ADDENDUM TRANSMITTAL

To:	Keith Buisman, P.E.	From:	Krey D. Younger, P.E., G.E.
Company:	Otak	Date:	June 8, 2022
Address:	808 SW Third Avenue, Suite 800 Portland, OR 97204		

cc:	n/a

Project No.:	StHelens-3-01
RE:	1st and Strand Streets

Original File Name	Date	Document Title
StHelens-3-01-010522-geor	1/5/22	Report of Geotechnical Engineering Services; 1st and Strand Streets; St Helens, Oregon

Addendum Number	Date	Description
1	6/8/22	PCCP Recommendations (attached)

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Attachment
One copy submitted (via email only)
Document ID: StHelens-3-01-060822-geoat-1.docx

MEMORANDUM

To:	Keith Buisman, P.E.	From:	Krey D. Younger, P.E., G.E.
Company:	Otak	Date:	June 8, 2022
Address:	808 SW Third Avenue, Suite 800 Portland, OR 97204		

cc:	n/a

Project No.:	StHelens-3-01
RE:	Addendum 1 PCCP Recommendations 1st and Strand Streets St. Helens, Oregon

The purpose of this memorandum is to provide additional pavement design information for portland cement concrete pavement (PCCP) associated with the 1st and Strand Street improvements in St. Helens, Oregon. We completed a geotechnical report[1] that included recommendations for asphalt concrete pavement.

We discussed the PCCP with Otak and reviewed the information for traffic and subgrade support from our geotechnical report. Based on the traffic levels and support, we calculated PCCP thickness based on the following inputs:

- Reliability of 85 percent
- Overall standard deviation value of 0.39
- Modulus of elasticity of 3,500,000 pounds per square inch (psi)
- Modulus of rupture of 650 psi
- Modulus of subgrade reaction of 200 pounds per cubic inch
- Initial and terminal serviceability values of 4.5 and 2.5, respectively

We calculated a PCCP section as follows:

New PCCP Construction (6.0 inches of PCCP over 6.0 inches of aggregate base)

- 6.0 inches of PCCP
- 6.0 inches of aggregate base
- Stabilization aggregate (if required)
- Subgrade geotextile

[1] NV5, 2022. *Report of Geotechnical Engineering Services; 1st and Strand Streets; St. Helens, Oregon,* dated January 5, 2022. Project: StHelens-3-01

Joints at maximum spacing of 9 feet and a joint length to width ratio between 0.75 to 1.25. Slabs outside of this range should be reinforced with #4 deformed bar at 12 inches on centers. Reinforcing should be confined to the individual slabs and not pass-through joints.

PCCP should be Class 4000 ¾- or 1 ½-inch paving concrete according to 2021 Oregon Standard Specifications for Construction (OSSC) 02001 (Concrete) with a minimum 28-day flexural strength of 650 psi and placed in general accordance with
OSSC 00756 (Plain Concrete Pavement).

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Document ID: StHelens-3-01-060822-geoa-1.docx