ADDENDUM CC-2

DLR GROUP 421 SW 6th Avenue, Suite 1212 Portland, OR 97204-1613 tel: (503) 274-2675 fax: (503) 274-0313

February 2, 2012



PLAYER DEVELOPMENT AREA - UNIVERSITY OF OREGON CONFORM SET: Drawings and Specifications for Combined Contract (CC) Dated January 12, 2012

NOTICE TO BIDDERS: Amend the Project Manuals and Drawings to the above-referenced project as follows:

CLARIFICATIONS

- ITEM NO. 1 BID OPENING DATE:
 - A. Bid Opening Date has been changed to Thursday, February 9, 2012 at 1:30 p.m.
- ITEM NO. 2 FLOOD INSURANCE
 - A. Owner acknowledges successful Contractor may be required to procure flood insurance in order to perform the work. Owner will negotiate costs of flood insurance with the successful contractor post-bid. Flood insurance costs are exempt from inclusion in the bid. See Item No. 27 below as well as Attachment No. SP-2.

ADDENDUM CC-2

GENERAL QUESTIONS

ITEM NO. 3 QUESTION:

Section 210548, 1.4.A & 1.5.B calls for a PE seal on seismic bracing calculations. Section 211000, 1.6.A.1 & MP0.0, Plumbing & Fire Protection Notes, Note Z calls for PE preparation of plans, calcs and test reports. The City of Eugene does not require any of this for fire sprinkler system approval. Can these spec requirements be deleted?

Answer: No.

ITEM NO. 4 QUESTION:

Section 211000, 1.3.A defines "standard weight pipe" as Schedule 40. Section 211000, 2.4.A & 3.2.A/B lists only "standard weight" black or galvanized steel pipe. Are schedule 10 and/or other proprietary piping materials that are UL listed/FMG approved for fire sprinkler systems acceptable?

Answer: Schedule 40 piping is required.

ITEM NO. 5 QUESTION:

MP0.0, Plumbing & Fire Protection Notes, Note AE states that a sprinkler alarm check valve is required. It is not required by NFPA 13 or the City of Eugene. Can the alarm check valve be deleted?

Answer: No.

ITEM NO. 6 QUESTION:

Will an auxiliary anti-freeze system off of the building wet system be acceptable for protection of the covered exterior bull pen area on the north side of the building?

Answer: Because a dry pipe sprinkler specification has been added to the contract documents (see this Addendum), an anti-freeze system will not be allowed.

ITEM NO. 7 QUESTION:

The Bid Form needs to have Add Alternates #1-3 added?

Answer: See revised bid form, Attachment No. SP-3 to this Addendum.

ITEM NO. 8 QUESTION:

The Fire Protection is missing the "Dry-Pipe System" spec for under the canopy?

Answer: See Attachment SP-4 to this Addendum.

ITEM NO. 9 QUESTION:

A sectional cut thru the skylight showing the inner and outer curb and flashing detail would be nice?

Answer: An insulated single wall curb is required. Its design is part of the metal building deferred submittal. See also revision to Metal Building section, as addressed under the Project Manual heading in this Addendum. The requirement for a double-wall insulated curb has been deleted. The addition of Roof General Notes

PLAYER DEVELOPMENT AREA UNIVERSITY OF OREGON EUGENE, OREGON

provides more clarification. For the latter see revision to A4.1, as shown in **Attachment No. A5** to this Addendum.

ITEM NO. 10 QUESTION:

Is there any Signage on this project? I see a spec, but no scope?

Answer: See revisions to 3.2.A. in Section 101419, as described in a subsequent item found in this Addendum. See also revisions to drawings A5.1 and A5.2, as shown in **Attachment Numbers A6 & A7** to this Addendum.

ITEM NO. 11 QUESTION:

The East & West Architectural Elevations show the UofO O-Logo. What is this? Is this painted on??

Answer: See Response to item #9 to this Addendum.

ITEM NO. 12 QUESTION:

What is the required support for the GWB ceiling at the riser rm?

Answer: See revisions to drawings A1.1, A5.2, and detail 22 on sheet A10.1, as shown in **Attachment Numbers A4, A7, & A12** to this Addendum.

ITEM NO. 13 QUESTION:

There is a bit of mystery on the scope of the Impact Padding. Could you please list the columns that are reqd to have them? If I had to guess, it would be the 6 exterior canopy columns and the 15 interior columns inside the building (with the exception of the one in the riser room)?

Answer: Padding for the columns is required only on the exterior columns, which are located in the bull pen area. See revisions to drawings A1.1, A5.1, A5.2, and A5.3 as shown on **Attachment Numbers A4, A6, A7, & A8** to this Addendum.

ITEM NO. 14 QUESTION:

Roof insulation calls for R-24 Thermax, drawings show Thermax with a batt insulation. If R-24 is the desired value, the thermax is all that's needed.

Answer: Yes.

ITEM NO. 15 QUESTION:

Horizontal siding panels will have joints, is there a detail for what the architect wants to see. Maybe a vertical cover, panels break at the same place?

Answer: See revisions to drawings A5.1, A5.2, and A5.3 (Attachment Numbers A6, A7, & A8 to this Addendum), which now show the vertical joint locations.

ITEM NO. 16 QUESTION:

The R-20 value required for wall type #1 needs be defined more, what type of rigid board insulation has a R2.7?

Answer: See revision to 2.2.E, Section 133349 in this Addendum.

ITEM NO. 17 QUESTION:

Is AWI Panel FL-40 an acceptable alternate for Panel Type 1. AWI Panel FL-40 is a 40" wide panel?

Answer: No.

ITEM NO. 18 QUESTION:

In order to provide insulated panels in the custom colors, we would need 6-8 week additional lead time to mix the custom colors and bake the panels. In addition, there is a minimum 5000 pound order PER color. [Note: the specified "standard" colors are custom to any manufacturer other than Butler]

Answer: Except for Type 3, the basis of design for panel colors is Butler Building System. Other manufacturer standard colors that closely approximate the Butler colors are acceptable. Manufacturers that cannot closely approximate the basis of design shall provide a custom color similar to the selected color.

ITEM NO. 19 QUESTION:

The other choice is to provide the panels in grey and have each individual color field painted. Is it acceptable to field paint the metal panels provided the grey panel is a Kynar finish and stippled for a field paint application?

Answer: No.

ITEM NO. 20 QUESTION:

Wire sizes 14, 12, 10 and 8 shall be stranded only per UO standards?

Answer: Yes, electrical specification 260519 has been revised. See Addendum 2.

ITEM NO. 21 QUESTION:

Who is going to provide the intrusion detection system?

Answer: An intrusion detection system is not part of the scope. See revisions to Electrical drawings.

ITEM NO. 22 QUESTION:

Is one bay of x-bracing acceptable at Frame line 1, 5, & 8?

Answer: An X-bracing or portal frames are acceptable at building wall lines, provided that they do not interfere with doors or other wall openings. See architectural drawings. Bracing will not be allowed on grid 6 or on grids A and E between grid 5 and 6 (bullpen area).

ITEM NO. 23 QUESTION:

Is one bay of bracing acceptable at Grid line A & E?

Answer: Single bays of bracing in the building walls are acceptable along grids A and E provided that rigid frames are installed on all other grid lines.

ITEM NO. 24 QUESTION:

The existing wall along GL 6 will need to be cut out at the (5) new footing locations. What I was trying to figure out is the height of that wall and if there is a footing that will need to be saw cut out of there in addition to the wall. The note on S1.1 says to provide rebar dowels between the old and new construction, but doesn't specify size and spacing. If a detail could be provide in the addendum that would be great?

Answer: The Contractor shall reconstruct the wall as it exists and to provide rebar dowels for each of the bars shown that are interrupted, embedded $3 \frac{1}{2}$ " into the existing concrete with epoxy adhesive. See section for the baseball park perimeter walls as shown in **Attachment S-1** to this Addendum.

ITEM NO. 25 QUESTION:

Could you also provide details for relocated fence post? Will these need to be cored and grouted and if so what is the size and depth of the core?

Answer: The wall will need to have cast in sleeves for the fence posts. The suggested size is 3" diameter by 12" deep. The posts are to be grouted into place.

PROJECT MANUAL VOLUME 1 OF 1

ITEM NO. 26 SECTION 001113 NOTICE OF RETAINER CONTRACT OPPORTUNITY

 A. Delete Section 001113 and replace with revised section as shown in Attachment
 No. SP-1. Revision: hanged bid opening time and date from 11:00 a.m. on Tuesday, February 7, 2012 to 1:30 p.m. on Thursday, February 9, 2012.

ITEM NO. 27 SECTION 002213B SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

- A. Delete Section 002213B and replace with revised section as shown in **Attachment No. SP-2**. Revision: added Article 12. Insurance.
- ITEM NO. 28 SECTION 004113A BID FORM
 - A. Delete Section 004113A and replace with revised section as shown in Attachment No. SP-3. Revisions: 1) changed bid opening time and date from 11:00 a.m. on Tuesday, February 7, 2012 to 1:30 p.m. on Thursday, February 9, 2012, and 2) added line for Alternate No. 4.

ITEM NO. 29 SECTION 012300 ALTERNATES

- A. Add new paragraph 3.1.D as follows:
 - D. Alternate No. 4:
 - 1. New paving and landscape modifications to the south of the Player Development Area building. See drawings AS1.1 and AS1.2 added by Addendum CC-2 dated February 2, 2012.

