrete shall be placed monolithically.

SP17-03 MEASUREMENT AND PAYMENT

The contract prices paid per linear foot for **"12" Concrete Flush Curb with 4' Fence"**, **"6" Concrete Flush Curb"**, **"6" Concrete Retaining Curb, 6" High", and "6" Concrete Retaining Curb, 8" High"** shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals for doing all work involved in constructing concrete curbs including but not limited to, sawcutting; excavation; loading; off-hauling; disposal; forming; dewatering; backfill; steel plates; reinforcement; dowels; aggregate base if required; compaction; grading to drain; weep-hole construction; installation of fencing

within the new curb; concrete; finishing; score-marks and weakened plane joints, and all other work necessary to construct the facilities complete, in place as shown on the plans as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer and no additional compensation shall be allowed therefor.

SPECIAL PROVISIONS SECTION SP-18

PAVERS

(BID ITEM NO. 24)

SP18-01 GENERAL

Preparatory work to install pavers shall conform to all applicable Sections of the Technical Provisions of the Standard Specifications including but not be limited to the following sections:

- Section 3, "Earthwork"
- Section 6, "Subgrade Preparation"
- Section 8, "Aggregate Base"
- Section 17, "Concrete Construction"

Contractor's attention is also directed to sections in these Special Provisions corresponding to the above disciplines.

Contractor's attention is also directed to the Contract Plans which include paver locations and details. Contractor shall furnish and install brick unit pavers to match existing pavers to remain at the Project site.

Ten (10) working days prior to ordering materials, Contractor shall submit samples of sufficient number and size to represent a full range of color, texture, and finish specified for approval by the Engineer. Contractor shall obtain unit pavers from a manufacturer having adequate capacity to meet specified requirements and scope of Work. Contractor shall not change source of supply without permission of Engineer.

Prior to placement of pavers, Contractor shall also construct field mock-ups that are 6 feet by 6 feet minimum, representative of colors, patterns, etc. as shown on drawings or as directed by Engineer. Contractor shall make corrections after review by Engineer until approval is obtained. At contractor's option, samples may be constructed in place and incorporated into the final construction after approval.

Contractor shall deliver ten (10) units of paver as maintenance materials to the City.

Paving units shall be delivered and unloaded at the project site on pallets and secured in such a manner that no damage occurs to the product during shipping, off-loading or handling at the project site.

Material used for pavers shall be free of cracks, seams or other imperfections that impair their appearance, structural integrity or function. Inherent color variations characteristic of the quarry from which it is obtained will be acceptable.

Pavers shall be adhered by mortar to underlying reinforced concrete, as shown on the Contract Plans. Mortar shall be commercial grade, conforming to Section 51-1.02C, "Bonding Materials," of the State Specifications. Reinforced concrete and aggregate base shall be as shown on the Plans and specified elsewhere in these Special Provisions.

Pavers shall be placed to a tolerance of no more than 1/8-inch over a 10-foot horizontal run. Edge-to-edge alignments between two units that form a continuous plane shall be flush with zero tolerance.

Pavers shall not be cut to a dimension of less than 3" in any direction. Contractor shall discuss start-point layout with Engineer in the field and obtain approval prior to beginning work. Any unusual conditions shall also be reviewed with the Engineer prior to installation.

As shown on the Plans, pavers shall have a 6" concrete base over 6" aggregate sub-base. Concrete used as a base for pavers shall conform to the Technical Provisions of the Standard Specifications and shall be Class 590-A-3250, maximum three (3)-inch slump as provided in these Special Provisions. Adjacent concrete curbs shall be as provided in Section 17 above. Contractor shall install waterproof expansion joint material between paver walkway and adjacent concrete curb. Compensation for the concrete and aggregate base under the pavers shall be considered as included in the contract unit price for the construction of the brick paver walkways, and compensation for the adjacent curbs shall be considered as included in the contract unit price paid for the concrete curb contract pay items as described in Section 17 above.

At locations where pavers abut existing structures (buildings, building foundations, planters), Contractor shall provide joint material consisting of preformed cork strips complying with ASTM D1752 for Type II or preformed sponge rubber strips complying with ASTM D1752 for Type I. Installation shall be per manufacturer's recommendations.

Sand shall be spread over pavers, swept into joints and vibrated into place for a tight finish, shall be polymeric sand and shall be soaked with water to cause the polymers to harden and secure the sand in place.

New pavers shall be protected against soiling and marking by oils and asphalt. Soiled pavers shall be removed, cleaned, and replaced. Pavers shall not be cleaned while in place and on site. Cleaning by pressure washing shall require new sand to be swept into paver joints and re-vibrated to lock pavers into place.

QUALITY ASSURANCE

A. The production of brick unit paving stones shall be by a manufacturer that is a member of the ICPI and SF Concrete Technology, Inc. The manufacturer must possess a minimum of (5) five years' experience in the fabrication of concrete paving stones per this specification.

B. Installation of the pavers shall be by a prequalified specialty contractor who has been certified by the ICPI. The specialty contractor shall possess a minimum of (5) five years' experience in installing pavers industry and must have satisfactorily completed projects of similar size, scope and cost.

C. Submittals and mock-ups shall be per Section 18-01 above.

PRODUCT INFORMATION

A. Manufacturer: A single source manufacturer in accordance with ICPI standards and guidelines shall produce all paving bricks/stones.

B. Method of Manufacturing: paving stones/bricks to be single-layer production to insure dimensional uniformity, optimum color blending and product strength and durability. Colors are to be integral throughout unit paver or face-mixed concurrent to project conditions. Multi-layer paver machines and/or block production machines are not acceptable and shall be cause for rejection.

C. Efflorescence: Must be minimized with the utilization of a water purification system. The water purification system shall have a minimum water capacity of 160 gallons per minute during paving stone batching cycle. Minimum capacity of (3) three admixture controls to reduce efflorescence and improve quality and texture.

MATERIALS

A. Basalite (or approved equal) as listed above, as shown on the Plans and as directed by the Engineer.

Note: Unit pavers from sources other than the specified manufacture must meet or exceed the specified manufacturer's color loading which is color content certified by an independent testing facility. Color pigments shall conform to ASTM C-979. Paving stone substitute samples, not manufactured by the specified source supplier must be approved in writing by the Engineer prior to the start of construction or the paving stone substitutions will not be accepted.

B. Paver length and width shall not vary by more than + 1/16" (1.6mm) in unit dimension. Paver height shall not vary by more than (+ 1/8" (3.2mm) from specified standard dimensions.

C. Pavers to have an average minimum compressive strength of 8,000 psi (55 Mpa) with no paver testing lower than 7,200 psi (Mpa) in accordance with testing procedures ASTM C-936, Standard Specification for Interlocking Concrete Paving Units.

D. Average absorption of 5% with no units greater than 7% when tested in accordance with ASTM C-140 and resistance to 50 freeze-thaw cycles in accordance with ASTM C-67.

E. Materials used to manufacture concrete paving stones shall conform to the following:
   * Cement: ASTM C-150 (Portland Cement)
   * Aggregate: ASTM C-33 (screened, washed sand and rock, with no expanded shale or lightweight aggregates.

INSTALLATION OF BRICK PAVING STONES

Pavers shall be clean and free of foreign materials before installation.

Installation shall start from a corner or straight edge, unless detailed otherwise and proceed forward over the mortar and as approved by the Engineer.

Paving work shall maintain proper elevations and slope design. Unit paver surface shall be even, true to line and grade and shall properly coincide and align with adjacent work to elevations. All perimeter edges must be retained to secure the pavers.

Pavers should be installed tight and level on the mortar. String lines should be used to hold pattern directions true. No unit paver joint shall be greater than 1/4" inch. No perimeter edge joint should be greater than 1/4" maximum

Cutting of unit pavers shall be done with a double-bladed stonecutter or diamond blade masonry saw.

The completed paving stone installation should be swept and washed down to provide a clean, finished, workman-like surface.

Pavers should not be installed on frozen or saturated sand bedding layer.

SP18-02 MEASUREMENT AND PAYMENT

The Contract Prices paid per square foot for **"Brick Paver Walkway"** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all work involved in constructing paver surfacing, including but not be limited to: providing samples and additional materials, sawcutting conform joints where needed; installing compacted aggregate base, forms, reinforcement steel; placing and finishing concrete base, sand, mortar, and supports; brick paver surfaces, including sanded joints, and waterproof expansion joint material; installing, maintaining, and removing steel plates and temporary AC conforms to adjacent grade; and all other work necessary to construct all pavers complete in place as shown on the Plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer; and no additional compensation shall be allowed therefor.

SPECIAL PROVISIONS SECTION SP-19

STORM DRAINS

(NO BID ITEM)

The provisions of Section 18 – "Storm Drains" of the Technical Provisions of the Standard Specifications, shall apply in their entirety except as modified or supplemented herein.

SP19-01 GENERAL

Storm drain work shall conform to the details shown on the contract plans and include the adjustment of existing area drains, replacing the grates with traffic rated grates, and installing weep holes in 6" concrete retaining curbs as described above, as shown on the Plans and as directed by the Engineer.

Class 2 Permeable Material to be installed as base for the PIP Play Surfacing shall be per Caltrans specifications, as provided herein, and as approved by the Engineer.

Concrete for storm drain related work shall conform to the requirements of SP-17 of these Special Provisions.

SP19-02 MEASUREMENT AND PAYMENT

Measurement and payment for "Adjust Area Drain & Install Traffic Rated Grate" shall be as provided in Section 12 of these Special Provisions.

No separate payment shall be made for weephole construction and shall be included in the price paid by the linear foot for "6" Concrete Retaining Curb (Various Heights)" as described in Section 17 of these Special Provisions..

Measurement and payment for "Permeable Base, Class 2" shall be as provided in Section 15 of these Special Provisions.

SPECIAL PROVISIONS SECTION SP-20

LANDSCAPE IRRIGATION

(NO BID ITEM)

SP21-01 DESCRIPTION

Contractor shall disconnect and remove and adjust existing irrigation as described in Section 12 above. Work shall conform to Section 19 "Landscape Irrigation" of the Technical Provisions of the Standard Specifications and as directed by the Engineer.

Removal and adjustment of irrigation shall be measured and paid for as provided in Section 12.

SPECIAL PROVISIONS SECTION SP-21

LANDSCAPING

(BID ITEM NO. 25)

SP20-01 GENERAL

The provisions of Section 20 'Landscaping' of the Technical Provisions of the Standard Specifications shall apply in their entirety except as modified or supplemented herein. Adhere to the requirements of the Section 4 of the General Provisions of the Standard Specifications.

This work shall consist of installing 2" mulch layer as shown on the Plans and directed by the Engineer. Mulch shall be Black Mini Bark from Contra Costa Topsoil (or approved equal). Contractor shall submit a sample of the mulch for approval by the Engineer prior to ordering. The contract price paid per cubic yard for "Mulch" shall include providing labor, tools and materials including but not limited to earthwork, subgrade preparation, furnishing and installing mulch including samples as shown on the Plans, specified herein and directed by the Engineer.

Protection of existing landscaping, trees and roots and removal of existing trees shall be as shown on the Plans and described in Section 11 of these Special Provisions.

SPECIAL PROVISIONS SECTION SP-22

PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS

(NO BID ITEM)

The provisions of Section 22 "Protection and Restoration of Existing Improvements" of the Technical Provisions of the Standard Specifications, shall apply in their entirety as further provided in Section 12 above.

SPECIAL PROVISIONS SECTION SP-23

MISCELLANEOUS ITEMS

(BID ITEM 26-33)

SP 23-01 GENERAL

The provisions of Section 23 – Other Technical Provisions of the Technical Provisions of the Standard Specifications, shall apply in their entirety.

Contractor's attention is directed to the details and specifications provided on the Contract Plans and in the Appendix to these Special Provisions for the new fencing, gates, benches, play equipment and play surfacing to be installed.

The sequencing of construction shall be as provided herein and as follows excavation, earthwork, site prep, concrete and paver construction, installation of drainage, underground lighting components, Class 2 Permeable Material, benches, lighting, play equipment, fence posts and then finally PIP basemat and top layer. Contractor shall protect newly installed items during the installation of PIP surfacing.

SP 23-02 Black Vinyl Coated Chain Link Fencing and Gates

General

The items of work requiring Chain Link Fence and Gates include "4' Vinyl Coated Black Chain Link Fence", "6' Vinyl Coated Black Chain Link Fence", "12' Vehicle Gate" and "5' Pedestrian Gate". Chain Link Fencing will also be installed in new 12" Concrete Flush Curb as provided for in Section "Concrete Construction" above.

All Chain Link Fencing and Gates shall conform to the following specifications and details shown on the Project Plans.

