

# CHAPTER 12B QUALITY

The Contract documents specify the minimum requirements for the quality of Materials and Work to be furnished or performed under the Contract. The Resident Engineer (RE) must assure that the Materials incorporated and Work performed by the Contractor is in conformance with Contract requirements.

If the RE has questions about or problems determining the quality requirements, contact the Region Assurance Specialist (RAS) or the Contract Administration Unit (CAU) for assistance.

The RE must be continually observant to verify that necessary inspection, sampling, testing, and measurements are performed and that inspection reports, test results, calculations and other conformance documents are prepared promptly and verified by a second person.

As specified in Subsection 00165.70, the RE must not allow the Contractor to incorporate Materials into the Project without acceptable conformance documents. This condition may be temporarily waived only if the Material must be installed for immediate traffic safety, but no payment will be made for the value of the Materials, or the costs of incorporating them, until acceptable conformance documentation is received and/or testing is performed.

For each Project, the RE must become familiar with the quality compliance requirements for all of the Materials that are to be incorporated. The RE must also assure that the Contractor is aware of quality documentation required to be submitted or sampling and testing that must be performed.

Updated 06-17-2024 12B-1

NOTE: The Agency and Design-Builder's quality management and compliance roles, responsibilities and requirements are significantly different in Design-Build Projects. Refer to Subsection DB150.20 and Sections DB154, DB155 and DB156. See the Design-Build Contract Administration Manual.

Consult the following sources to determine the quality requirements for a Project:

- The Project Special Provisions
- The Project Plans
- Standard Drawings
- Contract Change Orders
- The Standard Specifications
- The Supplemental Standard Specifications
- ODOT's Qualified Products List (QPL)
- The Nonfield-Tested Materials Acceptance Guide
- The Manual of Field Test Procedures, which includes:
  - The Field Tested Materials Acceptance Guide
  - The Field Tested Materials Small Quantity Guideline

There are two (2) types of Material quality documentation: nonfield-tested and field-tested. There is a Test Summary form 734-1902A or 734-1902B (or 734-1902C) for each type of documentation. Some Pay Items

may require the use of both Test Summary A and B forms to enter different Materials for that item. An example of this would be for a bid item for pipe, which would require quality documentation for the pipe Materials to be entered on Test Summary A (Nonfield-Tested Materials), and the pipe trench compaction and backfill documentation and testing information to be entered on Test Summary B (Field-Tested Materials).

The RE must assure that the Test Summary sheet(s) are completed for each Pay Item, before Work starts, to determine what type of documentation is needed prior to receipt, placement, and payment of Materials needed for the Project.

Record the quality documentation on the Test Summary sheets as the Work progresses to assure that the Material complies with quality requirements. The purpose of the Test Summary is to verify that the proper and adequate quality documentation has been furnished.

As stated in Subsection 00195.60, before the RE authorizes payment for Materials on Hand (MOH). Refer to Chapter 12F – Materials on Hand, if requested by the Contractor, the Materials shall, among other things:

- Meet contract specification requirements.
- Have the required material conformance documents on file with the Engineer.

The RE must assure that all Project documentation is continuously and currently maintained throughout the life of the Project.

#### 12B-1 Nonfield-Tested Materials

The RE will accept nonfield-tested Materials according to the individual Materials Specifications or to the Nonfield-Tested Materials Acceptance Guide (NTMAG) version in effect at the time of the Project Advertisement date. This document is to be used as a guide for documentation required for acceptance of Materials on ODOT construction Projects, but its use does not relieve the user from following the requirements specified in the Project documents. New Materials or Materials which are infrequently used may not be listed in the NTMAG. The NTMAG does not have precedence over the Special Provisions, Contract Plans, or Standard Specifications.

The RE may accept relatively small quantities of some nonfield-tested Materials without normal sampling and testing, as long as other documentation is furnished as defined in the guidelines for acceptance under the small quantity method shown in the NTMAG.

Record documentation for nonfield-tested Materials on the Test Summary A, form 734-1902-A:

