

Differing Site Conditions

Unit 10



Standard Specifications – Differing Site Conditions

00120.15 Examination of Work Site and Solicitation Documents; Consideration of Conditions to be Encountered – Before submitting a Bid, Bidder shall carefully examine the Project Site and Solicitation Documents. Bidders are also encourage to review any subsurface investigation material referenced in 00120.25 that may be available.



**Standard Specifications –
Differing Site Conditions**

00140.40 Differing Site Conditions – The following constitute differing Project Site conditions provided such conditions are discovered at the Project Site after commencement of the work:

Type 1 – Subsurface or latent physical conditions that differ materially from those indicated in the Contract Documents;
or

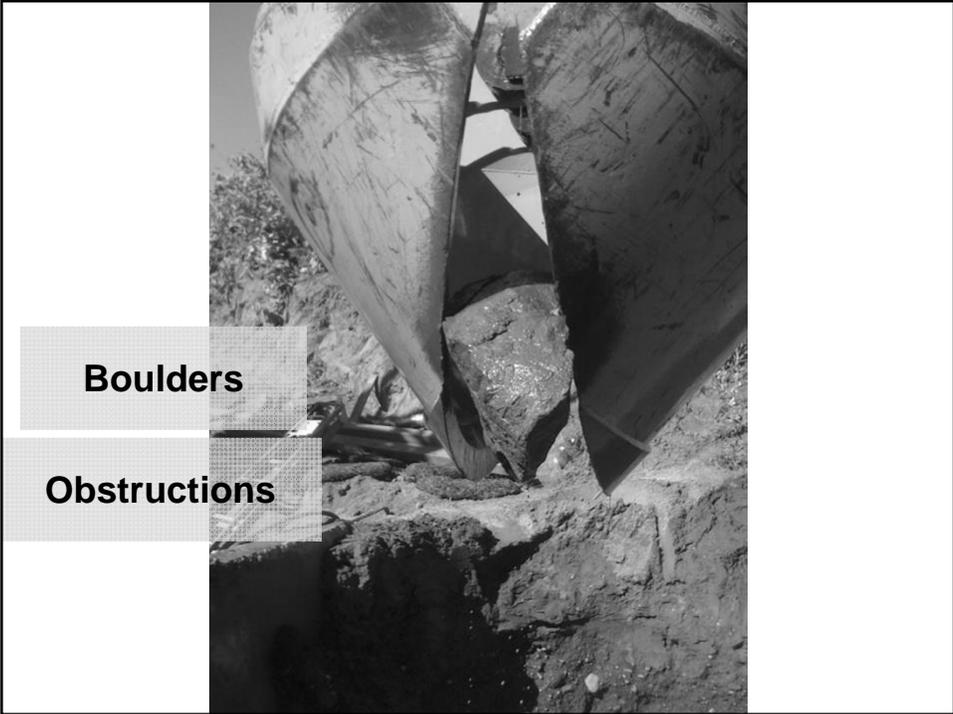
Type 2 – Unknown physical conditions of unusual nature that differ materially from those ordinarily encountered and generally recognized as inherent in the Work provided for in the Contract