Contractor shall submit the following for approval by the Engineer prior to the start of construction:

1. Shop drawings of the layout of new fences with dimensions, details, and finishes of components, accessories, and post foundations, if required.
2. Contractor shall submit product data including manufacturer's catalog cuts indicating material compliance and specified options.
3. Samples: Samples of materials (e.g., fabric, wires, color, and accessories).

All new fence components shall be black.

Products
Following are product requirements for items of work including the installation of new fencing, gates and fencing fabric.

1. CHAIN LINK FENCE FABRIC

A. Black vinyl coated galvanized wire: Galvanized fabric shall be galvanized after weaving with a minimum of 1.2 ounces of zinc per square foot of surface area and conform to ASTM A 392, Class 1.

B. Size: Fabric shall be 9-gage wire woven in a 1-inch diamond mesh.

C. Selvage of fabric knuckled at top and knuckled at bottom.

2. STEEL FENCE FRAMING (painted black by manufacture for new components and on site by Contractor for existing components)

A. Steel pipe - Type I: ASTM F 1083, standard weight schedule 40; minimum yield strength of 25,000 psi; sizes as indicated. Hot-dipped galvanized with minimum average 1.8 oz/ft² of coated surface area.

B. End and Corner Post: see project plans

Line (intermediate): see project plans

Rail and Braces: see project plans

3. ACCESSORIES (painted black by manufacture)

A. Chain link fence accessories: [ASTM F 626] Provide items required to complete fence system. Galvanize each ferrous metal item and finish to match framing.

B. Post caps: Formed steel, cast malleable iron, or aluminum alloy weathertight closure cap for tubular posts. Provide one cap for each post. Provide tops to permit passage of top rail.

C. Top rail and brace rail ends: Pressed steel per ASTM F626, for connection of rail and brace to terminal posts.

D. Top rail sleeves: 7" expansion sleeve with spring, allowing for expansion and contraction of top rail.

E. Wire ties: 9 gauge [0.148"] galvanized steel wire for attachment of fabric to line posts. Double wrap 13 gauge [0.092"] for rails and braces. Hog ring ties of 12-1/2 gauge [0.0985"] for attachment of fabric to tension wire.

F. Brace and tension (stretcher bar) bands: Pressed steel. At square post provide tension bar clips.

G. Tension (stretcher) bars: Install per manufacturer's recommendations.

H. Tension wire: Galvanized coated steel wire, 7 gauge, [0.177"] diameter wire with tensile strength of 75,000 psi.

I. Truss rods & tightener: Steel rods with minimum diameter of 5/16". Capable of withstanding a tension of minimum 2,000 lbs.

J. Nuts and bolts are galvanized.

4. SETTING MATERIALS

A. Concrete: Minimum 28-day compressive strength of 3,000 psi.

Execution

Contractor shall conform to the following provisions during the installation of new fencing, gates or fencing fabric and conform to the details provided on the Project Plans.

1. EXAMINATION

A. Verify areas to receive fencing are completed to final grades and elevations.

B. Ensure property lines and legal boundaries of work are clearly established.

C. Arrange for and verify that underground utilities have been marked.

2. CHAIN LINK FENCE FRAMING INSTALLATION

A. Install chain link fence in accordance with ASTM F567, "Standard Practice for Installation of Chain-Link Fence", and manufacturer's instructions.

B. Locate terminal post at each fence termination and change in horizontal or vertical direction of 30° or more.

C. Space line posts uniformly as noted on plans.

D. Concrete set terminal posts: Drill holes in firm, undisturbed or compacted soil. Holes shall have diameter 4 times greater than outside dimension of post, minimum 12" dia. Excavate deeper as required for adequate support in soft and loose soils, and for posts with heavy lateral loads. Spoils not used to fill holes from the removal of existing fence shall be removed from site. Place concrete around posts in a continuous pour. Trowel finish around post. Slope to direct water away from posts.

E. Check each post for vertical and top alignment, and maintain in position during placement and finishing operations.

F. Bracing: Install horizontal pipe brace at mid-height on each side of terminal posts. Firmly attach with fittings. Install diagonal truss rods at these points. Adjust truss rod, ensuring posts remain plumb.

G. Tension wire: Provide tension wire at bottom of fabric. Install tension wire before stretching fabric and attach to each post with ties. Secure tension wire to fabric with 12-1/2 gauge [0.0985"] hog rings 24" on center.

H. Top rail: Install lengths, 21'. Connect joints with sleeves for rigid connections for expansion/contraction.

3. CHAIN LINK FABRIC INSTALLATION

A. Fabric: Install fabric on field side of posts except where indicated on plans and attach so that fabric remains in tension after pulling force is released. Leave no space between finish grade and bottom selvage. Attach fabric with wire ties to line posts at 15" on center and to rails, braces, and tension wire at 24" on center.

B. Tension (stretcher) bars: Pull fabric taut; fasten to posts per manufacturer's recommendations.

4. ACCESSORIES

A. Tie wires: Bend ends of wire to minimize hazard to persons and clothing.

B. Fasteners: Install nuts on side of fence opposite fabric side for added security.

5. CLEANING

A. Clean up debris and unused material, and remove from the site.

SP 23-03 Black Metal Bench

PART 1 – General

Contractor's attention is directed to the Plans which show locations of new Benches to be installed and the Appendix for additional Bench specifications.

Contractor shall provide furnishing submittals including product data and color chips prior to the start of construction for the Engineer to review and approve.

Contractor shall submit evidence of successful installation history with comparable products.

Coordinate with manufacturer on logo placement prior to order. Confirm logo placement with City's Representative.

Install site furnishings level, plumb, true, and securely anchored and/or positioned at locations indicated on Drawings

Contractor shall deliver products to the site in manufacturer's original, unopened containers and packaging. Upon delivery, examine packages immediately to ensure al products are complete and undamaged. Contractor shall store products in a protected, dry area in manufacturer's unopened containers and packaging. Contractor shall protect product's finish from damage during handling and installation.

Contractor shall coordinate installation with site work and other appropriate section of the specification to maintain proper provisions of the work specified. All site furnishings shall be laid out in the field and approved prior to installation.

PART 2 – PRODUCT, FABRICATION, AND INSTALLATION

Black Metal Bench

a. Manufacturer: Victor Stanley, Inc. (or approved equal)
b. Type: RB-28 from Steelsites RB Series, 6 feet wide
c. Color: Black
d. Contact: 310 855 8300, sales@victorstanley.com, http://victorstanley.com

Contractor's attention is directed to the Victor Stanley Bench specifications provided in the Appendix. Contractor shall furnish 6-foot wide black metal bench from Victor Stanley, Type RB-

28 from the Steelsites RB Series, or approved equal as shown on the Plans and as directed by the Engineer.

Bench Materials shall be steel slats formed from ¼" x 1-1/2" solid steel bars; steel slats are welded to cross members of 1-5/16" tubular steel; 3/8"x1" solid steel support bars; ½"x2" solid steel end units. Benches shall be 6 feet wide, with armrests, matching full center legs and black.

All fabricated metal components are steel shotblasted, etched, phosphatized, preheated, and electrostatically powder-coated with TGIC polyester powder coatings. Products are fully cleaned and pretreated, preheated and coated while hot to fill crevices and build coating film. Coated parts are fully cured to coating manufacturer's specifications. The thickness of the resulting finish coat averages 8-10 mils.

Installation shall be per manufacture's recommendations, specification, standard details and as approved by the Engineer. Clearance for ½" anchor bolts, and mounting is not recommended to locate anchor bolts until bench is in place. The bench must be permanently affixed to the ground.

SP 23-04 Poured-In-Place Playground Surfacing System

PART 1 – GENERAL

1.01 SUMMARY

Contractor shall install Poured-in-Place (PIP) Playground Surfacing System, Super-7 (with aromatic urethane for the top surface) by Surface America (or approved equal) and provide a 10-year warranty as shown on the Plans, Specified herein and as directed by the Engineer.

Contractor's attention is directed to the Appendix for the proposed PIP design and colors. Contractor's attention is directed to play equipment and PIP design integration. Contractor shall layout design in field for approval by the Engineer prior to ordering materials. Contractor shall submit samples of surfacing with specified colors for approval by the Engineer prior to ordering materials.

1.02 REFERENCES

A. American Society for Testing and Materials (ASTM):

1. ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers-Tension.

2. ASTM D624 Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.

3. ASTM D2047 Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as Measured by the James Machine.

4. ASTM D2859 Standard Test Method for Flammability of Finished Textile Floor Covering Materials.

5. ASTM E303 Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester.

6. ASTM F1292 Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment.

7. ASTM F1951 Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment.

1.03 SYSTEM DESCRIPTION

A. Performance Requirements: Provide a 2-layer rubber-urethane playground surfacing system which has been designed, manufactured and installed to meet the following criteria:

1. Shock Attenuation (ASTM F1292):

a. Gmax: Less than 200.

b. Head Injury Criteria: Less than 1000.

2. Flammability (ASTM D2859): Pass.

3. Tensile Strength (ASTM D412): 60 psi (413 kPa).

4. Tear Resistance (ASTM D624): 140%.

5. Water Permeability: 0.4 gal/yd2/second.

6. Accessibility: Comply with requirements of ASTM F1951.

1.04 SUBMITTALS

A. General: Submit listed submittals

B. Product Data: Submit manufacturer’s product data and installation instructions.

C. Verification Samples: Submit manufacturer’s standard verification samples of 9" x 9" (229 x 229 mm) minimum.

D. Quality Assurance/Control Submittals: Submit the following:

1. Certificate of qualifications of the playground surfacing installer.

E. Closeout Submittals: Submit the following:

1. Warranty documents specified herein.

1.05 QUALITY ASSURANCE

A. Qualifications: Utilize an installer approved and trained by the manufacturer of the playground surfacing system, having experience with other projects of the scope and scale of the work described in this section.

B. Certifications: Certification by manufacturer that installer is an approved applicator of the playground surfacing system.

C. International Play Equipment Manufacturers Association (IPEMA) certified.

1.06 DELIVERY, STORAGE & HANDLING

A. General: Comply with various provisions herein regarding working hours, staging and sequencing.

B. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.

C. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at a minimum temperature of 40 degrees F (4 degrees C) and a maximum temperature of 90 degrees F (32 degrees C).

1.07 PROJECT/SITE CONDITIONS

A. Environmental Requirements: Install surfacing system when minimum ambient temperature is 40 degrees F (1 degree C) and maximum ambient temperature is 90 degrees F (32 degrees C). Do not install in steady or heavy rain.

1.08 WARRANTY

A. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under contract documents.

B. Warranty Period: 10 years from date of completion of work.

PART 2 – PRODUCTS

2.01 POURED-IN-PLACE PLAYGROUND SURFACING SYSTEM

A. Manufacturer: Surface America (or Approved Equal)

1. Contact: PO Box 157, Williamsville, NY 14231; Telephone: (800) 999-0555, (716) 632-8413; Fax: (716) 632-8324; E-mail: info@surfaceamerica.com; website: http://www.surfaceamerica.com.

B. Proprietary Products/Systems. Poured-in-place playground surfacing system, including the following:

1. PlayBound Poured-In-Place Primer:

a. Material: Urethane.

2. PlayBound Poured-in-Place Basemat:

a. Material: Blend of 100% recycled SBR (styrene butadiene rubber) and urethane.

b. Thickness (basemat): 2” at the 2-5 Age Group Play Area

4" at the 5-10 Age Group Play Area

(As shown on the Plans)

c. Formulation Components: Blend of strand and granular material.

3. PlayBound Poured-In-Place Top Surface:

a. Material: Blend of Virgin EPDM (ethylene propylene diene monomer) rubber and aliphatic urethane binder.

b. Thickness: Nominal 1/2"

c. Color: See Appendix for PIP design and colors

d. Dry Static Coefficient of Friction (ASTM D2047): 1.0.

e. Wet Static Coefficient of Friction (ASTM D2047): 0.9.

f. Dry Skid Resistance (ASTM E303): 89.

g. Wet Skid Resistance (ASTM E303): 57.

2.02 PRODUCT SUBSTITUTIONS

A. Substitutions: No substitutions permitted.

2.03 MIXES

A. Required mix proportions by weight:

1. Basemat: 16+% urethane (as ratio: 14% urethane divided by 86% rubber). 14% urethane, 86% rubber (based on entire rubber & urethane mix).

2. Top Surface: 22% urethane (ratio: 18% urethane divided by 82% rubber). 18% urethane, 82% rubber (based on entire rubber & urethane mix).

PART 3 – EXECUTION

3.01 MANUFACTURER'S INSTRUCTIONS

A. Comply with the instructions and recommendations of the playground surfacing manufacturer.

Specifier Note: Specify actions to physically determine that conditions are acceptable to receive primary products of the section.