**TEST SUMMARY FOR** 

|          | O.De<br>of 1                              | regon<br>partmei<br>ranspo    | nt<br>rtation                                     | NOI                          | N-I                      | FIE                               | L                                    | ) T                             | ES                                 | STED | MAT          | ΓERI.      | ALS (        | (A)                      |                          |                            |          |                                  |                   |   |
|----------|---|-------------------------------|---|------------------------------|--------------------------|-----------------------------------|--------------------------------------|---------------------------------|------------------------------------|------|--------------|------------|--------------|--------------------------|--------------------------|----------------------------|----------|----------------------------------|-------------------|---|
|          |   |                               |   |                              |                          |                                   |                                      |                                 |                                    |      |              |            |              |                          |                          |                            | CONTRA   |                                  | SHEET             |   |
| _        |   |                               |   |                              |                          |                                   |                                      |                                 |                                    |      |              |            |              |                          |                          |                            | 1        | 5222                             | 1 OF 15           |   |
|          | OJECT NAME                                |                               | - Fugene S  | Shoulder Wi                  | iden                     | ina S                             | ectio                                | n                               |                                    | IT   | EM NUM       | IBERS AI   | ND DESC      | CRIPTION                 | NS                       | ITEM<br>NO.                | UNIT     | ORIGINAL<br>QUANTITY             | FINAL<br>QUANTITY |   |
| PR       | EPARED BY                                 |                               |   |                              |                          | DATE                              |                                      |                                 |                                    | 10   | 20           | 30         | 40           | 50                       | 60                       | 10                         | LS       | 100                              | 100               |   |
| Ju       | stin Cary                                 |                               |   |                              |                          | 5/26                              | 2022                                 | 2                               |                                    | 10   | 20           | 30         | 40           | 50                       | 00                       |                            |          |                                  |                   |   |
|          |   |                               | LAB.  |                              | Щ                        |                                   |                                      |                                 |                                    |      |              |            | =            | =                        | se                       | 20                         | LS       | 100                              | 100               |   |
|          | ᆫᇙ  | <u>o</u>                      | S L/  | Ŏ.                           | IFICA                    | NCE                               | S                                    |                                 |                                    |      |              | Signs      | Type II      | Type                     | Devices                  | 30                         | SQFT     | 350                              | 479.8             |   |
|          | ESI                                       | R T                           | T A S   | ≥ ₹                          | GERT                     | PLIA                              | ER .                                 | ISTS<br>3S                      | PR<br>IISI                         | igi  |              | ary S      |              |                          | an<br>ing [              | 40                         | EACH     | 3                                | 0                 |   |
|          | F 1.9                                     | 발회                            | SHEET NO<br>ATERIALS I<br>PORT NO.                | ) E                          | JLTS                     | CON                               | MAT                                  | MIN                             | ATE                                | LSC  | Mobilization | & DT       | Temporary    | Temporary<br>Barracades, | Temporary<br>Barricades, | Pedestrian<br>Channeling [ | 50       | EACH                             | 7                 | 7 |
| Ш        | DATE OF<br>SAMPLE, TEST,<br>OR INSPECTION | PAY NOTE OR<br>FIR REPORT NO. | DATA SHEET NO<br>OR MATERIALS I<br>"I" REPORT NO. | INSPECTION/<br>LAB REPORT NO | TEST RESULTS CERTIFICATE | QUALITY COMPLIANCE<br>CERTIFICATE | "Q" WITH MATERIALS<br>"I" REPORT NO. | EQUIPMENT LISTS<br>AND DRAWINGS | CERTIFICATE OF<br>MATERIALS ORIGIN | Мок  | TP.          | Tem        | Terr<br>Barı | Ten<br>Ban               | Ped<br>Cha               | 60                         | FOOT     | 20                               | 0                 |   |
| LINE     | DA:<br>SAI<br>OR                          | PA)<br>FIR                    | DA.   | INS<br>LAE                   | TEST                     | QUA<br>CER                        | Ö. ⊬<br>R                            | AND                             | CER                                | NDR  | L = TCIR     | F, QPL     | F, QPL       | QPL                      | QPL                      | EXPL                       |          |                                  | COMPLIANCE        |   |
|          |   | F                             |   | L                            | Т                        | Q                                 | QI                                   | Е                               | 0                                  |      | INCOR        | RPORATE    | D QUAN       | ITITIES                  |                          |                            |          | MATERIALS DESCRIPTION            |                   |   |
| 1        | 2/8/2021                                  | 01                            |   |                              |                          |                                   |                                      |                                 |                                    |      |              | 321.8 sqft |              |                          |                          | QPL# 454<br>Est01 Not      |          | 5, 4932 / Signs & Su             | pports / BI0030   |   |
| 2        | 2/8/2021                                  | 01                            |   |                              |                          |                                   |                                      |                                 |                                    |      |              |            |              | 7                        |                          | QPL#                       | 2303 / E | 310050 Est0                      | 1 Note01          |   |
| 3        | 4/12/21                                   |                               |   |                              |                          |                                   |                                      |                                 |                                    |      |              |            |              |                          |                          |                            |          | S Review                         |                   |   |
| 4        | 5/11/2021                                 | 02                            |   |                              |                          |                                   |                                      |                                 |                                    |      |              | 82 sqft    |              |                          |                          | Est04 Not                  | e02      | 5, 4932 / Signs & Su             | ipports / BI0030  |   |
| 5        | 7/12/2021                                 |                               |   |                              |                          |                                   |                                      |                                 |                                    |      |              |            |              |                          |                          |                            |          | S Review<br>5, 4932 / Signs & Su | 4 PI0000          |   |
| 6        | 5/17/2021                                 | 03                            |   |                              |                          |                                   |                                      |                                 |                                    |      |              | 94         |              |                          |                          | Est09 Not                  | e03      |                                  | ipports / Bi0030  |   |
| 7        | 2/7/2022                                  |                               |   |                              |                          |                                   |                                      |                                 |                                    |      |              |            |              |                          |                          | Nate                       | Neal RA  | S Review                         |                   |   |
| 8        |   | $\vdash$                      |   |                              | -                        | <u> </u>                          | _                                    |                                 |                                    |      |              |            |              |                          |                          |                            |          |                                  |                   |   |
| 9        |   | $\vdash$                      |   |                              | ├                        | _                                 | <u> </u>                             | -                               |                                    |      |              |            |              |                          |                          |                            |          |                                  |                   |   |
| 10<br>11 |   | $\vdash \vdash \vdash$        |   |                              | $\vdash$                 | $\vdash$                          | $\vdash$                             |                                 | $\vdash$                           |      |              |            |              |                          |                          | _                          |          |                                  |                   |   |
| 12       |   | $\vdash \vdash \vdash$        |   |                              | $\vdash$                 | $\vdash$                          |                                      |                                 |                                    |      |              |            |              |                          |                          | $\vdash$                   |          |                                  |                   |   |
| 13       |   | $\vdash$                      |   |                              | $\vdash$                 | $\vdash$                          | $\vdash$                             |                                 |                                    |      |              |            |              |                          |                          |                            |          |                                  |                   |   |
| 14       |   | $\vdash$                      |   |                              | $\vdash$                 | $\vdash$                          | $\vdash$                             |                                 |                                    |      |              |            |              |                          |                          |                            |          |                                  |                   |   |
| 15       |   | $\vdash \vdash \vdash$        |   |                              | $\vdash$                 | $\vdash$                          | $\vdash$                             | $\vdash$                        |                                    |      |              |            |              |                          |                          | $\vdash$                   |          |                                  |                   |   |
|          | 9   |                               |   |                              |                          |                                   |                                      |                                 |                                    |      |              |            |              |                          |                          |                            |          |                                  |                   |   |

Compile nonfield-tested Material quality documentation in accordance with e-Construction protocol.

#### **Nonfield-tested Material Quality Documentation**

Nonfield-tested Material quality documentation includes, but is not limited to, the following:

1. FIR - Field Inspection Report, found in Paynote form 734-2605. Examples of when this form is used are when materials are visually verified or when other supporting quality documentation is required.

