

## ADDENDUM #4 (Post Bid)

DATE: May 7, 2009

PROJECT: COMMUNITY CAMPUS REDEVELOPMENT  
Rice Lake Area School District  
Rice Lake, Wisconsin

PROJECT NO.: 8.075

OWNER: Rice Lake Area School District, 700 Augusta Street, Rice Lake, Wisconsin 54868

LANDSCAPE ARCHITECT/ENGINEER (LA/E): Rettler Corporation, 3317 Business Park Drive, Stevens Point, Wisconsin 54481, 715-341-2633, Fax 715-341-0431

CONSULTING ARCHITECT: River Valley Architects, Inc., E5205 732nd Ave., Menomonie, WI 54751, 715-309-2368, Fax 715-309-2390

This Addendum forms a part of the Contract Documents and modifies the original Bidding Document dated March 9, 2009; otherwise the original Project Manual and Drawings shall remain in effect. Acknowledge receipt of this addendum in the space provided on the Bid Form. Failure to do so may subject bidder to disqualification.

This addendum consists of 1 page and referenced plan/specification sheet(s).

### **AFFECTING THE PROJECT MANUAL**

#### Section 00 11 16 – INVITATION TO BID

04-001: 00 11 16-1-21-25: Revise:

The Construction Manager Rettler Development, LLC, on behalf of the OWNER, will receive sealed bids for the Community Campus Redevelopment Project. Bids for Contract "E" – Site Electrical will be received until **1:00 P.M., May 11, 2009**, in the office of Rice Lake Area School District, 700 Augusta Street, Rice Lake, Wisconsin 54868. After the official Bid closing time, the Bids will be publically opened. Faxed bids are not acceptable.

#### Section 00 41 00 – BID FORM

04-002: 01 41 00: Omit pages 18, 19, 20, and 21 as written and replace with enclosed revised section pages 18, 19 and 20. Changes denoted in **red** for Addendum #1, **blue** for Addendum #2, **green** for Addendum #3 and **purple** for Addendum #4.

#### Section 26 56 68 – EXTERIOR ATHLETIC LIGHTING

04-003: Omit as written and replace with enclosed revised section.

**\*\* End of Addendum \*\***

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**CONTRACT "E" – SITE ELECTRICAL**

Item No.	Item Description	Units	Estimated Quantity	Unit Price	Extension
1.	Mobilization	L.S.	1		
2.	Underground Private Utilities	L.S.	1		
3.	Pedestrian Lighting Fixtures w/ Footings	EAC H	15		
4.	Stadium Lighting Footings, Football/Soccer	L.S.	1		
5.	Stadium Lighting Poles and Fixtures, Football/Soccer	L.S.	1		
6.	Stadium Lighting Footings, Baseball	L.S.	1		
7.	Stadium Lighting Poles and Fixtures, Baseball	L.S.	1		
8.	Lighting Footings, Softball	L.S.	1		
9.	Lighting Poles and Fixtures, Softball	L.S.	1		
10.	Directional Boring, 6" Conduit	L.F.	120		
11.	Locate Private Utilities	Trips	5		
12.	Flag Pole Lighting Fixtures	EAC H	3		
13.	Arch Lighting, 20-Foot	EAC H	1		
14.	Arch Lighting, 12-Foot	EAC H	2		
15.	Temporary Electric Service - Rettler Field Trailer	L.S.	1		
16.	Voluntary In-Kind Donation - Deduct	L.S.	1	( )	( )

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**Sports Lighting Manufacturer:** \_\_\_\_\_

**CONTRACT "E" – SITE ELECTRICAL (Summation of Bid Items):**

**Written:** \_\_\_\_\_  
\_\_\_\_\_

**Figures: \$** \_\_\_\_\_

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**MANDATORY ALTERNATE "E15" – UTILIZE EXISTING STADIUM POLES AND FIXTURES AT THE BASEBALL FACILITY**

Item No.	Item Description	Units	Estimated Quantity	Unit Price	Extension
1.	Stadium Lighting Footings for Existing Stadium Lighting Poles, Baseball	L.S.	1		
2.	Place Existing Stadium Lighting Poles and Existing Fixtures including Re-Aiming Fixtures, Baseball	L.S.	1		
3.	Additional New Fixtures to Achieve Required Light Levels in the Pedestrian Corridor and Concession Area	L.S.	1		