3.02 EXAMINATION

A. Substrate preparation must be in accordance with surfacing manufacturer's specification. New asphalt must be fully cured – up to 30 days. New concrete must be fully cured – up to 7 days.

B. Proper drainage is critical to the longevity of poured-in-place surfacing system. Inadequate drainage will cause premature breakdown of the poured system in affected areas; and void the warranty. Contractor shall review the grading and drainage improvements with the Engineer prior to installation of PIP basemat and top layer.

3.03 PREPARATION

A. Surface Preparation: Using a brush or short nap roller, apply primer to the substrate perimeter and any adjacent vertical barriers such as playground equipment support legs, curbs or slabs that will contact the surfacing system at the rate of 300 ft2/gal (7.5 m2/L).

3.04 INSTALLATION

A. Do not proceed with playground surfacing installation until all applicable site work, including substrate preparation, concrete, base course, drainage, fence posts, lighting, playground equipment, and bench installation and other relevant work, has been completed as directed by the Engineer.

B. Basemat Installation:

1. Contractor shall proper compaction and thickness of the newly installed base course, Class 2 Permeable Material, prior to the installation of the basemat.

2. Using screeds and hand trowels, install the basemat at a consistent density of 29 pounds, 1 ounce per cubic foot (466 kg/m3) to the specified thickness.

3. Allow basemat to cure for sufficient time so that indentations are not left in the basemat from applicator foot traffic or equipment.

4. Do not allow foot traffic or use of the basemat surface until it is sufficiently cured.

C. Primer Application: Using a brush or short nap roller, apply primer to the basemat perimeter and any adjacent vertical barriers such as fencing foundations, playground equipment, concrete curbs, lighting foundations, bench foundation and all other components that will contact the surfacing system at the rate of 300 ft2/gal (7.5 m2/L).

D. Top Surface Installation:

1. Contractor's attention is directed to the Appendix for the PIP "river and fish" design and colors.

2. Using a hand trowel, install top surface at a consistent density of 58 pounds, 9 ounces per cubic foot (938 kg/m3) to a nominal thickness of 1/2" (12.7 mm).

3. Allow top surface to cure for a minimum of 48 hours.

4. At the end of the minimum curing period, verify that the top surface is sufficiently dry and firm to allow foot traffic and use without damage to the surface.

5. Do not allow foot traffic or use of the surface until it is sufficiently cured.

3.05 PROTECTION

A. Protect the installed playground surface from damage resulting from subsequent construction activity on the site.

SP 22-05 Playground Equipment

PART 1 - GENERAL

A. SUMMARY

1. Contractor's attention is directed to the play equipment shown on the Project Plans with corresponding layout sheets, product data sheets and installation specifications included in the Appendix to these Special Provisions.

2. Contractor shall furnish and install Landscape Structures Play Equipment (or approved equal) as shown on the Plans, provided in these Special Provisions and includes the following components with related hardware, foundations and in the color scheme provided.

Age 2-5 Equipment

a. Fire Station + Market Cafe
b. Chimes Panel
c. Rock-n-Ring Panel
d. Xylofun Panel
e. Omnispin Spinner

f. Chimes Panel
g. Digirider Butterfly
h. Welcome Sign

Age 5-12 Equipment
i. Clatterbridge
j. Pod Climbers
k. Wood Wiggle Ladder
l. Log Steppers
m. Discovery Tree Climb
n. Log Stack Climber
o. Wood Plank Ladder
p. Square Deck
q. Triangular Tenderdeck
r. Kick Plates
s. Tree Stump Transfer Module
t. Recycled Lumber Panel
u. Rain Sound Panel
v. Periscope Panel
w. Digifuse Panel
x. Geoplex Tower with Cables
y. Chinning Bar
z. Talk Tube Tubing Kit
aa. E-Pod System
bb. We-Saw
cc. Curva Spinner
dd. Recycled Tree House Roof
ee. Kundu Drum
ff. Kettle Drum
gg. Tongue Drum
hh. Spyro-Slide
ii. Double Swoosh Slide
jj. Arch Tire Swing
kk. Crawl Tunnel

3. Should the Bidder decide to propose Play Equipment from an alternative manufacturer, Bidder must submit the alternative Play Equipment at least 10 days prior to the bid opening date stated above. The City will review the alternative Play Equipment and if acceptable will issue an addendum to all bidders notifying them of the alternative Play Equipment option.

4. The provisions of this section includes the specifications for furnishing and installing play equipment with miscellaneous hardware, foundations and assembly accessories required for installation.

PART 2 – AGE 2-5 PLAY EQUIPMENT

A. Age 2-5 Play Equipment - GENERAL

1. Material: All materials shall be structurally sound and suitable for safe play. Durability shall be ensured on all steel parts by the use of time-tested coatings such as zinc plating, galvanizing, ProShield® finish, TenderTuff™ coating, etc. Colors shall be specified.

2. Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless-steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications). All primary fasteners shall include a locking patch type material that will meet the minimum torque requirements of IFI-125. Manufacturer to provide special tools for pinned tamperproof fasteners.

3. TenderTuff Coating: Metal components to be TenderTuffcoated shall be thoroughly cleaned in a hot phospatising wash system, then primed with a water-based thermosetting solution. Primed parts shall be preheated prior to dipping in UV stabilized, liquid polyvinyl chloride (PVC), then salt cured at approximately 400 degrees. The finished coating shall be approximately .080" thick at an

85 durometer with a minimum tensile strength of 1700 psi and a minimum tear strength of 250 lbs/inch. Standard colors are available, all with a matte finish.

4. ProShield Finish: All metal components with ProShield finish shall be thoroughly cleaned and pretreated through a multi-stage wash system. Parts are then thoroughly dried, preheated and processed through a set of powder spray guns where a minimum .002" of epoxy primer is applied. A minimum .004" of architectural-grade Super Durable polyester TGIC powder is applied. The average ProShield film thickness is .006". ProShield is formulated and tested per the following ASTM standards. Each color must meet or exceed the ratings listed below:

   - Hardness (D3363) rating 2H
   - Flexibility (D522) pass 1/8" mandrel
   - Impact (D2794) rating minimum 80 inch-pounds
   - Salt Fog Resistance (B117 and D1654) 4,000 hours and rating 6 or greater
   - UV Exposure (G154, 340 bulb) 3,000 hours, rating delta E of 2, and 90 percent gloss retention*
   - Adhesion (D3359, Method B) rating 5B

The Paint Line shall employ a “checkered” adhesion test daily.

Standard colors are available.

* Certain colors may exceed delta E of 2. Contact Landscape Structures (or manufacturer) for exceptions.

5. Decks: All decks shall be of modular design and have 5/16" diameter holes on the standing surface. There shall be a minimum of (4) slots in each face to accommodate face mounting of components. Decks shall be manufactured from a single piece of low carbon 12 GA (.105") sheet steel conforming to ASTM specification A-1011. The sheet shall be perforated with a return flange on the perimeter to provide the reinforcement necessary to ensure structural integrity. There shall be no unsupported area larger than 3.5 square feet. The unit shall then be TenderTuff-coated brown or gray only. Decks shall be designed so that all sides are flush with the outside edge of the supporting posts. Not applicable for Evos or Weevos.

6. Concrete Products: Two processes are used to produce concrete products. (See specific product installation/ specification documents.)

1. Glass Fiber Reinforced Concrete (GFRC) Products: Glass fiber is alkali-resistant (AR) with high tensile properties formulated for concrete. GFRC nominal product thickness is 1" with a unit weight of about 12

lbs per square foot and an average ultimate flexural strength of 2,100 psi per ASTM C947. Finish: Exterior latex paint suited for concrete applications.

2. Precast Concrete Products: Wet-cast solid, molded concrete with an average compressive strength of 5,000 psi per ASTM C39. Unit weight range of about 115-145 lbs per cubic foot. Finish: Exterior latex paint suited for concrete applications.

7. Rotationally Molded Polyethylene Parts: These parts shall be molded using prime natural linear low-density polyethylene having a tensile strength of 2400 psi per ASTM D638. Rotational molding resin is compounded with color and UV-stabilizing additives with a nominal wall thickness typically 1/4" with some variation depending upon product type. Standard colors are available.

8. Recycled Permalene Parts: These parts shall be manufactured from 3/4" high-density polyethylene that has been specially formulated for optimum UV stability and color retention. Products shall meet or exceed density of .960 G/cc per ASTM D1505, tensile strength of 2400 PSI per ASTM D638. Available in a three-layer product with (2) .100" thick colored exterior layers over a .550" thick recycled Black interior core. Standard colors are available.

9. Footings: Unless otherwise specified, the bury on all footings shall be 34" below Finished Grade (FG) on all in-ground play events/posts. Other types of anchoring are available upon request.

10. Hardware Packages: All shipments shall include individual component-specific hardware packages. Each hardware package shall be labeled with the part number, description, a component diagram showing the appropriate component, package weight, a bar code linking the hardware package to the job number, assembler's name, date and time the package was assembled, work center number and work order number.

11. Installation Documentation: All shipments shall include a notebook or packet of order-specific, stepby-step instructions for assembly of each component, including equipment assembly diagrams, estimated hours for assembly, footing dimensions, concrete quantity for direct bury components, fall height information, area required information and detailed material specifications.

12. Packing List: All shipments shall include a packing list for each skid/container, specifying the part numbers and quantities on each skid or within each container.

13. Packaging: All components shall be individually wrapped or bulk wrapped and placed on skids (pallets) then shrinkwrapped to provide protection during shipment. Small parts and hardware packages will be placed in crates for shipment. Other components shall be individually wrapped or bulk wrapped to provide protection during shipment.

14. Maintenance Kit: An order-specific maintenance kit shall be provided for each structure order. The kit will include a notebook or packet with a second set of installation documents and order-specific maintenance documentation with recommendations on how often to inspect, what to look for and what to do to keep the equipment in like-new condition. The kit also includes touch-up primer,

appropriate color touch-up paint, sandpaper, appropriate color touch-up PVC and additional installation tools for the tamper proof fasteners.

B. **Age 2-5 Play Equipment - MATERIALS**

1. Fire Station + Market Cafe DB

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Fence Post: 7GA. (.179")(4,54 mm) thick HRPO steel. Finish: ProShield®, white in color.

Steering Wheel: 12" (305 mm) diameter cast A356 aluminum alloy. Finish: TenderTuff, color SPECIFIED.

Fire Hydrant: Rotationally molded from U.V. stablilized linear low-density polyethylene, Red in color.

Exit Footer: Weldment comprised of 2.375" (60,33 mm) O.D. RS-20 (.095" - .105") (2,41 mm-2,66 mm) galvanized steel tubing and 1/4" (6,35 mm) HRPO steel sheet. Finish: ProShield, color specified.

Slide: Rotationally molded from U.V. stabilized linear low-density polyethylene, color specified.

Permalene Panels: Recycled Permalene, color specified.

Connecting Tunnel: Comprised of 12GA (.105") thick HRPL low carbon steel. Finish: TenderRuff™, Gray in color.

Bell: Fabricated from 10 GA. (.135") (3,42 mm) HRPO low carbon steel. Finish: ProShield, color specified.

GripX Panel: Permalene®, black in color.

Wheel Bracket: Weldment comprised of formed 3/16" (4,75 mm) plate and 5/8" (15,88 mm) O.D. stainelss steel shaft. Finish: ProShield, Black in color.

DigiFuse Panel: Made from 1/8" (3,17 mm) thick aluminum sheet. Dye sublimation printed digital artwork is fused onto the powdercoated substrate.

Fence: Recycled Permalene, white in color.

Fence Rail: Weldment comprised of 7GA. (.179”)(4,54 mm) thick HRPO steel sheet and 1.029” (26,13 mm) O.D. RS20 (.070”-.080”)(1,77 mm-2,03 mm) galvanized steel tubing. Finish: ProShield®, color specified.

Frame: 7GA. (.179”)(4,54 mm) thick HRPO steel. Finish: ProShield®, color specified.

Slide Hood Side: Recycled Permalene®, color specified.

DB Leg: Weldment comprised of 1.660” (42,16 mm) O.D. RS40 (.108”-.132”)(2,75 mm-3,35 mm) galvanized steel tubing, and 3/8” (9,52 mm) stainless steel weld slug. Finish: ProShield®, color specified.

Stair Base: 7GA. (.179”)(4,54 mm) thick HRPO steel. Finish: ProShield®, dark gray in color.

Trim: Recycled Permalene, white in color.

Window Panel: 3/16" (4,74 mm) Thick clear polycarbonate.

2. Chimes Panel

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Chimes: Fabricated from 6063-T832 aluminum. Finish: Anodized per Mil - A - 8625 type 2, class 1.