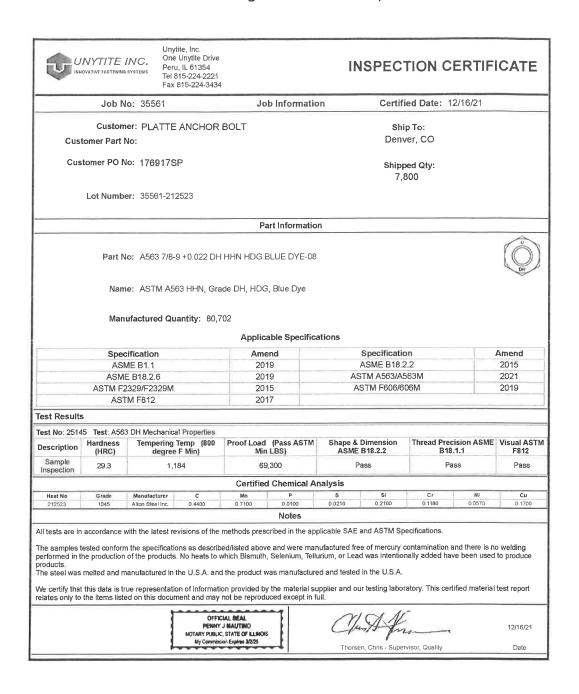
| JL                                     |                     | (Projec                | ct Work Record)   |                |                         |            |
|--|---------------------|------------------------|-------------------|----------------|-------------------------|------------|
| US101 Columbia River (A                | Astoria-Megler) B   | ridge                  | 0030              | 01             | 01                      | C15285     |
| Project Name                           |                     |                        | Bid/Pay Item      | Estimate       | Pay Note                | Contract   |
| Materials Delivered for                | this Project        |                        |                   |                |                         |            |
| Tubular Markers                        |                     |                        | 2021.09.13        |                | NTING, INC              |            |
| Type of Material                       |                     |                        | Date Delivered    | Delivered to ( | Name of Contractor/Subo | ontractor) |
| JBC Safety                             |                     |                        | 0.00              | N/A            |                         |            |
| Source of Material (Manufacturer or Fa | bricator)           |                        | Quantity Rejected | Rejection exp  | anation/reason          |            |
| 36.00                                  | EA                  | 36.00                  | ON SITE           |                |                         |            |
| Quantity Delivered                     | Unit                | Quantity Received      | Where inspected   |                |                         |            |
| 36.00                                  | ;                   | 36.00                  | Bryan Eddy        |                |                         | 48946      |
| Total Accepted to Date                 | Estimated Total Rec | quired                 | Inspector Name    |                |                         | Cert.#     |
| Tubular Markers appear                 | to comply with s    | pecification 00224.10. |                   |                |                         |            |
| Remarks                                |                     |                        |                   |                |                         |            |
| Materials Delivered for                | this Proiect        |                        |                   |                |                         |            |

Pay Note (New Field Inspection)

2. FIS - Field Inspection Sticker, form 734-2207. This sticker is used in conjunction with items on the QPL, manufacturer's test results and manufacturer's Materials certifications.

| Oregon  | FIELI             | INSPECTION                     |  |  |  |  |
|---|-------------------|--------------------------------|--|--|--|--|
| Department of Transportation  | i 4789            | REPORT NO. FOR BID ITEM NO.    |  |  |  |  |
| MANUFACTURER OR FABRICAT  | TOR               | BID ITEM NAME ADA              |  |  |  |  |
| ACCESS PRO  | opicts            | RAMP IMPROVOMON                |  |  |  |  |
| QUANTITY DELIVERED  | QUANTITY ACCEPTED | QUANTITY REJECTED (EXPLAIN)    |  |  |  |  |
| 12  | 12                | 0                              |  |  |  |  |
| VERIFIED ON MATERIALS  HEAT, LOT, AASHT OR BATCH NO. SPEC.  SUPPORT DATA  TEST RESULT QUALITY CERTIFICATE CERTIFI | NO. OR MARK       | EQUIPMENT LIST OTHER (EXPLAIN) |  |  |  |  |
| NSPECTED BY  Children  REMARKS  | DATE              | CERT. NO. 6/18 42970           |  |  |  |  |
| 734-2207 (5/07)   |                   | Stk #203263                    |  |  |  |  |

- 3. T Test Result Certificate. As required by 00165.35(a), a test results certificate must:
  - Be from the manufacturer verifying that the Material furnished has been sampled and tested and the test results meet the Specifications.
  - Include, or be accompanied by, a copy of the specified test results (ODOT, AASHTO, ASTM, UL or other).
  - Identify the testing agency and the representative responsible for the test results.
  - Permit positive determination that the Material delivered to the Project is the same Material covered by the test results.
  - Be delivered to the Engineer with the shipment of the Material.



- 4. Q Quality Compliance Certificate. As required by 00165.35(b), the quality compliance certificate will come from the manufacturer, and will:
  - Verify that the Material meets the Specifications, and identify by number the specified test methods used, (ODOT, AASHTO, ASTM, UL, or other).
  - Permit positive determination that Material delivered to the Project is the same Material covered by the certificate.
  - Be delivered to the Engineer with the shipment of Material, or be an identification plate or mark, decal, sticker, label or tag attached to the container or Material.



510 E SOUTH FIRST STREET WRIGHT CITY, MO 63390 PHONE: 636-791-2016 FAX: 636-745-0667

December 13, 2021

UNYTITE, INC. 1 UNYTITE DRIVE PERU, IL 61354 CERTIFICATE

RE: GALVANIZING PO# 10173

| PART #/DESCRIPTION   | LOT#             | COATING<br>THICKNESS | QUANTITY |
|--|------------------|----------------------|----------|
| A563- %-10 +0.020 DH HHN<br>HDG Blue Dye 08 / ASTM A563<br>HHN, Grade DH, HDG          | 35657-5804750603 | 3.8 AVG MILS         | 118,604  |
| A563- %-9 +0.022 DH HDG<br>BLUE or DYE 08 / ASTM A563<br>HHN< Grade DH, OverTap<br>HDG | 35667-212523     | 3.8 AVG MILS         | 26,002   |
| A563- % 0 +0.022 DH HHN<br>HDG Blue Dye 08 / ASTM A563<br>HHN Grade DH HDG, Blue Dye   | 35561-212523     | 3.8 AVG MILS         | 80,702   |

THIS WILL CERTIFY THAT THE MATERIAL GALVANIZED ON THE ABOVE JOB MEETS ASTM F2329 AND ASTM A 153 SPECIFICATIONS. THIS MATERIAL WAS GALVANIZED IN THE USA AT UNIVERSAL GALVANIZING INC IN WRIGHT CITY, MO AT A ZINC BATH TEMPERATURE OF 840° WITH A PLUS MINUS VARIANCE OF 5°. THE MATERIALS ITEMIZED IN THIS SHIPMENT ARE CERTIFIED TO BE IN COMPLIANCE WITH THE APPLICABLE ASTM STANDARDS AND THE IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, IMS AND MEET THE BUY AMERICA REQUIREMENTS AS DESCRIBED IN IM 107 FOR ALL STEEL, IRON PRODUCTS AND COATINGS.

| Lewis Parks           |       |
|-----------------------|-------|
| Lewis Parks, Plant Ma | nager |

- 5. E Equipment Lists and Drawings These consist of lists of proposed Equipment and Materials, such as: Shop drawings, Material lists, equipment lists, catalog description sheets and manufacturer's brochures. Submit these lists to the Engineer for review of conformance with the Specifications.
- 6. I Fabrication Inspection report from the Structure Services ODOT Materials Laboratory. The Inspection Report will be issued for all Materials inspected by ODOT Materials Laboratory staff such as concrete heams, permanent signs and