PLAYER DEVELOPMENT AREA UNIVERSITY OF OREGON EUGENE, OREGON

ITEM NO. 30 SECTION 087100 DOOR HARDWARE

A. At 3.7 Door Hardware Sets, replace "HW SET: 02" in its entirety with the following:

HW SET: 02

DOOR NUMBER: 100A

EACH TO HAVE:

3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP	630	IVE
1	EA	PANIC HARDWARE	98NL	626	VON
3		SPECIAL SCREWS	10-24 X 1-1/4" FHMS (FOR STRIKE MOUNTEE ON SEAL)).	
1	EA	RIM CYLINDER	20-057-ICC	626	SCH
			PERMANENT CYLINDER CORE(S) BY OWNER		
<u>1</u>	<u>EA</u>	ELECTRIC STRIKE	<u>6111 FSE 24VDC</u>	<u>630</u>	<u>VON</u>
1	EA	SURFACE CLOSER	4041 SCUSH X ST1586	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW	630	IVE
1	SET	SEALS	700SA (HEAD & JAMBS)	628	NGP
1	EA	DRIP CAP	16A (OMIT IF OPENING IS PROTECTED)	628	NGP
1	EA	DOOR SWEEP	C627A	628	NGP
1	EA	THRESHOLD	425 MS/LA	AL	NGP
<u>1</u>	<u>EA</u>	DOOR POSITION SWITCH	<u>679-05 HM</u>		<u>SCE</u>
<u>1</u>	<u>EA</u>	<u>SCANNER</u>	<u>SCAN II-W</u>	<u>WHT</u>	<u>SCE</u>
			ACCESS CONTROL BY OTHERS		

POWER SUPPLY BY OTHERS

NOTE: INSTALL PERIMETER SEALS BEFORE EXIT DEVICE, STRIKE, AND CLOSER. DO NOT NOTCH SEALS. STRIKE AND CLOSER INSTALL ON TOP OF SEALS. ADJUST TEMPLATES ACCORDINGLY.

ITEM NO. 31 SECTION 101419 DIMENSIONAL LETTER SIGNAGE

A. At paragraph 3.2.A replace text with the following: "Provide individual character font, color, spacing and thickness for the "O" sign as indicated on sheets A5.1, A5.2. and as described below:"

ITEM NO. 32 SECTION 133349 METAL BUILDING SYSTEMS

- A. Delete paragraph 2.2.A and replace with the following:
 - A. Basis-of-design Product: Subject to compliance with requirements, provide either Butler Manufacturing VSR II roof system or Butler Manufacturing CMR-24 standing seam roof system with integrated, insulated panel, and finished interior face.
- B. At 2.2.E. delete sub-paragraphs 1 7 and replace with the following:
 - 1. Rigid "Thermax" Metal Building Board glass-fiber-reinforced, polyisocyanurate foam plastic core. Combine with Batt insulation per the building details to meet minimum thermal performance:
 - a. Thermal Performance: Per OEESC 2010, 502.1.3, at all exterior walls provide minimum R-19 cavity insulation and minimum R-2.7 continuous insulation. At standing seam metal roof provide minimum R-23 cavity insulation.
 - 2. Width: 4 feet.
 - 3. Maintain Class A fire rating.
 - 4. Approved for use without thermal barrier.
 - 5. Maximum Thickness: 4 inches.
 - 6. Covered with embossed aluminum facing both sides Metal Building Board.
- C. At 2.2.L.1 add. sub-paragraph "a." with the following text: "Roof Curbs: All curbs shall be single wall and insulated. If loading on curbs exceeds 2000 pounds, provide double-wall insulated curbs".

ITEM NO. 33 SECTION 211316 DRY PIPE SPRINKLER SYSTEMS

A. Add Section 0211316 as shown in **Attachment SP-4** to this Addendum.

ITEM NO. 34 SECTION 260519 PARAGRAPH 3.1 A AND B

A. Replace solid wire with stranded wire for No. 14, 12, 10 AWG per UO standards.

DRAWINGS

ITEM NO. 35 DRAWING C2.0 – UTILITY PLAN

- A. At Note 2 add the following text to the end of the existing note: "Replace concrete pavement and base rock section to existing thicknesses.
- B. At Note 3 add the following text to the end of the existing note: "Replace asphalt pavement and base rock section to existing thicknesses."
- ITEM NO. 36 DRAWING D1.1 DEMOLITION PLAN
 - A. Revise this drawing as shown in **Attachment No. A1** to this Addendum.
- ITEM NO. 37 DRAWING D1.1 DEMOLITION PLAN
 - A. Revise this drawing as shown in **Attachment No. A2** to this Addendum.
- ITEM NO. 38 DRAWING A0.1 GENERAL NOTES, SYMBOLS & ABBREVIATIONS
 - A. Revise this drawing as shown in **Attachment No. A3** to this Addendum.
- ITEM NO. 39 DRAWING A1.1 FLOOR PLAN

A. Replace this drawing as shown in **Attachment No. A4** to this Addendum.

- ITEM NO. 40 DRAWING A4.1 ROOF PLAN BASE BID & ALTERNATE 2
 - A. Revise this drawing as shown in **Attachment No. A5** to this Addendum.
- ITEM NO. 41 DRAWING A5.1 BUILDING ELEVATIONS & SECTION

A. Replace this drawing as shown in **Attachment No. A6** to this Addendum.

ITEM NO. 42 DRAWING A5.2 – BUILDING ELEVATIONS & INTERIOR ELEVATION

A. Replace this drawing as shown in **Attachment No. A7** to this Addendum.

- ITEM NO. 43 DRAWING A5.3 BUILDING SECTION AND ELEVATION ALTERNATES
 - A. Replace this drawing as shown in **Attachment No. A8** to this Addendum.
- ITEM NO. 44 DRAWING A9.1 SCHEDULE AND DETAILS

A. Revise this drawing as shown in **Attachment No. A9** to this Addendum.

- ITEM NO. 45 DRAWING A9.1 SCHEDULE AND DETAILS
 - A. Revise this drawing as shown in **Attachment No. A10** to this Addendum.

ITEM NO. 46 DRAWING A9.1 – SCHEDULE AND DETAILS

- A. At Door 100F in the Door and Frame Schedule, delete "3" from the Notes Column.
- ITEM NO. 47 DRAWING A10.1 BUILDING DETAILS
 - A. Add detail 12 to this drawing as shown in **Attachment No. A11** to this Addendum.
- ITEM NO. 48 DRAWING A10.1 BUILDING DETAILS
 - A. Add detail 22 to this drawing as shown in Attachment No. A12 to this Addendum.
- ITEM NO. 49 DRAWING AS1.1 SITE PLANS ALTERNATE 4
 - A. Insert new sheet AS1.1 as shown in Attachment No. A13 to this Addendum.
- ITEM NO. 50 DRAWING AS1.2 SITE PLANS AND DETAILS ALTERNATE 4
 - A. Insert new sheet AS1.2 as shown in Attachment No. A14 to this Addendum.
- ITEM NO. 51 DRAWING S1.1 FOUNDATION PLAN
 - A. Add detail 4/L12 to this drawing as shown in **Attachment No. S-1** to this Addendum.
- ITEM NO. 52 DRAWING ES1.0 ELECTRICAL SITE PLAN
 - A. Add fiber optic, connections, and required conduits for wireless hub as shown on **Attachment E5**.
- ITEM NO. 53 DRAWING E1.1 ELECTRICAL PLAN
 - A. Add exit sign above door for new exterior door as shown on Attachment E1.
 - B. Add fire alarm manual pull station next to new exterior door as shown on Attachment E1.
 - C. Relocate exterior wall pack H1X above new exterior door as shown on Attachment E1.
 - D. Align fixtures in Bull Pen as shown on Attachment E2.
 - E. Delete door contacts for door 100.
 - F. Replace key pad for door 100A with stand alone card reader system: Honeywell Indala Series Model #FP610/710/810 Flex Pass mid-range. Revise note 18 as shown on **Attachment E3**.

- G. Provide duplex receptacle and AV outlet for Plasma Monitor @ +60" AFF as shown as shown on **Attachment E3**.
- H. Provide quad receptacle for AV rack as shown on **Attachment E1**. Add note 19 as shown on Attachment E3.
- I. (3) speakers will be supported by corner shelves as shown on Architectural plan A1.1 and (1) speaker (symbol SP) will be located above fire riser room as shown on Attachment E3.
- J. Add access control detail as shown on **Attachment E4**.

SUBSTITUTIONS

The approval of the substitution requests noted below is contingent upon the requested manufacturer meeting all aspects of the performance of the originally specified products. Post-bid discovery that the requested manufacturer cannot provide a product of equal performance or cannot provide a product with all of the identified features and hence the rejection of the product, shall not result in a change in contract to the Owner. In no case are models being approved at this time, regardless of whether that information was included in the substitution request or not – only manufacturers are being reviewed and approved at this time.

Neither DLR Group nor the University of Oregon warrant that all Substitution Requests submitted will be reviewed. Additionally, incomplete, unclear, or untimely requests were not considered.

