

ADDENDUM NO. 1

to **CONTRACT DOCUMENTS** for

Hubbard Lane Widening
Project No. TR4924
Grants Pass, Oregon 97526

To All Plan Holders:

The following changes, additions, and/or deletions are hereby made a part of the Contract Documents for the construction of the Hubbard Lane Widening; Project No. TR4924, Grants Pass, Oregon, as fully and completely as if the same were fully set forth therein:

1. ON THE CONSTRUCTION PLANS...

- **Clarifications:**

- On the construction drawings replace all reference to 6" drain pipe with 8" drain pipe.

2. IN THE CONTRACT DOCUMENTS...

- **Clarifications:**

- Excavation around manholes and valves during the FDR process will be considered incidental to the project.
- All testing associated with the FDR process will be per the specifications and considered incidental to the project. Testing will be performed by the contractor or sub-contractor.
- Trench testing will be every 300' with one test above the pipe and one test at the top of the trench. Compaction tests on the new asphalt surface will be performed every 300'.
- A geotechnical report on this project has been posted on the City's website.
- Pile driving for work on the culvert extension will be 'open-ended'. If plates are necessary a change order will be issued.
- In the FDR specifications, change all reference to 4% cement content with 5% content.

- **Bid Proposal Section:**

The following changes have been made:

- Bid Items have been Re-Numbered and have increased from 55 Items to 59 Items.
- Original Bid Item #54 has been deleted.
- Changes and Additions in Bid Items have been Underlined and Bolded.

ATTACHED ARE REVISED PAGES OF THE BID PROPOSAL. PLEASE USE THESE REPLACEMENT PAGES WHEN SUBMITTING YOUR BID.

Also included in Addendum No. 1:

- **ZCS Pile Design Recommendations (3 Pages)**
- **Mandatory Pre-Bid Meeting List (2 Pages)**

All Bidders shall acknowledge receipt and acceptance of this Addendum No. 1 by signing in the space provided and submitting the signed Addendum with the bid. Bids submitted without this Addendum will be considered irregular and may not be accepted.

RECEIPT OF THIS ADDENDUM IS ACKNOWLEDGED AND CONDITIONS ARE

HEREBY AGREED TO THIS ____ DAY OF _____ 2013.

Bidder's Name (Company)

BY:

(Signature)

PART 00200 – TEMPORARY FEATURES AND APPURTENANCES				
Item	Quantity	Unit	Unit Price (Fig.)	Extended Amount
1	Mobilization , move in of equipment and materials per APWA/ODOT Sec. 00210, installed complete.			
	1	LS	\$	\$
2	Work Zone Traffic Control , per approved plans, M.U.T.C.D., and APWA/ODOT Sec. 00225.			
	1	LS	\$	\$
3	Erosion & Sediment Control , per approved plans and APWA/ODOT Sec. 00280.42(c), includes inlet protection, installed complete.			
	1	LS	\$	\$
PART 00300 – ROADWORK				
4	Removal of Structures and Obstructions , per approved plans and APWA/ODOT Sec. 00310. Including various inlets, irrigation boxes, asphalt, driveways, stone or stacked walls, culverts and curb and gutter, installed complete.			
	1	LS	\$	\$
5	Clearing and Grubbing , per approved plans and APWA/ODOT Sec. 00320, including all trees marked for removal and stump grinding where necessary.			
	1	LS	\$	\$
6	Adjust Water Meter Boxes To Grade , per approved plans and APWA/ODOT Sec. 00490.48.			
	14	EA	\$	\$
7	General Earthwork (Embankment) , per approved plans and APWA/ODOT <u>Sec.00330.03.</u>			
	1	LS	\$	\$
8	<u>Selected Topsoil, Furnish and place selected for use according to APWA/ODOT Sec. 0033.10. Installed, complete.</u>			
	<u>200</u>	<u>CY</u>	\$	\$
PART 00345 “FULL DEPTH RECLAMATION”				
9	Full Depth Reclamation , 12 Inches Thick, per approved plans, sheet notes and APWA/ODOT Sec. 00641			
	6,770	SY	\$	\$
10	Portland Cement , per approved plans, sheet notes and APWA/ODOT Sec. 00641			
	170	TN	\$	\$
PART 00400 – DRAINAGE AND SEWERS				
11	12” x 12” NDS Catch Basin , complete with NDS #1215 Galv. Steel Grate, with 6” x 12” Insert-A-Tee installed complete.			
	1	EA	\$	\$

