



**CONTRACT SPECIFICATIONS  
FOR  
PROJECT NO. 19022**

**RUBBER PLAY SURFACE AT LAKE VISTA PARK**

**CITY OF OAK CREEK, WISCONSIN**

**OFFICE OF THE CITY ENGINEER**

**March 20, 2019**

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## NOTICE TO BIDDERS

**OWNER** The Common Council of the City of Oak Creek hereby gives notice that sealed proposals will be received in the City Clerk's office at 8040 S. 6th Street, Oak Creek, Wisconsin, 53154.

**PROJECT** The work, officially known as Project No. 19022 Rubber Play Surface at Lake Vista Park, consists of constructing the following approximate quantities:

ITEM DESCRIPTION	UNIT
EXCAVATION COMMON	85 CY
BASE AGGREGATE DENSE 1-1/4"	110 TON
POURED-IN-PLACE RUBBER PLAY SURFACE	2,265 SF
4" PERFORATED UNDERDRAIN	150 LF
4" CONCRETE END SECTION	2 EA

**TIME** Proposals must be received by the City Clerk no later than 10 a.m., April 5, 2019, at which time and place the proposals will be publicly opened and read aloud.

**CONTRACT DOCUMENTS** Plans, specifications, and bidding documents are available on the City of Oak Creek website ([www.oakcreekwi.org](http://www.oakcreekwi.org)), by entering *Active Public Contracts* in the home page search window. Any interested party desiring these documents may download them at no charge. All bidders shall bid in accordance with, and shall bid upon, the forms furnished by the City Engineer and contained in these bidding documents.

**STATUTORY PROVISIONS** The Contract letting shall be subject to the provisions of Section 62.15, 66.0901, and 779.16 Wisconsin Statutes. The minimum wage scale to be paid on this project shall be in accordance with the prevailing minimum wage as determined by federal or state law, whichever applies, and such wage is incorporated by reference, as it may be amended from time to time. If the United States Department of Housing and Urban Development or State of Wisconsin, Department of Workforce Development has issued a wage rate determination, then it shall apply.

**BID GUARANTEE** A certified check or bank draft payable to the City of Oak Creek, or a satisfactory bid bond, in an amount not less than 5% of the bid shall accompany each bid as a guarantee that if the bid is accepted, the bidder will execute and file the proposed contract and bond within 10 days after the award of the contract. In case the bidder fails to file such contract and bond within the time set by the City, the check or bid bond shall be forfeited to the City as liquidated damages pursuant to SS.62.15(3).

EQUAL OPPORTUNITY	The City of Oak Creek hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the ground of race, color, sex, or national origin in consideration for an award.
BID REJECTION	The Common Council reserves the right to reject any and all bids, waive any informalities in bidding, or to accept the bid or bids, which best serves the interest of the City of Oak Creek.
BID WITHDRAWAL	No bid shall be withdrawn for a period of 30 days after the scheduled opening of the bids without the consent of the Common Council.
BIDDING DOCUMENTS AVAILABILITY	Plans, specifications and bidding documents shall be available on the City's website on March 20, 2019.

Published by the authority of the Common Council this 20<sup>th</sup> day of March, 2019.

## **INSTRUCTIONS TO BIDDERS**

### **1. Proposal Forms**

No bid will be considered which is not submitted on forms furnished by the City Engineer.

### **2. Quantities**

The estimated quantities of the work are the result of careful calculations but are considered approximate. The quantity shown will be used as a basis for determining the lowest bidder. After the contract is awarded, the quantity of work listed under any item, or all items, may be increased or decreased according to the specifications at the discretion of the City Engineer, without invalidating the bid price.

The general description of bid items is provided to give bidders a brief description of the work covered under this contract, but is not meant to be all inclusive of the work and materials required to complete each item. All miscellaneous items required by the plans and specifications, although not expressly listed on the bid form, are assumed to be included on the unit prices of each general bid item. Bids will be compared on the basis of the quantities listed in the Bidding Schedule. Payment on the contract will be based on the actual, field-measured units installed.

### **3. Prior Examination of Contract Documents and Worksite**

Bidders shall inform themselves of the conditions under which work is to be performed by examining the contract documents, site, ground conditions and obstacles to be encountered in the field, and by such other means necessary. After proposal submittal, the City will not accept a claim that there was any misunderstanding as to the quantities, conditions, nature of the work, or extra compensation for items the Contractor failed to inform themselves of prior to bidding.

### **4. Inadequacies and Omissions**

Any verbal information obtained from or statement made by representatives of the engineering department at the time of the examination of the contract documents or the site for the purpose of bidding, which apparently corrects or in any way amends the contract documents shall be invalid. The City of Oak Creek will not be responsible for such verbal information or statements.

Bidders shall bring any inadequacies, omissions, or conflicts to the City Engineer's attention at least seven days before the due date of bids. Prompt clarification will be immediately supplied to all bidders by addenda, and each addendum shall be acknowledged on the proposal form. Failure to so request clarification of any inadequacy, omission or conflict will not relieve the contractor of responsibility. The signing of the contract will be considered as implicitly denoting that the contractor has a thorough comprehension of the full intent and scope of the specifications and drawings.

**5. Subcontractors**

Bidders shall be required to submit a list of subcontractors with their proposal in accordance with Section 66.0901(7), Wisconsin Statutes, 1979-1980 and subsequent amendments.

This list of subcontractors shall not be added to nor altered without the written consent of the City Engineer.

**6. Time of Performance**

When not otherwise specified, the bidder must state in the proposal the least number of calendar days (including Saturdays, Sundays and holidays) after the date to commence work given in the Notice to Proceed, in which he will start construction, and the number of calendar days (including Saturdays, Sundays and holidays) after date to commence work given in the Notice to Proceed in which he will fully complete the work as specified.

In stating time, the bidder should make due allowance for all probable difficulties which may be encountered.

In the event of failure to complete the work within the time stated or otherwise specified, liquidated damages will be assessed as provided in the specifications.

**7. Proposal Guaranty**

The City of Oak Creek requires either a bid bond or a certified check of at least 5% of the bid.

**8. Requirements for Signing Proposals**

- A. The full name and business address of each bidder must be entered on the proposal submitted. The proposal shall be signed in the space provided by written signature of the person or persons properly authorized to sign it.
- B. A proposal submitted by an individual shall be signed by the bidder or by an authorized agent.
- C. A proposal submitted by a firm or partnership shall be signed by a member or by an authorized agent; if by joint adventurers, the proposal shall be signed by each of their authorized agent(s).
- D. Proposals which are signed by an attorney-in-fact for individuals, firms, partnerships or joint adventurers shall have attached a power-of-attorney evidencing authority to sign the bid.
- E. A proposal submitted by a corporation shall be signed by an authorized officer or agent of such corporation. Such corporation must be licensed to do business in the State of Wisconsin before a proposal to do the work can be received. If a foreign corporation, the state under which it is incorporated must

be named.

**9. Submission of Proposal**

The proposal and the proposal guaranty shall be placed in an envelope or in separate envelopes and shall be sealed. On the envelope or envelopes shall be plainly written the PROJECT NUMBER, DATE OF OPENING BIDS, NAME OF BIDDER, AND THE TYPE AND LOCATION OF THE WORK. Such envelope(s) shall be addressed and delivered to the office of the City Clerk, City Hall, before the time specified in the Notice to Bidders for opening bids.

**10. Withdrawal of Proposal**

A bidder may withdraw a proposal, provided the Clerk receives a written request prior to the deadline for accepting proposals. The proposal will be returned to the bidder unopened.

**11. Bid Prices**

Bidders must submit a bid price, in accordance with the specifications, for each item of the job, branch or alternative, in compliance with the bidding units specified for the quantities listed in the proposal.

**12. Double Bidding**

Two proposals under different names will not be accepted from one firm or association.

**13. Disqualifying of Bid Proposal**

A bid proposal will be disqualified because of gross errors in computation which cannot be resolved by mathematical correction without resorting to information not contained in the bid.

Errors in extension may be corrected providing that the unit cost is legible and can be definitely identified as complying with item specifications. The total bid shall be adjusted in accordance with approved extension corrections. An extension may not be divided by number of units specified to determine a unit cost if such is omitted by the bidder. It is the responsibility of the bidder to submit a neat, accurate and complete proposal if his bid is to be accepted.

**14. Right to Accept or Reject Bids**

The City reserves the unqualified right to reject any or all bids at its sole and absolute discretion, or to reject any or all bids where the City Engineer has determined that the contractor or bidder has unbalanced his bid and unit prices. The City further reserves the unqualified right to waive any irregularities in any bid, or to accept any bid which will best serve the interests of the City. The City also reserves the unrestricted privilege to reject any unit prices for additions to or deductions from the scheduled amount of work as given in the bid, if the same are considered excessive or unrea-

sonable, or to accept any or all such unit prices which may be considered fair and reasonable.