Permalene Panel: Panel measures 39 1/2" (1003,3 mm) wide x 30" (762 mm) high, color specified.

3. Rock-n-Ring Panel

Screen Plate: Fabricated from 12 GA. (.105") (2,66 mm) HRPO flat steel. Finish: Black in color.

Permalene Panel: Two color panel measures 39 1/2" (1003,3 mm) wide x 30" (762 mm) high, color specified.

Bell Striker: Recycled Permalene, color specified.

Bell: Fabricated from 10 GA. (.135") (3,42 mm) HRPO low carbon steel. Finish: ProShield, color specified.

Bongo: Rotationally molded from U.V. stabilized linear low-density polyethylene, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

4. Xylofun Panel

Xylofun Panel Assy.: (Panels) Two color Permalene, color specified. 1/8" (3,17 mm) Thick steel, .125" (3,17 mm) O.D. aluminum tube and 1/2" (12,7 mm) threaded steel rod. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

5. LW Post 1"Panel DB

Post: See PlayShaper (PS) General Specifications.

6. LW Post 10"Panel DB

Post: See PlayShaper (PS) General Specifications.

7. OmniSpin Spinner Surface Mount

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

OmniSpin Spinner: Rotationally molded from U.V. stabilized linear low-density polyethylene, color specified.

OmniSpin Spinner Frame Assembly: (Frame) Weldment comprised of 2.375" (60,33 mm)O.D. RS20 (.095"-.105") (2,41 mm-2,66 mm) wall galvanized steel tubing, 2.875" (73,03 mm) O.D. RS40 (.160"-.170") (4,06 mm-4,32 mm) wall galvanized steel tubing, 1/4" (6,35 mm) HR flat steel and 3 1/2" (88,9 mm) O.D. CF

steel bar. (Base) Weldment comprised of 3/8" (9,53 mm) HRPO sheet steel and 3/16" (4,75 mm) HRPO sheet steel. (Shock Covers) 16 GA (.060") (1,52 mm) HRPO sheet steel. (Crank Arms & Pins) Fabricated from stainless steel. (Shocks) Gas shocks with fixed bearings. Finish: ProShield, black in color.

8. DigiRider Butterfly DB

Brackets: Fabricated from formed 7 GA (.179") (4,55 mm) HRS. Finish: ProShield, black in color.

Footrest: Cast from 356-T6 aluminum alloy. Finish: ProShield, black in color.

Spring Wedge: Cast made from A-356T-6 aluminum. Finished ProShield, Black in color.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Permalene Panels: Recycled Permalene, color specified.

Spring Leg: Weldment comprised of 3 1/2" (88,9 mm) O.D. RS20 (.120"-.130") (3,04 mm-3,30 mm) galvanized steel tubing and 1/4" x 10" (6,35 mm x 254 mm) diameter HRPO zinc plated steel mounting plate. ProShield, color specified.

Spring: Weldment comprised of 5 5/8" (142,87 mm) diameter 13/16" (20,63 mm) tempered alloy steel coil. Finish: ProShield, black in color.

Base Plate: Fabricated from 1/4" x 10" (6,35 mm x 254 mm)HRPO flat plate. Finish: ProShield, Black in color.

DigiFuse Panel: Made from 1/8" (3,17 mm) thick aluminum sheet. Dye sublimation printed digital artwork is fused onto the powdercoated substrate.

9. Welcome Sign (LSI Provided) Ages 2-5 years Direct Bury

Sign Panel: Panel is fabricated from 1/8" (.125")(3,17 mm) aluminum plate. Finish: ProShield®, gray in color. (Sign) Digital image is transfered to a 1/8" (.125")(3,17 mm) ProShield coated aluminum plate, then infused into the ProShield.

Post: Weldment comprised 2.375" (60,33 mm) O.D. RS20 (.095-.105) (2,41 mm-2,67 mm) wall galvanized tube, 1/4" (6,35 mm) HRPO steel sheet and aluminum post cap. Finish: ProShield, color specified.

Border: Permalene, black in color.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

C. AGE 2-5 PLAY EQUIPMENT - WARRANTY REQUIREMENTS

100-YEAR LIMITED WARRANTY

On all PlayBooster® and PlayShaper® aluminum posts, stainless steel fasteners, clamps, beams and caps against structural failure due to corrosion/natural deterioration or manufacturing defects, and on PlayBooster steel posts against structural failure due to material or manufacturing defects.

15-YEAR LIMITED WARRANTY

On all Evos® and Weevos® steel arches, all plastic components (including TuffTimbers™ edging), all aluminum and steel components not covered above, Mobius® climbers, Rhapsody® Outdoor Musical Instruments, decks and TenderTuff™ coatings (except Wiggle Ladders, Chain Ladders and Swing Chain) against structural failure due to material or manufacturing defects.

10-YEAR LIMITED WARRANTY

On concrete products against structural failure due to natural deterioration or manufacturing defects. Does not cover minor chips, hairline cracks or efflorescence.

8-YEAR LIMITED WARRANTY

On Aeronet® climbers and climbing cables against defects in materials or manufacturing defects.

5-YEAR LIMITED WARRANTY

On Rhapsody® cables and mallets against defects in materials or manufacturing defects, on polycarbonate panels against defects in materials or manufacturing defects, and on bamboo panels against delamination due to defects in materials or manufacturing defects. Does not cover damage which may be associated with the natural characteristics of bamboo aging, including but not limited to discoloration, splitting, cracking, warping or twisting, nor the formation of algae, mold and other forms of fungal-type bodies on bamboo.

3-YEAR LIMITED WARRANTY

1. On all other parts, i.e.: Pulse® products, all swing seats and hangers, Mobius climber handholds, Wiggle Ladders, Chain Ladders and ProGuard™ Swing Chain, Track Ride trolleys and bumpers, all rocking equipment including Sway Fun® gliders, belting material, HealthBeat® resistance mechanism, Seesaws, etc., against failure due to corrosion/ natural deterioration or manufacturing defects.

This warranty need not include any cosmetic issues or wear and tear from normal use of the product, or misuse or abuse of the product. It is valid only if the playstructures and/or equipment are erected to conform with manufacturers installation instructions and maintained according to the maintenance procedures furnished by the manufacturer.

PART 3 – AGE 5-12 PLAY EQUIPMENT

A. Age 5-12 Play Equipment - GENERAL

1. Material: All materials shall be structurally sound and suitable for safe play. Durability shall be ensured on all steel parts by the use of time-tested coatings such as zinc plating, galvanizing, ProShield® finish, TenderTuff™ coating, etc. Colors shall be specified.
2. Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless-steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications). All primary fasteners shall include a locking patch type material that will meet the minimum torque requirements of IFI-125. Manufacturer to provide special tools for pinned tamperproof fasteners.
3. TenderTuff Coating: Metal components to be TenderTuffcoated shall be thoroughly cleaned in a hot phospatising wash system, then primed with a water-based thermosetting solution. Primed parts shall be preheated prior to dipping in UV stabilized, liquid polyvinyl chloride (PVC), then salt cured at approximately 400 degrees. The finished coating shall be approximately .080" thick at an 85 durometer with a minimum tensile strength of 1700 psi and a minimum tear strength of 250 lbs/inch. Standard colors are available, all with a matte finish.
4. ProShield Finish: All metal components with ProShield finish shall be thoroughly cleaned and pretreated through a multi-stage wash system. Parts are then thoroughly dried, preheated and processed through a set of powder spray guns where a minimum .002" of epoxy primer is applied. A minimum .004" of architectural-grade Super Durable polyester TGIC powder is applied. The average ProShield film thickness is .006". ProShield is formulated and tested per the following ASTM standards. Each color must meet or exceed the ratings listed below:
    - Hardness (D3363) rating 2H
    - Flexibility (D522) pass 1/8" mandrel
    - Impact (D2794) rating minimum 80 inch-pounds
    - Salt Fog Resistance (B117 and D1654) 4,000 hours and rating 6 or greater
    - UV Exposure (G154, 340 bulb) 3,000 hours, rating delta E of 2, and 90 percent gloss retention*
    - Adhesion (D3359, Method B) rating 5B

The Paint Line shall employ a “checkered” adhesion test daily.

Standard colors are available.

* Certain colors may exceed delta E of 2. Contact Landscape Structures for exceptions.

5. Decks: All decks shall be of modular design and have 5/16" diameter holes on the standing surface. There shall be a minimum of (4) slots in each face to accommodate face mounting of components. Decks shall be manufactured from a single piece of low carbon 12 GA (.105") sheet steel conforming to ASTM specification A-1011. The sheet shall be perforated with a return flange on the perimeter to provide the reinforcement necessary to ensure structural integrity. There shall be no unsupported area larger than 3.5 square feet. The unit shall then be TenderTuff-coated brown or gray only. Decks shall be designed so that all sides are flush with the outside edge of the supporting posts. Not applicable for Evos or Weevos.
6. Concrete Products: Two processes are used to produce concrete products. (See specific product installation/ specification documents.)
   1. Glass Fiber Reinforced Concrete (GFRC) Products: Glass fiber is alkali-resistant (AR) with high tensile properties formulated for concrete. GFRC nominal product thickness is 1" with a unit weight of about 12 lbs per square foot and an average ultimate flexural strength of 2,100 psi per ASTM C947. Finish: Exterior latex paint suited for concrete applications.
   2. Precast Concrete Products: Wet-cast solid, molded concrete with an average compressive strength of 5,000 psi per ASTM C39. Unit weight range of about 115-145 lbs per cubic foot. Finish: Exterior latex paint suited for concrete applications.
7. Rotationally Molded Polyethylene Parts: These parts shall be molded using prime natural linear low-density polyethylene having a tensile strength of 2400 psi per ASTM D638. Rotational molding resin is compounded with color and UV-stabilizing additives with a nominal wall thickness typically 1/4" with some variation depending upon product type. Standard colors are available.
8. Recycled Permalene Parts: These parts shall be manufactured from 3/4" high-density polyethylene that has been specially formulated for optimum UV stability and color retention. Products shall meet or exceed density of .960 G/cc per ASTM D1505, tensile strength of 2400 PSI per ASTM D638. Available in a three-layer product with (2) .100" thick colored exterior layers over a .550" thick recycled Black interior core. Standard colors are available.
9. Footings: Unless otherwise specified, the bury on all footings shall be 34" below Finished Grade (FG) on all in-ground play events/posts. Other types of anchoring are available upon request.
10. Hardware Packages: All shipments shall include individual component-specific hardware packages. Each hardware package shall be labeled with the part number, description, a component diagram showing the appropriate component, package weight, a bar code linking the hardware package to the job number, assembler's name, date and time the package was assembled, work center number and work order number.
11. Installation Documentation: All shipments shall include a notebook or packet of order-specific, stepby-step instructions for assembly of each component, including equipment assembly diagrams, estimated hours for assembly, footing dimensions, concrete quantity for direct bury components, fall height information, area required information and detailed material specifications.
12. Packing List: All shipments shall include a packing list for each skid/container, specifying the part numbers and quantities on each skid or within each container.
13. Packaging: All components shall be individually wrapped or bulk wrapped and placed on skids (pallets) then shrinkwrapped to provide protection during shipment. Small parts and hardware packages will be placed in crates for shipment. Other components shall be individually wrapped or bulk wrapped to provide protection during shipment.

14. Maintenance Kit: An order-specific maintenance kit shall be provided for each structure order. The kit will include a notebook or packet with a second set of installation documents and order-specific maintenance documentation with recommendations on how often to inspect, what to look for and what to do to keep the equipment in like-new condition. The kit also includes touch-up primer, appropriate color touch-up paint, sandpaper, appropriate color touch-up PVC and additional installation tools for the tamperproof fasteners.