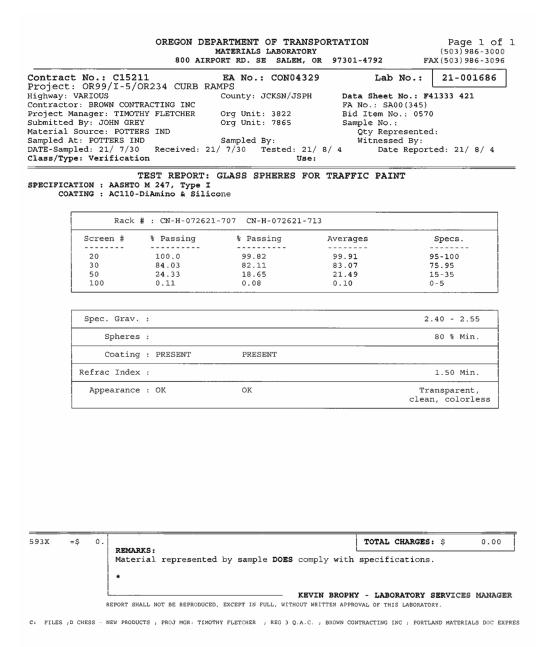
| CO                        | ncrete           | barrier. T             | he RE offic          |                                       | lete                 | the bot          | tom port                 | ermanent signs<br>tion of the rep                |   |
|---------------------------|------------------|------------------------|----------------------|---------------------------------------|----------------------|------------------|--------------------------|--|---|
| 7                         |                  | FABR                   |                      | ON INS                                |                      |                  |                          | EPORT  |   |
| Project Name:             | Dovile Lk O      | utlet, Schooner Cr     | 9 Siltonos P Brs     |                                       |                      |                  |                          | Inspection No.<br>15218                          |   |
| Highway                   | Deviis LK O      | atiet, ochooner or     | & SIRCOUS IX DIS     |                                       | County               |                  |                          | Contract No.                                     | _ |
|                           | Coast Highw      | ay                     |                      |                                       | Various              |                  |                          | C15075   |   |
| Contractor<br>Freyssine   | et Inc           |                        |                      |                                       | FA Project<br>S009(4 |                  |                          | Expenditure Account<br>CON04138                  |   |
| Project Manag             |                  |                        |                      | Reported By                           | 0000(.               | ,                |                          | Date Reported                                    | _ |
| Steve Sc                  | hultz            |                        |                      | McHugh, Matthew                       | /                    | 1                |                          | 10/17/2022                                       |   |
| Shipment Of<br>Galv pov   | vder coated      | 3-tube rail, modifi    | ed                   | Shipping Point<br>Seattle, WA         |                      |                  | nation<br>obsite         |  |   |
| Consigned To              |                  | - tazo tan, moani      | -                    | Specification                         |                      |                  | Bid Item No.             |  | _ |
| Freyssine                 | et Inc           |                        |                      | ODOT Std 00587                        |                      |                  | 0640, 1110               |  |   |
| Inspected At<br>Pacific S | heet Metal       |                        |                      | Inspected By<br>McHugh, Matthew       | ,                    |                  | Date Inspecte<br>3-18-22 | ed   |   |
| Report No.                |                  |                        | Quantity Represen    | •                                     |                      | Quantity Previou |                          | Total Quantity Reported                          | _ |
|                           |                  |                        | See Below            |                                       |                      |                  |                          |  |   |
| Quantity                  | Unit             |                        | Descript             | ion                                   |                      | Bid Item No      | o.                       | Comments   |   |
| 1                         | LS               | Galv, PC Green         | 3-Tube Steel Rail, M | Modified, W/SS Hardv                  | vare                 | 0640             |                          | Outlet Bridge, Structure #                       |   |
| 4                         | LS               | Calv Bauday Ca         | atad Orana 2 Tuba    | e Steel Rail, Modified                |                      | 1110             | 773 11                   | prox. 100' each side of reek Bridge, Structure # | _ |
| 1                         | LS               | Galv, Powder Co        | ated Green, 3-1 upe  | e Steel Rall, Modilled                |                      | 1110             |                          | prox. 250' each side of                          |   |
| Units are s               | ubject to fie    | eld inspection for     | r final acceptance   | pursuant to the curi                  | ent edit             | tion of the Ore  | gon Standard             | Specifications for                               | = |
| Constructi                | on.              | •                      | •                    |                                       |                      |                  | -                        | •  |   |
| MATERIA                   | I DEDDEC         | ENTED BY THIS I        | REPORT ✓ D           | OES DOES NO                           | T ^                  | OMDI V WITH      | SPECIFICATION            | - NIC  | _ |
| WATERIA                   | L KEFKESI        | Based                  |                      |                                       | Lab                  | OWPLT WITH       | SPECIFICATIO             | JNS  |   |
| Remarks                   |                  |                        | inspection (         | Certification V                       | Lab                  |                  |                          |  | _ |
|                           | tagged for       | delivery.              |                      |                                       |                      |                  |                          |  |   |
|                           |                  |                        | orted on Inspection  | ı # 14798.<br>e reported on inspectio | n #1 170             | 27               |                          |  |   |
|                           |                  |                        | are reported on insp |                                       | JII # 1473           | <i>31</i> .      |                          |  |   |
|                           |                  |                        |                      | _                                     | 100                  | TO.              | 21                       |  |   |
|                           |                  |                        |                      | 0                                     |                      |                  |                          | _  |   |
| FIELD US                  | SE ONLY          |                        |                      | 300                                   | ou weisc             | on, Structure    | Services Engin           | leer   |   |
| FIELD INSP. 1             | NO. BID          | ITEM NO. QUANT         | ITY ACCEPTED         | TOTAL TO DATE                         | QUA                  | NTITY REJECTED   | (EXPLAIN)                |  | _ |
|                           |                  |                        |                      |                                       |                      |                  |                          |  |   |
| MATERIAL RI               | <br>EPRESENTED I | I<br>BY LAB REPORT ABO | VE RECEIVED ON JOB V | /ERIFIED BY                           | INSP                 | ECTED BY         |                          | DATE   | _ |
|                           | NUMBER.          | ODOT TAG MAI           |                      |                                       |                      |                  |                          |  |   |
|                           | /ASTM MARK       | OTHER (EXPLA           | IN BELOW             |                                       |                      |                  |                          |  |   |
| REMARKS                   |                  |                        |                      |                                       |                      |                  |                          |  |   |
|                           |                  |                        |                      |                                       |                      |                  |                          |  |   |
| DISTRIBUTIO               | N: Files         | Portland Materia       | lls Lab Steve Sch    | ıultz                                 | Freyssin             | net Inc          | Markus                   | s Schaff   | _ |

Josh Gann

Kim Johnson

Philip Lane

7. L - Laboratory report from the Salem ODOT Materials Laboratory for Materials that have been sampled and submitted to the Lab for testing, or for a certification evaluation for conformance to the Specifications.