The bid openings are open to the public, and no awards will be made immediately upon opening bids, nor until the bids opened can be compared, scheduled, and reviewed by the Common Council. The contract shall be awarded by Common Council action, and the bidder to whom the award is made will be notified at the earliest possible date.

**15. Performance Guaranty**

The performance of the contract must be assured by a surety bond executed by the successful bidder in the full amount of the contract. Such bond must also be executed by a surety company.

**16. Contract Execution**

Within 10 days from the date of receipt of the contract forms from the City Attorney, the successful bidder shall sign four copies of the contract form, attach the performance guarantee of the approved licensed surety, and deliver to the City Clerk at Oak Creek City Hall. The contract, when signed by the Mayor, countersigned by the City Clerk and Comptroller of the City of Oak Creek, and approved as to form and execution by the City Attorney, shall be a part of the contract documents. When all parties have signed the contract, the City Clerk will refund the proposal deposit to the successful bidder.

In case of failure to have delivered such properly executed copies of the contract within 10 days, or such extension as the Common Council only may deem reasonable, bidder will be considered as having abandoned his proposal. Bidder will be considered in default to the City to the full amount of the bid deposit. It will be understood and agreed by the party submitting the proposal that such bid deposit represents the damages to which the City will be subjected by reason of the bidder's default in acceptance of contract, or failure to either properly execute the contract forms or deliver within the specified time of such extension.

**17. Starting Work Before Notification**

No work shall be performed under the contract and no materials or equipment shall be delivered to the site of the work prior to the date in the City Engineer's written Notice to Proceed.

**18. Refund of Bid Deposit to Unsuccessful Bidders**

The bid deposit of all except the two lowest bidders will be refunded after the Common Council has determined the lowest responsible bidder. The remaining bid deposit will be refunded upon execution of the contract.



April 5, 2019

To: The Common Council of the City of Oak Creek, Wisconsin

Re: Bid Proposal

In conformity with the notice to bidders, the undersigned bidder, having examined the site of the work and the contract, submits the following proposal for furnishing the material, equipment, labor and everything necessary for the completion of the work listed hereunder, and agrees to execute the proposed contract and furnish the required bond for the completion of said work, at the locations and for the prices set forth in the attached Schedule One.

The undersigned bidder deposits herewith a certified check payable to the order of the City Treasurer, or an approved bid bond, in the sum designated in said notice, and hereby agrees that in the event the undersigned bidder shall fail to execute the contract with surety bond thereto and return the same to the City Clerk within 10 calendar days after transmittal by the City, then said certified check shall be retained by and become the property of the City of Oak Creek as fixed and liquidated damages or the penalty as provided by said bond shall be recovered as liquidated damages.

It is further understood that construction on this contract shall commence and be completed as specified in the Detail Specifications. The undersigned bidder also understands that this is a unit price contract and the City may add or reduce quantities and street locations at their discretion. The quantities listed in the bid proposal are approximate, and for low bidder evaluation only.

This proposal submitted by:

\_\_\_\_\_  
Bidder Address

\_\_\_\_\_  
Phone City, State, Zip Code

Operating as: Sole Trader \_\_\_\_\_ Partnership \_\_\_\_\_ Corporation \_\_\_\_\_

Under the laws of the State of \_\_\_\_\_

By: \_\_\_\_\_ (Signature)

\_\_\_\_\_ (Title)

**ADDENDUM RECEIPT:**

We acknowledge the receipt of Addendum No(s). \_\_\_\_\_ inclusive.

**SWORN STATEMENT OF BIDDER**

**PURSUANT TO SECTION 66.0901 WISCONSIN STATUTES**

I, being duly sworn at \_\_\_\_\_ (City),  
\_\_\_\_\_ (State), on oath, do hereby state on behalf of said  
bidder that I have examined and carefully prepared this proposal from the plans,  
specifications, the work site including surface and underground conditions, and other  
contract documents and have checked the same in detail before submitting this proposal;  
and that this sworn statement is hereby made an integral part of this proposal.

By: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Title)

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2019.

\_\_\_\_\_

Notary Public, \_\_\_\_\_ County

State of \_\_\_\_\_

My commission expires: \_\_\_\_\_

Affix corporate seal below.

**INFORMATION ON SURETY *(Please fill out completely)***

Firm \_\_\_\_\_

Address, City, State, Zip Code\_\_\_\_\_

Attorney-in-fact \_\_\_\_\_

Address, City, State, Zip Code\_\_\_\_\_

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**INFORMATION OF SUBCONTRACTORS**

The undersigned bidder will employ, subject to the approval of the said owner, the following subcontractors. This list shall not be added to nor altered without the written consent of the owner.

<u>NAME</u>	<u>ADDRESS</u>	<u>CLASS OF WORK</u>
-------------	----------------	----------------------

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Schedule One

BID PRICES

Item No.	Item Description	Bid Quantity	Units	Unit Price	Extended Bid Price
1	EXCAVATION COMMON	85	CY		
2	BASE AGGREGATE DENSE 1-1/4"	110	TON		
3	POURED-IN-PLACE RUBBER PLAY SURFACE	2,265	SF		
4	4" PERFORATED UNDERDRAIN	150	LF		
5	4" CONCRETE END SECTION	2	EA		

TOTAL BID: \$ \_\_\_\_\_

City reserves the right to award the contract based upon the total bid. This contract is a unit price contract. The above bid quantities are an approximation of need based on the plans. The basis of award shall be the summation of the bid quantities multiplied by the bidder's unit prices. The City of Oak Creek reserves the right to add or decrease quantities based on its needs and budget. Payment to contractor shall be based on actual measured units constructed under the contract.

## DETAIL SPECIFICATIONS

### I. GENERAL

#### A. INTRODUCTION

These specifications govern the installation of rubber play surface, replacing two areas (one wood chip area and one play sand area), at Lake Vista Park, 4001 E. Lake Vista Parkway in the City of Oak Creek.

All work performed and all materials supplied under this contract shall conform to the Contract Documents and to all specifications, codes and ordinances either referred to or established by law.

#### B. APPLICABLE SPECIFICATIONS

The following specifications shall be applicable to all construction under this project:

1. General Specifications of the Department of Engineering, City of Oak Creek, dated 1959, hereinafter referred to as the General Specifications in these Detail Specifications.
2. Oak Creek Engineering Design Manual, dated October, 1997, hereinafter referred to as the Design Manual in these Detail Specifications.
3. Standard Specifications for Sewer and Water Construction in Wisconsin, Sixth Edition (December 22, 2003), with the latest addendum, hereinafter referred to as the Standard Specifications in these Detail Specifications.
4. State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2017 Edition, the latest Supplemental Specifications, and Additional Special Provisions 6 (ASP 6), hereinafter referred to as the State Specifications in these Detail Specifications.
5. Manual on Uniform Traffic Control Devices, 2009 Edition, and the latest Supplemental Specifications, hereinafter referred to as the MUTCD.
6. These Detail Specifications.
7. The Construction Plans.

Copies of the General, Standard, State Specifications, and Design Manual are on file at the City of Oak Creek Engineering Department for use and reference on the premises by prospective bidders and by the Contractor.

The Detail Specifications and the Construction Plans cover items, corrections, deletions or additions to the above-listed specifications and take precedence over all portions those specifications that may be in conflict herewith.

Any conflict between the various specifications and the Construction Plans shall be brought to the attention of the Engineer by the bidders and/or the Contractor. Where such conflict may exist, the Engineer shall have the sole authority to exercise a decision as to the meaning of the bidding and contract documents.

Reference shall also be made to the Instructions to Bidders of the Bid and Contract Documents.

## C. CONTROL OF CONSTRUCTION OPERATIONS

### 1. Scheduling Work

Contractor is responsible for establishing a schedule, to be approved by the Owner, for the sequence and progress of the Work that is designed to meet the completion date. Contractor shall be solely responsible for coordination of all Work to ensure completion of the Work within the time limits specified in these Contract Documents.

Time Restrictions for Performing Work: Contractor shall not start or operate motorized equipment between hours of 8:00 P.M. and 7:00 A.M. unless otherwise authorized by the City of Oak Creek City Engineer or his designee.

The Contractor will not be permitted to start other parts of the project until previously started parts are fully completed or continuous work, in the opinion of the Engineer, is being done to fully complete the previously started parts. However, the Contractor may, with the approval of the Engineer, start a second crew with a second foreman on other portions of the project. (Refer also to Sections 1.2.2 and 1.3.21 of the Standard Specifications.)