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**MANDATORY ALTERNATE "E15" – UTILIZE EXISTING STADIUM POLES AND FIXTURES AT THE BASEBALL FACILITY (Summation of Bid Items):**

Written: \_\_\_\_\_  
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Figures: \$ \_\_\_\_\_

**MANDATORY ALTERNATE "E16" – UTILIZE EXISTING STADIUM POLES WITH NEW FIXTURES AT THE BASEBALL FACILITY**

Item No.	Item Description	Units	Estimated Quantity	Unit Price	Extension
1.	Stadium Lighting Footings for Existing Stadium Lighting Poles, Baseball	L.S.	1		
2.	Install New Fixtures on the Existing Poles and Place Existing Poles	L.S.	1		

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**MANDATORY ALTERNATE "E16" – UTILIZE EXISTING STADIUM POLES WITH NEW 6FIXTURES AT THE BASEBALL FACILITY (Summation of Bid Items):**

Written: \_\_\_\_\_  
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Figures: \$ \_\_\_\_\_

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**ALTERNATE "E17" – EXTENDED 25-YEAR SERVICE WARRANTY WITH WIRELESS ON/OFF REMOTE CONTROL SYSTEM**

<b>Item No.</b>	<b>Item Description</b>	<b>Units</b>	<b>Estimated Quantity</b>	<b>Unit Price</b>	<b>Extension</b>
1.	Extended 25-year Service Warranty with Wireless On/Off Remote Control System	L.S.	1		

**ALTERNATE "E17" – EXTENDED 25-YEAR SERVICE WARRANTY WITH WIRELESS ON/OFF REMOTE CONTROL SYSTEM (Summation of Bid Items):**

**Written:** \_\_\_\_\_  
\_\_\_\_\_

**Figures: \$** \_\_\_\_\_

**VOLUNTARY ALTERNATES - CONTRACT "E"**

<b>Item No.</b>	<b>Item Description</b>	<b>Contract</b>	<b>(Deduct)/Add</b>
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1 **Pre-bid Design Submittal Data Checklist and Certification**

2 *All items listed below are mandatory, shall comply with the specification and be submitted*  
 3 *to Rettler Corporation, 3317 Business Park Drive, Stevens Point, WI 54481 on or before*  
 4 *May 6, 2009, 3:00PM Central Time. No manufactures will be considered if pre-bid*  
 5 *information is not submitted before said date and time.*

Included	Tab	Item	Description
	A	On Field Lighting Design	Lighting design drawing(s) showing: a. Field Name, date, file number, prepared by, and other pertinent data b. Outline of field(s) being lighted, as well as pole locations referenced to the center of the field (x & y). Illuminance levels at grid spacing specified c. Pole height, number of fixtures per pole, as well as luminaire information including wattage, lumens and optics d. Height of meter above field surface e. Summary table showing the number and spacing of grid points; average, minimum and maximum illuminance levels in foot candles (fc); uniformity including maximum to minimum ratio, coefficient of variance and uniformity gradient; number of luminaires, total kilowatts, average tilt factor; light loss factor. f. Grid shall include spill light 50' beyond edge of respective field. g. Alternate manufacturers shall provide both initial and maintained light scans using a maximum 0.70 Light Loss Factor to calculate maintained values.

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 8 **Manufacturer:** \_\_\_\_\_ **Signature:** \_\_\_\_\_

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 10 **Contact Name:** \_\_\_\_\_ **Date:** \_\_\_\_/\_\_\_\_/\_\_\_\_

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 12 **Life Cycle Cost Analysis**

13 Energy Consumption: The average kWh consumption for the field lighting system shall be 173.6  
 14 or less.

15 Complete Lamp Replacement: Manufacturer shall include all group lamp replacements required  
 16 to provide 25 years of operation based upon 200 usage hours per year.

17 25-Year Life Cycle Cost: Manufacturer shall submit 25-year life cycle cost calculations as follows.  
 18 Equipment price and total life cycle cost shall be entered separately on bid form.

a.	<b>Luminaire energy consumption</b> # luminaires x ___kW demand per luminaire x .08 kWh rate x 200 annual usage hours x 25 years		
b.	<b>Cost for spot relamping and maintenance over 25 years</b> Assume 8 repairs at \$600 each if not included with the bid	+	
c.	<b>Cost to relamp all luminaires during 25 years</b> 200 annual usage hours x 25 years / <u>lamp replacement hours</u> x \$125 lamp & labor x # fixtures if not included with the bid	+	
	<b>TOTAL 25-Year Life Cycle Operating Cost</b>	=	

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 20 **QUALITY ASSURANCE**

21 Manufacturer shall have ten years of experience in the manufacture of stadium lighting systems.  
 22 Document experience with installation list. Provide evidence of at least five (5) stadium lighting  
 23 installations in Wisconsin within last five (5) years.