- 8. Certificate of Materials Origin (CMO), form 734-2126. Required on **all** Federal Aid Projects **and** certain State funded Projects as part of the Buy America requirements specified in Subsection 00160.20.
  - a. CMO for Domestic Materials Source.
  - b. CMO for Foreign Material Source or Materials of unknown origin.



#### **CERTIFICATE OF MATERIALS ORIGIN**

| PROJECT NAME (SECTION)  | co  | NTRACT NO.   |
|---|---|--------------|
| US 101: Tahkentich Cr & Over Rand Rd Bridges  |   | 15,275       |
|   | ITEM NAME   | ,            |
| 520   | Anchor Rods, Nuts & Washers for Siesmic Br                      | rkts         |
| DOMESTIC MATERIAL SOURCE (NAME AND ADDRESS)   |   |              |
| Platte Anchor Bolts - Denver, CO, Vulcan Threaded Products -  | - Pelham, AL, Unytite Inc Peru, IL, Wrought Washer              | r - Mount    |
| Pleasant, WI, Binder Metal Products - Gardena, CA   |   |              |
|   |   |              |
|   |   |              |
|   |   |              |
|   |   |              |
|   |   |              |
|   |   |              |
|   |   |              |
|   |   |              |
|   |   |              |
| DOMESTIC MATERIALS DESCRIPTION  |   |              |
| Steel threaded rods, nuts & washers - 5/8" & 7/8"   |   |              |
|   |   |              |
|   |   |              |
|   |   |              |
|   |   |              |
|   |   |              |
|   |   |              |
| FOREIGN MATERIALS SOURCE INCLUDING MATERIAL OF UNKNOWN ORIGIN (I  | NAME AND ADDRESS)   |              |
|   |   |              |
|   |   |              |
|   |   |              |
|   |   |              |
|   | DE IDON OD STEEL DROCKLET AS IT IS DELINEDED TO THE DROLLET     |              |
| FOREIGN MATERIALS (OR OF UNKNOWN ORIGIN) DESCRIPTION AND VALUE O  | OF IRON OR STEEL PRODUCT AS IT IS DELIVERED TO THE PROJECT      |              |
|   |   |              |
|   |   |              |
|   |   |              |
|   |   |              |
|   |   |              |
| This certification is made for the purpose of establishing materials a  |   |              |
| America. All iron or steel manufacturing processes, including protective  | coatings, for the domestic materials described above occure     | d within the |
| United States of America.   | and demonstrate masterials will be bent on file for three years |              |
| Manufacturers' certificates verifying the origin of the above describe  |   |              |
| following final payment. Copies will be furnished to the Engineer upon<br>I declare under pnealty of perjury under Oregon and Federal laws th |   |              |
| r deciare unities priearly or perjusy unities Oregon and rederal laws th  | iat the foregoing is true and coffeet.                          |              |
| AUTHORIZED REPRESENTITIVE*  | COMPANY* NAME AND ADDRESS                                       |              |
| NAME: HAROLD TAYLOR   | Hogan Fab, Inc  |              |
| TITLE: VICE PRESIDENT   | 5722 SE Johnson Creek Blvd.                                     |              |
|   | Portland, OR 97206  |              |
| SIGNATURE: Hand Juff  |   |              |
| / land / y//  |   |              |
|   |   |              |
| DATE: 6/2/2022  |   |              |
| Submit a new certificate for subsequent chinments if any of the above information changes   | *May be Contractor, Sub-Contractor or supplier                  |              |



#### **CERTIFICATE OF MATERIALS ORIGIN**

| PROJECT NAME (SECT    | TION)  |   | CONTRACT NO.                    |
|-----------------------|--|---|---------------------------------|
| US101: Neahkahr       |  |   | 15087                           |
| BID ITEM NO.          |  | BID ITEM NAME   | 1                               |
| 0240                  |  | GALVANIC ZINC ANODES  |                                 |
| DOMESTIC MATERIALS    | S SOURCE (NAME AND ADDRESS)                                  |   |                                 |
|                       |  |   |                                 |
|                       |  |   |                                 |
|                       |  |   |                                 |
|                       |  |   |                                 |
| DOMESTIC MATERIALS    | S DESCRIPTION  |   |                                 |
| DOWESTIO WATERIAL     | S DESCRIPTION  |   |                                 |
|                       |  |   |                                 |
|                       |  |   |                                 |
|                       |  |   |                                 |
|                       |  |   |                                 |
|                       |  |   |                                 |
|                       |  |   |                                 |
|                       |  |   |                                 |
|                       |  |   |                                 |
|                       |  |   |                                 |
| FOREIGN MATERIALS     | SOURCE INCLUDING MATERIAL OF UNKNOV                          | WN ORIGIN (NAME AND ADDRESS   |                                 |
| UNKNOWN               |  |   |                                 |
|                       |  |   |                                 |
|                       |  |   |                                 |
|                       |  |   |                                 |
| FOREIGN MATERIALS     | (OR OF UNKNOWN ORIGIN) DESCRIPTION A                         | ND VALUE OF IRON OR STEEL PRODUCT AS IT IS  | DELIVERED TO THE PROJECT        |
| Steel wire compor     | nent of galvanic zinc anodes - (50 anoc                      | des) x \$0.10 ea = \$5.00   |                                 |
|                       |  |   |                                 |
|                       |  |   |                                 |
|                       |  |   |                                 |
|                       |  |   |                                 |
|                       |  |   |                                 |
|                       |  |   |                                 |
| This partification is | made for the number of establishing mate                     | rials acceptance under the Contract Special Pro   | viciono titlod 00160 20(a) Pury |
|                       |  | rials acceptance under the Contract Special Fro<br>stective coatings, for the domestic materials desc |                                 |
| United States of Amer | rica.  | -   |                                 |
|                       |  | escribed domestic materials will be kept on file fo   | r three years following final   |
| l                     | be furnished to the Engineer upon request.                   |   |                                 |
| i declare under pe    | enalty of perjury under Oregon and Federal                   | laws that the loregoing is true and correct.  |                                 |
| AUTH                  | ORIZED REPRESENTATIVE*                                       | COMPANY* NAME AN  | D ADDRESS:                      |
| NAME: Ke              | ellie Wanke-Hanks  |   |                                 |
| TITLE: Pr             | roject Engineer  | Hamilton Construc   | tion Co.                        |
| _                     | 11 -0 - 1 0 1  | PO Box 659  | )                               |
| SIGNATURE:            | Keller Wante   | Springfield, OR S   | 97477                           |
| DATE:                 | 8/13/2019  |   |                                 |
| _                     | ubsequent shipments if any of the above information changes. | *May be Contractor, Sub-Contractor or s   | supplier                        |

A CMO is needed to certify that all iron or steel manufacturing processes, including protective coatings, for the domestic Materials occurred within the United States of America.