Also, at any time during the execution of the contract that the Contractor either suspends or returns to work, he must notify the City Engineer of his intentions at least three working days in advance of said suspension or return to work.

### 2. Maintenance of Public Safety and Convenience

The Contractor shall provide for the placing of necessary detour signs, flagmen, barricades, warning lights and warning and informational signs to provide for the safety and convenience of the public prior to starting of any of the work.

All such devices shall comply with the federal Manual on Uniform Traffic Control Devices. The cost for installation and maintenance of the traffic control devices shall be paid under Traffic Control - Project.

### 3. Access to Properties

The Contractor shall provide for access to the properties abutting the work site area in accordance with Section 1.7.7 of the Standard Specifications. In addition, the operations shall be conducted in such a manner that the street at all times shall be maintained so that at least one-half of roadway remains open for vehicular access, and all abutting properties shall be provided with vehicular access at all times.

4. Haul Roads and Storage Areas

The Contractor shall be required to submit a plan indicating his intended location of haul roads and storage areas for equipment and materials. Such plan shall be presented at the pre-construction meeting and shall be subject to the approval of the Engineer. Any subsequent proposed changes to the approved plan shall be submitted to the Engineer for approval prior to implementation of the change. Construction traffic shall be permitted only on areas as approved. All areas used for haul roads and storage shall be subject to restoration by the Contractor to the condition prior to the start of work under this contract, with no additional cost to the City.

## II. NOTICES AND PERMITS

### A. GENERAL UTILITY NOTIFICATION

Please Note: Section 66.047 of Wisconsin Statutes makes it mandatory that:

"It shall be the duty of every public service corporation, whenever a temporary protection of, or temporary change in its structures, located upon, over, along or under the surface of any public street or highway is deemed by the commissioner of public works, or other such duly constituted authority, to be reasonably necessary to enable the accomplishment of such work, to so temporarily protect or change its said structures; provided that such Contractor shall give at least 2 days notice of such required temporary protection or temporary change to such corporation."

The Contractor shall refer to Chapter 1.2.0 of the Standard Specifications, in regard to necessary notices and permits required. These provisions shall be strictly adhered to at the start of any part of the project. In particular, the following requirements shall apply.

### B. NOTIFICATION TO WE ENERGIES – ELECTRIC OPERATIONS

In accordance with the provisions of the Wisconsin State Statutes, with regard to the maintenance of a certain clearance from energized conductors and with regard to notification where work might affect public utility facilities, it is the requirement herein that the Contractor shall be responsible for and duty-bound to notify the We Energies in writing in advance of work to be done near power facilities. Such notice shall be directed to:

Supervisor of Budget Engineering  
We Energies  
4800 W. Rawson Avenue  
Franklin, WI 53132  
Phone: (414) 423-5000

Emergency or additional notification, if any is required during construction, shall be done by contacting their office at (414) 221-3700.

C. NOTIFICATION TO WE ENERGIES - GAS OPERATIONS

The Contractor shall notify We Energies - Gas Operations of the construction schedule as it affects said gas company as prescribed by the Wisconsin State Statutes. Written notice shall be directed to:

We Energies - Gas Operations  
4800 W. Rawson Avenue  
Franklin, WI 53132  
Phone: (414) 423-5050

D. NOTIFICATION TO AT&T

The Contractor shall notify AT&T of his construction schedule as it affects said telephone company as prescribed by the Wisconsin State Statutes. Written notice shall be directed to:

AT&T  
Cable Location Plant  
435 S. 95th Street  
Milwaukee, WI 53214

Additional notification, if any is required during construction, shall be done by contacting their office by phone at (414) 344-5111.

E. NOTIFICATION TO CHARTER COMMUNICATIONS

The Contractor shall notify Charter Communications of his construction schedule as it affects said cable communications company as prescribed by the Wisconsin State Statutes. Written notice shall be directed to:

Charter Communications  
5475 W. Abbott Avenue  
Greenfield, WI 53220

Additional notification, if any is required during construction, shall be done by contacting their office by phone at (414) 282-6300.

F. NOTIFICATION TO OAK CREEK STREET, FIRE, AND POLICE DEPARTMENTS AND OAK CREEK WATER AND SEWER UTILITY

Prior to starting construction within any street, three days' written notice shall



be given to the following departments:

1. Street Department, 800 W. Puetz Road, (414) 570-5682
2. Fire Department, 7000 S. 6<sup>th</sup> Street, (414) 570-5630
3. Police Department, 301 W. Ryan Road, (414) 762-8200
4. Oak Creek Public Schools, 7630 S. 10<sup>th</sup> Street, (414) 768-6236
5. Oak Creek Water & Sewer Utility, 170 W. Drexel Avenue, (414) 570-8210

**G. CITY OF OAK CREEK WATER USE PERMIT**

The Contractor will be permitted to use the City water supply where available for incidental use, providing a permit is first obtained from the Oak Creek Water and Sewer Utility, Utility Manager, 170 W. Drexel Avenue, Oak Creek, Wisconsin. An appropriate charge for water usage, as determined by the Utility Manager, shall be charged to the Contractor, the cost of which shall be considered incidental to the contracted work. If the charges are not paid by project closeout, the amount of said charges shall be deducted from the final contract payment.

**H. WORK IN EASEMENTS**

A portion of the work may be performed in an easement or by right-of-entry upon private lands. The requirements of Sections 1.7.13 and 1.7.14 of the Standard Specifications and the special provisions of these specifications, if any, shall be adhered to.

**III. CONTRACTOR'S INSURANCE**

**A. GENERAL**

The Contractor shall not commence work under this contract until he has obtained all insurance required under this paragraph and such insurance has been approved by the city and insurance certificates have been filed with the City, nor shall the Contractor allow any Subcontractor to commence work on his subcontract until all similar insurance required of the Subcontractor has been so obtained and approved in accordance with Section 1.8.4 of the Standard Specifications and these Detail Specification provisions.

**B. COMPENSATION INSURANCE**

The Contractor shall take out and maintain during the life of this contract, Worker's Compensation Insurance for all of his employees at the site of the project and in case any work is sublet, the Contractor shall require the Subcontractor similarly to provide Worker's Compensation Insurance of all of the latter's employees, unless such employees are covered by the protection afforded by the Contractor. In case any class of employees engaged in

hazardous work under this contract at the site of the project is not protected under the Worker's Compensation Statute, the Contractor shall provide and shall cause each Subcontractor to provide adequate insurance coverage for the protection of his employees not otherwise protected.

**C. PUBLIC LIABILITY, PROPERTY DAMAGE AND CONTRACTUAL LIABILITY INSURANCE**

The Contractor shall take out and maintain during the life of this contract, public liability, property damage, and contractual liability insurance in the following minimum amounts:

Bodily Injury	\$1,000,000 per occurrence
	\$1,000,000 aggregate
Property Damage	\$500,000 per occurrence
	\$500,000 aggregate

These policies shall protect the Contractor and any Subcontractor performing work covered by this contract from the claims and damages for personal injury, including accidental death, as well as claims for property damage, which may arise from the performance of the work or under the hold-harmless and indemnifying clauses which are a part of this contract. The said policies are to cover not only the Contractor or Subcontractor but also any other directly or indirectly employed by either of them.

**D. INSURANCE AGAINST THE FOLLOWING SPECIAL HAZARDS**

The following respective amounts shall be procured by the Contractor or Subcontractor before the commencement of any operation by the Contractor, or the happening of any circumstances creating or tending to create the particular special hazard:

<u>Type</u>	<u>Amount</u>
Operating of elevators or hoists.....	\$25,000.00
Use and operation of automobiles and trucks.....	\$25,000.00
Structural alterations or demolitions .....	\$25,000.00
Undermining adjacent structures.....	\$10,000.00
Blasting operations.....	\$10,000.00
Operation of excavating machinery in streets and highways .....	\$10,000.00
Operation within other public or private right-of-way (including railroad right-of-way) .....	As Required

Contractor shall carry the minimum coverage per Section 107.17.3, Paragraph 2 of the State Specifications for railroad protective liability insurance coverage.

**IV. PERFORMANCE BOND AND GUARANTEE**

The contractor will be required to furnish a satisfactory performance bond in the

amount of 100% of the contract. The Contractor shall pay the total cost of this bond. Such bond shall be executed by an authorized surety company and shall remain in full force and effect for a period of one year after the final payment for the work to guarantee workmanship and materials.