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 25 **P A R T T W O - P R O D U C T S**

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 27 **GENERAL**

28 All materials furnished shall be new materials unless otherwise specified.  
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1 All materials and components shall comply with manufacturer's approved design, plans and  
2 specifications.

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4 **ACCEPTABLE MANUFACTURES**

5  
6 **Hubbell**

7 **Visual Impact Lighting, 800-236-1227**

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9 **Musco**

10 **Greg Smidt, (715) 697-9643**

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12 **Universal Sports Lighting**

13 **John Lindstrom, (217) 648-5201**

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16 **LIGHTING PERFORMANCE**

17 **Performance Requirements:** Playing surfaces shall be lit to an average constant light level and  
18 uniformity as specified in the chart below. Light levels shall be held constant for 25 years. Lighting  
19 calculations shall be developed and field measurements taken on the grid spacing with the  
20 minimum number of grid points specified below. Measured average illumination level shall be +/-  
21 10% of predicted mean in accordance with IESNA RP-6-01, and measured at the first 100 hours  
22 of operation.

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Area of Lighting	Average Constant Light Levels	Maximum to Minimum Uniformity Ratio	Grid Points	Grid Spacing
Football	40 footcandles	2.0:1.0	72	30' x 30'
Soccer	40 footcandles	2.0:1.0	84	30' x 30'
Track	20 footcandles	32.0:1.0	56	30' x 30'
Softball Infield	50 footcandles	2.0:1.0	25	20' x 20'
Softball Outfield	30 footcandles	2.5:1.0	73	20' x 20'
Baseball Infield	50 footcandles	2.0:1.0	25	30' x 30'
Baseball Outfield	30 footcandles	2.5:1.0	102	30' x 30'
Track Discus and Shot Put Events	6 footcandles	29:1.0	303	10' x 10'
Concession Building Area	10 footcandles	40:1.0	254	10' x 10'
Pedestrian Walkway Corridor from Wisconsin Street to Concession Building	5 footcandles	17:1.0	243	10' x 10'
Stadium Seating	29 footcandles	2.7:1.0	24	20' x 20'

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25 **Mounting Heights:** To ensure proper aiming angles for reduced glare and to provide better  
26 playability, the pole mounting heights from the playing field surface shall be a minimum of 70' on  
27 the football and soccer, a minimum of 60' on the softball field, and a minimum of 70' on the  
28 baseball field.

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30 **Light Level Requirements:** Manufacturer shall provide computer models guaranteeing light  
31 levels on the field over 25 years. If a constant light level cannot be provided, a maximum  
32 Recoverable Light Loss Factor of 0.70 shall be applied to the initial light level design to achieve  
33 the following Initial and maintained light levels:  
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Area of Lighting	Average Initial Light Levels	Average Target/Maintained Light Levels	Maximum to Minimum Uniformity Ratio	Grid Points	Grid Spacing
Football	57.1 footcandles	40 footcandles	2.0:1.0	72	30' x 30'
Soccer	57.1 footcandles	40 footcandles	2.0:1.0	83	30' x 30'
Track	28.5 footcandles	20 footcandles	32.0:1.0	56	30' x 30'
Softball Infield	71.4 footcandles	50 footcandles	2.0:1.0	25	20' x 20'
Softball Outfield	42.8 footcandles	30 footcandles	2.5:1.0	73	20' x 20'
Baseball Infield	71.4 footcandles	50 footcandles	2.0:1.0	25	30' x 30'
Baseball Outfield	42.8 footcandles	30 footcandles	2.5:1.0	102	30' x 30'
Track Discus and Shot Put Events	8.6	6 footcandles	29:1.0	303	10' x 10'
Concession Building Area	14.3	10 footcandles	40:1.0	254	10' x 10'
Pedestrian Walkway Corridor from Wisconsin Street to Concession Building	7.1	5 footcandles	17:1.0	243	10' x 10'
Stadium Seating	41.4	29 footcandles	2.7:1.0	24	20' x 20'

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**FOUNDATIONS**

**Concrete Material:** The foundation of the pole shall be constructed of not less than 9500 PSI pre-stressed centrifrically cast concrete such that the steel reinforcement within the concrete shall be protected from slippage and exposure from oxidation through voids in the concrete or exposure of the steel through porous concrete material.