12	Install Cleanout to 8" Storm Drain Pipe , HDPE (AASHTO M294 Type S), per approved plans, all connections and APWA/ODOT Sec. 00445. Includes trench excavation, bedding and compacted backfill per APWA/ODOT Sec.00405, installed complete.				
		<u>6</u>	<u>EA</u>	\$	\$
13	Install 4" x 8" Transitional Couplers for roof drains, installed, complete.				
		<u>6</u>	<u>EA</u>	\$	\$
14	Install 8" PVC , per approved plans and APWA/ODOT Sec. 00445. Includes connection to storm drain system. Includes trench excavation, bedding and compacted backfill per APWA/ODOT Sec.00405, installed complete.				
		318	LF	\$	\$
15	Install 12" CL50 DIP , per approved plans and APWA/ODOT Sec. 00445. Includes connection to storm drain system. Includes trench excavation, bedding and compacted backfill per APWA/ODOT Sec.00405, installed complete.				
		35	LF	\$	\$
16	Install 12" Storm Drain Pipe , HDPE (Type N-12), per approved plans and APWA/ODOT Sec. 00445. Includes connection to storm drain system. Includes trench excavation, bedding and compacted backfill per APWA/ODOT Sec.00405, installed complete.				
		<u>1574</u>	<u>LF</u>	\$	\$
17	Install 18" Storm Drain Pipe , HDPE, per approved plans and APWA/ODOT Sec. 00445. Includes connection to storm drain system. Includes trench excavation, bedding and compacted backfill per APWA/ODOT Sec.00405, installed complete.				
		<u>840</u>	<u>LF</u>	\$	\$
18	Install 18" Storm Drain Pipe , Concrete, per approved plans and APWA/ODOT Sec. 00445. Includes connection to storm drain system. Includes trench excavation, bedding and compacted backfill per APWA/ODOT Sec.00405, installed complete.				
		650	LF	\$	\$
19	Install 24" Storm Drain Pipe , HDPE, per approved plans and APWA/ODOT Sec. 00445. Includes connection to storm drain system. Includes trench excavation, bedding and compacted backfill per APWA/ODOT Sec.00405, installed complete.				
		302	LF	\$	\$
20	Concrete Inlet, Type "D" , per GPSD #112, approved plans and APWA/ODOT Sec. 00470. Includes excavation, backfill and all pipe connections. Installed complete.				
		7	EA	\$	\$
21	Catch Basin (Lynch Type) , Sec. 00470. Includes excavation, backfill and all pipe connections. Installed complete.				
		15	EA	\$	\$
22	Concrete Inlet, Type "B" , per GPSD #112, approved plans and APWA/ODOT Sec. 00470. Includes excavation, backfill and all pipe connections. Installed complete.				
		16	EA	\$	\$
23	Std. 48" Eccentric Storm Sewer Manhole , per approved plans and APWA/ODOT Sec. 00445. Includes connection to storm drain system. Includes trench excavation, bedding and compacted backfill per APWA/ODOT Sec.00405, installed complete.				
		9	EA	\$	\$
24	Std. 60" Eccentric Storm Sewer Manhole , per approved plans and APWA/ODOT Sec. 00445. Includes connection to storm drain system. Includes trench excavation, bedding and compacted backfill per APWA/ODOT Sec.00405, installed complete.				
		1	EA	\$	\$