The Contractor shall agree and guarantee that the material and workmanship supplied by him shall be free from all defects, and strictly in accordance with the plans and specifications, at the time of its completion and acceptance by the municipality, and for a time of one year thereafter, the Contractor agrees to forthwith repair the same upon notification by the municipality using the same material required by these specifications. In case the Contractor shall fail to make such repairs or cause the same to be made, the Contractor agrees and guarantees to pay on demand the cost thereof, to said municipality upon the completion of such repairs, and the Contractor further agrees and guarantees to pay for all labor and material used in or about the construction of said work in his contract, which may become a lien or a claim against the municipality. Such agreement and guarantee shall be made a part of the contract, and the fulfillment thereof shall be secured by the bond of the Contractor.

## **V. METHOD OF PAYMENTS**

Payments will be made monthly throughout the progress of the work, provided the work completed is substantial enough in the opinion of the City Engineer. Such payments shall be in accordance with Section 66.0901 (9) (b) of the State Statutes which states that the City,

"from time to time, shall grant to the contractor an estimate of the amount and proportionate value of the work done, which entitles the contractor to receive the amount of the estimate, less the retainage, from the proper fund. The retainage shall be an amount equal to not more than 5% of the estimate until 50% of the work has been completed. At 50% completion, further partial payments shall be made in full to the contractor and no additional amounts may be retained unless the architect or engineer certifies that the job is not proceeding satisfactorily, but amounts previously retained shall not be paid to the contractor. At 50% completion or any time after 50% completion when the progress of the work is not satisfactory, additional amounts may be retained but the total retainage may not be more than 10% of the value of the work completed."

Final payment, including the balance of the retainage, shall be made at the final acceptance of the work.

Compliance with the following portion of Section 66.0901 (9) (b) of the State Statutes shall be provided at the discretion of the City Engineer.

"Upon substantial completion of the work, an amount retained may be paid to the contractor. When the work has been substantially completed except for work which cannot be completed because of weather conditions, lack of materials or other reasons which in the judgment of the municipality are valid reasons for non-completion, the

municipality may make additional payments, retaining at all times an amount sufficient to cover the estimated cost of the work still to be completed or may pay out the entire amount retained and receive from the contractor guarantees in the form of a bond or other collateral sufficient to ensure completion of the job. For the purposes of this section, estimates may include any fabricated or manufactured materials and components specified, previously paid for by the contractor and delivered to the work or properly stored and suitable for incorporation in the work embraced in the contract."

## **VI. POURED IN PLACE RUBBER PLAY SURFACE**

### **A. DESCRIPTION**

This special provision describes work, materials, labor, equipment, and supervision necessary to provide and construct protective poured in place rubber play surface as provided for in these specifications and on the drawings.

#### **1. Submittals**

- a. Shop drawings: For each playground surface system, include materials, plans, cross sections, drainage, installation, penetration details, and edge termination including loose fill edgings. Include patterns made by varying colors of surfacing.
- b. Samples for Initial Selection: For each type of playground surface system indicated.
  - i. Include similar samples of playground surface system and accessories involving color selection. Submit manufacturer's standard verification samples of 9" x 9" minimum.

#### **2. Coordination Drawings: Plans, drawn to scale, on which the following items are shown and coordinated with each other, using input from Installers of the items involved:**

- a. Extent of surface systems and use zones for equipment.
- b. Critical heights for playground surfaces and fall heights for equipment.

#### **3. Qualification Data: Submit certificate of qualifications of the playground surfacing installer.**

#### **4. Warranty: Sample of special warranty.**

#### **5. 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, and NPCAI-certified:

<http://www.playground-contractors.org>

- b. Certifications: Certification by manufacturer that installer is an approved applicator of the playground surfacing system.
- c. Materials shall be International Play Equipment Manufacturers Association (IPEMA) certified.

6. Delivery, Storage, and Handling

- a. General: Comply with Division 1 Product Requirement Section.
- 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).

7. Project Conditions

- a. Environmental Requirements: Install surfacing system when minimum ambient temperature is 40 degrees F (4 degrees C) and maximum ambient temperature is 90 degrees F (32 degrees C). Do not install in steady or heavy rain.

8. Warranty

- a. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of playground surface system that fail in materials or workmanship within specified warranty period.
- b. Failures include, but are not limited to, the following:
  - i. Reduction in impact attenuation.
  - ii. Deterioration of surface and other materials beyond normal weathering.

9. Warranty Period: 10 years from date of Final Completion.

**B. PRODUCTS**

1. Poured-In-Place Surface (Rubberized Surface)

- a. Manufacturer: Surface America, Inc.
  - i. Contact: PO Box 157, Williamsville, NY 14231; Telephone: (800) 999-0555, (716) 632-8413; Fax: (716) 632-8324;
  - ii. Email: [info@surfaceamerica.com](mailto:info@surfaceamerica.com)
  - iii. Website: <http://www.surfaceamerica.com>
- b. Proprietary Products/Systems. Poured-in-place playground surfacing system, including the following:
  - i. PlayBound Poured-In-Place Primer:
  - ii. Material: Polyurethane.
- c. Poured-in-Place Basemat (Impact Course):
  - i. Material: Blend of 100% recycled SBR (styrene butadiene rubber) and urethane.
  - ii. Thickness: 4" thickness corresponding to a 10' fall zone.
  - iii. Formulation Components: Blend of strand and granular material.

- d. Poured-In-Place Top Surface (Wearing Course):
  - i. Material: Blend of recycled EPDM (ethylene propylene diene monomer) rubber and aromatic or aliphatic urethane binder.
  - ii. Thickness: Nominal 1/2" (12.7 mm), minimum 3/8" (9.5 mm), maximum 5/8" (15.9 mm).
  - iii. Color: various colors. Colors shown on drawings are based on mixtures Surface America PlayBound™ Poured-In-Place Standard Solid Colors as mixed in proportions indicated below.
    - Color 1- Lt. Blue- (50% teal, 50% black)
    - Color 2- Tan- (75% beige, 25% black)
  - iv. Dry Static Coefficient of Friction (ASTM D2047): 1.0.
  - v. Wet Static Coefficient of Friction (ASTM D2047): 0.9.
  - vi. Dry Skid Resistance (ASTM E303): 89.
  - vii. Wet Skid Resistance (ASTM E303): 57.
- e. Required mix proportions by weight:
  - i. Basemat (Impact Course): 16+% urethane (as ratio: 14% urethane divided by 86% rubber). 14% urethane, 86% rubber (based on entire rubber & urethane mix).
  - ii. Top Surface (Wearing Course): 22% urethane (ratio: 18% urethane divided by 82% rubber). 18% urethane, 82% rubber (based on entire rubber & urethane mix).

## C. CONSTRUCTION

- 1. Poured-In-Place Surface (Rubberized Surface)
  - a. Comply with the instructions and recommendations of the playground surfacing manufacturer.
  - b. Examination
    - i. 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.
    - ii. Proper drainage is critical to the longevity of the Poured-in-Place surfacing system. Inadequate drainage will cause premature breakdown of the poured system in affected areas and void the warranty.
  - c. Preparation
    - i. 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 ft<sup>2</sup>/gal (7.5 m<sup>2</sup>/L).
  - d. Installation
    - i. Do not proceed with playground surfacing installation until all applicable site work, including substrate preparation, fencing, playground equipment installation, and other relevant work has been completed.
  - e. Basemat (impact course) Installation:

- i. Using screeds and hand trowels, install the basemat at a consistent density of 29 pounds, 1 ounce per cubic foot (466 kg/m<sup>3</sup>) to the specified thickness.
  - ii. Allow basemat to cure for sufficient time so that indentations are not left in the basemat from applicator foot traffic or equipment.
  - iii. Do not allow foot traffic or use of the basemat surface until it is sufficiently cured.
  - iv. Primer Application: Using a brush or short nap roller, apply primer to the basemat 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 ft<sup>2</sup>/gal (7.5 m<sup>2</sup>/L).
- f. Top Surface (wearing surface) Installation:
  - i. Using a hand trowel, install top surface at a consistent density of 58 pounds, 9 ounces per cubic foot (938 kg/m<sup>3</sup>) to a nominal thickness of 1/2" (12.7 mm)
  - ii. Allow top surface to cure for a minimum of 48 hours. 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.
  - iii. Do not allow foot traffic or use of the surface until it is sufficiently cured.
- g. Protect the installed playground surface from damage resulting from subsequent construction activity on the site.

## **VII. CONSTRUCTION DETAILS**

### **A. COMPLYING WITH SPECIFICATIONS**

The Contractor shall comply fully with the specifications and perform all operations to the extent that satisfactory work will result. A representative of the City of Oak Creek will provide ongoing inspection of the work as it progresses to ensure full compliance with the specifications. The Inspector shall notify the City Engineer of any noncompliance and have authority to stop any work that is not in conformance with the specifications so that an Engineer may investigate such noncompliance.

Any work performed after the work has been ordered stopped by the Inspector shall not be considered as work performed under the contract, and consequently will not be accepted by the City nor allowed in any monthly or final payment until corrected to the satisfaction of the City Engineer.