**Direct bury poles are not allowed.**

**Alternate Concrete Foundation:** The foundation may be concrete anchor bolt type. The design must be stamped by a licensed structural engineer in Wisconsin and shall be provided before bid for bidding purposes. A geotechnical report has been performed and is included in this project manual and is available for use by structural engineer. The Concrete shall be allowed to harden for a minimum of 28 days before the pole stress is applied.

All concrete foundations shall be designed to keep the steel pole and any exposed steel portion of the foundation a minimum of 18" above grade level.

To alleviate concerns of corrosion at or near grade level and to curtail the need for corrosion inspections and maintenance in the same area, direct buried steel poles will not be permissible.

**POLE MATERIAL**

The poles shall be high strength low alloy tapered tubular steel meeting ASTM-A595 Standards, and shall be hot-dipped galvanized. All connections of pole sections shall be achieved slip fitting the top section over the lower section a minimum of 1.5 times the diameter of the larger section

**REMOTE BALLAST**

To allow easy access to major electrical components and to remove excess weight from the crossarms, the electrical component enclosure which houses the ballasts, capacitors and fuses shall be located on the pole, approximately 10 feet above grade.

1 **PRODUCT REFERENCES**

2 The lighting equipment manufacturer must provide 5 references of similar lighting projects within  
3 the state of Wisconsin where the specifications outlined have been met and identical product has  
4 been installed.

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6 **LAMPS**

7 Lamps shall be 1500 watt metal halide and shall meet ANSI designation M48PC-1500 BU and be  
8 Philips MH1500BU or an approved equal.

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10 Manufacturers shall supply computer generated point-by point light scans based on 155,000  
11 lumens per lamp. Due to the nature of high output lamps to experience excessive lumen output  
12 depreciation and undesirable color rendition, lamps using more than 155,000 lumens will not be  
13 permissible.

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15 **SECURITY CAMERA BRACKET**

16 Manufacture shall supply three (3) factory installed security camera brackets on stadium poles.  
17 Locations per the drawings.

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19 **WIRING**

20 To protect from deterioration from exposure to the elements, all wiring shall be contained inside  
21 the crossarms and pole.

22 A spiral wound wire harness with plug-in connectors on both ends shall be supplied to provide  
23 electrical connection between the electrical enclosure at the bottom of the pole and the fixtures at  
24 the top of the pole. The wire harness shall be mylar wrapped and encased in an abrasion  
25 resistant sleeving. The harness shall be supported at the top of the pole by a wire mesh strain  
26 relief grip that is mechanically attached to the pole by an enclosed snap hook. If the pole is 80' or  
27 taller, another wire mesh grip shall be attached in the same manner approximately half way down  
28 the pole.

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30 All wire harness conductors shall be color coded and labeled for ease of identification Conductors  
31 shall be sequenced, consistent with the pattern for the wiring connection identifier provided by the  
32 manufacturer. In addition, all conductors and plug-ins shall be tested for resistance under load,  
33 continuity, schematic sequence, and insulation integrity.

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35 **LIGHTNING PROTECTION**

36 All structures shall be equipped with lightning protection meeting NFPA 780 standards. Contractor shall  
37 install ground rod. Grounding conductors and grounding methods for the following: The lighting contactor  
38 enclosure, (per NEC or local codes) each electrical component enclosure mounted on the lighting  
39 poles, (Equipment Grounding System per NEC or local codes), Lightning Protection for individual  
40 poles as follows (per NFPA 780): a.) A 3/4" x 8' copper grounding rod buried vertically in  
41 undisturbed earth. The bottom tip of the grounding rod should reach a minimum of 10' below  
42 grade. b.) A copper grounding conductor shall be connected to the top of the copper grounding  
43 rod and extend and connect to the grounding lug located inside the handhole of the pole  
44 approximately 10' above grade. The size of this conductor shall be #2 if the pole is less than 75'  
45 in height and #2/0 if the pole is 75' in height or greater.