15. (PB) PlayBooster General Specifications:
Posts: Post length shall vary depending upon the intended use and shall be a minimum of 42" above the deck height. All posts shall be ProShield finished to specified color. All posts shall have a "finished grade marker" positioned on the post identifying the 34" bury line required for correct installation and the top of the loose fill protective surfacing. Top caps for posts shall be aluminum die cast from 369.1 alloy and ProShield finished to match the post color. All caps shall be factory installed and secured in place with (3) self-sealing rivets. A molded low-density polyethylene cap, with drain holes, shall be pressed onto the bottom end of the post to increase the footing area.
Steel Posts: All steel PlayBooster posts are manufactured from 5" O.D. tubing with a wall thickness of .120" and shall be galvanized after rolling and shall have both the I.D. and the cut ends sprayed with a corrosion resistant coating.
Steel Post Mechanical Properties:
- Yield Strength (min): 50,000 PSI
- Tensile Strength (min): 55,000 PSI
- Elongation: 25% in 2 inches
- Modulus of Elasticity: 29.5 x 106 PSI

Aluminum Posts: All aluminum PlayBooster posts are manufactured from 6005-T5 extruded tubing conforming to ASTM B-221. Posts shall have a 5" outside diameter with a .125" wall thickness.
Aluminum Post Mechanical Properties:
Yield Strength (min): 35,000 PSI
- Tensile Strength (min): 38,000 PSI
- Elongation: 10% in 2 inches
- Modulus of Elasticity: 10 x 106 PSI

Arch Posts: Aluminum arch posts shall be manufactured from 6005-T5 alloy. The arch shall be formed to a 21" center line radius to complement the 42" center-to-center module. The arch shall be of one continuous piece construction. There shall be no welds or additional pieces mechanically fastened to manufacture the arch. Each arch shall be designed to provide a minimum of 90 1/2" clear span from the deck to the inside of the arch at the radius peak. Arches shall be ProShield finished to a specified color.
Clamps: All clamps are ProShield finished and, unless otherwise noted, shall be die cast using a 369.1 aluminum alloy and have the following mechanical properties:
- Ultimate Tensile: 47,000 PSI
- Yield Strength: 28,000 PSI
- Elongation: 7% in 2 inches
- Shear Strength: 29,000 PSI
- Endurance Limit: 20,000 PSI

Each functional clamp assembly shall have an appropriate number of half clamps and shall be fastened to mating parts with (2) 3/8" x 1 1/8" pinned button head cap screws (SST) and (2)

stainless-steel (SST) recessed “T” nuts. A 1/4" aluminum drive rivet with stainless steel pin is used to ensure a secure fit to the post.

PlayBooster® clamps have three functional applications and shall be named as follows:

1. Offset hanger clamp assembly
2. Deck hanger clamp assembly
3. Hanger clamp assembly

Netplex Clamps: All clamps are ProShield finished and, unless otherwise noted, shall be die cast using a 369.1 aluminum alloy and have the following mechanical properties:

- Ultimate Tensile: 47,000 PSI
- Yield Strength: 28,000 PSI
- Elongation: 7% in 2 inches
- Shear Strength: 29,000 PSI
- Endurance Limit: 20,000 PSI

Each functional clamp assembly shall have an appropriate number of rope clamps and back clamps and shall be fastened to each other with (2) 5/8" x 1 1/2" pinned button head cap screws (SST) and (2) stainless-steel (SST) recessed “T” nuts. Either a face clamp shall be fastened to rope clamp with (2) 3/8" by 1-3/8" pinned button head cap screws or a single tab casting plate shall be fastened to rope clamp with (4) 3/8" by 1-3/8" pinned button head cap screws with 3/8" SAE flat washers. A 1/4" x 5/8" aluminum drive rivet with stainless steel pin is used to ensure a secure fit to the post.

Geoplex Clamps: All clamps are ProShield finished and, unless otherwise noted, shall be fabricated from 7GA using .179" (4,54 mm) T316 stainless steel.

- Ultimate Tensile: 84,000 PSI
- Yield Strength: 25,000 PSI

Each functional clamp assembly shall have an appropriate number of locking clamps and shall be fastened to mating parts with (2) 3/8" x 7/8" pinned button head cap screws (SST) with (2) 3/8" SAE flat washers. A 1/4" aluminum drive rivet with stainless steel pin is used to ensure a secure fit to the post.

Steel-reinforced cables: Made of tightly woven, polyester-wrapped, six-stranded galvanized steel cable. These abrasion-resistant, color-stable cables are extremely durable and vandal resistant. Available in Black or Red. Some products available in Black only or Red only.

16. PlayOdyssey® Structural Frame: Post length of the double ladder/central column shall vary depending upon the deck height and shall be flush with the bottom of a deck infill or a minimum of 46" above the deck height. All posts shall be ProShield finished to specified color. All posts shall have a “finished grade marker” positioned on the post identifying the 60" bury line required for correct installation and the top of the loose fill protective surfacing. Post caps shall be aluminum die cast from 369.1 alloy and ProShield finished to match the post color. All caps shall be factory installed and secured in place with (3) self sealing rivets. A molded low-density polyethylene cap, with drain holes, shall be pressed onto the bottom end of the ladder posts to increase the footing area. Ladders are bolted together below grade to act as a single column for installation purposes. The deck support weldments/arms are comprised of 5/16" (.313") steel conforming to 1010 steel per ASTM A635 and welded to a 52" steel post. Arms are secured to each ladder post with (4) 5/8" x 1 1/2" pinned button head cap screws through (2) 1/4" flanges.

    PlayOdyssey Optional Aluminum Roof Posts: All formed aluminum PlayOdyssey roof posts are manufactured from 6005-T5 extruded tubing conforming to ASTM B-221. Posts shall have a 5" outside diameter with a .125" wall thickness. Post sleeve shall have 4.675" outside diameter with a

.150" wall thickness. Post cap shall be aluminum die cast from 369.1 alloy and ProShield finished to match the post color. All caps shall be factory installed and secured in place with (3) self-sealing rivets.

17. Vibe® Handholds: Rotomolded shell, with 7 GA (.179") HRPO steel sheet insert that is zinc plated then ProShield finished. Standard colors are available.
18. Vibe Roof: Rotomolded shell, with 12 GA (.105") HRPO steel sheet insert that is zinc plated then ProShield finished. Standard colors are available.
19. Vibe Enclosures: Rotomolded shell, with 7 GA (.179") HRPO steel sheet insert that is zinc plated then ProShield finished. Standard colors are available. Option of 10 activity panels available in standard Permalene® colors. Also available bubble or window panel made of 1/4" clear polycarbonate.

B. Age 5-12 Play Equipment - Material Specifications:

1. Clatterbridge 84 w/Barriers

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Clamps: Cast aluminum. Finish: ProShield, color specified.

Barrier: Weldment comprised of 1.900" (48,26 mm) O.D. RS-20 (.090" - .100") (2,28 mm-2,54 mm) galvanized steel tubing beam, 1.029" (26,14 mm) O.D. RS-20 (.070" - .080") (1,78 mm-2,03 mm) galvanized steel tubing and 7 GA. (.179") (4,55 mm) HRPO sheet steel. Finish: ProShield, color specified.

ATTACHMENT BRACKET: Fabricated from 11 GA. (.120") (3,04 mm) HRPO plate. Finish: TenderTuff, color specified.

COVER PLATE: Fabricated from 12 GA. (.105") (2,66 mm) HRPO plate. Finish: ProShield, color specified.

PLANK: Weldment comprised from 12 GA. (.105") (2,67 mm) HRPO plate with 5/16" (7,92 mm) diameter perforated holes and threaded stainless steel inserts, plank measures 11 7/16" x 46 7/8" (290,50 mm x 1190,63 mm) long. Finish: TenderTuff, color specified.

MOUNTING BRACKET: Weldment comprised from 1/2" (12,7 mm) HRPO sheet steel, (2) 1/4" x 1 3/4" (6,35 mm x 44,45 mm) steel half clamps and 7/8" (22,23 mm) diameter 304L stainless steel tube. Finish: ProShield, color specified.

CABLE: Made of tightly woven, polyester-wrapped, six stranded galvanized-steel cable with a PVC wrapped galvanized steel core.

2. Pod Climber 8" DB

Disc: Rotationally molded from U.V. stabilized linear low-density polyethylene, disc measures 14" (356 mm) in diameter x 7" (178 mm) high, color specified.

Support: Weldment comprised of 1.900" (48,26 mm) O.D. RS-20 (.090" - .100") (2,28 mm-2,54 mm) 1.315" (33,40 mm) O.D. RS-20 (.080" - 090") (2,03 mm-2,28 mm) and 3/16" x 5" (4,75 mm x 127 mm) diameter plate. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

3. Pod Climber 16" DB

Disc: Rotationally molded from U.V. stabilized linear low-density polyethylene, disc measures 14" (356 mm) in diameter x 7" (178 mm) high, color specified.

Support: Weldment comprised of 1.900" (48,26 mm) O.D. RS-20 (.090" - .100") (2,28 mm-2,54 mm) 1.315" (33,40 mm) O.D. RS-20 (.080" - 090") (2,03 mm-2,28 mm) and 3/16" x 5" (4,75 mm x 127 mm) diameter plate. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

4. Pod Climber 10" DB

Disc: Rotationally molded from U.V. stabilized linear low-density polyethylene, disc measures 14" (356 mm) in diameter x 7" (178 mm) high, color specified.

Support: Weldment comprised of 1.900" (48,26 mm) O.D. RS-20 (.090" - .100") (2,28 mm-2,54 mm) 1.315" (33,40 mm) O.D. RS-20 (.080" - 090") (2,03 mm-2,28 mm) and 3/16" x 5" (4,75 mm x 127 mm) diameter plate. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

5. Wood Plank Wiggle Ladder 72"Deck w/Recycled Wood-Grain Handholds DB

Handhold Frame: Weldment comprised of 1.125" (28,58 mm)O.D. 11 GA. (.120") (3,04 mm) steel tubing with 203 or 303 stainless steel inserts, with 5/8" (15,88 mm) internal threads and 1/4" (6,35 mm) HRPO steel plate. Finish: ProShield, tan in color.

Poly Board: Recycled high-density polyethylene, cedar, mink or gray in color.

Chain/ProGuard: Steel 3/16" (4,75 mm) straight link chain, 800 lb. (362,87 kilograms) working load limit. Finish: ProGuard.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Support (DB): Fabricated from 1.315" (33,40 mm) O.D. RS20 (.080"-.090") (2,03 mm - 2,28 mm) galvanized steel tubing.

Clamps: Cast aluminum. Finish: ProShield, color specified.

6. Log Stepper 48" Deck w/2 Recycled Wood-Grain Handholds 1 Handloop DB Only Right Handhold

Handhold Frame: Weldment comprised of 1.125" (28,58 mm)O.D. 11 GA. (.120") (3,04 mm) steel tubing with 203 or 303 stainless steel inserts, with 5/8" (15,88 mm) internal threads and 1/4" (6,35 mm) HRPO steel plate. Finish: ProShield, tan in color.

Poly Board: Recycled high-density polyethylene, cedar, mink or gray in color.

Log Stepper Assy.: (Footer Post) Weldment comprised of 5" (127 mm) O.D. x 11 GA. (.120") (3,04 mm) wall galvanized steel tubing and 3/16" (4,75 mm) HRPO steel plate. Finish: ProShield, color specified. (Log Stepper-fully assembled) Glass reinforced wet cast solid pour concrete product. Finish: Latex paint made for concrete, natural colors.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Handloop: Weldment comprised of 1.125" (28,58 mm) O.D. x 11 GA (.120") (3,04 mm) steel tubing with 203 or 303 stainless steel inserts, with 3/8" (9,53 mm) internal thread. Finish: TenderTuff, color specified.

Clamps: Cast aluminum. Finish: ProShield, color specified.

7. Discovery Tree Climb w/Aluminum Post w/Roof DB Only

Handhold Frame: Weldment comprised of 1.125" (28,58 mm)O.D. 11 GA. (.120") (3,04 mm) steel tubing with 203 or 303 stainless steel inserts, with 5/8" (15,88 mm) internal threads and 1/4" (6,35 mm) HRPO steel plate. Finish: ProShield, tan in color.

Post: See PlayBooster (PB) General Specifications.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Spacer Tube: Made from 1 1/8" (28,58 mm) O.D. 6061-T6 aluminum tube. Finish: ProShield, tan in color.

Tree Climb Assy.: (Frame) Weldment comprised of 5" (127 mm) O.D. x 11 GA. (.120") (3,04 mm) wall galvanized steel tubing, 2.375" (60,33 mm) O.D. RS20 (.095"-.105") (2,41 mm-2,66 mm) wall galvanized

steel tubing, 1/4" (6,35 mm) HRPO steel plate, 3/16" (4,75 mm) HRPO steel plate, 18" (457 mm) O.D. 1/4" (.250") (6,35 mm) wall steel tube. Finish: ProShield. (Talk Tube Plate)Weldment comprised of 1.250" (31,75 mm) O.D. x 11 GA. (.120") (3,04 mm) black steel tube and 12 Ga. (.105") (2,66 mm) HRPO flat steel. Finish: ProShield, color specified.(Tree Climb-fully assembled) Castings are made from Glass Fiber Reinforced Concrete (GFRC). Glass fiber is Alkali Resistant (AR) type glass formulated for concrete. Nominal wall thickness of 1" (25 mm) and weighs about 11 1/2 lbs. (5,22 kilograms) per square foot. Castings have a strength of 1,500 lbs. (680,39 kilograms) per square inch in tension and 5,000 lbs. (2267,96 kilograms) per square inch in compression. Finish: Latex paint made for concrete, natural colors.