Drawing	Component	Alternate Brand
E6.1 Luminaire Schedule	F1A	HEW 92-4-232-A-WET/1-SSMB-EB2-UNV (Williams)
E6.1 Luminaire Schedule	F1B	GUTH FS-6F32-A-W-277-2EB-MB (Guth)
E6.1 Luminaire Schedule	F1BX	GUTH FS-6F32-A-W-277-2EB-MB (1) B50ST** (Guth)
E6.1 Luminaire Schedule	H1X	LSI GBWS FTM 42 CFL F 277 BLK CWBB* (REMOTE THE EM BALLAST) (Greenbriar)
E6.1 Luminaire Schedule	XI	EmergiLite BA-SVXN-1-G-D-4X (EmergiLite)
E6.1 Luminaire Schedule	X2	EmergiLite BA-SVXN-1-G-D-4X (EmergiLite)
E6.1 Luminaire Schedule	X3	EmergiLite BA-SVXN-2-G-D-4X (EmergiLite)

The following are approved:

END OF ADDENDUM NO. CC-2

OREGON UNIVERSITY SYSTEM

NOTICE OF RETAINER CONTRACT OPPORTUNITY

The Oregon University System (OUS) is accepting sealed bids for a public improvement project at University of Oregon, Capital Construction Conference Room, 1295 Franklin Boulevard, Eugene, Oregon until 1:30 PM, Pacific Standard Time, Thursday, February 9, 2012 for the PK Park Player Development Area (PDA) Building project located on the campus of the University of Oregon, in Eugene, Oregon. The project includes a new metal building to be constructed at the existing PDA at PK Park. Project includes, but is not limited to, protection of existing FieldTurf surface, new footings, metal building, lighting, heat, and batting cage netting. On site construction can start no earlier than the week of June 4th, 2012, and substantial completion is to be July 27th, 2012.

A mandatory pre-bid conference and examination of the site and conditions will be conducted at 10:00 am, January 20th, 2012. Bidders shall meet with OUS Representative at PK Park Fowl Territory near right field for that purpose. For parking, enter at Gate 5 off Leo Harris Parkway and park in the paved area to the left closest to the loading dock. Attendance will be documented through a sign-in sheet prepared by the OUS representative. Prime bidders who arrive more than 5 minutes after start of time of the meeting (as stated in the solicitation and by the OUS representative's watch) or after the discussion portion of the meeting (whichever comes first) shall not be permitted to sign in and will not be permitted to submit a bid on the project.

Bids will be opened and publicly read aloud on February 9, 2012 at 1:30 PM, at University of Oregon, Capital Construction Conference Room, 1295 Franklin Boulevard, Eugene, Oregon by the OUS representative or designee.

Bids will be received on a lump-sum basis for all of the work. Bid packets may be purchased at Central Print in Eugene, Oregon.

Bid packets may be examined at UO Capital Construction Office at 1295 Franklin Boulevard, Eugene, OR and DLR Group (architect) at 421 SW Sixth Avenue, Suite 1212, Portland OR. Bid packets may be examined after January 16, 2012.

All bidders must comply with requirements of the prevailing wage law in ORS 279C.800 through ORS 279C.870. All bidders must be registered with the Construction Contractor's Board at the time of bid submission. No bid will be considered unless fully completed in the manner provided in the "Instructions to Bidders" upon the Bid Form provided. OUS encourages bids from Minority, Women, and Emerging Small Businesses.

OREGON STATE BOARD OF HIGHER EDUCATION

By: Jamie Moffitt Vice President for Finance & Administration

OREGON UNIVERSITY SYSTEM

STANDARD PUBLIC IMPROVEMENT CONTRACT

SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

Project Name PK Park Player Development Area

The following modify the Oregon University System "Instructions to Bidders" for this procurement. Where a portion of the Instructions to Bidders has been modified by these Supplemental Instructions to Bidders, the unaltered portions shall remain in effect.

Article 12. Insurance

Owner acknowledges that the project's location exists on a designated flood plain; therefore, the successful bidder may be required by their insurance provider to procure flood insurance in order to perform the work. These flood insurance costs are exempt from inclusion in the bid. Flood insurance will be negotiated with the successful Contractor post-bid.

004113A BID FORM

OREGON UNIVERSITY SYSTEM

RETAINER CONTRACT

BID FORM

OUS CAMPUS:		University of Oregon						
PROJE	ECT:	PK Park Player Development	Area					
BID C	LOSING:	Thursday, February 9 th , 2012	at 1:30 PM					
FROM	I: Name of C	ontractor						
TO:	 Oregon State Board of Higher Education University of Oregon – Capital Construction Office 1295 Franklin Blvd. 1-541-346-8292 							
1.	The Undersi	igned (check one of the following	and insert information request	ted):				
	a. An i the S	ndividual doing business under a State of	n assumed name registered und ; or	ler the laws of				
	b. A pa	b. A partnership registered under the laws of the State of; or						
	c. A co	prporation organized under the lay	ws of the State of	; or				
	d. A lir of th	nited liability corporation organizes State of	zed under the laws					
	hereby prop for the abo follows:	oses to furnish all material and la ve project in strict accordance	bor and perform all work here with the Contract Documents	inafter indicated for the Bid as				
	Basic Bid							
			Dollars (\$)				
	Alternate No	э. 1						
			Dollars (\$)				

Alternate No. 2		
	Dollars (\$)	
Alternate No. 3		
	Dollars (\$)	
Alternate No. 4		
	Dollars (\$)	
and the Undersigned agrees to be bound	by the following documents:	
 NOPI – Contract Opportunity 	 Instructions to Bidders 	
OUS Retainer Supplement Form	 Performance Bond and Payment Bond 	
OUS General Conditions	 Supplemental General Conditions 	
Prevailing Wage Rates	Payroll and Certified Statement Form	
Plans and Specifications	• Drawings and Details	
ADDENDA numbered through	, inclusive (fill in blanks)	

1A. GIFT IN KIND (OPTIONAL) – This project has requested that we provide an opportunity for bidders and their subcontractors (all tiers) to provide gifts in kind. Please include the dollar value that you wish to donate to the PK Park PDA addition on the bid form as noted below. This value will be deducted from your base bid resulting in your net bid for the project. All materials and equipment are to be as per plan and spec.

GIFT IN KIND DONATION (\$_____) (This dollar amount shall be deducted by the University from your Bid in line 1 above to result in your net bid. Do not deduct your in-kind donation amount from line 1 above.)

2. The work shall be completed within the time stipulated and specified in Division 1, Section 01 10 00, of the Specifications.

3. The Undersigned agrees, if awarded the Contract, to execute and deliver to the Oregon State Board of Higher Education, within twenty (20) calendar days after receiving the Contract forms, an Agreement Form, and a satisfactory Performance Bond and Payment Bond each in an amount equal to one hundred (100) percent of the Contract sum, using forms provided by the Owner. The surety requested to issue the Performance Bond and Payment Bond will be:

(name of surety company - not insurance agency)

The Undersigned hereby authorizes said surety company to disclose any information to the Owner concerning the Undersigned's ability to supply a Performance Bond and Payment Bond each in the amount of the Contract.

4. The Undersigned certifies that: (1) This Bid has been arrived at independently and is being submitted without collusion with and without any agreement, understanding, or planned common course of action with any other vendor of materials, supplies, equipment or services described in the invitation to bid designed to limit independent bidding or competition; and (2) The contents of the Bid have not been communicated by the Undersigned or its employees or agents to any person not an employee or agent of the Undersigned or its surety and will not be communicated to such person prior to the official opening of the Bid.

5. The undersigned **HAS**, **HAS NOT** (*circle applicable status*) paid unemployment or income taxes in Oregon within the past 12 months and **HAS**, **HAS NOT** (*circle applicable status*) a business address in Oregon.

6. The Undersigned agrees, if awarded a contract, to comply with the provisions of ORS 279C.800 through 279C.870 pertaining to the payment of the prevailing rates of wage.

7. Contractor's CCB registration number is ______. As a condition to submitting a bid, a Contractor must be registered with the Oregon Construction Contractors Board in accordance with ORS 701.035 to 701.055, and disclose the registration number. Failure to register and disclose the number will make the bid unresponsive and it will be rejected, unless contrary to federal law.

8. The successful Bidder hereby certifies that all subcontractors who will perform construction work as described in ORS 701.005(2) were registered with the Construction Contractors Board in accordance with ORS 701.035 to 701.055 at the time the subcontractor(s) made a bid to work under the contract.

9. The successful Bidder hereby certifies that, in compliance with the Worker's Compensation Law of the State of Oregon, its Worker's Compensation Insurance provider is

_____, Policy No. ______, and that Contractor shall submit Certificates of Insurance as required.

10. Contractor's Project Manager for this project is: _____,

Office Phone: ______ Cell Phone: ______.

11. The Undersigned certifies that it has not discriminated against minority, women, or emerging small businesses in obtaining any subcontracts for this project. By signature below, Contractor agrees to be bound by this Bid.

	NAME OF FIRM	
	ADDRESS	
	FEDERAL TAX ID	
	TELEPHONE NO	
	FAX NO	
	SIGNATURE 1)	Sole Individual
	or 2)	Partner
	or 3)	Authorized Officer of Corporation
(SEAL)		
		Attested: Secretary of Corporation

Payment information will be reported to the IRS under the name and taxpayer ID # provided above. Information not matching IRS records could subject Contractor to 31 percent backup withholding.