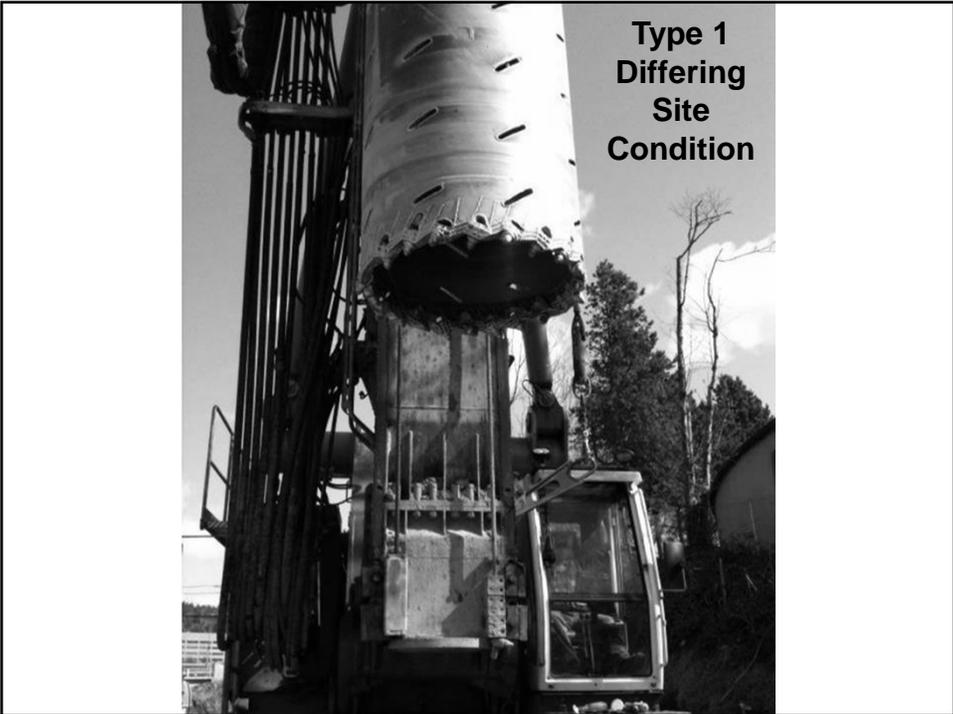
2015 Standard Specifications

00512.43 (d) Unexpected Drilled Shaft Obstructions – Remove any natural or manmade object encountered that was not revealed by the Agency’s site investigation, and that would cause a significant decrease in the rate of advancement if removed using the techniques and equipment used successfully to excavate the shaft. **The Engineer will be the sole judge of the significance of any reduced rate of shaft advancement and the classification of any unexpected obstructions.** Removal of unexpected obstructions from the shaft excavation will be paid according to section 00195.20.





Differing Site Conditions
Case Study No. 1
OR217 Sunset Highway





**Standard Specifications –
Differing Site Conditions (Continued)**

00140.40 Differing Site Conditions – The party discovering such condition shall promptly notify the other party, in writing, of the specific differing condition.

Contractor shall **not** continue Work in the affected area until the Engineer has inspected such conditions according to 00195.30.



Standard Specifications – Differing Site Conditions

00195.30 Differing Site Conditions – Upon written notification, the Engineer will investigate the identified conditions. The Engineer will notify the Contractor as to whether or not an adjustment of the Contract is warranted.





Contractor's Notice of Differing Site Conditions, Delay, or Protest

Completed by Contractor

Instructions: If you have more than one notice, use a separate form for each. See Section 00150.30 for general requirements for delivery of written notice. See 00140.40, 00180.60 or 00199.20, whichever is applicable for the notice content, timing and other requirements that must be met for timely and proper notice.

Project Name (Section)

Contract No.

Notice No.

Contractor Name

Date Oral Notice Given,
If Required

Date of This Notice

Date Mailed/Delivered to
Agency Project Manager

Check the box for which section this notice applies:

Differing Site Conditions (Section 00140.40)

in the field below provide all of the information required by 00140.40.

Notice of Delay (Section 00180.60) in the

field below provide all of the information required by 00180.60.

Notice of Protest (Section 00199.20) in the

field below provide all of the information required by 00199.20.

(Attach additional sheets if necessary.)

Signature of Person Signing for Contractor

Name and Title of Person Signing for Contractor (please print)

Date

For Agency Use Only

Date Notice Was Received

Date of Meeting to Discuss Notice

If meeting was not held, please state why.

Resolved by Change Order No. _____

Not Resolved

Date of Written Response to Contractor

Distribution: Area Manager; Contract Administration Engineer

CONTRACT CHANGE ORDER (Page 1)
NOTICE: THIS FORM MUST BE TYPEWRITTEN

PROJECT NAME (SECTION) OR217: SUNSET HWY. - TUALATIN VALLEY HWY. SECTION		REGION 1	CONTRACT NO. 13948
HIGHWAY BEAVERTON -TIGARD HIGHWAY	PROJECT MANAGER Ron Larson	ODOT LIAISON (if PM is non-ODOT)	F.A. PROJECT NO. STP-S144(018)&(019)
CONTRACTOR NAME AND ADDRESS Emery and Sons Construction, Inc. P.O. Box 4109 Salem, OR 97302		CONSULTANT OR LOCAL AGENCY PM NAME AND ADDRESS	
		CHANGE ORDER # 84	