25	48" Eccentric Storm Sewer Manhole (Modified Drop) , per approved plans and APWA/ODOT Sec. 00445. Includes connection to storm drain system. Includes trench excavation, bedding and compacted backfill per APWA/ODOT Sec.00405, installed complete.				
		3	EA	\$	\$
26	Adjust Manhole (Minor) outside of paving , to match new grade, per approved plans, sheet notes and APWA/ODOT Sec. 00445. Includes excavation, backfill and all pipe connections, installed complete.				
		8	EA	\$	\$
PART 00500 – BRIDGES					
27	Structure Excavation (Abutments) , per approved plans and APWA/ODOT Sec. 00510.				
		1	LS	\$	\$
28	Loose Riprap Class 100 , per approved plans and APWA/ODOT Sec. 00390, installed complete.				
		14	CY	\$	\$
29	Granular Structure Backfill (Abutments) , per approved plans and APWA/ODOT Sec. 00510, installed complete.				
		1	LS	\$	\$
30	Furnish Pile Driving Equipment , per approved plans and APWA/ODOT Sec. 00520.				
		1	LS	\$	\$
31	Furnish PP12 x 0.375 Steel Piles , per approved plans and APWA/ODOT Sec. 00520.				
		320	LF	\$	\$
32	Drive PP12 x 0.375 Steel Piles , per approved plans and APWA/ODOT Sec. 00520.				
		8	EA	\$	\$
33	Reinforcement , per approved plans and APWA/ODOT Sec. 00530.				
		1	LS	\$	\$
34	Foundation Concrete Class 3300 (Abutments) , per approved plans and APWA/ODOT Sec. 00540.				
		1	LS	\$	\$
35	15" Precast Pre-Stressed Concrete Slabs , per approved plans and APWA/ODOT Sec. 00550.				
		<u>150</u>	<u>LF</u>	\$	\$
36	Combination Bridge Rail , Complete Per Detail 2/s2.1, per approved plans and APWA/ODOT Sec. 00587, installed complete.				
		75	LF	\$	\$
37	Warranted Waterproof Membrane , per approved plans and APWA/ODOT Sec. 00591, installed complete.				
		600	SF	\$	\$

38	Retaining Wall , Cast-In-Place Concrete Semi-Gravity Cantilever, includes rail on top of wall , per approved plans and APWA/ODOT Sec. 00596, installed complete.				
		1	LS	\$	\$
39	3" Electrical Conduit (Phone) , per approved plans and APWA/ODOT Sec. 00583, installed complete.				
		87	LF	\$	\$
40	Longitudinal/Transverse Bridge Joints , per approved plans and APWA/ODOT Sec. 00585, installed complete.				
		1	LS	\$	\$
PART 00600 – BASES					
41	Aggregate Base Course , compacted in place, per approved plans and APWA/ODOT Sec. 00640, 00641 and 2630, installed complete.				
		<u>3500</u>	<u>TN</u>	\$	\$
PART 00700 – WEARING SURFACES					
42	Asphalt Pavement, ½" dense, Level 2 mix, 4" compacted thickness, installed in two lifts per APWA/ODOT Sec. 00744. Includes all utility and manhole adjustments, both major and minor, installed complete.				
		1,710	TN	\$	\$
43	Extra For Asphalt Approaches, ½" dense, Level 2 mix, 2" compacted thickness, per APWA/ODOT Sec. 00744. For transition from new concrete driveways to existing driveways. Includes all saw cutting, excavation/embankment to grade and asphalt, installed complete.				
		26	EA	\$	\$
44	Install 6' Concrete Sidewalk , per approved plans, detail drawings, GPSD# 106 and APWA/ODOT Sec. 00759, installed complete.				
		17,170	SF	\$	\$
45	Concrete ADA Ramp With Truncated Domes (Yellow) , per approved plans, GPSD #101 and APWA/ODOT Sec. 00759, installed complete.				
		8	EA	\$	\$
46	Concrete Residential Driveway , per approved plans, GPSD #104 and APWA/ODOT Sec. 00759. Includes 4" PVC sleeve, installed complete.				
		7,029	SF	\$	\$
47	Concrete Commercial Driveway, per approved plans, GPSD #105A and APWA/ODOT Sec. 00759. Includes 4" PVC sleeve, installed complete.				
		<u>360</u>	<u>SF</u>	<u>\$</u>	<u>\$</u>
49	Concrete Curb & Gutter , Type "A" (match existing), per approved plans, GPSD# 102D and APWA/ODOT Sec. 00759, installed complete.				
		4,315	LF	\$	\$
PART 00800 – PERMANENT TRAFFIC SAFETY AND GUIDANCE DEVICES					
50	Install 12" Thermoplastic Stop Bars , per approved plans, stripping plan and APWA/ODOT Sec. 00850, installed, complete.				
		257	LF	\$	\$
51	Painted 8" Bicycle Lane Stripe (White Thermoplastic) , per approved plans, stripping plan and APWA/ODOT Sec. 00850, installed, complete.				
		8,042	LF	\$	\$