***** END OF BID *****

SECTION 211316 - DRY-PIPE SPRINKLER SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Pipes, fittings, and specialties.
 - 2. Fire-protection valves.
 - 3. Sprinkler specialty pipe fittings.
 - 4. Sprinklers.
 - 5. Alarm devices.
 - 6. Pressure gages.
 - 7. Electronic accelerator.
- B. Related Sections:
 - 1. Division 21 Section "Water-Based Fire-Suppression Systems" for wet-pipe sprinkler piping.

1.2 SYSTEM DESCRIPTIONS

A. Dry-Pipe Sprinkler System: Automatic sprinklers are attached to piping containing compressed air. Opening of sprinklers releases compressed air and permits water pressure to open dry-pipe valve. Water then flows into piping and discharges from sprinklers that are open.

1.3 PERFORMANCE REQUIREMENTS

- A. Standard-Pressure Piping System Component: Listed for 175-psig minimum working pressure.
- B. Delegated Design: Design sprinkler system(s), including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.
 - 1. Perform fire-hydrant flow test.
- C. Sprinkler system design shall be approved by authorities having jurisdiction.
 - 1. Maximum Protection Area per Sprinkler: Per UL listing.
- D. Seismic Performance: Sprinkler piping shall withstand the effects of earthquake motions determined according to NFPA 13 and ASCE/SEI 7.

PLAYER DEVELOPMENT AREA UNIVERSITY OF OREGON EUGENE, OREGON

1.4 DEFINITIONS

A. Standard Weight Pipe: Schedule 40.

1.5 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: For dry-pipe sprinkler systems. Include plans, elevations, sections, details, and attachments to other work, for engineering and architectural review.
 - 1. Wiring Diagrams: For power, signal, and control wiring.
- C. Delegated-Design Submittal: For sprinkler systems indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
- D. Qualification Data: For qualified Installer.
- E. Approved Sprinkler Piping Drawings: Working plans, prepared according to NFPA 13, that have been approved by authorities having jurisdiction, including hydraulic calculations if applicable.
- F. Field Test Reports and Certificates: Indicate and interpret test results for compliance with performance requirements and as described in NFPA 13. Include "Contractor's Material and Test Certificate for Aboveground Piping."
- G. Operation and maintenance data.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications:
 - 1. Installer's responsibilities include designing, fabricating, and installing sprinkler systems and providing professional engineering services needed to assume engineering responsibility. Base calculations on results of fire-hydrant flow test.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. NFPA Standards: Sprinkler system equipment, specialties, accessories, installation, and testing shall comply with the following:
 - 1. NFPA 13, "Installation of Sprinkler Systems."
 - 2. NFPA 24, "Installation of Private Fire Service Mains and Their Appurtenances."

PART 2 - PRODUCTS

2.1 PIPING MATERIALS

A. Comply with requirements in "Piping Schedule" Article for applications of pipe, tube, and fitting materials, and joining methods for specific services, service locations, and pipe sizes.

2.2 STEEL PIPE AND FITTINGS

- A. Standard Weight, Galvanized-Steel Pipe: ASTM A 53/A 53M, Type E, Grade B. Pipe ends may be factory or field formed to match joining method.
- B. Thinwall Galvanized-Steel Pipe: Not allowed.
- C. Galvanized-Steel Pipe Nipples: ASTM A 733, made of ASTM A 53/A 53M, standard-weight, seamless steel pipe with threaded ends.
- D. Galvanized, Steel Couplings: ASTM A 865, threaded.
- E. Galvanized, Gray-Iron Threaded Fittings: ASME B16.4, Class 125, standard pattern.
- F. Malleable- or Ductile-Iron Unions: UL 860.
- G. Cast-Iron Flanges: ASME B16.1, Class 125.
- H. Grooved-Joint, Steel-Pipe Appurtenances:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Anvil International, Inc.
 - b. Tyco Fire & Building Products LP.
 - c. Victaulic Company.
 - 2. Pressure Rating: 175 psig minimum.
 - 3. Galvanized, Grooved-End Fittings for Steel Piping: ASTM A 47/A 47M, malleable-iron casting or ASTM A 536, ductile-iron casting; with dimensions matching steel pipe.
 - 4. Grooved-End-Pipe Couplings for Steel Piping: AWWA C606 and UL 213, rigid pattern, unless otherwise indicated, for steel-pipe dimensions. Include ferrous housing sections, EPDM-rubber gasket, and bolts and nuts.

2.3 LISTED FIRE-PROTECTION VALVES

- A. General Requirements:
 - 1. Valves shall be UL listed or FM approved.
 - 2. Minimum Pressure Rating: 175 psig.

- B. Check Valves:
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Clow Valve Company; a division of McWane, Inc.
 - b. Crane Co.; Crane Valve Group; Crane Valves.
 - c. Crane Co.; Crane Valve Group; Jenkins Valves.
 - d. Crane Co.; Crane Valve Group; Stockham Division.
 - e. Globe Fire Sprinkler Corporation.
 - f. Kennedy Valve; a division of McWane, Inc.
 - g. Metraflex, Inc.
 - h. Milwaukee Valve Company.
 - i. Mueller Co.; Water Products Division.
 - j. NIBCO INC.
 - k. Potter Roemer.
 - 1. Reliable Automatic Sprinkler Co., Inc.
 - m. Tyco Fire Protection Products.
 - n. Viking Corporation.
 - o. Watts Water Technologies, Inc.
 - 2. Standard: UL 312
 - 3. Pressure Rating: 250 psig minimum.
 - 4. Type: Swing check.
 - 5. Body Material: Cast iron.
 - 6. End Connections: Flanged.
- C. Bronze OS&Y Gate Valves:
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Crane Co.; Crane Valve Group; Crane Valves.
 - b. Crane Co.; Crane Valve Group; Stockham Division.
 - c. Milwaukee Valve Company.
 - d. NIBCO INC.
 - e. United Brass Works, Inc.
 - 2. Standard: UL 262.
 - 3. Pressure Rating: 175 psig.
 - 4. Body Material: Bronze.
 - 5. End Connections: Threaded.
- D. Iron OS&Y Gate Valves:
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

- a. American Cast Iron Pipe Company; Waterous Company Subsidiary.
- b. American Valve, Inc.
- c. Clow Valve Company; a division of McWane, Inc.
- d. Crane Co.; Crane Valve Group; Crane Valves.
- e. Crane Co.; Crane Valve Group; Jenkins Valves.
- f. Crane Co.; Crane Valve Group; Stockham Division.
- g. Hammond Valve.
- h. Milwaukee Valve Company.
- i. Mueller Co.; Water Products Division.
- j. NIBCO INC.
- k. Tyco Fire Protection Products.
- 1. United Brass Works, Inc.
- m. Watts Water Technologies, Inc.
- 2. Standard: UL 262.
- 3. Pressure Rating: 250 psig.
- 4. Body Material: Cast or ductile iron.
- 5. End Connections: Flanged.
- E. Indicating-Type Butterfly Valves:
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Global Safety Products, Inc.
 - b. Kennedy Valve; a division of McWane, Inc.
 - c. Milwaukee Valve Company.
 - d. NIBCO INC.
 - e. Tyco Fire Protection Products.
 - 2. Standard: UL 1091.
 - 3. Pressure Rating: 175 psig minimum.
 - 4. Valves NPS 2 and Smaller:
 - a. Valve Type: Ball or butterfly.
 - b. Body Material: Bronze.
 - c. End Connections: Threaded.
 - 5. Valves NPS 2-1/2 and Larger:
 - a. Valve Type: Butterfly.
 - b. Body Material: Cast or ductile iron.
 - c. End Connections: Flanged or wafer.
 - 6. Valve Operation: Integral electrical, 115-V ac, prewired, single-circuit, supervisory switch indicating device.

2.4 TRIM AND DRAIN VALVES

- A. General Requirements:
 - 1. Standard: UL's "Fire Protection Equipment Directory" listing or "Approval Guide," published by FM Global, listing.
 - 2. Minimum Pressure Rating: 175 psig (1200 kPa).
- B. Ball Valves:
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Conbraco Industries, Inc.; Apollo Valves.
 - b. Flowserve.
 - c. FNW.
 - d. Jomar International, Ltd.
 - e. Kennedy Valve; a division of McWane, Inc.
 - f. Milwaukee Valve Company.
 - g. NIBCO INC.
 - h. Potter Roemer.
 - i. Red-White Valve Corporation.
 - j. Tyco Fire Protection Products.
 - k. Watts Water Technologies, Inc.

2.5 SPECIALTY VALVES

- A. General Requirements:
 - 1. Standard: UL's "Fire Protection Equipment Directory" listing or "Approval Guide," published by FM Global, listing.
 - 2. Minimum Pressure Rating: 175 psig.
 - 3. Body Material: Cast or ductile iron.
 - 4. Size: Same as connected piping.
 - 5. End Connections: Flanged.
- B. Dry-Pipe Valves:
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Globe Fire Sprinkler Corporation.
 - b. Reliable Automatic Sprinkler Co., Inc.
 - c. Tyco Fire Protection Products.
 - d. Viking Corporation.
 - 2. Standard: UL 260
 - 3. Design: Differential-pressure type.