THIS CONTRACT IS HEREBY MODIFIED AS FOLLOWS (DESCRIPTION AND LOCATION OF WORK COVERED BY THIS ORDER):

This contract change order provides an equitable adjustment for the additional costs incurred and time required to drill rock harder than identified in the contract documents for the secant piles for Wall 4 south of the Wilshire Bridge, and the drilled shafts for the Wilshire Bridge. This contract change order has been negotiated and is full compensation, including all applicable markups, for additional equipment and labor costs associated with drilling harder rock for the secant piles and drilled shafts at the locations noted above.

Further, the contract completion date is adjusted from October 20, 2011 to December 23, 2011, providing an additional 44 working days (or 64 calendar days) as compensation for lost time due to lost productivity drilling the harder rock.

Execution of this contract change order resolves Issue #30 titled "Change of Conditions for Secant Piles" on the project issues log maintained by the Contractor, see Attachment "A".

SPECIFICATIONS AND PROVISIONS - THE WORK TO BE DONE UNDER THIS ORDER IS TO BE PERFORMED, MEASURED, AND PAID FOR IN ACCORDANCE WITH THE TERMS FOR THE ABOVE CONTRACT EXCEPT AS MODIFIED AS FOLLOWS -

Payment for Pay Item 4084A "Equitable Adjustment, Secant Piles & Drilled Shafts" is payment in full for all materials, labor, equipment, and incidentals necessary to complete the work, including all applicable markups. There will be no additional payment for costs associated with secant pile or drilled shaft lost productivity.

Replace the following subsection in the Special Provisions:

00180.85(h) Contract Time - Complete all work to be done under the Contract, except for plant establishment, not later than December 23, 2011.

PAY ITEM	Sub Job	DESCRIPTION	EST. QTY.	UNIT	UNIT PRICE	AMOUNT
4084A	011	Equitable Adjustment, Secant Piles & Drilled Shafts	1.00	LS	\$902,563.00	\$902,563.00
4084B	011	Change Contract Completion Date to December 23, 2011	1.00	LS	\$0.00	\$0.00
TOTAL FROM PAGE 2						\$0.00

Additional items listed on attached Page 2

Standard Specifications – Differing Site Conditions

00199.20 Protest Procedure – If the Contractor disagrees with anything required in a Change Order or other written or oral order from the Engineer the Contractor shall do all of the following:

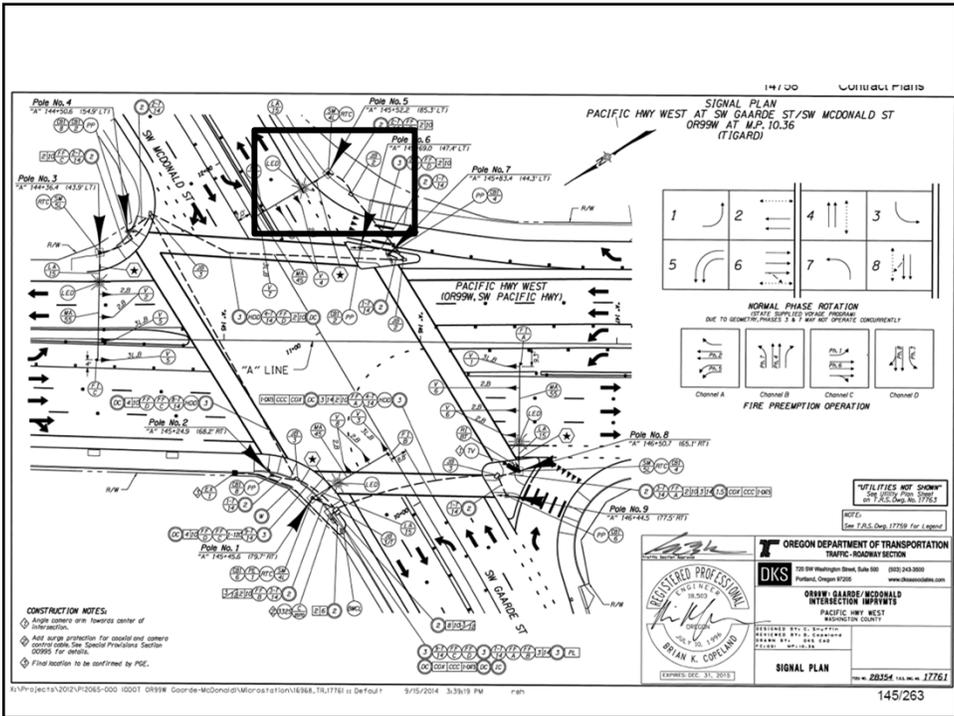
- (a) Oral Notice
- (b) Written Notice (form 734-2887)
- (c) Records
- Etc.