52	3' Painted Bicycle Lane (Ride-A-way Bike Lane Coating by Integrated Paving Concepts – (Green) (IPC) or approved equal) , per approved plans, stripping plan and APWA/ODOT Sec. 00850, installed, complete.				
	13,221	SF	\$		\$
53	Painted Bicycle Lane Legend and Arrow (White Thermoplastic) , per approved plans, stripping plan and APWA/ODOT Sec. 00850, installed, complete.				
	14	EA	\$		\$
PART 01000 – RIGHT OF WAY DEVELOPMENT AND CONTROL					
54	Install Multiple Mailbox Supports and Mailboxes , per approved plans, GPSD #2136 and APWA/ODOT Sec. 01070. Temporarily mount during construction.				
	5	EA	\$		\$
55	Install Single Mailbox Supports and Mailboxes , per approved plans, GPSD #2136 and APWA/ODOT Sec. 01070. Temporarily mount during construction.				
	4	EA	\$		\$
56	Remove and Install 4' Green Vinyl Clad Chain Link Fence , per approved plans and APWA/ODOT Sec. 01050, installed complete.				
	300	LF	\$		\$
57	Remove and Install 4' Black Vinyl Clad Chain Link Fence , per approved plans and APWA/ODOT Sec. 01050, installed complete.				
	300	LF	\$		\$
PART 01100 – WATER SUPPLY SYSTEMS					
58	<u>Install 24" Watertight Gasket Joint Irrigation pipe, engineer approved, installed complete.</u>				
	<u>230</u>	<u>LF</u>	<u>\$</u>		<u>\$</u>
59	Install Irrigation Siphon Boxes With Lockable, Watertight Lid (4' x 4' inside dimension with minimum 6" thick walls), per approved plans, all connections and APWA/ODOT Sec. 00445. Includes excavation, bedding and compacted backfill per APWA/ODOT Sec.00405, installed complete.				
	3	EA	\$		\$

PART 00200 – TEMPORARY FEATURES AND APPURTENANCES	\$
PART 00300 – ROADWORK	\$
PART 00400 – DRAINAGE AND SEWERS	\$
PART 00500 – BRIDGES	\$
PART 00600 – BASES	\$
PART 00700 – WEARING SURFACES	\$
PART 00800 – PERMANENT TRAFFIC SAFETY AND GUIDANCE DEVICES	\$
PART 01000 – RIGHT OF WAY DEVELOPMENT AND CONTROL	\$
PART 01100 – WATER SUPPLY SYSTEM	\$
SUM OF EXTENDED TOTALS:	\$
CONTRACTOR SIGNATURE:	
DATE:	

March 15, 2012
Project No. Z313-13.01

Justin Gerlitz, P.E.
ZCS Engineering, Inc.
550 SW 6th Street, Suite C
Grants Pass, OR 97526



Re: Pile Design Recommendations
Sand Creek Pedestrian Bridge
Hubbard Lane
Josephine County, Oregon

Dear Justin:

This letter presents Amrhein Associates, Inc. (AAI) recommendations for pile design for the bridge widening to support pedestrian traffic on Hubbard Lane crossing Sand Creek in Josephine County, Oregon. Both sides of the bridge will be widened and the new bridges decks will be supported on four abutment walls founded on pile caps. The maximum loads provided AAI for each abutment are:

- Vertical load 69.3 tons
- Lateral load longitudinal to the road 15.15 tons
- Lateral load perpendicular to the road 10.8 tons

We have reviewed the site information provided by you and it appears the site is underlain by about 10 feet of medium dense, silty, fine sand over dense to very dense, silty, cobbly, sandy alluvium. The dense, cobbly alluvium is considered to be the bearing layer. For pile design, we have assumed that the cobbly alluvium has at least a SPT blow count of 30 blows per foot, the most conservative value for a dense soil.

To support the bridge abutments, we recommend using steel, pipe piles. They can be a high displacement pile and the lengths can be easily modified in the field once driving characteristics have been demonstrated. The first pipe piles can be driven open ended to make sure that adequate depth to achieve the desired depth into the bearing stratum and create a point of fixity along the pile length. The open end will plug will soil creating a bearing surface over the entire end area. If driving is relatively easy, plates can be field welded onto the bottom end of the piles to create more displacement and increase the driving resistance.

Vertical Load Pile Capacities

These vertical pile capacities have been derived based on empirical relationships between skin friction and end-bearing within the dense, cobbly, alluvium soils using an assumed standard penetration test value. We recommend the following maximum allowable vertical capacities. These capacities incorporate a factor of safety of 3 which

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Sand Creek Pedestrian Bridge, Josephine County

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accounts for the limited subsurface information we have and is consistent with accepted geotechnical practice. We anticipate the bearing stratum will start at a depth of 10 feet and we have assumed that the piles will be driven at least 10 feet into the bearing stratum. Therefore the total pile length should be on the order of at least 20 feet, however the contractor should provide longer lengths in case additional pile driving is necessary to achieve the design capacities. We recommend that pile spacing within groups or adjacent piles be no less than 2-½ pile diameters on center.

Pipe Diameter	Maximum Allowable Vertical Load	Number of piles required per abutment
10 inch	26.5 tons	3 piles
12 inch	36 tons	2 piles

Lateral Load Pile Capacities

Typically lateral loads are resisted with pile foundations by the pile stiffness resisting the bending moment along with the modulus of the soil around the upper portion of the pile resisting the lateral movement. The piles can be assumed to have sufficient embedment to act as a long pole and not rotate about its base. For lateral loading perpendicular to the road, the forces will be acting along the length of the pile cap and the pile heads can assumed to be acting if a fixed head condition. The fixed head condition results in the lateral capacity of the piles depending mainly on the structural stiffness of the piles themselves. It can be assumed that the piles will have a point of fixity 10 feet below ground surface.

We understand the upper portion of the site soils consisted of medium dense, silty, fine sand. This soil type will provide some lateral resistance; and for design purposes, a coefficient of horizontal subgrade reaction of 500 pci can be used.

For the lateral loads acting parallel to the road, the loads will be resisted by the passive pressure of the soils behind the pile caps and abutment walls. We understand the bridge deck will structurally tie the two sides of the bridge abutments together. We recommend a passive pressure of an allowable, passive, equivalent fluid pressure (EFP) of 450 pcf be used for design. Assuming an 8 foot long, by 4.25 feet high area behind each pile cap and end of bridge deck, the total passive resistance would be 16.25 tons. This exceeds the maximum lateral force in the longitudinal direction. Additional resistance will be provided by the pile bending and friction along the perpendicular retaining wall to the culvert.

Pile Installation Considerations

The installation of all piles should be observed by an experienced geotechnical engineer or engineering geologist. Observation of pile handling, pile hammer, operating characteristics, and pile penetration resistance would make it possible to confirm the

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Sand Creek Pedestrian Bridge, Josephine County

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recommended penetration depth, monitor variations in subsurface conditions, and evaluate the pile capacity using appropriate dynamic pile driving criteria.