Hose Clamp: Band and housing made from 300 series stainless steel. Slotted screw with hex head and safety collar is cadmium-plated carbon steel.

Clamps: Cast aluminum. Finish: ProShield, color specified.

Poly Board: Recycled 1 1/2" x 3 1/2" (38,1 mm x 88,9 mm) and 1 1/2" x 5 1/2" (38,1 mm x 139,7 mm) high density polyethylene, cedar or mink in color.

8. Log Stack Climber 72"Deck w/Wood-Grain Handholds DB

Poly Board: Recycled high-density polyethylene, cedar, mink or gray in color.

Handhold Frame: Weldment comprised of 1.125" (28,58 mm)O.D. 11 GA. (.120") (3,04 mm) steel tubing with 203 or 303 stainless steel inserts, with 5/8" (15,88 mm) internal threads and 1/4" (6,35 mm) HRPO steel plate. Finish: ProShield, tan in color.

48" Log Stack: (Base) Weldment comprised of 11 GA. (.120") (3,04 mm) sheet steel. Finish: ProShield®. (GFRC) Glass fiber is Alkali Resistant (AR) type glass formulated for concrete. Precast nominal wall thickness of 3" (76,2mm) and weighs about 150 lbs/cubic foot. Average compression strength of 8,500 lbs per square inch. Finish: Latex paint made for concrete, Natural colors.
72" Log Stack: (Base) Weldment comprised of 11 GA. (.120") (3,04 mm) sheet steel. Finish: ProShield®. (GFRC) Glass fiber is Alkali Resistant (AR) type glass formulated for concrete. Nominal wall thickness of 1" (25,4 mm) and weighs about 11 1/2 lbs. per square foot. Castings have a strength of 1,500 lbs. per square inch in tension and 5,000 lbs. per square inch in compression. Finish: Latex paint made for concrete, Natural colors.

Spacer: Extruded from 1.125" (28,58 mm) O.D. x .290" (7,37 mm) w. 6061-T6 aluminum. Finish: ProShield, tan in color.

Clamps: Cast aluminum. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

9. Wood Plank Ladder w/Wood-Grain Handholds 72" Deck DB

Lumber Climber: Weldment comprised of 2.375" (60,32 mm) O.D. x .130" - .140" (3,30 mm-3,55 mm) wall RS40 galvanized steel tube, and 1/4" (6,35 mm) thick HRPO steel plate. Finish: ProShield, color specified.

Belt:.315" (8,00 mm) Thick mini rough top rubber belting with polyester fabric plys, black in color.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Poly Board: Recycled high-density polyethylene, cedar, mink or gray in color.

Clamps: Cast aluminum. Finish: ProShield, color specified.

10. Square Tenderdeck

Square Deck: Flange formed from 12 GA (.105") (2,66 mm) sheet steel conforming to ASTM A1011. Standing surface is perforated with 5/16" (7,92 mm) diameter holes. Deck face has (4) slotted holes for face mounting components. The finished size measures 2 5/8" x 47" x 47" (66,68 mm x 1194 mm x 1194 mm). Finish: TenderTuff, color specified.

Deck Hanger Clamp Assembly: Cast aluminum. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

11. Triangular Tenderdeck

Triangular Deck: Flange formed from 12 GA (.105") (2,66 mm) sheet steel conforming to ASTM A1011. Standing surface is perforated with 5/16" (7,92 mm) diameter holes. Deck face has (4) slotted holes for face mounting components. The finished size measures 2 5/8" x 37 3/4" (66,68 mm x 958,85 mm). Finish: TenderTuff, color specified.

Deck Hanger Clamp Assembly: Cast aluminum. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

12. Deck Clamp Lowering Kit

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

13. Kick Plate 8"Rise

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Kick Plate: Fabricated from 11 GA (.120") (3,04 mm) HR flat steel. Finish: TenderTuff, brown or gray in color.

14. Tri-Deck Kick Plate 8"Rise

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Kick Plate: Fabricated from 11 GA (.120") (3,04 mm) HR flat steel. Finish: TenderTuff, brown or gray in color.

15. 90* Triangular Tenderdeck

Triangular Deck: Flange formed from 12 GA (.105") (2,66 mm) sheet steel conforming to ASTM A1011. Standing surface is perforated with 5/16" (7,92 mm) diameter holes. Deck face has (4) slotted holes for face mounting components. The finished size measures 2 5/8" x 37 3/4" (66,68 mm x 958,85 mm). Finish: TenderTuff, color specified.

Deck Hanger Clamp Assembly: Cast aluminum. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

16. Tree Stump Transfer Module 48"Dk (DB Only)

Poly Board: Recycled 1 1/2" x 3 1/2" (38,1 mm x 88,9 mm) and 1 1/2" x 5 1/2" (38,1 mm x 139,7 mm) cedar colored high density polyethylene.

Step Section: Formed from 12 GA. (.105") (2,66 mm) HRPO sheet steel conforming to ASTM A1011. Standing surface is 24 3/8" (619,13 mm) wide x 14" (355,6 mm) deep and is perforated with 5/16" (7,92 mm) diameter holes. Finish: TenderTuff, color specified.

Step Support: Weldment comprised of 1.660 (42,16 mm) O.D. RS20 (.080"-.095) (2,03 mm-2,41 mm) and 7GA. (.179") (4,55 mm) HRPO steel. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Railings: Weldment comprised of 1 1/8" (28,58 mm) O.D. x 11 GA. (.120") (3,04 mm) steel tubing with 203 or 303 stainless steel inserts with 3/8" (9,53 mm) internal, 5/8" (15,88 mm) O.D. steel bar, 3/16" (4,75 mm) HR flat steel, 3/4" (19,05 mm) O.D. x 11 GA. (.120") (3,04 mm) stainless steel tube and 1/8" (3,17 mm) HRPO sheet steel. Finish: ProShield, tan in color.

(Frame) Weldment comprised of 11 GA. (.120") (3,04 mm) wall steel sheet. Finish: ProShield®. (Transfer module-fully assembled) Glass reinforced wet cast solid pour concrete product. Finish: Latex paint made for concrete, natural colors.

Handrail Extension: Made from 1 1/8" (28,58 mm) O.D. x 2" (51 mm) 6061-T6 aluminum tube. Finish: ProShield, tan in color.

Clamps: Cast aluminum. Finish: ProShield, color specified.

Handloop: Weldment comprised of 1.315" O.D. (33,40 mm) RS20 (.080"-.090") (2,03 mm-2,28 mm) wall galvanized steel tubing, 1.900" (48,26 mm) O.D. RS20 (.090"-.100") (2,28 mm-2,54 mm) wall galvanized steel tubing, 1/4" (6,35 mm) HRPO steel plate and 12 GA (.105") (2,66 mm) HRPO steel sheet. Finish: ProShield, tan in color.

17. Recycled Wood-Grain Lumber Panel

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Barrier Rail: Weldment comprised of 1.125" (28,57 mm) O.D. 11 GA. (.120") (3.04 mm) steel tubing with 203 or 303 stainless steel inserts, with 5/8" (15,87 mm) internal threads and 1/4" (6,35 mm) HRPO steel plate. Finish: ProShield, tan in color.

Bracket: Formed from 1/4" x 1 1/4" (6,35 mm x 31,75 mm) HRPO flat steel. Finish: ProShield, tan in color.

Clamps: Cast aluminum. Finish: ProShield, color specified.

Poly Board: Recycled 1 1/2" x 3 1/2" (38,1 mm x 88,9 mm) and 1 1/2" x 5 1/2" (38,1 mm x 139,7 mm) high density polyethylene, cedar or mink in color.

18. DigiFuse Barrier Panel w/Medallions Above Deck

Medallion Plate: Made from .063” (1,60 mm) thick aluminum plate, 4” (101 mm) in diameter. Finish: ProShield®, white in color with a clear coat finish.

Spacer Tube: Made from 6061-T6 aluminum 7/8" (22,23 mm) O.D. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Clamps: Cast aluminum. Finish: ProShield, color specified.

DigiFuse Panel: Made from 1/4" (6,35 mm) thick aluminum sheet. Dye sublimation printed digital artwork is fused onto the powdercoated substrate.

19. GeoPlex 5-Post Tower w/Cables Steel Post Included DB

Clamp: 369.1 Aluminum. Finish: ProShield®, color specified.

Cable Assy.: (Cable) Made of tightly woven polyester-wrapped, six-stranded galvanized-steel cable with a polypropylene core. (Cable Connectors) 6063-T6 aluminum.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Climbing Wall: Rotationally molded from U.V. stabilized linear low-density polyethylene, color specified.

Brace: Weldment comprised of 1.660" (42,16 mm) O.D. RS40 (.111”-.121”) (2,81 mm-3,07 mm) wall galvanized steel tubing, 1/4” (6,35 mm) thick HRPO steel plate and 7 GA. (.179”) (4,54mm) thick HRPO steel plate. Finish: ProShield®, black in color.

Locking Clamp: Rotationally molded from U.V. stabilized linear low-density polyethylene, color specified. Wall measures 37” (939 mm) wide x 34” (863 mm) High.

20. Chinning Bar Alum DB

Post: See PlayBooster (PB) General Specifications.

Rail: Weldment comprised of 1.125" (28,58 mm) O.D. x 11 GA (.120") (3,04 mm) steel tubing with 203 or 303 stainless steel 5/8" (15,88 mm) threaded inserts. Finish: TenderTuff, color specified.

Offset Hanger Clamp Assembly: Cast aluminum. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

21. Talk Tube 40' Tubing Kit PB

Hose Clamp: Band and housing made from 300 series stainless steel. Slotted screw with hex head and safety collar is cadmium-plated carbon steel.

Talk Tube Hose: Made from 1.75" (44,45 mm) O.D. HDPE conduit.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

22. Talk Tube At Grade Mounted DB Only

Bug Screen: Weave .011 (0,28 mm) Ga. charcoal fiberglass screen.

Talk Tube Cover: One-color Permalene, Tan in color.

Talk Tube: Weldment comprised of 1.600" (42,16 mm) O.D. RS-40 (.108" - .132") (2,74 mm-3,35 mm) galvanized steel tubing, 14 GA. (.079") (2,00 mm) cold rolled steel sheet zinc plate, and 3/16" (4,75 mm) HRPO steel sheet. Finish: ProShield, color specified.

Offset Hanger Clamp Assembly: Cast aluminum. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

23. E-Pod Seat

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

E-Pod: Rotationally molded from U.V. stabilized linear low-density polyethylene, color specified.

Pod Casting: Fabricated from sand cast alloy 356 in accordance with ASTM B26. Finish: ProShield, color specified.

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24. We-saw DB Only

Anchor Cage: Weldment comprised of 1.029" (26,13 mm) O.D. RS20 (.070"-.080") (1,77 mm - 2,03 mm) wall galvanized steel tubing with 203 or 303 stainless steel welded inserts with 5/8" internal threads and 7 GA. (.179") (4,54 mm) HRPO steel sheet. Finish: Proshield®, black in color.

We-saw Assembly: (Arm Assembly) Weldment comprised of 3.500" (88,9 mm) O.D. x 8 GA. (.162") (4,11 mm) wall galvanized steel tubing, 2.375" (60,33) O.D. RS40 (.130"-.140") (3,30 mm-3,56 mm) wall galvanized steel tubing, 1.900" (48,26 mm) O.D. RS40 (.120"-.130") (3,05 mm-3,30 mm) wall galvanized steel tubing, .375" (9,52 mm) thick HRPO steel plate and .250" (6,35 mm) HRPO steel plate. Finish: Proshield®, black in color. (Rocker Assembly) Weldment comprised .250" (6,35 mm) HRPO steel plate and 2" (50 mm) x 5/16" (7,93 mm) wall steel tubing. Finish: ProShield, black in color. (Base) Weldment comprised .375" (9,53 mm) HRPO steel plate and 2.500" (63,50 mm) O.D. x 1.150" (29,21 mm) I.D.

stainless steel tubing. Finish: ProShield, black in color. (Base Plate) Fabricated from .250" (6,35 mm) HRPO steel plate. Finish: ProShield, black in color. (Spring) 5 5/8" (142,87 mm) diameter 13/16" (20,62 mm) tempered alloy steel coil. Finish: ProShield, black in color. (Spring Wedge) Cast from ductile iron alloy. Finish: ProShield, black in color. (Bearings) 1.145" (29,08 mm) I.D. oilite bronze. (Shaft) 1.14" (28,96 mm) O.D. stainless steel.