- 4. Include UL 1486, quick-opening devices, trim sets for air supply, drain, priming level, alarm connections, ball drip valves, pressure gages, priming chamber attachment, and fill-line attachment.
- 5. Air Compressor:
 - a. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1) Gast Manufacturing Inc.
 - 2) General Air Products, Inc,
 - 3) Viking Corporation.
 - b. Standard: UL's "Fire Protection Equipment Directory" listing or "Approval Guide," published by FM Global, listing.
 - c. Motor Horsepower: Fractional.
 - d. Power: 120-V ac, 60 Hz, single phase.

2.6 SPRINKLER SPECIALTY PIPE FITTINGS

- A. General Requirements for Dry-Pipe-System Fittings: UL listed for dry-pipe service.
- B. Outlet Specialty Fittings:
 - 1. Mechanical-T and -Cross Fittings: Not allowed.
 - 2. Snap-On and Strapless Outlet Fittings: Not allowed.
- C. Flow Detection and Test Assemblies:
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. AGF Manufacturing Inc.
 - b. Reliable Automatic Sprinkler Co., Inc.
 - c. Tyco Fire Protection Products.
 - 2. Standard: UL's "Fire Protection Equipment Directory" listing or "Approval Guide," published by FM Global, listing.
 - 3. Pressure Rating: 175 psig minimum.
 - 4. Body Material: Cast- or ductile-iron housing with orifice, sight glass, and integral test valve.
 - 5. Size: Same as connected piping.
 - 6. Inlet and Outlet: Threaded.
- D. Sprinkler Inspector's Test Fittings:
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

- a. AGF Manufacturing Inc.
- b. Triple R Specialty.
- c. Tyco Fire Protection Products.
- d. Viking Corporation.
- 2. Standard: UL's "Fire Protection Equipment Directory" listing or "Approval Guide," published by FM Global, listing.
- 3. Pressure Rating: 175 psig) minimum.
- 4. Body Material: Cast- or ductile-iron housing with sight glass.
- 5. Size: Same as connected piping.
- 6. Inlet and Outlet: Threaded.

2.7 SPRINKLERS

- A. Sprinklers shall be UL listed or FMG approved, with 175-psig minimum pressure rating.
- B. Manufacturers:
 - 1. AFAC Inc.
 - 2. Firematic Sprinkler Devices, Inc.
 - 3. Globe Fire Sprinkler Corporation.
 - 4. Reliable Automatic Sprinkler Co., Inc.
 - 5. Venus Fire Protection, Ltd.
 - 6. Viking Corp.
- C. Automatic Sprinklers: With heat-responsive element complying with the following:
 - 1. UL 199, for nonresidential applications.
- D. Sprinkler Types and Categories: Nominal 1/2-inch orifice for "Ordinary" temperature classification rating, unless otherwise indicated or required by application.
- E. Sprinkler types, features, and options as follows:
 - 1. Concealed ceiling sprinklers, including cover plate.
 - 2. Flush ceiling sprinklers, including escutcheon.
 - 3. Pendent sprinklers.
 - 4. Quick-response sprinklers.
 - 5. Recessed sprinklers, including escutcheon.
 - 6. Sidewall sprinklers.
 - 7. Upright sprinklers.
- F. Sprinkler Finishes: Chrome plated, bronze, and painted.
- G. Special Coatings: Wax, lead, and corrosion-resistant paint.
- H. Sprinkler Escutcheons: Materials, types, and finishes for the following sprinkler mounting applications. Escutcheons for concealed, flush, and recessed-type sprinklers are specified with sprinklers.

- 1. Ceiling Mounting: Chrome-plated steel, one piece, flat.
- 2. Sidewall Mounting: Chrome-plated steel, one piece, flat.
- I. Sprinkler Guards: Wire-cage type, including fastening device for attaching to sprinkler.

2.8 ALARM DEVICES

- A. Alarm-device types shall match piping and equipment connections.
- B. Water-Motor-Operated Alarm:
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Globe Fire Sprinkler Corporation.
 - b. Tyco Fire Protection Products.
 - c. Viking Corporation.
 - 2. Standard: UL 753.
 - 3. Type: Mechanically operated, with Pelton wheel.
 - 4. Alarm Gong: Cast aluminum with red-enamel factory finish.
 - 5. Size: 10-inch diameter.
 - 6. Components: Shaft length, bearings, and sleeve to suit wall construction.
 - 7. Inlet: NPS 3/4
 - 8. Outlet: NPS 1 drain connection.
- C. Valve Supervisory Switches:
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Fire-Lite Alarms; a Honeywell company.
 - b. Kennedy Valve; a division of McWane, Inc.
 - c. Potter Electric Signal Company.
 - d. System Sensor; a Honeywell company.
 - 2. Standard: UL 346.
 - 3. Type: Electrically supervised.
 - 4. Components: Single-pole, double-throw switch with normally closed contacts.
 - 5. Design: Signals that controlled valve is in other than fully open position.

2.9 DRY PIPE ACCELERATOR

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

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- a. Globe Fire Sprinkler Corporation.
- b. Tyco Fire Protection Products.
- c. Viking Corporation.
- 2. Standard: UL 1486
- 3. Type: Electronic, microprocessor based.
- 4. Power Requirements: 0.75 A @ 120/220 AC.
- 5. Batteries:
 - a. Backup time: 90 hours, provided by two 12-volt (5 AH) batteries.
 - b. Current Draw:
 - 1) Standby: 43 mA.
 - 2) Alarm: 440 mA.
- 6. Maximum Water Pressure: 300 psig.
- 7. Air Pressure: 10 to 65 psig.
- 8. Pressure Decay for Trip: 0.1 psig/second.
- 9. Environmental Conditions:
 - a. Accelerator: 40° F to 120° F.
 - b. Batteries: 32° F to 120°.
- 10. Enclosures:
 - a. Accelerator: NEMA 2, indoor use, 18 gauge steel.
 - b. Batteries: NEMA 1, indoor use, 18 gauge steel.
- 11. Indicators and Controls:
 - a. AC Power Indicator: Green LED.
 - b. Trouble/Supervisory: Amber LED.
 - c. Battery Trouble: Amber LED.
 - d. Tripped: Red LED.
 - e. Switch S1: Two position, Set/Off.
 - f. Switch S2: Two position momentary, reset/silence.
 - g. Audible Alarm: Buzzer indicating trouble or supervisory condition.
 - h. Dry Contacts:
 - 1) Trouble annunciation: Normally open, 5 A @ 30 VDC rated, activated on any trouble condition.
 - 2) High/low: Normally open, 5 A @ 30 VDC rated, activated when system pressure is outside of normal setting.

2.10 PRESSURE GAGES

- 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- 2. AMETEK, Inc.; U.S. Gauge Division.
- 3. Ashcroft, Inc.
- 4. Brecco Corporation.
- 5. WIKA Instrument Corporation.
- B. Standard: UL 393.
- C. Dial Size: 3-1/2- to 4-1/2-inch diameter.

- D. Pressure Gage Range: 0 to 250 psig.
- E. Water System Piping Gage: Include "WATER" or "AIR/WATER" label on dial face.
- F. Air System Piping Gage: Include retard feature and "AIR" or "AIR/WATER" label on dial face.

PART 3 - EXECUTION

3.1 WATER-SUPPLY CONNECTIONS

- A. Connect sprinkler piping to building's interior fire water-distribution piping.
- B. Install shutoff valve, check valve, pressure gage, and drain at connection to water supply.

3.2 PIPING INSTALLATION

- A. Locations and Arrangements: Drawing plans, schematics, and diagrams indicate general location and arrangement of piping. Install piping as indicated, as far as practical.
 - 1. Deviations from approved working plans for piping require written approval from authorities having jurisdiction. File written approval with Architect before deviating from approved working plans.
- B. Piping Standard: Comply with requirements in NFPA 13 for installation of sprinkler piping.
- C. Install seismic restraints on piping. Comply with requirements in NFPA 13 for seismic-restraint device materials and installation.
- D. Use listed fittings to make changes in direction, branch takeoffs from mains, and reductions in pipe sizes.
- E. Install unions adjacent to each valve in pipes NPS 2 (DN 50) and smaller.
- F. Install flanges or flange adapters on valves, apparatus, and equipment having NPS 2-1/2 (DN 65) and larger end connections.
- G. Install "Inspector's Test Connections" in sprinkler system piping, complete with shutoff valve, and sized and located according to NFPA 13.
- H. Install sprinkler piping with drains for complete system drainage.
- I. Install sprinkler control valves, test assemblies, and drain risers adjacent to standpipes when sprinkler piping is connected to standpipes.
- J. Install automatic (ball drip) drain valves to drain piping between fire-department connections and check valves. Drain to floor drain or to outside building.

- K. Install alarm devices in piping systems.
- L. Install hangers and supports for sprinkler system piping according to NFPA 13. Comply with requirements in NFPA 13 for hanger materials.
- M. Install pressure gages on riser or feed main, at each sprinkler test connection, and at top of each standpipe. Include pressure gages with connection not less than NPS 1/4 (DN 8) and with soft metal seated globe valve, arranged for draining pipe between gage and valve. Install gages to permit removal, and install where they will not be subject to freezing.
- N. Drain dry-pipe sprinkler piping.
- O. Pressurize and check dry-pipe sprinkler system piping and air compressors.