A CMO is not needed for temporary items or for items incidental to the construction, such as tie wire, reinforcement chairs, or snap ties. The complete FHWA Buy America requirements are available on the FHWA website at: http://www.fhwa.dot.gov/construction/cgit/buyam.cfm. Refer to the

Buy America Exempted Item List for information on exempted items. For projects awarded after July 1, 2024, the Buy America Exempted Item List will no longer be allowed for use per FHWA local division office.

Iron or steel of unknown origin is considered to be of foreign origin. The Agency will not pay for any foreign iron or steel materials that exceed the allowable value for the Project. Complete a Foreign Steel Summary, form 734-1968, listing all iron or steel Materials of foreign or unknown origin. Refer to Chapter 37 – Submittal of Final Project Documentation.

For Projects with federal authorization after August 15, 2023, the Contractor must provide the RE with a Construction Materials Certificate of Materials Origin (CCMO), form 734-5378b, before incorporating any construction materials into the Project. If a CCMO indicates the origin of materials is unknown, the Materials are considered to be foreign.

For any projects with federal construction authorization between November 10, 2022 and August 15, 2023 the contract does not provide for the acceptance of a de minimis amount of foreign Construction Materials. Any foreign construction materials must be removed and replaced. For these projects the Contractor must provide the RE with a Construction Materials Certificate of Materials Origin (CCMO), form 734-5378, attesting the construction materials were produced in the United States. If there is any question about whether the project allows the de minimis amount of foreign construction materials, the language in the Special Provisions under 00160.20(d) will identify if there is an allowance for foreign construction materials.