Differing Site Conditions

Case Study No. 2

OR 99W: Gaarde / McDonald Intersection



Situation

- Plans called for 16' drilled shaft (42" diameter) payed per L.F.
- During excavation, encountered pea gravel which immediately started to cave in
- Geotechnical exploration not located at the exact foundation level
- Further investigation revealed the pole was located in the footprint of a removed buried tank, which was backfilled with pea gravel.
- The revised design called for increasing the depth of the shaft to 32' and including 16' of permanent casing through the gravel



Is this a differing site conditions?



Outcome

- Original foundation subcontractor did not have equipment to excavate down 32' and install the casing
- A specialty drilled shaft contractor was required to mobilize to the site to install this foundation
- A change order of \$51,000 was issued for the work



CONTRACT CHANGE ORDER (Page 1)

NOTICE: THIS FORM MUST BE TYPEWRITTEN

PROJECT NAME (SECTION) CROSS/Claydon/McDonald Intersection Improvements	KEY NO. 10560	REGION 1	CONTRACT NO. 14758
HIGHWAY Pacific Highway West	PROJECT MANAGER Ron Larson	AGENCY PROJECT MANAGER J.A. PROJECT NO. STA-7305(013)	CHANGE ORDER # 004
CONTRACTOR NAME AND MAILING ADDRESS Kerr Contractors Oregon, Inc. 595 Shennandoah Lane, N.E. Woodburn, OR 97071			

THIS CONTRACT IS HEREBY MODIFIED AS FOLLOWS (DESCRIPTION AND LOCATION OF WORK COVERED BY THIS ORDER)
This contract change order establishes a pay item for the installation of a modified signal pole foundation for signal pole #5, located at "X" 145+92.2.

SPECIFICATIONS AND PROVISIONS - THE WORK TO BE DONE UNDER THIS ORDER IS TO BE PERFORMED, MEASURED, AND PAID FOR IN ACCORDANCE WITH THE TERMS FOR THE ABOVE CONTRACT EXCEPT AS MODIFIED AS FOLLOWS -
No additional time is associated with this contract change order.

REV	DATE	DESCRIPTION	EST. QTY	UNIT	UNIT PRICE	AMOUNT
4004	04/15/15	Signal Pole #5 - modified drilled shaft foundation	1.00	LS	\$51,000.01	\$51,000.01
Additional Items Based on attached Page 2						\$0.00
TOTAL FROM PAGE 2						\$0.00

ESTIMATED NET COST EFFECT OF THIS AGREEMENT ON THE CONTRACT:
 INCREASE \$51,000.01
 DECREASE

CONTRACTOR SIGNATURE IS IS NOT NECESSARY (EXPLAIN IN SUPPORTING DATA)
CONTRACTOR SIGNATURE MAKES THIS CONTRACT CHANGE ORDER A SUPPLEMENTAL AGREEMENT

FOR SUPPLEMENTAL AGREEMENTS ONLY - Contractor: Please indicate your agreement to signing, dating and returning the original to the Project Manager. This shall not apply until you are notified that the agreement has either been accepted or that this agreement is under dispute. Your signature here indicates acceptance of the change order in accordance with the agreement conditions and complete understanding of all risks, both short and long term, of the material and labor to this agreement, and release and discharge the State and other contractors from claims, both short and long term.