3.3 JOINT CONSTRUCTION

- A. Install couplings, flanges, flanged fittings, unions, nipples, and transition and special fittings that have finish and pressure ratings same as or higher than system's pressure rating for aboveground applications unless otherwise indicated.
- B. Install unions adjacent to each valve in pipes NPS 2 (DN 50) and smaller.
- C. Install flanges or flange adapters on valves, apparatus, and equipment having NPS 2-1/2 (DN 65) and larger end connections.
- D. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.
- E. Remove scale, slag, dirt, and debris from inside and outside of pipes, tubes, and fittings before assembly.
- F. Flanged Joints: Select appropriate gasket material in size, type, and thickness suitable for water service. Join flanges with gasket and bolts according to ASME B31.9.
- G. Threaded Joints: Thread pipe with tapered pipe threads according to ASME B1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and restore full ID. Join pipe fittings and valves as follows:
 - 1. Apply appropriate tape or thread compound to external pipe threads.
 - 2. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged.
- H. Dissimilar-Material Piping Joints: Make joints using adapters compatible with materials of both piping systems.

3.4 VALVE AND SPECIALTIES INSTALLATION

A. Install listed fire-protection valves, trim and drain valves, specialty valves and trim, controls, and specialties according to NFPA 13 and authorities having jurisdiction.

- B. Install listed fire-protection shutoff valves supervised open, located to control sources of water supply except from fire-department connections. Install permanent identification signs indicating portion of system controlled by each valve.
- C. Install check valve in each water-supply connection. Install backflow preventers instead of check valves in potable-water-supply sources.
- D. Specialty Valves:
 - 1. General Requirements: Install in vertical position for proper direction of flow, in main supply to system.
 - 2. Dry-Pipe Valves: Install trim sets for air supply, drain, priming level, alarm connections, ball drip valves, pressure gages, priming chamber attachment, and fill-line attachment.
 - a. Install air compressor and compressed-air supply piping.

3.5 SPRINKLER INSTALLATION

- A. Install dry-type sprinklers with water supply from heated space. Do not install pendent or sidewall, wet-type sprinklers in areas subject to freezing.
- B. Install sprinklers in suspended ceilings in center of narrow dimension of acoustical ceiling panels and tiles.

3.6 ACCELERATOR INSTALLATION

- A. Install electronic accelerator in accordance with manufacturer's recommendations and NFPA.
- B. Install accelerator at dry alarm valve. Connect to power, including listed transformer and batter charger. Install all manufacturers' recommended trim.
- C. Install battery and battery enclosure on wall adjacent to dry alarm valve. Provide interconnecting wiring and conduit between accelerator and battery cabinet.
- D. Adjust high/low pressure settings to match installed conditions.

3.7 IDENTIFICATION

- A. Install labeling and pipe markers on equipment and piping according to requirements in NFPA 13.
- B. Identify system components, wiring, cabling, and terminals. Comply with requirements for identification specified in Division 26 Section "Identification for Electrical Systems."

3.8 FIELD QUALITY CONTROL

A. Perform tests and inspections.

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- B. Tests and Inspections:
 - 1. Leak Test: After installation, charge systems and test for leaks. Repair leaks and retest until no leaks exist.
 - 2. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
 - 3. Flush, test, and inspect sprinkler systems according to NFPA 13, "Systems Acceptance" Chapter.
 - 4. Energize circuits to electrical equipment and devices.
 - 5. Start and run air compressors.
 - 6. Coordinate with fire-alarm tests. Operate as required.
 - 7. Coordinate with fire-pump tests. Operate as required.
 - 8. Verify that equipment hose threads are same as local fire-department equipment.
- C. Sprinkler piping system will be considered defective if it does not pass tests and inspections.
- D. Prepare test and inspection reports.

3.9 CLEANING

- A. Clean dirt and debris from sprinklers.
- B. Remove and replace sprinklers with paint other than factory finish.

3.10 PIPING SCHEDULE

- A. Standard-pressure, dry-pipe sprinkler system, NPS 2 and smaller, shall be one of the following:
 - 1. Standard weight, galvanized-steel pipe with threaded ends; galvanized, gray-iron threaded fittings; and threaded joints.
 - 2. Standard-weight, galvanized-steel pipe with cut-grooved ends; galvanized, grooved-end fittings for steel piping; grooved-end-pipe couplings for steel piping; and grooved joints.
- B. Standard-pressure, dry-pipe sprinkler system, NPS 2-1/2 to NPS 6, shall be one of the following:
 - 1. Standard-weight, galvanized-steel pipe with threaded ends; galvanized, gray-iron threaded fittings; and threaded joints.
 - 2. Standard-weight, galvanized-steel pipe with cut-grooved ends; galvanized, grooved-end fittings for steel piping; grooved-end-pipe couplings for steel piping; and grooved joints.

3.11 SPRINKLER SCHEDULE

- A. Where specific types are not indicated, use the following sprinkler types:
 - 1. Spaces Subject to Freezing: Upright, sprinklers.
 - 2. Rooms without Ceilings: Upright sprinklers.
 - 3. Rooms with Suspended Ceilings: Concealed sprinklers.

- 4. Wall Mounting: Sidewall sprinklers.
- 5. Sprinkler Finishes:
 - a. Upright, Pendent, and Sidewall Sprinklers: Chrome plated in finished spaces exposed to view; rough bronze in unfinished spaces not exposed to view; wax coated where exposed to acids, chemicals, or other corrosive fumes.
 - b. Concealed Sprinklers: Rough brass, with factory-painted white cover plate

END OF SECTION 211316





SCALE: 1/8" = 1'-0"

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KEY NOTES





D1.1

74-11105-00

11-04-2011

DLR Group Architecture Planning Interiors

DEMOLITION PLAN PLAYER DEVELOPMENT AREA UNIVERSITY OF OREGON Attachment No. A2 to ADD-2 Dated: February 2, 2012

> CONFORM SET JANUARY 12, 2012



Attachment No. A3 to ADD-2 Dated: February 2, 2012



A0.1

74-11105-00

11-04-2011

GENERAL NOTES, SYMBOLS & ABBREVIATIONS PLAYER DEVELOPMENT AREA UNIVERSITY OF OREGON

CONFORM SET JANUARY 12, 2012



GENERAL FLOOR NOTES	TERED ARCA
A. SYNTHETIC TURF PRODUCT: FIELDTURF 2.5" CLASSIC.	BOBERT LESAL
 SYNTHETIC TURF MANUFACTURER: FIELDTURF INTERNATIONAL INC., 175 N. INDUSTRIAL BLVD., CALHOUN, GA 30701 USA; TEL: (800) 724–2969. 	2 Rohm - Econ
. PROVIDE NEW TURF NAILER BOARD AT PERIMETER OF TURF WHERE EXISTING NAILER HAS BEEN IMPACTED.	PORTLAND, OR
). INSTALL SYNTHETIC TURF AND INFILL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.	VE OF ORECT
E. COLUMN SAFETY PADS ARE REQUIRED FOR OUTDOOR COLUMNS IN BULLPEN AREA AS MARKED ON PLANS AND ELEVATIONS. NO DADE ADE FOUNDED FOR INCIDE THE NEW DIVIDED THE	
ELEVATIONS, THE PADS SHALL WRAP 3 SIDES BEHIND THE PERIMETER FENCE, AND 4 SIDES ABOVE THE PERIMETER FENCE.	12
EQUIPMENT (www.chbaseball.com). PRODUCT REQUIREMENTS ARE:	4 SE , 20
EACH PANEL SECTION SHALL CONSIST OF FILL LAMINATED TO BACKER BOARD WITH VISIBLE SURFACES FULLY COVERED BY SEAMLESS FABRIC COVERING, FREE OF SAC AND WEINKLESS AND FILMLY ATTACHED TO BACK	0RN / 12
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A VINYL COVER: 18.5 OZ / SQ YARD WEIGHT, STITCHED WITH NYLON MULTI-FILAMENT THREAD. A FILLER: MILLIPLE-IMPACT-RESISTANT FOAM NOT LESS	CC
THAN 3-INCH-THICK BONDED POLYURETHAN, 6.0-LB/CU.	ſ
EXISTING PADDING.	\triangleleft
KEY NOTES	Ш
2 DRINKING FOUNTAIN	
3 INSULATED WALL	5
4 METAL DOOR	
5 SECTIONAL DOOR	
6 EXISTING ELECTRICAL FOLIPMENT	n Ö
7 BULLPEN	Ŭ Ū
8 GUARD RAIL	Ц Ц Ц
9 BATTING CAGE NET	ЩÜ
10 PROVIDE COLUMN SAFETY PAD. SEE ALSO GENERAL FLOOR	
11 DOWNSPOUT	
EXISTING FENCE AND GATES AT NEW LOCATION. SEE D1.1 FOR	AA T T
13) EXISTING FENCE TO REMAIN	
PATCH AND REPAIR BULLPEN, CONCRETE CURB, FENCE, AND	
15 PATCH AND REPAIR BULLPEN TO MATCH EXISTING (SEE	N N N
16) RELOCATE GATE AND FENCE TO EXISTING POSITION	Z L C
17) FLOAT FINISH AT CONCRETE SLAB	
NEW GALVANIZED HANDRAIL – TO MATCH EXISTING THAT IS	
19 PATCH AND REPLACE SYNTHETIC TURF AT DOWNSPOUT /	. A4
20) EXISTING STAIR HANDRAIL TO REMAIN	JENT NC
21) EXISTING GATE TO BE REMOVED.	
22) CONCRETE PILASTER – SEE STRUCTURAL	1105-0 1105-0 14-2011 2-11 2-12 A
23) COLUMN SAFETY PAD. SEE GENERAL NOTES AND SHEETS A5.1. A5.2, AND A5.3 FOR VERTICAL DIMENSIONS	74-1 11-0 11-0 0_12-2 0_02-0
PROVIDE GWB OVER 3/4" METAL HAT CHANNEL, 16" O.C. AT	TTS RES
25) SPEAKER SHELF - SEE DETAILS 12 AND 12A ON SHEET A10.1	ILL RIGF
ATTACH LCD TV TO PLAYWOOD BACKING OVER 1-1/2" METAL	rration, <i>A</i>
	» Plann
	@2011,