### Construction Material Certificate of Materials Origin

Print Form

| Billiem No. Bild Item Name  Domestic Materials Source  Name  Address  Description (nuasinum 500 characters)  Foreign Materials Source (including material of unknown origin)  Name and Address  Description and Value of Contraction Materials as delivered to the project.  The total value of the non-compliant products (foreign or unknown origin) is no more than the lesser of \$1,000,000 or 5% of total applicable costs for the project.  This certification is made for the purpose of establishing materials acceptable under the Contract Specifications titled 00160,20(d) Build America Buy America. All manufacturing processes for the domestic materials described above occurred within the United States of America. Manufacturers certificates verifying the origin of the above described domestic materials will be kept on file for three years following final payment. Copies will be furnished to the Engineer upon request.  I declare under penalty of perjury or falsification under Oregon and Federal laws that the foregoing is true and correct.  Authorized Representative*  Company  Name  Company  Name and Address  Name  Company  Name and Address  Videy be Contractor, Subcontractor or Supplications  Video Contractor, Subcontractor, Subcontractor, Subcontractor, Supplicatio | Project Name (Section)                  |  | 7   | Contract No.           |
|---|---|--|---|------------------------|
| Address  Description insalimum 500 characters)  Foreign Materials Source (including material of unknown origin)  Name and Address  Description and Value of Construction Materials as delivered to the project.  The total value of the non-compliant products (foreign or unknown origin) is no more than the lesser of \$1,000,000 or 5% of total applicable costs for the project.  This certification is made for the purpose of establishing materials acceptable under the Contract Specifications titled 00160,20(d) Build America Buy America, all manufacturing processes for the domestic materials described above occurred within the United States of America. Manufacturers' certificates verifying the origin of the above described domestic materials will be kept on file for three years following final payment. Copies will be furnished to the Engineer upon request.  I declare under penalty of perjury or falsification under Oregon and Federal laws that the foregoing is true and correct.  Authorized Representative*  Company*  Name  Company*  Title  Address 2  *May be Contractor, Subcontractor or Supp   | Bid Item No.                            | Bid Item Name  |   |                        |
| Address  Description (maximum 500 characters)  Foreign Materials Source (including material of unknown origin)  Name and Address  Description and Value of Construction Materials as delivered to the project.  The total value of the non-compliant products (foreign or unknown origin) is no more than the lesser of \$1,000,000 or 5% of total applicable costs for the project.  This certification is made for the purpose of establishing materials acceptable under the Contract Specifications titled 00160.20(d) Build America Buy America. All manufacturing processes for the domestic materials described above occurred within the United States of America. Manufacturers' certificates verifying the origin of the above described domestic materials will be kept on file for three years following final payment. Copies will be furnished to the Engineer upon request.  I declare under penalty of perjury or falsification under Oregon and Federal laws that the foregoing is true and correct.  Authorized Representative*  Company* Name and Address  Name  Company  Title  Address 1  Gly/State/7jp  *May be Contractor, Subcontractor or Supplements of the project.  *May be Contractor, Subcontractor or Supplements of the project.  *May be Contractor, Subcontractor or Supplements of the project.  *May be Contractor, Subcontractor or Supplements of the project.  *May be Contractor, Subcontractor or Supplements of the project.  *May be Contractor, Subcontractor or Supplements of the project.  *May be Contractor, Subcontractor or Supplements of the project.  *May be Contractor, Subcontractor or Supplements of the project.  *May be Contractor, Subcontractor or Supplements of the project.  *May be Contractor.   | Domestic Materials S                    | Source   |   |                        |
| Address  Description (maximum 500 characters)  Foreign Materials Source (including material of unknown origin)  Name and Address  Description and Value of Construction Materials as delivered to the project.  The total value of the non-compliant products (foreign or unknown origin) is no more than the lesser of \$1,000,000 or 5% of total applicable costs for the project.  This certification is made for the purpose of establishing materials acceptable under the Contract Specifications titled 00160.20(d) Build America Buy America. All manufacturing processes for the domestic materials described above occurred within the United States of America. Manufacturers' certificates verifying the origin of the above described domestic materials will be kept on file for three years following final payment. Copies will be furnished to the Engineer upon request.  I declare under penalty of perjury or falsification under Oregon and Federal laws that the foregoing is true and correct.  Authorized Representative*  Company* Name and Address  Name  Company  Title  Address 1  Gly/State/7jp  *May be Contractor, Subcontractor or Supplements of the project.  *May be Contractor, Subcontractor or Supplements of the project.  *May be Contractor, Subcontractor or Supplements of the project.  *May be Contractor, Subcontractor or Supplements of the project.  *May be Contractor, Subcontractor or Supplements of the project.  *May be Contractor, Subcontractor or Supplements of the project.  *May be Contractor, Subcontractor or Supplements of the project.  *May be Contractor, Subcontractor or Supplements of the project.  *May be Contractor, Subcontractor or Supplements of the project.  *May be Contractor.   | Name                                    |  |   |                        |
| Poscription (maximum 500 characters)    Description and Value of Construction Materials as delivered to the project.  | Name                                    |  |   |                        |
| Foreign Materials Source (including material of unknown origin)  Name and Address  Description and Value of Construction Materials as delivered to the project.  The total value of the non-compliant products (foreign or unknown origin) is no more than the lesser of \$1,000,000 or 5% of total applicable costs for the project.  This certification is made for the purpose of establishing materials acceptable under the Contract Specifications titled 00160.20(d) Build America Buy America. All manufacturing processes for the domestic materials described above occurred within the United States of America. Manufacturers' certificates verifying the origin of the above described domestic materials will be kept on file for three years following final payment. Copies will be furnished to the Engineer upon request.  I declare under penalty of perjury or falsification under Oregon and Federal laws that the foregoing is true and correct.  Authorized Representative*  Company* Name and Address  Name  Company*  Title  Address 1  Address 1  Address 2  *May be Contractor, Subcontractor or Supposition and Subcontractor or Suppos |   |  |   |                        |
| Description and Value of Construction Materials as delivered to the project.  The total value of the non-compliant products (foreign or unknown origin) is no more than the lesser of \$1,000,000 or 5% of total applicable costs for the project.  This certification is made for the purpose of establishing materials acceptable under the Contract Specifications titled 00160.20(d) Build America Buy America. All manufacturing processes for the domestic materials described above occurred within the United States of America. Manufactures' certificates verifying the origin of the above described domestic materials will be kept on file for three years following final payment. Copies will be furnished to the Engineer upon request.  I declare under penalty of perjury or falsification under Oregon and Federal laws that the foregoing is true and correct.  Authorized Representative*  Company* Name and Address  Company*  Name  Company*  Address 1  Sign  Address 2  City/State/Zip  *May be Contractor, Subcontractor or Supp  | Description (maximum 500 ch             | aracters)  |   |                        |
| Description and Value of Construction Materials as delivered to the project.  The total value of the non-compliant products (foreign or unknown origin) is no more than the lesser of \$1,000,000 or 5% of total applicable costs for the project.  This certification is made for the purpose of establishing materials acceptable under the Contract Specifications titled 00160.20(d) Build America Buy America. All manufacturing processes for the domestic materials described above occurred within the United States of America. Manufactures' certificates werifying the origin of the above described domestic materials will be kept on file for three years following final payment. Copies will be furnished to the Engineer upon request.  I declare under penalty of perjury or falsification under Oregon and Federal laws that the foregoing is true and correct.  Authorized Representative*  Company* Name and Address  Company* Name and Address  Title  Address 1  Sign  Address 2  City/State/Zip  *May be Contractor, Subcontractor or Supp  |   |  |   |                        |
| Description and Value of Construction Materials as delivered to the project.  The total value of the non-compliant products (foreign or unknown origin) is no more than the lesser of \$1,000,000 or 5% of total applicable costs for the project.  This certification is made for the purpose of establishing materials acceptable under the Contract Specifications titled 00160.20(d) Build America Buy America. All manufacturing processes for the domestic materials described above occurred within the United States of America. Manufactures' certificates verifying the origin of the above described domestic materials will be kept on file for three years following final payment. Copies will be furnished to the Engineer upon request.  I declare under penalty of perjury or falsification under Oregon and Federal laws that the foregoing is true and correct.  Authorized Representative*  Company* Name and Address  Company*  Name  Company*  Address 1  Sign  Address 2  City/State/Zip  *May be Contractor, Subcontractor or Supp  |   |  |   |                        |
| Description and Value of Construction Materials as delivered to the project.  The total value of the non-compliant products (foreign or unknown origin) is no more than the lesser of \$1,000,000 or 5% of total applicable costs for the project.  This certification is made for the purpose of establishing materials acceptable under the Contract Specifications titled 00160.20(d) Build America Buy America. All manufacturing processes for the domestic materials described above occurred within the United States of America. Manufactures' certificates werifying the origin of the above described domestic materials will be kept on file for three years following final payment. Copies will be furnished to the Engineer upon request.  I declare under penalty of perjury or falsification under Oregon and Federal laws that the foregoing is true and correct.  Authorized Representative*  Company* Name and Address  Company* Name and Address  Title  Address 1  Sign  Address 2  City/State/Zip  *May be Contractor, Subcontractor or Supp  |   |  |   |                        |
| Description and Value of Construction Materials as delivered to the project.  The total value of the non-compliant products (foreign or unknown origin) is no more than the lesser of \$1,000,000 or 5% of total applicable costs for the project.  This certification is made for the purpose of establishing materials acceptable under the Contract Specifications titled 00160.20(d) Build America Buy America. All manufacturing processes for the domestic materials described above occurred within the United States of America. Manufactures' certificates verifying the origin of the above described domestic materials will be kept on file for three years following final payment. Copies will be furnished to the Engineer upon request.  I declare under penalty of perjury or falsification under Oregon and Federal laws that the foregoing is true and correct.  Authorized Representative*  Company* Name and Address  Company* Name and Address  Address 1  Sign  Address 2  City/State/Zip  *May be Contractor, Subcontractor or Supp   | Foreign Materials So                    | ource (including material of unknown origin)   |   |                        |
| is no more than the lesser of \$1,000,000 or 5% of total applicable costs for the project.  This certification is made for the purpose of establishing materials acceptable under the Contract Specifications titled 00160.20(d) Build America Buy America. All manufacturing processes for the domestic materials described above occurred within the United States of America. Manufacturers' certificates verifying the origin of the above described domestic materials will be kept on file for three years following final payment. Copies will be furnished to the Engineer upon request.  I declare under penalty of perjury or falsification under Oregon and Federal laws that the foregoing is true and correct.  Authorized Representative*  Company* Name and Address    Name  |   |  | Description and Value of Construction Materials as delivered to the | e project.             |
| is no more than the lesser of \$1,000,000 or 5% of total applicable costs for the project.  This certification is made for the purpose of establishing materials acceptable under the Contract Specifications titled 00160.20(d) Build America Buy America. All manufacturing processes for the domestic materials described above occurred within the United States of America. Manufacturers' certificates verifying the origin of the above described domestic materials will be kept on file for three years following final payment. Copies will be furnished to the Engineer upon request.  I declare under penalty of perjury or falsification under Oregon and Federal laws that the foregoing is true and correct.  Authorized Representative*  Company* Name and Address  Title  Address 1  Sign  Address 2  "May be Contractor, Subcontractor or Support of Support o |   |  |   |                        |
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| is no more than the lesser of \$1,000,000 or 5% of total applicable costs for the project.  This certification is made for the purpose of establishing materials acceptable under the Contract Specifications titled 00160.20(d) Build America Buy America. All manufacturing processes for the domestic materials described above occurred within the United States of America. Manufacturers' certificates verifying the origin of the above described domestic materials will be kept on file for three years following final payment. Copies will be furnished to the Engineer upon request.  I declare under penalty of perjury or falsification under Oregon and Federal laws that the foregoing is true and correct.  Authorized Representative*  Company* Name and Address    Name  |   |  |   |                        |
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| America Buy America. All manufacturing processes for the domestic materials described above occurred within the United States of America.  Manufacturers' certificates verifying the origin of the above described domestic materials will be kept on file for three years following final payment. Copies will be furnished to the Engineer upon request.  I declare under penalty of perjury or falsification under Oregon and Federal laws that the foregoing is true and correct.  Authorized Representative*  Company* Name and Address  Name  Title  Address 1  Sign  Address 2  Title  City/State/Zip  *May be Contractor, Subcontractor or Suppose the contractor of Suppose the Con  |   | er of \$1,000,000 or 5% of total applicable costs for  |   |                        |
| America Buy America. All manufacturing processes for the domestic materials described above occurred within the United States of America.  Manufacturers' certificates verifying the origin of the above described domestic materials will be kept on file for three years following final payment. Copies will be furnished to the Engineer upon request.  I declare under penalty of perjury or falsification under Oregon and Federal laws that the foregoing is true and correct.  Authorized Representative*  Company* Name and Address  Name  Title  Address 1  Sign  Address 2  Title  Title  Title  Address 2  Title  Title  Address 2  *May be Contractor, Subcontractor or Suppose the foregoing is true and correct.  *May be Contractor, Subcontractor or Suppose the foregoing is true and correct.  *May be Contractor, Subcontractor or Suppose the foregoing is true and correct.   |   |  |   |                        |
| Authorized Representative*  Company* Name and Address  Title  Address 1  Sign  Address 2  City/State/Zip  *May be Contractor, Subcontractor or Suppose to the contractor of Suppose to the con  | America Buy America<br>Manufacturers' c | . All manufacturing processes for the domestic mater ertificates verifying the origin of the above described | ials described above occurred within the United States              | of America.            |
| Name  Company  Title  Address 1  Sign  Address 2  City/State/Zip  *May be Contractor, Subcontractor or Support of the contractor of Support of   | l declare under p                       | enalty of perjury or falsification under Oregon and Fe   | ederal laws that the foregoing is true and correct.                 |                        |
| Title Address 1  Sign Address 2  Date City/State/Zip *May be Contractor, Subcontractor or Support Address 2   | А                                       | Authorized Representative*   | Company* Name and Address   | s                      |
| Sign Address 2  Date City/State/Zip *May be Contractor, Subcontractor or Supp   | Name                                    |  | Company   |                        |
| Sign Address 2  Date City/State/Zip *May be Contractor, Subcontractor or Supp   |   |  |   |                        |
| Date City/State/Zip *May be Contractor, Subcontractor or Supp   | Title                                   |  | Address 1   |                        |
| *May be Contractor, Subcontractor or Supp   | Sign                                    |  | Address 2   |                        |
|   | Date                                    |  | City/State/Zip  |                        |
| Submit a new certificate for subsequent shipments if any of the above information changes.  |   |  |   | ubcontractor or Suppli |