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47 **POWER REQUIREMENTS**

48 Electric Power Requirements for the Sports Lighting Equipment: 480 Volt, 3 Phase Voltage drop to the  
49 disconnect switch located on the poles shall not exceed three (3) percent of the rated voltage. The contractor  
50 shall include the schedule below to show proposed loads and wire sizing.

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Pole No.	Pole Height	No. of Fixtures	KW per Pole	Required Conduit Size/ & Wire Size & calculated V.D.	Summarized Footing Design
F1					
F2					
F3					
F4					
A1					
A2					
B1					
B2					
A3					
A4					
B3					
B4					
C5					
C6					
D5					
D6					

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**WARRANTY (Base Bid)**

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25-Year Warranty: Each manufacturer shall supply a signed warranty covering the entire system for 25 years. Warranty shall guarantee light levels; system energy consumption; spill light control, and structural integrity. Manufacturer shall maintain specifically-funded financial reserves to assure fulfillment of the warranty for the full term. Warranty may exclude fuses, storm damage, vandalism, abuse and unauthorized repairs or alterations.

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**EXTENDED 25-YEAR SERVICE WARRANTY WITH WIRELESS ON/OFF REMOTE CONTROL SYSTEM (Alternate)**

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Manufacturer shall supply a signed extended service warranty covering the entire system for 25 years. Extended 25-Year Service Warranty shall guarantee lamps, fuses and equipment replacements. Manufacturer shall replace equipment within 24-Hours days of equipment failure. Manufacturer shall maintain specifically-funded financial reserves to assure fulfillment of the warranty for the full term. Warranty may exclude fuses, storm damage, vandalism, abuse and unauthorized repairs or alterations

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Preventative and Spot Maintenance: Manufacturer shall provide all preventative and spot maintenance, including parts and labor for 25 years from the date of equipment shipment. Individual lamp outages shall be repaired when the usage of any field is materially impacted. Owner agrees to check fuses in the event of a luminaire outage

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Remote Monitoring System: System shall monitor lighting performance and notify manufacturer if individual luminaire outage is detected so that appropriate maintenance can be scheduled. The manufacturer shall notify the owner of outages within 24 hours, or the next business day. The controller shall determine switch position (Manual or Auto) and contactor status (open or closed). Remote Lighting Control System: System shall allow owner and users with a security code to schedule on/off system operation via a web site, phone, fax or email up to ten years in advance. Manufacturer shall provide and maintain a two-way TCP/IP communication link. Trained staff shall be available 24/7 to provide scheduling support and assist with reporting needs.

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The owner may assign various security levels to schedulers by function and/or fields. This function must be flexible to allow a range of privileges such as full scheduling capabilities for all

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1 fields, to only having permission to execute “early off” commands by phone.

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3 Controller shall accept and store 7-day schedules, be protected against memory loss during  
4 power outages, and shall reboot once power is regained and execute any commands that would  
5 have occurred during outage.

6 Management Tools: Manufacturer shall provide a web-based database of actual field usage and  
7 provide reports by facility and user group.

8 Communication Costs: Manufacturer shall include communication costs for operating the  
9 controls and monitoring system for a period of 25 years.

10 **EXISTING STADIUM LIGHTING SYSTEM (Alternate)**

11 Pole Height: 70-Feet

12 Fixtures: Six of the poles have six (6) 1500 watt fixtures and Two have eleven (11) 1500 watt  
13 fixtures

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15 Proposed Footing Size: 48-inch diameter, 12-feet deep with #6 rebar at 12-inch spacing center  
16 to center

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18 OWNER has salvaged and stored, **approximately 4-miles from the site**, the poles and fixtures.  
19 CONTRACTOR responsible to transport and erect system if alternate is elected.

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21 **Provide and install new 480V ballasts, capacitors, 1500MH lamps and wiring. The existing**  
22 **system has 208V ballasts.**

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24 **Provide and install new anchor bolts.**

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26 **PART THREE - EXECUTION**

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28 **DELIVERY TIMING**

29 Equipment On-Site: The equipment must be on-site 5 weeks from the bid date.

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31 **INSTALLATION**

32 Installation / erection shall be by manufacturer’s forces or by factory-certified installation  
33 subcontractor.

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35 Structure and all components shall be erected in accordance with approved plans, shop drawings  
36 and specifications.

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38 **CLEANING**

39 Clean all surfaces after erection in accordance with manufacturer’s recommendations.

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41 Remove and properly dispose of all packaging and construction debris.

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End of Section