### **B. LOCATION - STAKING**

The line for each facility will be located as shown on the plan and will be staked out once by the City Engineering Department. If necessary to pass an existing obstruction, the Engineer may shift the line to avoid such obstruction.

The Contractor must protect all stakes and bench marks from disturbances until permission is given to remove them. A width of not less than 2' on each side of the line on which stakes are located shall be kept free from obstruction. Additional staking required due to damage or removal shall be at

the Contractor's expense.

C. MATERIAL ENCOUNTERED

It is the Contractor's responsibility to determine for himself the character, nature, type and condition of materials likely to be encountered in the proposed work. The submission of a proposal for the work herein shall in itself be accepted as evidence that the Contractor has examined the site of all work, made borings, investigations and/or studies of all conditions and provided for all such conditions in his proposal.

No variation from the price named in the proposal will be made or allowed whether the material through which excavations are to be made are hard, soft, wet, or dry.

Any and all necessary dewatering shall be in accordance with Chapter 2.2.13 of the Standard Specifications, and shall be done at the Contractor's expense.

D. EROSION CONTROL AND GROUND COVER

Pursuant to City Code, construction activities are required to comply with erosion control and ground cover requirements. For public works construction, specifically, the following construction activity requirements are applicable:

1. Those involving grading, removal of protective ground cover or vegetation, excavation, landfilling or other land disturbing activity affecting a surface area of 4,000 square feet or more;
2. Those involving excavation or filling or a combination of excavation and filling affecting 400 cubic yards or more of dirt, sand or other excavation or fill material;
3. Those involving street, highway, road or bridge construction, enlargement, relocation or reconstruction;
4. Those involving the laying, repairing, replacing or enlarging of an underground pipe facility for a distance of 300' > or more.

To address the requirements, the Contractor shall provide for the implementation of the control measures as may be specified on the Construction Plans and in these Detail Specifications.

E. DISTRIBUTION OF EXCESS EXCAVATED MATERIAL

The disposal of all surplus excavated and removed materials shall be the responsibility of the Contractor, shall be at the Contractor's expense and if disposed of within the limits of the City of Oak Creek, shall comply with the following regulations. Prior to the start of construction, the Contractor shall



indicate the location at which the surplus excavated material will be disposed of.

The placement of fill on private lands located in the City of Oak Creek is under City regulation, in accordance with the Municipal Code. The disposal of surplus excavated materials, including that derived from public works construction, is subject to compliance with this Code. The Code generally provides for only the following forms of landfilling:

1. When the fill comprises less than 1,000 cubic yards and is to be placed on a parcel of land of one acre or less in size. An application shall be made to the City Engineer for a permit, on a one-time-only basis. An erosion control permit and the accompanying fee are required.
2. Shoreline erosion control, whereby a license must be applied for and granted prior to landfilling activity being undertaken.
3. On a site, where fill may be needed in conjunction with building construction and where a building permit is in effect.
4. On City-owned property, subject to plans approved by the Common Council.
5. On a site where a landfill license is in effect.

#### F. DAMAGE TO EXISTING FACILITIES

The Contractor shall be responsible for protection of all existing facilities. Any damage to a facility due to Contractor's negligence shall be repaired or replaced by the Contractor at the direction of the Engineer without cost to the City.

Prior to work beginning on any road the City and Contractor shall jointly inspect all existing utility structures within the work zone to agree on preconstruction conditions. Any damage to utility structures thereafter shall be the responsibility of the Contractor to repair.

#### G. TRAFFIC CONTROL AND WARNING DEVICES

The work under this section shall include furnishing, placing, maintaining, and removal of all traffic control and warning devices in accordance with Section 643 of the State Specifications and with the Manual of Uniform Traffic Control Devices, except as amended by the plans and these Detail Specifications.

Contractor shall provide warning signage, barricades and caution tape to protect against access to the work zones and potential injury.

#### H. SUBGRADE PREPARATION

It is the responsibility of the Contractor to maintain a drained subgrade. In areas where the excavation collects or ponds water, the excavation shall be pumped dry immediately at the Contractor's expense. Any unsuitable material which results from standing water shall be replaced or undercut at the direction of the City and at the Contractor's expense.

## **VIII. RESTORATION IN THE WORK AREA**

### **A. GENERAL**

Upon completion, the Contractor shall remove all debris, surplus materials, and return the surface of the street or right-of-way and all other places disturbed or affected by the work to a condition at least comparable to that existing before starting the work and shall maintain it in such condition until its final completion and acceptance. The restoration shall include placement of topsoil, seed, fertilizer and mulch on grass areas and incidental pavement repair of adjacent streets and driveways. Final payment for any installation will not be made until this restoration has been completed and accepted.

Acceptance or approval of any work by the City Engineer shall not prevent the City from asserting a claim against the Contractor and his surety under the surety bond required hereunder for incomplete or defective work if discovered within 12 months from the acceptance of the completed work. The City Engineer's presence during the performance of any excavation work shall not relieve the Contractor of his responsibilities hereunder.

Included in the restoration shall be any damage to drainage ways and culverts. The Contractor is required to implement erosion control techniques where necessary.

### **B. INTERIM RESTORATION**

Under the interim restoration, the Contractor shall provide for:

1. Furnishing and placing crushed stone in all settlements, potholes, and temporary excavations, and for temporarily ramping for vehicular access at driveways and project limits.
2. Shaping the surface as required providing adequate drainage and safe conditions for vehicular traffic.
3. Apply such liquid materials for dust control or solidification of the surface as approved by the Engineer.

Such restoration and maintenance shall be the responsibility of the Contractor and shall be considered incidental to the various bid items and contract price.

### **C. RESTORATION OF GRAVELED SURFACES**

The Contractor shall be required to restore all graveled surfaces, which were disturbed during construction, with traffic bond granular materials. Materials and installation shall conform to Section 305 of the State Specifications.

**D. RESTORATION OF LAWNS, GRASS AREA AND DITCH**

The Contractor shall be required to repair, re-seed, and/or replant all established lawns damaged in public right-of-way during the course of construction to a condition equal to or better than the condition at the commencement of his work, in accordance with Type "C", Lawn Replacement of Chapter 2.7.4 of the Standard Specifications unless otherwise specified in these specifications.

**E. CITY'S RIGHT TO RESTORE SURFACE**

If the Contractor shall have failed to restore the surface to its specified condition upon the expiration of the time fixed by such contract or shall otherwise have failed to complete the work covered by the contract, the City Engineer shall have the right to use city forces to do all the work necessary to restore the work area. The Contractor shall be liable for the actual cost thereof, plus 25% for general overhead and administrative expenses. Compensation for the amount of such costs shall become due to the City and credit for such amount shall be applied against any funds that may be due to the Contractor. If final payment under the contract has already been made, the Contractor shall be directly billed for the amount due. As a last resort, the City will enforce compensation for costs it has incurred through collection from the Contractor's surety.

**IX. CLEAN-UP AND FINAL INSPECTION**

The Contractor shall have thorough and systematic clean-up operations follow closely behind the construction work. He shall, at his own expense, remove and properly dispose of all water, dirt, rubbish or any other foreign substances. Any defects of any nature whatsoever shall be promptly corrected at his own expense. Notice to begin final cleaning and repairs, if such is needed, will be given by the Engineer and the Contractor must comply.

The Engineer will make an inspection of the work during the progress of final cleaning and repairing and the Contractor shall keep any work so inspected clean until the final inspection by the Engineer and the acceptance of the entire work. When the Contractor has finally cleaned and repaired the work, he shall notify the Engineer that he is ready for final inspection and the Engineer will thereupon inspect the work.

If the work is not found satisfactory, the Engineer may require further cleaning and repairing and when these are completed will again inspect the work. In no case will the final payment be made until the Contractor has complied with all the requirements set forth and the Engineer has made his final inspection of the entire work and is satisfied that the entire work is properly and satisfactorily constructed in accordance with the plans and specifications and contract, and that such work is ready for his final inspection and acceptance by the City (see Section 1.5.2 of the

Standard Specifications).

The routing of all "punch lists" on remaining items that require attention shall be between the City Engineer and the Contractor or his authorized project coordinator.

**X. PROTECTION AND RESTORATION OF PROPERTY**

**A. UNDERGROUND**

The Contractor shall protect, repair and restore any underground drain lines, conduit, culverts, etc., encountered in the progress of the work and shall be responsible for the protection and replacing of any utilities encountered or damaged during construction, at no cost to the City.

**B. SURVEY CORNERS AND ABOVE SURFACE OBSTRUCTIONS**

The Contractor, while on this job, will be solely responsible for the protection and/or replacement of all survey corners that exist throughout the area. These corners will be located and marked by the City upon request by the Contractor prior to commencing his work. The City shall replace any such damaged corners and the amount deducted from the contract payment.