42 A5.2



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KEY NOTES	REDAR
1 CAGE NETTING 2 DOOR BEYOND 3 RISER ROOM BEYOND 4 EXISTING FOOTING	PORTLAND, OR
 NEW STRUCTORAL POOTING BETOND OVERHEAD SECTIONAL DOOR GUARD RAIL - GALVANIZED FINISH CONCRETE PILASTER EXISTING RETAINING WALL MECHANICAL HEATING UNIT PENETRATION EXISTING RAIL MECHANICAL HEATING UNIT PENETRATION EXISTING RAIL DOWNSPOUT (COLOR: DARK GREEN FOR NORTH DSs; COOL SHELL GRAY FOR SOUTH DSs) METAL STRUCTURE (COLOR: DARK GREEN) METAL STRUCTURE (COLOR: DARK GREEN) INSULATED METAL PANEL - TYPE 1 (COLOR: EMERALD GREEN) INSULATED METAL PANEL - TYPE 2 (COLOR: COOL SHELL GRAY) INSULATED METAL PANEL - TYPE 3 (COLOR: COOL SHELL GRAY) INSULATED METAL PANEL - TYPE 4 (COLOR: DARK GREY) STANDING SEAM METAL ROOF MECHANICAL LOUVER (COLOR TO MATCH ADJACENT PANEL) STANDING SEAM METAL ROOF MATCH EXISTING STARE HANDRAIL (HAT IS TO BE REMOVED - SEE SHEETS OIL AND ALL. EXPOSED CONCRETE CURB - SEE DETAIL 43 ON SHEET ALOI. EXPOSED CONCRETE CURB - SEE DETAIL 43 ON SHEET ALOI. WALL FLASHING TO EDGE OF SYNTHETIC TURF, THEN CONTINUOUS AROUND REST OF BUILDING - SEE DETAIL 23 ONL-SHEET ALOI. VERTICAL JOINT AT METAL SIDING PADDING AROUND 3 SIDES DIMENSIONAL LETTER SIGNAGE 	BUILDING SECTION & ELEVATIONS PLAYER DEVELOPMENT AREA UNIVERSITY OF OREGON
	A5.1 74-11105-00 11-04-2011 ADA 12-22-11 ADA 12-22-12 ATTACHMENT NO. A6
	DLR Group Architecture & Planning Inc., an Oregon corporation,







KEY NOTES	atD (A)
1 CAGE NETTING 2 DOOR BEYOND 3 RISER ROOM BEYOND 4 EXISTING FOOTING	PORTLAND, OR
 6 OVERHEAD SECTIONAL DOOR 7 GUARD RAIL - GALVANIZED FINISH 8 CONCRETE PILASTER 9 EXISTING RETAINING WALL 10 MECHANICAL HEATING UNIT PENETRATION 11 EXISTING RAIL 12 DOWNSPOUT (COLOR: DARK GREEN FOR NORTH DS; COOL SHELL GRAY FOR SOUTH DS;) 13 METAL STRUCTURE (COLOR: DARK GREEN) 14 HSS COLUMN (COLOR: DARK GREEN) 15 INSULATED METAL PANEL - TYPE 1 (COLOR: EMERALD GREEN) 16 INSULATED METAL PANEL - TYPE 2 (COLOR: COOL SHELL GRAY) 17 INSULATED METAL PANEL - TYPE 3 (COLOR: COOL SHELL GRAY) 18 INSULATED METAL PANEL - TYPE 4 (COLOR: DARK GREY) 19 STANDING SEAM METAL ROOF 20 MECHANICAL LOUVER (COLOR TO MATCH ADJACENT PANEL) 21 PADDING AROUND 4 SIDES ADD-2 22 EXPOSED CONCRETE CURB - SEE DETAIL 43 ON SHEET A10.1 24 WALL FLASHING TO EDGE OF SYNTHETIC TURF, THEN CONTINUOUS AROUND REST OF BUILDING - SEE DETAIL 23 ON SHEET A10.1 24 WALL FLASHING TO EDGE OF SYNTHETIC TURF, THEN CONTINUOUS AROUND REST OF BUILDING - SEE DETAIL 23 ON SHEET A10.1 24 PADDING AROUND 3 SIDES 27 DIMENSIONAL LETTER SIGNAGE 	BUILDING ELEVATIONS & INTERIOR ELEVATION PLAYER DEVELOPMENT AREA UNIVERSITY OF OREGON
	A5.2 74-11105-00 11-04-2011 11-04-2011 11-04-2011 11-04-2011 11-04-2011 11-04-2011 11-04-2011 11-04-2011
	DLR Group Architecture & Planning Inc., an Oregon corporation, ALL





KEY NOTES	REDAR
1 CAGE NETTING 2 DOOR BEYOND 3 RISER ROOM BEYOND 4 EXISTING FOOTING 5 NEW STRUCTURAL FOOTING BEYOND	PORTLAND, OR
 New Structional Door OVERHEAD SECTIONAL DOOR GUARD RAIL - GALVANIZED FINISH CONCRETE PILASTER EXISTING RETAINING WALL MECHANICAL HEATING UNIT PENETRATION EXISTING RAIL DOWNSPOUT (COLOR: DARK GREEN FOR NORTH DSs; COOL SHELL GRAY FOR SOUTH DSs) METAL STRUCTURE (COLOR: DARK GREEN) HSS COLUMN (COLOR: DARK GREEN) INSULATED METAL PANEL - TYPE 1 (COLOR: EMERALD GREEN) INSULATED METAL PANEL - TYPE 2 (COLOR: COOL SHELL GRAY INSULATED METAL PANEL - TYPE 2 (COLOR: COOL SHELL GRAY) INSULATED METAL PANEL - TYPE 3 (COLOR: VELLOW) INSULATED METAL PANEL - TYPE 4 (COLOR: DARK GREY) STANDING SEAM METAL ROOF MECHANICAL LOUVER (COLOR TO MATCH ADJACENT PANEL) PADDING AROUND 4 SIDES MEW TUBE PIPE STAIR HANDRAIL (THAT IS TO BE REMOVED - SEE SHEETS DI.1 AND A1.1. EXPOSED CONCRETE CURB - SEE DETAIL 43 ON SHEET A10.1 WALL FLASHING TO EDGE OF SYNTHETIC TURF, THEN CONTINUOUS AROUND REST OF BUILDING - SEE DETAIL 23 ON SHEET A10.1 INSULATED SKYLIGHT - ALTERNATE NO.2 INSULATED DOLYCARBONATE WALL PANELS - ALTERNATE NO.1 VERTICAL JOINT AT METAL SIDING (20) VERTICAL JOINT AT METAL SIDING (21) PADDING AROUND 3 SIDES 	BUILDING SECTION & ELEVATION - ALTERNATES PLAYER DEVELOPMENT AREA UNIVERSITY OF OREGON
	A5.3 74-11105-00 11-04-2011 11-04-2011 2002.02-02-12 ATTACHMENT NO. A6
	DLR Ground Architecture & Planning Interiors

SCALE: 1/4" = 1'-0"

ROOM FINISH SCHEDULE 21 A9.1

GENERAL: ALL EXPOSED CONDUITS, PIPES, DUCTS,

AND ASSOCIATED APPURTENANCES ARE TO BE PAINTED, SEE SECTION 099123 FOR INTERIOR

PAINTING SCHEDULE

NOTES:

1. 2.	 PROVIDE RUBBER BASE ON NORTH AND EAST WALLS OF RISER F INTO PLAYER DEVELOPMENT AREA. SEE SECTION 099123 FOR INTERIOR PAINTING SCHEDULE 	ROOM THAT FACE
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FINISH	SCHEDULE	ABBREVIATIONS:
EXIST EXP FF GWB P-1 P-2 P-3 ST 		EXISTING EXPOSED FLOAT FINISH AT GYPSUM BOARD PAINT PAINT SYNTHETIC TURF NOT APPLICABLE

יוטטאון											
ROOM		FINISH		WALLS					CEILING		
NO	SPACE	FLOOR	BASE	MATL	N	E	S	W	MATL	FINISH	HEIG
100	PLAYER DEVELOPMENT AREA	EXIST/ST			P-1, 2, 3	P-1, 2, 3	P-1, 2, 3	P-1, 2, 3	EXP	P-2	V.
101	RISER ROOM	FF		GWB	P-1	P-1	P-1	P-1	GWB	P-1	9'

ROOM FINISH SCHEDUILE







	Attachment No. A10 to ADD-2 Dated: February 2, 2012
PLAYER DEVELOPMENT AREA E DOOR SCHEDULE FOR DOOR TYPE STING SYNTHETIC FIELD TURF AND BASE	CONFORM SET JANUARY 12, 2012
	SCHEDULES AND DETAILS PLAYER DEVELOPMENT AREA UNIVERSITY OF OREGON
ED 4 b	A9.1 74-11106-00 11-04-2011 sserven.
PORTLAND, OR A PORTLAND, OR A	DLR Group Architecture Planning Interiors