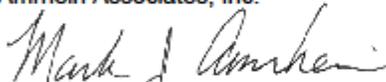
We recommend the vertical capacity of the driven piles be verified in the field based on dynamic pile driving criteria. Any such criteria should allow for variations in various physical factors such as the pile hammer energy, size, type and length of piles, and the modulus of elasticity of the pile materials. Appropriate criteria could be developed based on a wave equation analyses or other appropriate dynamic drive-ability criteria. The pile wall thickness should be selected to allow hard driving with the hammer to be used without damage to the pile casing.

We recommend that pile groups be driven starting at the middle of the pile group working outwards. If the apparent bearing capacity is not been achieved based upon the dynamic pile-driving criteria with the recommended pile depths, we recommend that the pile driving be stopped and the piles be allowed to "setup" for a 12- to 24-hour hold period. After that time, the pile can be re-driven for a very short distance to assess pile "setup".

Closure

The recommendations provided in this letter have been prepared in conformance with generally accepted geotechnical engineering principles and practices. No other warranty, either expressed or implied, is made or intended. This letter has been prepared for the exclusive use of ZCS Engineering, Inc., and their agents, for specific application to subject property.

Sincerely,
Amrhein Associates, Inc.



Mark J. Amrhein, PE, GE
President / Senior Engineer



RENEWAL DATE: 12/31/13

ATTENDANCE LIST

Project Name/Number: Hubbard Lane Widening / TR4924	Date: 2/14/2013
Location: Courtyard Conference Room (10:00 a.m.)	
Owner: City of Grants Pass	Engineer/Architect: Hardey Engineering
Contracting Agency:	
Contractor's Name:	
MANDATORY PRE-BID <input checked="" type="checkbox"/> BID <input type="checkbox"/> PRECONSTRUCTION <input type="checkbox"/>	

Name	Agency	Phone No./ Mobile No.	Email Address	Signature
1. Dave Butler	KRM	541-840-3814	dave.butler@krm.com	<i>[Signature]</i>
2. Ron Howard	Shore Concrete	541-761-0924	ShoreConcrete@comcast.net	<i>[Signature]</i>
3. David Osborne	Hill Environmental LLC	541-826-3602	David@HillEnv.com	<i>[Signature]</i>
4. Robert Butler	LeDuke Construction	541-772-2777	RickLaduke@ledukem.com	<i>[Signature]</i>
5. Jake Schmitt	T.M.C.	956-8700	ledukem.com	<i>[Signature]</i>
6. Byron Kofersaw	Robco, Inc.	541-476-2132	byron@robco.com	<i>[Signature]</i>
7. Brett Bergstrom	CapeLand Paving	541-659-2117	Bergstrom570@gmail.com	<i>[Signature]</i>
8. Justin Gierke	AS-5 ENGINEERING	541-429-3865	Justin@as5engineering.com	<i>[Signature]</i>
9. Bond Wright	HEA	541-772-4980	BRIGHT@HEA-INC.COM	<i>[Signature]</i>
10. Frank Meehan	KOSAP	541-776-6527	Simon@KOSAP.com	<i>[Signature]</i>
11. John Holmes	Johny Cat Inc.	541-661-7190	Tara@JohnyCatInc.com	<i>[Signature]</i>
12. Jim Higday	HEA ENG.	541-661-7314	jhighday@he-inc.com	<i>[Signature]</i>
13. [unclear]	Moser Paving	767-7640		<i>[Signature]</i>
14. Jay Moser	Moser Paving	479-2404	cj@moserpaving.com	<i>[Signature]</i>
15. Don Miller	G.P.I.D.	541-660-4227	don@gpid.com	<i>[Signature]</i>
16. Nancy Murry	City of GPP	530-6063	nmurry@grantspass.org	<i>[Signature]</i>

	Name	Agency	Phone No./ Mobile No.	Email Address	Signature
17.	Paul Scitte	The Cable Group	541-955-1616	ps.scitte@cablegroup.com	
18.	Kurt Clark	City of G.P.			
19.	Fred Sawkins	City of G.P.	541-450-6040	ps.scitte@cablegroup.com	
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END OF ADDENDUM NO. 1