CONTRACTOR SIGNATURE P.M. <i>Eric J. Kull</i> DATE <i>6/15/15</i>	AGENCY PM (CROSS/HS) P.M. <i>Ronald G. Larson</i> DATE <i>6/15</i>	RECOMMENDED BY LOCAL AGENCY P.M. <i>Michelle Anderson</i> DATE <i>6/15</i>	RECOMMENDED BY PM (IF EXTERNAL TO ODOT) P.M. <i>Michelle Anderson</i> DATE <i>6/15/15</i>
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DOT DISCLOSE: After receiving Contractor's signature, the Project Manager signs and returns the original through the State Manager to the Contract Administrator. (When needed) After obtaining Contractor's signature, the Project Manager submits original to Agency PM (CROSS/HS) or to Agency (external), as appropriate, who forwards through the State Manager to Contract Administrator. All Providers: Contractor will distribute fully signed copies to the Project Manager, Agency PM, Contractor, and others as appropriate. Contractor: Sign all papers.

JUN 0 2 2015

Differing Site Conditions

Case Study No. 3



- Astoria PM Office
- Banzer Project
- Straight shaft foundations
- CMP pipe as primary containment
- Floating silt fence as secondary containment
- Sediment bypassed CMP and silt fence through rock formation



Extra Work Orders

- Extra Work ordered by the Engineer to be performed as Force Account Work (Section 00197)
 - Very tedious and cumbersome
- When are they used?
 - If the Engineer and the Contractor cannot agree on a price for Extra Work





Extra Work

00140.60 Extra Work – If directed by the Engineer’s written order, the Contractor shall perform work not included in the Contract. The Contractor shall perform this work according to:

- Standard Specifications
- Supplemental Specifications, if any
- Other Plans and Specifications issued by the Engineer

Payment for Extra Work will be made according to Section 00196. Contract Time adjustments, if any, will be made according to 00180.80.

00196.10 Negotiated Price – If the Engineer can reasonably determine a price estimate for Extra Work, the Engineer may then give written authorization to the Contractor to begin the Extra Work. As soon as practicable, but within 10 Calendar Days after that authorization, the Contractor shall respond in writing to the Engineer’s Extra Work price estimate by submitting to the Engineer an Extra Work price quote. The price quote shall detail the following items related to the Extra Work:

- Types and amounts of Materials
- Hours of Equipment use and hours of labor
- Travel
- Overhead and profit
- Other costs associated with the proposed Extra Work



EXTRA WORK ORDER

TO BE PERFORMED ON A FORCE ACCOUNT BASIS

NOTICE: THIS FORM MUST BE TYPEWRITTEN

PROJECT NAME (SECTION) FFO - US20 PME: UPRR - EDDYVILLE (PHASE 3)		KEY NO. 18327	REGION 2	CONTRACT NO. C14670
HIGHWAY CORVALLIS-NEWPORT HWY	PROJECT MANAGER Steve Schultz PE	AGENCY PM NA		F.A. PROJECT NO. NHPP-S033(049)
CONTRACTOR NAME AND MAILING ADDRESS SCARSELLA BROS INC PoBox68697 Seattle WA 98168-0697		PM (CONSULTANT OR LOCAL AGENCY) NAME AND ADDRESS		EWO NO. 01
				SUBJOB 000

THE FOLLOWING FORCE ACCOUNT WORK TO BE PERFORMED AND PAID FOR IN ACCORDANCE WITH THE CONTRACT TERMS:
DESCRIPTION AND LOCATION OF EXTRA WORK:

Eddy B inlet repair per attachment "A"

Attach copy of PM's written prior authorization to Contractor to perform work.