Bumper Footer: Weldment comprised of 1.315" (33,40 mm) O.D. RS20 (.080"-.090") (2,03 mm - 2,29 mm) wall galvanized steel tubing with 203 or 303 stainless steel welded inserts with 5/8" internal threads and .250" (6,35 mm) thick HRPO steel plate. Finish: Proshield®, color specified.

Center Pad: Fabricated from .250" (6,35 mm) thick HRPO steel sheet plate. Finish: Proshield®, black in color.

Filler Plate: Fabricated from 12 Ga. (105") (2,66 mm) HRPO steel sheet. Finish: ProShield, color specified.

GripX Insert: 3/4" (19,05 mm) Thick Permalene®, black in color.

Teeter Pad & Edges: Permalene®, color specified.

Platform Handhold: Weldment comprised of 1.315" (33,4 mm) O.D. RS20 (.080"-.090") (2,03 mm - 2,28 mm) wall galvanized steel tubing, 10 GA (.135") (3, 42 mm) HRPO steel sheet and 7 GA. (.179") (4,54 mm) HRPO steel sheet. Finish: Proshield®, color specified.

Rung Cap: Molded from U.V. stabilized black EPDM rubber encapsulating .250" (6,35 mm) thick aluminum sheet and .125" (3,18 mm) thick aluminum plate.

Seat: Rotationally molded from U.V. stabilized linear low-density polyethylene, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

25. Curva Spinner DB Only

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Spinner Post: Weldment comprised of 1.315" O.D. RS20 (.075"-.091") galvanized steel tubing, 6" O.D. Sphere (.135" wall) and 4" O.D. STC Ball (.135"wall). 3/8" HRPO flat steel. Finish" ProSshield®, color specified.

Spinner Permalene: Recycled permalene, black in color.

Standing Post Assembly: Spinner Post - Weldment comprised of 3.5" O.D. 8GA (.149"-.187" wall) galvanized steel tubing, 2" O.D. steel shaft, 12 GA. (.105") HR flat steel, and 1144 steel collar. Finish: ProShield®, color specified.

Sleeve/Plate - Weldment comprised of 3/8" sheet HRPO steel and 3.5" O.D. schedule 80 steel tubing. Finish; ProShield®, color specified.

Rubber Plug: Made from .315" think mini rough top 3-ply rubber belting with polyester fabric plys, black in color

Rubber Gasket: Made from 50 durometer neoprene.

26. 182"Alum Post For Roof DB

Post: See PlayBooster (PB) General Specifications.

27. 124"Alum Post DB

Post: See PlayBooster (PB) General Specifications.

28. 132"Alum Post DB

Post: See PlayBooster (PB) General Specifications.

29. 140"Alum Post DB

Post: See PlayBooster (PB) General Specifications.

30. Tree House Roof w/Stack and w/o Kids Only sign

Roof/Trim Boards: Recycled 1 1/2" x 3 1/2" and 1 1/2" x 5 1/2" high-density polyethylene, cedar and mink in color.

Roof Bracket: Fabricated from 7 GA. HRPO steel sheet. Finish: ProShield, tan in color.

Roof Frame: Fabricated from 3/16" x 6" (4,75 mm x 152 mm) aluminum 5052-H32 angle. Finish: ProShield, tan in color.

Roof Post Cap: Weldment comprised of 4 5/8" (117,48 mm) O.D. x 3/16" (4,75 mm) wall aluminum tube and 3/16" (4,75 mm) thick aluminum plate. Finish: ProShield, tan in color.

Smoke Stack: Weldment comprised of 3.500" (88,9 mm) O.D. RS20 (.125") (3,17 mm) wall galvanized steel tube, 3/16" (4,75 mm) HRPO steel plate and 14 GA. (.078") (1,98 mm) galvannealed steel sheet. Finish: ProShield, black in color.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

31. Tree House Roof w/o Stack and w/o Kids Only sign

Roof/Trim Boards: Recycled 1 1/2" x 3 1/2" and 1 1/2" x 5 1/2" high-density polyethylene, cedar and mink in color.

Roof Bracket: Fabricated from 7 GA. HRPO steel sheet. Finish: ProShield, tan in color.

Roof Frame: Fabricated from 3/16" x 6" (4,75 mm x 152 mm) aluminum 5052-H32 angle. Finish: ProShield, tan in color.

Roof Post Cap: Weldment comprised of 4 5/8" (117,48 mm) O.D. x 3/16" (4,75 mm) wall aluminum tube and 3/16" (4,75 mm) thick aluminum plate. Finish: ProShield, tan in color.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

32. Rhapsody Kundu Drum DB

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Screen: Made from 11 GA. (.125")(3,17 mm) thick aluminum sheet. Finish: ProShield®, color specified.

Trim: Permalene®, color specified.

Drum Head: Translucent, UV stabilized polycarbonate with a matte textured surface on one side.

Drum Leg: Made from 3.500" (88,9 mm) O.D. RS20 (.125")(3,17 mm) wall galvanized steel tubing. Finish: ProShield®, color specified.

Top Assembly: Weldment comprised of 3.500" (88,9 mm) O.D. RS20 (.125")(3,17 mm) wall galvanized steel tubing, 11 GA. (.120")(3,05 mm) flat steel and 1/8" (3,17 mm) thick HRPO steel sheet. Finish: ProShield®, color specified.

33. Rhapsody Kettle Drum DB

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Trim: Permalene®, color specified.

Kettle Drum Assy.: Weldment comprised of 3.500" (88,9 mm) O.D. RS20 (.125")(3,17 mm) wall galvanized steel tubing and 11 GA. (.120")(3,05 mm) flat steel. Finish: ProShield®, color specified.

Drum Head: Translucent, UV stabilized polycarbonate with a matte textured surface on one side.

Drum Leg: Made from 3.500" (88,9 mm) O.D. RS20 (.125")(3,17 mm) wall galvanized steel tubing. Finish: ProShield®, color specified.

34. SpyroSlide 72"Dk DB

Rail: 1 1/8" (28,58 mm) O.D. 6061-T6 aluminum extrusion with 5/16" (7,92 mm) walls. Finish: ProShield, color specified.

Barrier Plates: Fabricated from 1/4" x 1 1/2" (6,35 mm x 38,1 mm) zinc plated HRPO flat steel. Finish: ProShield, color specified.

Center Column: Fabricated from 3.500" (88,9 mm) O.D. RS-20 (.120" - .130") (3,04 mm-3,30 mm) galvanized steel tubing. Finish: ProShield, color specified.

Entrance Deck: Flange formed from 12 GA (.105") (2,66 mm) sheet steel conforming to ASTM A1011. Standing surface is perforated with 5/16" (7,92 mm) diameter holes and measures 31 3/4" (806,45 mm) wide x 36 27/32" (935,81 mm) long. Finish: TenderTuff, color specified.

Exit Support: Weldment comprised of 2.375" (60,33 mm) O.D. RS-20 (.095" - .105") (2,41 mm-2,66 mm) galvanized steel tubing and 1/4" (6,35 mm) thick zinc plated HRPO flat steel. Finish: ProShield, color specified.

Slide, Hood & Barriers: Rotationally molded from U.V. stabilized linear low-density polyethylene, color specified.

Handbar: Formed from 7/8" (22,23 mm) O.D. x 11 GA (.120") (3,04 mm) black steel tubing. Finish: TenderTuff, brown in color.

Offset Hanger Clamp Assembly: Cast aluminum. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

35. SlideWinder2 64"Dk DB 1 Right 2 Left

Rail: 1 1/8" (28,58 mm) O.D. 6061-T6 aluminum extrusion with 5/16" (7,92 mm) walls. Finish: ProShield, color specified.

Slide Sections: Rotationally molded from U.V. stabilized linear low-density polyethylene, color specified.

Exit Footer: Weldment comprised of 2.375" (60,33 mm) O.D. RS-20 (.095" - .105") (2,41 mm-2,66 mm) galvanized steel tubing and 1/4" x 3" x 7 1/2" (6,35 mm x 76 mm x 191 mm) HRPO steel mounting plate. Finish: ProShield, color specified.

Mid-Support: Weldment comprised of 1.900" (48,26 mm) O.D. RS20 (.090" - .100") (2,28 mm-2,54 mm) galvanized steel tubing and 7 GA. (.179") (4,54 mm) HRPO steel strap. Finish: ProShield, color specified.

Support Base (SM): Weldment comprised of 1.660" (42,16 mm) O.D. RS-20 (.085" - .095") (2,16 mm-2,41 mm) galvanized steel tubing and 1/4" x 3" x 8" (6,35 mm x 76 mm x 203 mm) mounting plate. Finish: ProShield, color specified.

Rail Spacer: Fabricated from 1.312" (33,32 mm) O.D. x 16 Ga. (.065") (1,65 mm) steel tubing. Finish: ProShield, color specified.

Offset Hanger Clamp Assembly: Cast aluminum. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

36. Double Swoosh Slide 72"Dk DB

Slide Hood: Rotationally molded from U.V. stabilized linear low-density polyethylene, color specified.

Slide: Rotationally molded from U.V. stabilized linear low-density polyethylene, color specified.

Slide Support: Weldment comprised of 2.375" (60,33 mm) O.D. RS-20 (.095" - .105") (2,41 mm-2,66 mm) galvanized steel tubing and 1/4" x 3" (6,35 mm x 76 mm) mounting plate. Finish: ProShield, color specified.

Rail Spacer: Fabricated from 1.312" (33,32 mm) O.D. x 16 GA (.065") (1,65 mm) steel tubing. Finish: ProShield, color specified.

Rail: Extruded from 1.125" ((28,58 mm) O.D. x .312" (7,92 mm) wall. 6005-T5 aluminum. Finish: ProShield, color specified.

Offset Hanger Clamp Assembly: Cast aluminum. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

37. Tire Swing 5"Arch DB Only

Hanger Assembly: Machined from 303 stainless steel, with oil impregnated bronze bearings.

Beam: Weldment comprised of 5" (127 mm) O.D. x 11 GA (.120") (3,04 mm) galvanized steel tubing, 3 1/2" (88,9 mm) O.D. RS-20 (.125") (3,17 mm) galvanized steel tubing and 7 GA (.179") (4,55 mm) flat steel gussets. Tee clamps and tire swing clamps are mechanically attached at factory with stainless steel fasteners. Finish: ProShield, color specified.

Tire: Rotationally molded from U.V. stabilized, E.V.A. (ethyl vinyl acetate) and high density polyethylene, blended to retain flexibility at below freezing temperatures, black in color. Tire measures 28" O.D. x 14" I.D. x 6" (711 O.D. x 356 mm I.D. x 152 mm) high.

Tire Ring: Fabricated from 1.315" (33,40 mm) O.D. RS-20 (.080" - .090") (2,03 mm-2,28 mm) galvanized steel tubing.

Arch Posts: See PlayBooster (PB) General Specifications.

Insert: Made from 303 stainless steel.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Chain: Steel 3/16" (4,75 mm) straight link chain, 800 lb. (362,87 kilograms) working load limit. Finish: TenderTuff, color specified.

38. Offset Crawl Tunnel 16"Offset Deck To Deck

Angled Panel Bracket: Weldment comprised of .190" (4,83 mm) thick 5052 aluminum formed angle with (2) 6005-T5 aluminum threaded tubes 1 1/8" (28,58 mm) O.D. x 1 1/2" (38,1 mm) long. Finish: ProShield, color specified.

Attachment Blocks: U.V. stabilized high-density polyethylene, color specified.

Tunnel Section: Rotationally molded from U.V. stabilized linear low-density polyethylene, color specified.

Spacers: One-color Permalene, color specified.

Spacer Tube: Made from 6061-T6 aluminum 7/8" (22,23 mm) O.D. x 1 11/16" (42,85 mm). Finish: ProShield, color specified.

Offset Hanger Clamp Assembly: Cast aluminum. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Permalene Panel: One-color panel measures 35 5/8" (904,88 mm) wide x 41" (1041 mm) high, color specified.

C. AGE 5-12 PLAY EQUIPMENT - WARRANTY REQUIREMENTS

Contractor shall provide the following warranty for Age 5-12 Play Equipment

100-YEAR LIMITED WARRANTY

On all PlayBooster® and PlayShaper® aluminum posts, stainless steel fasteners, clamps, beams and caps against structural failure due to corrosion/natural deterioration or manufacturing defects, and on PlayBooster steel posts against structural failure due to material or manufacturing defects.

15-YEAR LIMITED WARRANTY
On all Evos® and Weevos® steel arches, all plastic components (including TuffTimbers™ edging), all aluminum and steel components not covered above, Mobius® climbers, Rhapsody® Outdoor Musical Instruments, decks and TenderTuff™ coatings (except Wiggle Ladders, Chain Ladders and Swing Chain) against structural failure due to material or manufacturing defects.