The Contractor shall protect, repair and replace any mailboxes, fences, signs or other structures damaged or displaced in the progress of the work.

**XI. TIME OF COMPLETION**

Commencement of the work shall be subject to a pre-construction meeting with the DPW Director and his subsequent Notice to Proceed.

The starting date for work under this contract shall be at the discretion of the Contractor, provided that:

- A. All work under this contract shall be completed no later than three (3) calendar weeks from the date excavation has commenced.
- B. In addition, final completion of all work shall be no later than June 28, 2019.
- C. No work will be allowed on Sundays or City holidays.

It shall be understood by the Contractor that the steady progress of the work once started within the allowed calendar days for the work, and date of completion of the work to be done hereunder are essential conditions of this contract, and it is further understood and agreed that the work shall be commenced as aforementioned.

The Contractor agrees that the work shall be pursued regularly, diligently, and uninterruptedly at such rate of progress as will assure completion of the work on the dates stated in this section of these Detail Specifications.

**XII. EXTENSIONS OF TIME**

Extensions of time may be considered by the City for reasonable delays due exclusively to causes beyond the control and without the fault of the Contractor including but not restricted to extra work or supplemental contract work added to the original contract, fires, strikes, floods, accidents and unreasonable delays in receiving ordered materials and equipment.

All requests for extensions of time shall be presented in writing to the City Engineer within ten calendar days after the occurrence of the claimed delay, accompanied by all necessary supporting data, and, if based on valid grounds will be considered by the City and such extensions of time shall be granted as may seem to be fair and reasonable. However, no claims will be considered when based on delays caused by conditions existing at the time bids were received and of which the Contractor might be reasonably expected to have knowledge at the time of bidding, or upon delays caused by failure on the part of the Contractor to anticipate properly the requirements of the work contracted for as to the securing of needed materials, labor and equipment.

**XIII. LIQUIDATED DAMAGES**

When the work embraced in the contract is not completed within the times specified in the “Time of Completion” section of the Detail Specifications including restoration, as stated, and within such extra time as may be allowed by extensions, the City of Oak Creek will assess liquidated damages. The city will deduct the following specified sum from payments due the Contractor for every calendar day on calendar day contracts and completion date contracts, or for every working day on working day contracts, that the work remains uncompleted.

Original Contract Amount		Daily Charge	
From More Than	To and Including	Calendar Day	Working Day
\$0	\$250,000	\$570.00	\$1,140.00
\$250,000	\$500,000	\$730.00	\$1,460.00
\$500,000	\$1,000,000	\$1,010.00	\$2,020.00
\$1,000,000	\$2,000,000	\$1,235.00	\$2,470.00
\$2,000,000	---	\$1,605.00	\$3,210.00

This deducted sum is not a penalty but is a fixed, agreed, liquidated damage due the City of Oak Creek from the Contractor by reason of inconvenience to the public, the added cost of engineering and supervision, maintenance of detours, and other items that have caused an expenditure of public funds resulting from the Contractor's failure to complete the work within the contract time.

If the engineer allows the contractor to continue and finish the work or any part of it after the contract time expires, the City of Oak Creek waives no rights under the contract.

#### **XIV. EXTRA WORK**

Any work that is determined to be necessary by the City that is not covered under the construction contract shall be arranged for through a City-initiated contract change order and shall be administered in accordance with Section 109.4 of the State Specifications.

#### **XV. PROPOSAL ITEMS**

Contractor must notify the City DPW Director (Ted Johnson at 414-570-5680) at least one day prior to commencing any of the work under this contract. A construction inspector will be provided by the City at no cost to the Contractor; except that inspection time shall be charged to the Contractor in addition to the specified liquidated damages after he has exceeded his time of completion (see Instructions to Bidders).

The bid price for each bid item shall include providing all materials, tools, labor, and equipment to complete the item ready for use. Unless otherwise provided for in the contract, it shall include all equipment and crew mobilizations, traffic control, erosion control, site restoration to conditions equal to or better than pre-construction conditions, proper off-site disposal of surplus material and general site clean-up.

For all contract items that are to be paid based on ticketed tonnages, it shall be the Contractor's responsibility to confirm that the Inspector has received a copy of every delivery ticket. Tickets received by the City beyond 30 days from the material being placed shall not be considered for payment. This is to avoid excessive time spent attempting to account for additional tickets at a later date.

Contractor shall refer to the item listings below for additional details of the work included.

##### Item 1 – Common Excavation

The unit bid and contract price for this item shall include all labor, materials, and equipment for completing the proposed excavation to subgrade for the two play areas. This item shall include, but may not be limited by, the following:

- Excavation, hauling and proper off-site disposal of the existing wood mulch material from the zip line play area, to a depth such that all wood mulch is removed (assumed 12" depth of mulch).
- Excavation, hauling and proper off-site disposal of the existing sand from the play sand area, to a depth of 10½".

Payment shall be based on the contract unit price per cubic yard as verified and documented by the Inspector.

##### Item 2 – Base Aggregate Dense 1-1/4"

The unit bid and contract price for this item shall include all labor, materials, and equipment to construct the dense graded base aggregate for the proposed poured in

place rubber play surface installation. The work for this item shall include but not be limited by the following:

- Materials, construction, and compaction for crushed stone or City-approved crushed concrete, Base Aggregate Dense 1¼", per Section 305 of the State Specifications
- 6" minimum crushed aggregate base course (may need to be up to 8" in the zip line area)

This item shall be paid based on the contract unit price per ton of Base Aggregate Dense 1¼" installed, as verified and documented by delivery tickets submitted to the Inspector.

### Item 3 – Poured in Place Rubber Play Surface

The unit bid and contract price for this item shall include all labor, materials, and equipment to construct the poured in place rubber play surface. The work for this item shall include but not be limited by the following:

- Provide a clean water tight joint where the new (blue) rubber surface meets the existing tan surface in the zip line area.
- 4" impact course corresponding to a 10' fall zone
- ½" *Lt. Blue* wearing surface (matching the lighter blue surface already in place on site) in the zip line area
- ½" *Tan* wearing surface (matching the tan surface already in place on site) in the former play sand area

This item shall be paid based on the contract unit price per square foot of rubber play surface, as measured and documented by the Inspector.

### Item 4 – 4" Perforated Underdrain

The unit bid and contract price for these items shall include all labor, materials, and equipment required to install the 4" underdrain pipe upon the subgrade of the play areas. The work for this item shall include but may not be limited by the following:

- 4" perforated (corrugated polyethylene) underdrain, as shown on the drawing (included the at rear of these Detail Specifications) in the play areas
- Type DF geotextile fabric, lining the underdrain trench and enveloping the stone chips
- 3/8" washed stone chip bedding and cover to match surrounding subbase stone grade
- All underdrain fittings (couplings, tees, caps)
- Coring of the play area concrete wall (in two locations) to facilitate the 4" underdrain placement (see drawing)
- Off-site disposal of excavated spoils for underdrain trenches outside of the play areas, rough backfilling (City to complete topsoil/seed restoration of the trench)

This item shall be paid based on the contract unit price per lineal foot as measured and documented in the field by the Inspector.

#### Item 4 – 4" Concrete End Section

The unit bid and contract price for these items shall include all labor, materials, and equipment required to install the 4" concrete end section. The work for this item shall include but may not be limited by the following:

- Reinforced concrete apron endwall for pipe underdrain, w/rodent grate
- Material, product and installation per Detail Drawing S.D.D. 8 F 6-4 of the WisDOT Facilities Development Manual and included at the rear of these Detail Specifications

This item shall be paid based on the contract unit price per each as documented in the field by the Inspector.