ESTIMATE OF QUANTITIES AND COSTS

Estimated Tracked Costs (Labor +Equipment):

- Construct Access - M3 line per contract - No additional cost
- Water Management - sandbag dam + pumping cost - **\$1500**
- 78" pipe disassembly/re-assembly - **\$5000**
- Excavating channell+Forming for concrete check dam - **\$3000**
- Concrete check dam(12 yds) - **\$2000**

Existing Bid Items:

- BI 420 Type # Riprap Geotextile(120 SY) - **\$193.20**
- BI 580 Impervious Liner (120 SY) - **\$1200**
- BI 500 Loose Rip Rap, Class 200(60CY) - **\$3213**
- BI 1170 Aggregate Base (1 Ton) - **\$15.70**

Total Estimated Cost = \$16,121.90

PAY ITEM	REASON CODE	WORK TYPE	DESIGN (E OR I)	PM (E OR I)	DESCRIPTION	ESTIMATED AMOUNT
801 900T	25	C	I	I	04 @ Eo 25 CA Eddy B Inlet Repair	\$16,121.90

SPECIFICATIONS AND OTHER PROVISIONS --

Labor cost estimates under \$10,000 or having industrial accident insurance rates 25% or less may use the standard calculation §197.30(a) when billing labor costs (Form 1863A). Labor cost estimates greater than \$10,000 or having industrial accident insurance rates greater than 25% shall use §197.30(b) when billing labor costs (Form 1863B).

The labor estimate for this Force Account: Meets Does Not Meet the criteria for §197.30(b)

The contractor has elected to use: §197.30(a) Standard Calculation §197.30(b) Actual Costs for Force Account labor costs

RECOMMENDED BY LOCAL AGENCY Print _____ Sign _____	DATE	AGENCY PM (ODOT only) <input type="checkbox"/> RECOMMENDED <input checked="" type="checkbox"/> APPROVED Print <u>Steven Schultz</u> Sign <u>[Signature]</u>	DATE 8/29/14
RECOMMENDED BY PM (IF EXTERNAL TO ODOT) Print _____ Sign _____	DATE	AREA MANAGER: <input checked="" type="checkbox"/> NOTED <input type="checkbox"/> RECOMMENDED <input type="checkbox"/> APPROVED Print <u>Steven Schultz for Amy Ransdell (vacation)</u> Sign <u>[Signature]</u>	DATE 8/29/14
		CONSTRUCTION SECTION: <input checked="" type="checkbox"/> NOTED <input type="checkbox"/> APPROVED <u>[Signature]</u>	DATE 9-16-14

ODOT (Internal): The Project Manager signs and submits the original through the Area Manager to Construction Section
 ODOT (Outsourced): The Project Manager submits original to Agency PM (ODOT PM or Local Agency Liaison), as appropriate, who then submits through the Area Manager to Construction.
 All Projects: Construction will distribute fully signed copies to the Project Manager, Agency PM, and others as appropriate.

Disagreements Disputes Claims



Disagreements, Disputes, Claims

Disagreements are not uncommon on drilled shaft construction projects.

- Limited access for inspection and underground work
- Plans may not reflect actual site, traffic, utilities, etc.
- PM : Resolve early and objectively or may lead to a claim
- Rate of advancement
- Different interpretation of contract language



Definitions of Capitalized Terms

00110.20 Definitions – Words and phrases used in the Standard Specifications, Special Provisions, Plans, and other Contract Documents.

- Boulders
- Clay
- Cobbles
- Durable Rock
- Gravel
- Silt



Inspector's Roles and Responsibility

Daily Inspection Reports and Documentation are critical.

- Many disputes go away with good documentation and record keeping. Award and claim settlement goes to the party with the BEST documentation.
- During a claim or Deposition, Inspectors Dailies serve as the record for the projects activities. Reviewed by claims Engineer, Contract Administration Engineer and contractor or agency attorneys prior to and during a trial.
- Someone unfamiliar with the job should be able to recreate the job 5 years later



ODOT Drilled Shaft Task Force

- Jaimé Viramontes(Chairman),
Assistant Structure Services Engineer
- Susan Ortiz, Senior Bridge Geotechnical Engineer
- Bill Bennett, Structural Materials Engineer
- Craig Shike, Bridge Standards Managing Engineer
- Pete Castro, Region 3 Geotechnical Engineer
- Scott Jollo, Traffic Structures Engineer
- Gene Wilborn, Construction Claims Engineer



Drilled Shaft Task Force Industry Members:

*Condon Johnson & Assoc.
Scheffler NW
DBM Contractors
DMI Drilling*

*Inland Foundation Specialties
Malcolm Drilling Co. Inc.
TBH & Assoc.*



Questions

Project examples / experiences
with differing site conditions?