10-YEAR LIMITED WARRANTY
On concrete products against structural failure due to natural deterioration or manufacturing defects. Does not cover minor chips, hairline cracks or efflorescence.
8-YEAR LIMITED WARRANTY
On Aeronet® climbers and climbing cables against defects in materials or manufacturing defects.

5-YEAR LIMITED WARRANTY
On Rhapsody® cables and mallets against defects in materials or manufacturing defects, on polycarbonate panels against defects in materials or manufacturing defects, and on bamboo panels against delamination due to defects in materials or manufacturing defects. Does not cover damage which may be associated with the natural characteristics of bamboo aging, including but not limited to discoloration, splitting, cracking, warping or twisting, nor the formation of algae, mold and other forms of fungal-type bodies on bamboo.

3-YEAR LIMITED WARRANTY
On all other parts, i.e.: Pulse® products, all swing seats and hangers, Mobius climber handholds, Wiggle Ladders, Chain Ladders and ProGuard™ Swing Chain, Track Ride trolleys and bumpers, all rocking equipment including Sway Fun® gliders, belting material, HealthBeat® resistance mechanism, Seesaws, etc., against failure due to corrosion/ natural deterioration or manufacturing defects.
The environment near a saltwater coast can be extremely corrosive. Some corrosion and/or deterioration is considered “normal wear” in this environment. Product installed within 500 yards (457 meters) of a saltwater shoreline will only be covered for half the period of the standard product warranty, up to a maximum of five years, for defects caused by corrosion. Products installed in direct contact with saltwater or that are subjected to salt spray are not covered by the standard warranty for any defects caused by corrosion.

This warranty does not include any cosmetic issues or wear and tear from normal use of the product, or misuse or abuse of the product. It is valid only if the play structures and/or equipment are erected to conform with Landscape Structures’ installation instructions and maintained according to the maintenance procedures furnished by Landscape Structures Inc.

SP29-05 MEASUREMENT AND PAYMENT

The contract price paid per linear foot for (LF) for **“4’ Vinyl Coated Black Chain Link Fence”, “6’ Vinyl Coated Black Chain Link Fence”** and per each for **“12’ Vehicle Gate”, “5’ Pedestrian Gate”, and “Black Metal Bench”,** shall include all labor, materials, services, equipment and appliances required to install the

fencing and furnishing items in place including but not limited to laying out, excavation, foundation, bedding, backfill, mounting and hardware, as shown on the Plans, Specified herein and directed by the Engineer.

The Contract price paid per square foot for **"Poured In Place Play Surfacing, 2" Basemat" and "Poured in Place Play Surfacing, 4" Basemat"** shall include all labor, materials, services, equipment and appliances required to furnish and install the surfacing in place including but not limited to lay out, bedding refinishing, all components of the surfacing including the basemat and top layer and providing required warranties as shown on the Plans, Specified herein and directed by the Engineer.

The Contract lump sum price for **"Playground Equipment"** shall include all labor, materials, services, equipment and appliances required to furnish and install the equipment in place including but not limited to laying out, excavation, foundation, bedding, backfill, mounting and hardware, as shown on the Plans, Specified herein and directed by the Engineer.

SPECIAL PROVISIONS SECTION SP-24

PLAYGROUND LIGHTS AND ELECTRICAL SYSTEM

(BID ITEM NO. 34-38)

The provisions of Section 86, "Electrical Systems", of the State Standard Specifications shall apply in their entirety unless modified or supplemented on Plans, these Special Provisions and by the Engineer.

SP24-01 GENERAL

Work includes the installation of new LED area lights on 14' high round steel black poles in new foundations together with related trenching, conduits, wiring, supports boxes and programming as shown on the Plans, provided herein and directed by the Engineer.

Work shall conform to the Provisions provided herein including State Standard Specifications, the following Codes and as directed by the Engineer:

- National Electrical Code with California amendments
- California Admin. Code, Titles 17, 19, 24, Part 1.
- U.L. Electrical Construction Materials List
- Codes, rules and regulations as specified hereinafter
- Local city and county agencies

Contractor shall make product submittals for all aspects of the electrical system. The list shall include, for each item, the manufacturer, manufacturer's catalog number, type of class, the rating, capacity, size, etc. Submittals shall include:

1. Plan for conduit runs and POC
2. Light Poles
3. Light Fixtures
4. Foundation Components including concrete design
5. Conduit & Fittings

6. At-grade and underground pull boxes & covers
7. Wire & Cable
8. Wiring Devices
9. Disconnect Switches
10. Circuit Breakers

Contractor shall also submit for approval, detailed construction drawings for each item of fabricated equipment required for the electrical installation of the lighting system. All drawings shall be to scale, fully dimensioned, and provide sufficient detail to clearly indicate the arrangement of the equipment and its component parts. Construction of the equipment shown shall be revised to comply with the drawings and specifications as required by the Engineer after review of the shop drawings, and the drawings submitted prior to the start of Construction.

Contractor's attention is directed to existing light poles and fixtures to be removed or protected as shown on the Contract Plans. Measurement and payment for this work shall be as provided in Section 12 "Existing Facilities" herein per contract pay item "Remove Light Pole/Bollard".

Work shall conform to the provisions Section 86-1.06, "Maintaining Existing and Temporary Electrical Systems," of the State Standard Specifications in addition to these Special Provisions, the Plans and as directed by the Engineer. The work shall consist of removal and disposal of existing lights, poles, fixtures, foundations, pull boxes and all other components of the lights including wiring, connection to existing system and testing per these Specifications, as shown on the plans and as directed by the Engineer.

Contractor shall locate the existing conduits, conductors and wiring prior to the start of construction and verify removals and new electrical work as shown on the Plans with the Engineer.

The system may be turned on and off at the existing panel within the project area. Contractor shall properly disconnect existing lights so as not to disrupt the other lights, and the Contractor shall make all required connections for a fully-functional system.

Contractor shall review electrical work layout (POC, conduit run, Light/box locations) with Engineer prior to start of construction for coordination with all other aspects of the project including placement of lights, trenching, providing sleeves through new concrete and tree/root protection.

SP24-02 CONCRETE PULL BOX AND COVER

Concrete pull box and pull box cover to be installed as shown on the Plans and shall conform to the requirements of Section 86-2.06, "Pull Boxes", of the State Standard Specifications. Pull boxes damaged by Contractor during construction shall be replaced in kind at Contractor's expense.

Pull box cover shall be "split" reinforced precast concrete. The cover shall be marked "LIGHTING" or "SERVICE" as appropriate.

SP24-03 MAINTAINING EXISTING ELECTRICAL SYSTEMS

Work shall conform to the provisions of Section 86-1.06, "Maintaining Existing and Temporary Electrical Systems", of the State Standard Specifications.

Contractor shall coordinate his operations such that the existing playground lights shall be fully functional and in continuous operation during the hours of darkness.

SP24-04 FOUNDATIONS

The provisions of Section 17, "Concrete Construction," of the Technical Specifications of the Standard Specifications shall apply in their entirety except as modified or supplemented herein.

Contractor's attention is directed to the details on the Plans and SP-17 "Concrete Construction" Section of these Special Provisions. Conduits, bolts, reinforcement and all other items shown on the plans shall be provided in proposed foundations per the details on the plans.

Exposed foundation anchor bolts shall be properly protected with either barricades or traffic cones until the poles are erected.

SP24-04 LIGHT POLES AND FIXTURES

Contractor's attention is directed to the Plans and Appendix of these Special Provisions for the new area light pole and fixture locations and details. Contractor shall submit product data sheets for specified fixtures and poles (or approved equal) for the approval of the Engineer.

Type A1 fixtures shall be GARDCO LED single head fixtures on 14' high steel round poles. Both fixture and pole shall be black and approved by the Engineer. GFI receptacle shall be provided on top of poles where shown on the Plans.

Type A2 fixtures shall be GARDCO LED dual head light fixtures on 14' high steel round pole. Both fixture and pole shall be black and as approved by the Engineer. GFI receptacle shall be provided on top of poles where shown on the Plans.

Contractor shall coordinate drill hole locations and provide bolt connection for string light attachment on all poles as approved by Engineer.

Contractor's attention is directed to the Plans showing location of one a light pole for string light attachment. The pole and foundation shall be the same as the new area lights. Contractor shall coordinate drill hole location with Engineer and manufacturer and provide bolt connection for attaching string lights. Electrical service need not be provided to this pole.

SP24-05 CONDUIT

New conduit runs shall be as shown on the Plan. Conduits to be installed shall be placed below and prior to construction of the new improvements.

The conduit in a foundation and between a foundation and the nearest pull box shall be the rigid metallic type. All conduits shall have a 1/4" pull rope installed in them. All conduit joints shall be glued. The ends

of conduits in pull boxes shall have a bell bushing and shall be a minimum of 4 inches above surface of rock and a minimum of 6 inches below the top of the pull box.

Conduit installed shall be as shown on the Plans or as required by the Engineer.

After conductors have been installed, the ends of conduit terminating in pull boxes and cabinets shall be sealed with a UL approved plug or duct seal.

When a standard coupling cannot be used for coupling metal type conduit, a UL listed threaded union coupling, as specified in the third paragraph in Section 86-2.05C, "Installation", of the State Standard Specifications, or a concrete tight split coupling or concrete tight set screw coupling shall be used.

SP24-06 CONDUCTORS AND WIRING

Conductors and wiring shall be as shown on the Contract Plans.

The Contractor shall provide to the Engineer a Certificate of compliance from the Manufacturer in accordance with the provisions of Section 6-1.05, "Certificates of Compliance", of the State Standard Specifications for all the conductors and cables furnished for the project.

Conductors shall not be pulled into conduits until the pull boxes have been set to grade, rock sumps have been installed, and conduits have been bonded and grounded. All pull boxes shall be inspected and approved prior to pulling any conductors. Conductors shall not be pulled into conduits unless the Engineer is present to observe the operation. The ends of all unused cables shall be sealed.

At least 6 feet of slack shall be provided in the pull box nearest to each playground light for those conductors terminating at that standard; and 3 feet of slack shall be provided in each conductor in all other pull boxes.

Conductors shall be labeled. Identification bands shall be constructed from a nylon cable tie with a 0.35" by 0.75" label flag attached. The marking pen shall be one recommended by the manufacturer of the cable tie or it shall be an indelible marking pen compatible with writing on the nylon material. No other method of labeling shall be acceptable. Lighting conductors shall be labeled as appropriate.

SP24-07 SERVICE ENCLOSURES

The Contractor shall furnish and install all materials and equipment necessary to complete the electrical connections between the terminating point of service and the Project electrical system, as shown on the Plans, directed by the Engineer and as required to provide the intended function and service. Contractor shall review the method of connection with the Engineer prior to the start of construction.

SP24-08 TRENCHING

Trenching for installation of conduits and sleeves shall be done per details shown on plans and as specified in these Special Provisions. Trenching shall be coordinated with other similar installations to minimize the

number of trench cuts. All trenches shall be completed prior to the final paving and placement of all finished surfaces.

SP24-09 TESTING

Electrical systems shall be tested for proper function for five consecutive days prior to acceptance by the Engineer. Failure within the five days shall require a new five-day functional test period.

Any damage to new equipment installed as part of a modified facility prior to or during the "five-day functional test" shall be repaired by the Contractor at the Contractor's expense. The "five-day functional test" will begin on the day the system is completed and/or put into operation. The Contractor is responsible for the maintenance of all installed or relocated system until the Final Acceptance by the City Council.

In the event that the Contractor is unable to respond to a problem that develops during the functional test or that for any reason he is unable to correct the problem in a timely fashion as determined by the City, the City may have its own maintenance personnel work on the problem. Any such work performed by the City shall not invalidate the guarantee and warranty required by Contract and shall be at the Contractor's expense.

SP24-10 MEASUREMENT AND PAYMENT

The contract price paid per each for **“14’ Light Pole (for String Lights)”, “Single Area Light, Type A1”, “Double Area Light, Type A2”, “Concrete Pull Box”,** and per linear foot for **“Conduits, Wires, Boxes and Supports”** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals necessary to install light poles and fixtures in foundations with concrete pull boxes together with installing new drill holes/bolts on poles, conduits, wires, boxes supports, and pull boxes, and reconnection to existing electrical system including excavation, backfill, trenching, wiring and testing the system as shown on the plans, as specified by these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefor.

APPENDICES

Appendix A: Poured In Place Play Surfacing Layout and Colors

Appendix B: Black Metal Bench

Appendix C: Lighting Components

Appendix D: Play Equipment

Appendix A

PIP PLAY SURFACING DESIGN & COLORS

Appendix B

BLACK METAL BENCH

Appendix C

Lighting Components

Appendix D

Playground Equipment