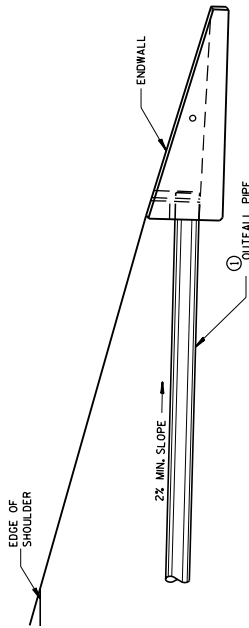




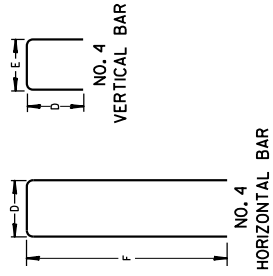
# SDD 8f6 Reinforced Concrete Apron Endwall for Pipe Underdrain

DIMENSIONS IN INCHES												
PIPE DIA.	A	B	C	D	E	F	G	H	J	L	Z	
**3/4	6	12	5/4	9	8	32	36	11	2 3/8	6 1/2	4	
6	8	14	7/4	11	10	42	44	13	3 5/8	8 1/2	6	

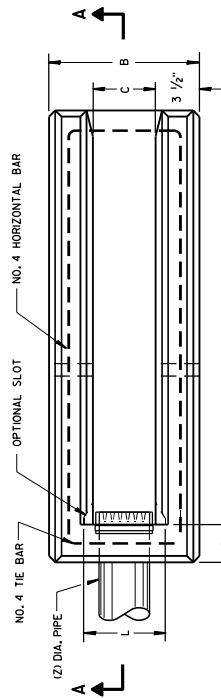
\*\* APRON ENDWALL FOR 6 INCH DIAMETER PIPE MAY BE SUBSTITUTED FOR THIS SIZE PROVIDED THE HOLE IN THE ENDWALL SHALL BE SUBSTITUTED TO CONFORM TO THE 4 INCH DIAMETER PIPE DIMENSIONS (C & J)



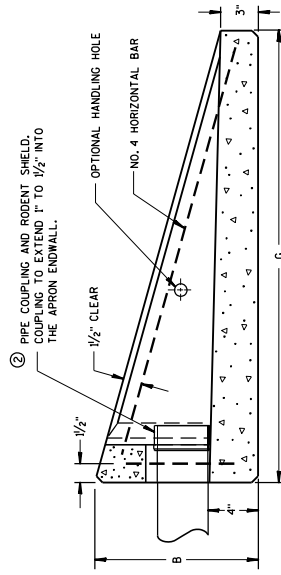
INSTALLATION DETAIL



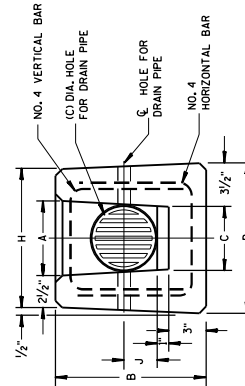
BAR STEEL REINFORCEMENT DETAILS



PLAN VIEW



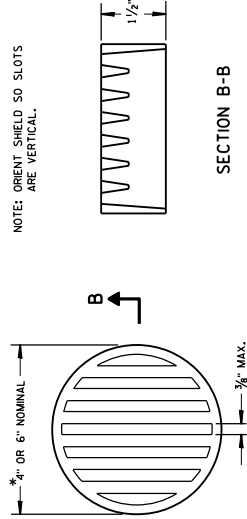
SECTION A-A  
CONCRETE APRON ENDWALL FOR UNDERDRAIN



END VIEW

## GENERAL NOTES

- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS. ALTERNATIVE DESIGNS WHICH PROVIDE EQUIVALENT CAPACITY AND STRENGTH MAY BE USED WHEN APPROVED BY THE ENGINEER. ENDWALL MAY BE EITHER PRECAST OR CAST-IN-PLACE CONCRETE. THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE. THE UPPERMOST POINT OF THE ENDWALL SHALL BE PLACED FLUSH WITH THE ROADWAY SLOPE. ADJACENT EMBANKMENT SLOPES SHALL BE SHAPED TO FIT THE UNDERDRAIN PIPE AND SHALL BE PLACED UP THE OUTSIDE OF THE ENDWALL. THE ELEVATIONS AND ENDWALL SHALL BE DETERMINED BY THE ENGINEER TO MATCH THE ELEVATIONS AND FLOW DIRECTION OF THE ROADSIDE DITCH.
- THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHLORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2865, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHLORIDE) (PVC) SEWER PIPE AND FITTINGS, ASTM DESIGNATION: D 3034, TYPE PSM SDR 23.5 PVC SEWER PIPE, ALL JOINTS SHALL BE SOLVENT WELDED.
- THE OUTFALL PIPE INCLUDING ALL FITTINGS AND THE RODENT SHIELD SHALL BE MEASURED AND PAID FOR AS PIPE UNDERDRAIN UNPERFORATED.
- THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