Attachment No. A11 to ADD-2 Dated: February 2, 2012



BUILDING DETAILS PLAYER DEVELOPMENT AREA UNIVERSITY OF OREGON

CONFORM SET JANUARY 12, 2012









BUILDING DETAILS PLAYER DEVELOPMENT AREA UNIVERSITY OF OREGON

CONFORM SET JANUARY 12, 2012



LAYOUT PLAN - SITE

SITE PLAN NOTES

- 1. All survey information provided by: KPFF Consulting Engineers 111 SW Fifth Avenue, Suite 2400 Portland, OR 97204 P: 503.227.3251 F: 503.274.4681 Dated: September 17, 2010
- Verify exact locations and routing of existing underground utilities prior to starting excavation. Repair any damage to existing pipes, utilities or related facilities at Contractor's expense in a manner approved by Owner's Representative.
- All accessible components including, but not limited to signs, ramps, tactile warning, markings, etc. shall conform to all Oregon State Standards for parking and access for the disabled. Obtain Landscape Architect's approval prior to installing any related work.
- 4. In addition to improvements shown, repair all areas disturbed or damaged by construction impacts to the condition that existed prior to Construction.



LAYOUT PLAN NOTES

All survey information provided by: KPFF Consulting Engineers 111 SW Fifth Avenue, Suite 2400 Portland, OR 97204 P: 503.227.3251 F: 503.274.4681 Dated: September 17, 2010

Verify exact locations and routing of existing underground utilities prior to starting excavation. Repair any damage to existing pipes, utilities or related facilities at Contractor's expense in a manner approved by Owner's Representative.

Cease layout work and notify Owner's Representative of any discrepancies in Project Benchmarks, Control Points, coordinates, dimensions, degrees, locations, stakes, etc. Obtain approval prior to executing any layout work different from that shown or specified.

All coordinates and dimensions are at face of element (curb, walk, building, or wall) unless noted otherwise.

All concrete paving joints not specifically dimensioned shall be equally spaced between shown or noted limits.

All accessible components including, but not limited to signs, ramps, tactile warning, markings, etc. shall conform to all Oregon State Standards for parking and access for the disabled.

8. The concrete joint scoring shown at the Autzen east plaza is diagrammatic and subject to change based upon alignment with existing score joints in the plaza. Coordinate final joint layout with Landscape Architect's approval based upon field conditions.

SPECIAL NOTE All coordinate points, except control points, have been simplified. Add 10,000 to Northings and Eastings.

LEGEND



N E	Northing/Easting Coordinate Point	<u>CP #29</u> N: 18059.2516 E: 15217.3180 Elevation 421.61 Description: Nail
CP #27 N E	Control Point Coordinate	CP #30 N: 18373.2790 E: 15356.0460 Elevation 423.14
	Radial Dimension	VERTICAL DATUM: CITY (NGVD 29)
CONTROL From Survey	POINTS	BENCHMARK: 1-1/2 inch northeast corner of b on south side of MLK Autzen Stadium. City Benchmark No. WK0 416.20'
CP #27 N: 18378.1230 E: 16007.0490 Elevation 420.63 Description: Nail		
CP #28 N: 17976.2630 E: 16015.4200 Elevation 419.71 Description: Nail		

Y OF EUGENE

h brass disk at the ridge over slough K Jr. BLVD, west of y of Eugene 0332; Elevation =

ARY LIMITS OF AYOUT

dno

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LEGEND	(FOR REFERENCE ONLY)
	Existing Tree to Remain
×	Tree Center
I	Existing Irrigation Mainline Approximate location shown
	Irrigation Mainline 4" diameter
======	Irrigation Sleeve 1 6" sleeve at quantity shown L8.1 on Sheet L5.1 Irrigation Mainline Plan
۲	Isolation Valve 1 L8.1
Q.C.	Quick Coupler 7 L8.1
$\langle \# \rangle$	Irrigation Zone Valve 6
5-A	Zone Number - Autzen Controller (Located in maintenance building south of the East Plaza).
4-PK	Zone Number - PK Park Controller (located inside PK Park).



ST	(FOR REFERENCE ONLY.	SEE LANDSCAPE NOTE F	OR PLANTS THAT	ARE TO BE REMOVED	TO ACCOMMODATE NEW CONDUIT)	

	Botanical Name	Common Name	Size	Condition	Spacing	Comments
ac	Acer macrophyllum	Bigleaf Maple	5" ca.	B&B or Container	as shown	Full, evenly branched
	Betula jacquemontii	White Himalayan Birch	5" ca.	B&B or Container	as shown	Full, evenly branched
es						
n	Amelanchier alnifolia	Serviceberry	3" ca.	B&B or Container	as shown	Full, evenly branche
:	Cornus nuttallii	Pacific Dogwood	3" ca.	B&B or Container	as shown	Full, evenly branche
ound	Covers, and Grasses					
à	Arctostaphylos uva-ursi	Kinnikinnick	#2	container	18" o.c.	full and bushy
lu C	Mahonia aquifolium 'Compacta'	Compact Oregon Grape	#5	container	30" o.c.	full and bushy
I.	Calamagrostis x acutiflora ' Karl Foerster'	Karl Foerster Reed Grass	#5	container	as shown.	full and bushy
۰F	Cornus sericea 'Flaviramea'	Yellowtwig Dogwood	#5	container	54" o.c.	full and bushy
ł	Genista lydia	Lydia Broom	#5	container	36" o.c.	full and bushy
m G	Nandina domestica 'Gulf Stream'	Gulf Stream Heavenly Bamboo	#3	container	30" o.c.	full and bushy
С	Thuja occidentalis	Emerald Green Arborvitae	10' Tall	B&B or container	24" o.c.	full and bushy
	Rhododendron 'Sir Charles Lemon'	Sir Charles Lemon Rhododendron	#5	B&B or container	42" o.c.	full and bushy
/	Viburnum davidii	David Viburn u m	# 5	container	42" o.c.	full and bushy





RL17



JANUARY 12, 2012









KEY NOTES:

CONCRETE VAULT WITH TERMADUCTS FOR FIRE ALARM CONDUITS IS PROVIDED UNDER A SEPARATE CONTRACT.

PROVIDE (2) 1" PVC CONDUITS BURRIED 24" DEEP MIN. FOR FIRE ALARM CONNECTIONS FROM RISER ROOM 101 IN PDA BUILDING TO EXISTING VAULT. PROVIDE ABS TO PVC TRANSITION CEMENT FOR SECURING CONDUIT TO TERMADUCTS IN THE VAULT.

PROVIDE FIRE ALARM CONNECTIONS AND SUPERVISION FROM PDA BUILDING TO EXISTING FIRE ALARM CONTROL PANEL LOCATED IN NORTH TICKET BOOTH AT AUTZEN STADIUM USING EXISTING CONDUITS. APPROXIMATE LENGTH BETWEEN FIRE ALARM VAULT AND NORTH TICKET BOOTH IS 900 FEET.

PVC CONDUITS AND WIRE FOR FIRE ALARM CONNECTIONS AND SUPERVISION FROM TELECOM ROOM IN SOCCER/LACROSSE COMPLEX TO EXISTING FIRE ALARM CONTROL PANEL LOCATED IN NORTH TICKET BOOTH AT AUTZEN STADIUM ARE PROVIDED UNDER A SEPARATE CONTRACT.

INSTALL FIBER OPTIC FROM THE WIRELESS HUB IN PDA TO NEAREST SOCCER & LACROSSE COMPLEX FIBER PATCH PANEL AS REQUIRED. FIBER SHALL BE SINGLE MODE, 24-STRAND, OUTSIDE PLANT WITH ALL DIELECTRIC POLYETHELENE JACKET. INDOOR FIBER SHALL BE MULTI-MODE OM2, LASER OPTIMIZED 50 MICRON, PLENUM RATED. PROVIDE ST CONNECTORS. USE ONE SPARE OF (1) 1" PVC CONDUIT DEDICATED TO FIRE ALARM BETWEEN LOW VOLTAGE VAULT AND PDA BUILDING. PROVIDE (1) 1" EMT CONDUIT FOR INDOOR FIBER TO PDA WIRELESS HUB.

USE (1) 1" PVC CONDUIT DESCRIBED IN NOTE 2 BETWEEN LOW VOLTAGE VAULT AND PDA BUILDING. PROVIDE (1) 1" EMT CONDUIT FOR INDOOR FIBER TO PDA WIRELESS HUB.

USE PVC CONDUIT PROVIDED UNDER A SEPARATE CONTRACT.

FIBER FROM MOSHOFSKY CENTER BUILDING 265 ROOM 231A TO TELECOMMUNICATIONS CLOSET 133 IN SOCCER & LACROSSE COMPLEX TO BE PROVIDED UNDER A SEPARATE CONTRACT.

Attachment No. E5 to ADD-2 Dated: February 2, 2012 CONFORM SET JANUARY 12, 2012 ELECTRICAL SITE PLAN PLAYER DEVELOPMENT AREA UNIVERSITY OF OREGON 0 **ES1**^{74 11105 00}

ADD-2