SECTION B-B

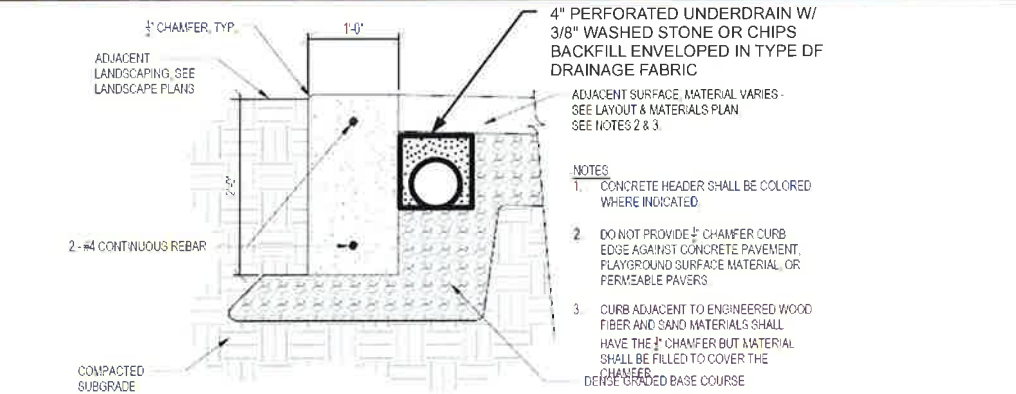
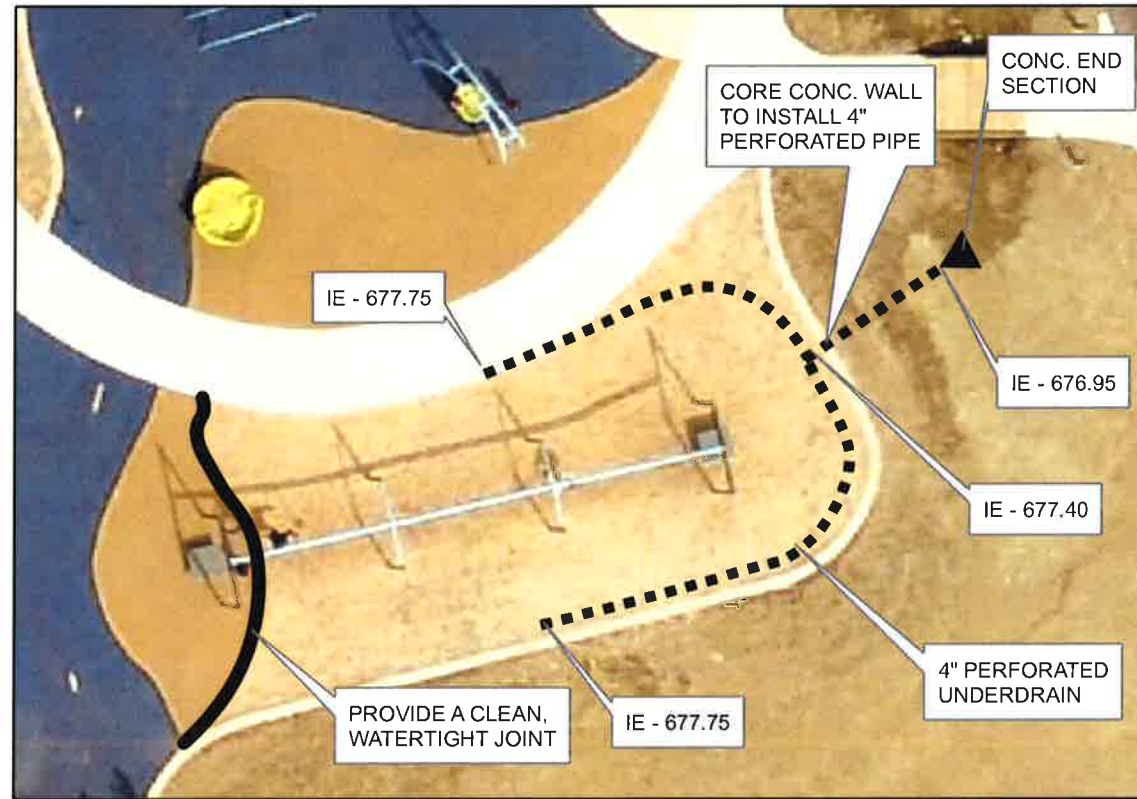
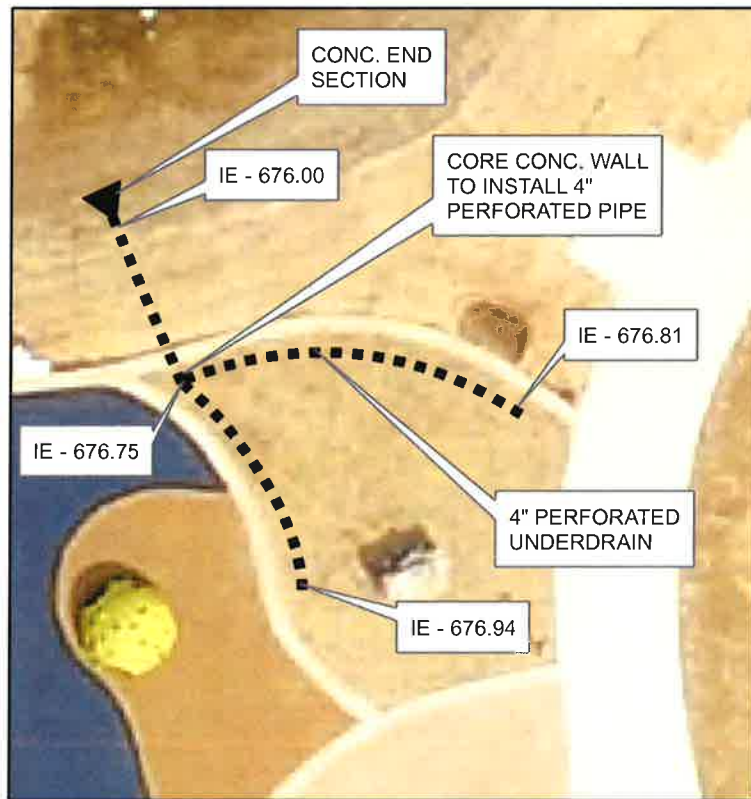
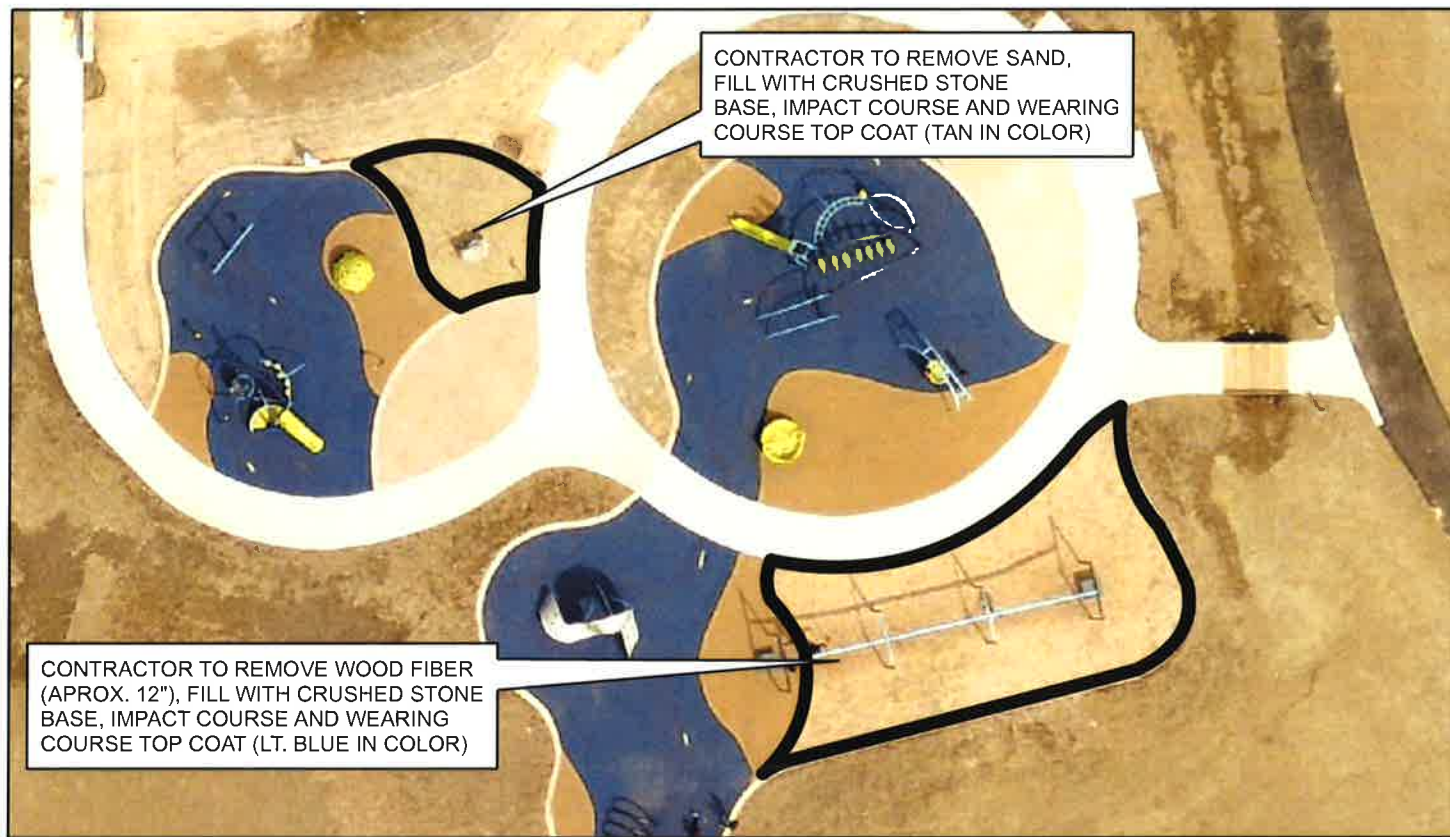
## RODENT SHIELD

\* NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

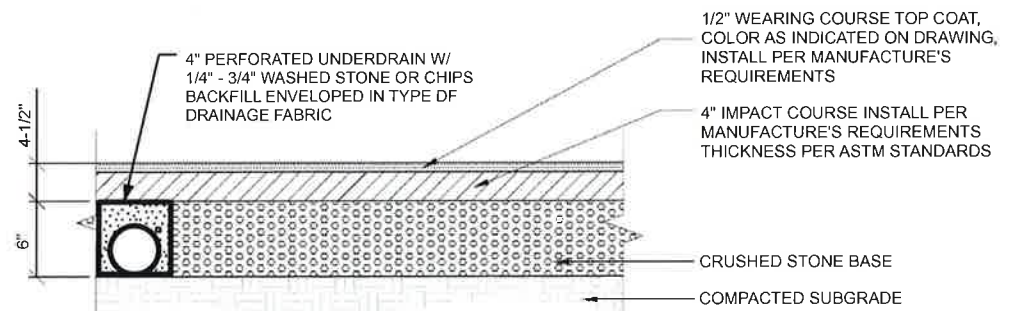
**REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED: /s/ Rory L. Rhineasmith  
DATE: 3-10-98  
CHIEF ROADWAY DEVELOPMENT ENGINEER  
P.H.W.A.

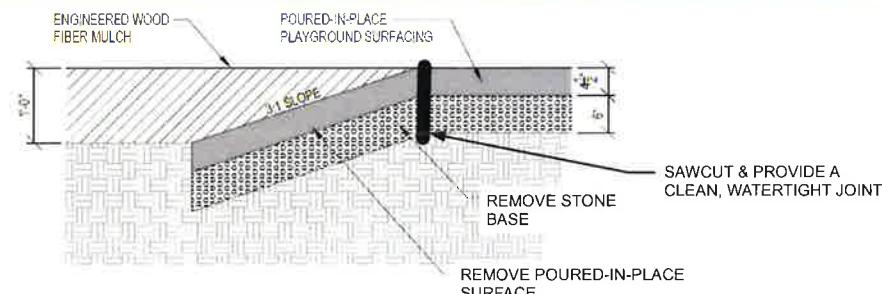


**EX. CONC. WALL SECTION**



**PROP. SURFACE SECTION**

**NOTES:**  
1) WEARING COURSE THICKNESS = 1/2"



**EX. SURFACE SECTION**

CITY OF OAK CREEK - ENGINEERING DEPARTMENT										
SA	DESIGNED BY	DATE	DRAWN BY	DATE	CHECKED BY	DATE	APPROVED BY			
ST.	M. SIMMONS	3/19	M. SULLIVAN	3/19	M. SIMMONS	3/19				
W.	<p align="center"><b>RUBBERIZED PLAY SURFACE</b></p> <p align="center"><b>LAKE VISTA PARK</b></p> <p align="center"><b>4001 E. LAKE VISTA PARKWAY</b></p>						CITY ENGINEER	DATE		
G.							SCALE	SHEET		
E.							PLAN	HOR.	N/A	1
T.							PROFILE	HOR.	N/A	OF
I.	VER.	N/A	1							
TS.	APPROVED BY COUNCIL RESOLUTION NO.						FILE NO:			
PP.										