### **Construction Material**

Print Form

Certificate of Materials Origin

This form is for projects with federal construction authorization between 11/10/2022 and 8/15/2023 and does not allow the use of any non-domestic Construction Material.

| Project Name (Section)   | Contract No.   |
|--|--|
| Bid Item No. Bid Item Name   |  |
|  |  |
| Domestic Materials Source  |  |
| Name   |  |
| Address  |  |
| Description (maximum 1000 characters)  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| Build America Buy America. All manufacturing processes for to f America.  Manufacturers' certificates verifying the origin of the abord following final payment. Copies will be furnished to the Engin | materials acceptable under the Contract Specifications titled 00160.20(d) the domestic materials described above occurred within the United States ove described domestic materials will be kept on file for three years neer upon request.  Oregon and Federal laws that the foregoing is true and correct. |
| Authorized Representative*   | Company* Name and Address  |
|  |  |
| Name   | Company  |
| Title  | Address 1  |
| Sign   | Address 2  |
| Date   | City/State/Zip   |
|  | *May be Contractor, Subcontractor or Supplie   |

734-5378 (11-30-2022) of

#### **Additional Nonfield-Tested Materials Quality Documentation**

- 1. Traffic Signals
  - Blue Sheets Submittals for Field Qualification Electrical Equipment and Materials
  - Green Sheets Submittals for Conditional Qualification Controller Equipment
  - Red Sheets A list of certification exempt traffic management systems components used by ODOT, and other applicable public agencies. Contact the ODOT Traffic-Roadway Section for more information.

Obtain current copies of the Blue, Green, and Red Sheets electronically from the Traffic Section at:

https://www.oregon.gov/ODOT/HWY/TS/pages/signals.aspx

- 2. ODOT's Qualified Products List (QPL) When specified, only use Materials on the qualified or approved lists. With prior approval from the Construction Section and the RE, products from the Conditional List may be used with concurrence by the Professional of Record (POR). Products that have been incorporated into the Project, and are not listed on the QPL (A or Q), will need to be removed and replaced at the Contractor's expense with a product from the QPL.
- 3. Product Warranties. Refer to Chapter 41 Warranties/Guarantees/Responsibilities for Materials and Workmanship.
- 4. Seed Application (permanent). Special Provisions will provide the seed mixes etc. in 01030.13(f). Contractor shall submit availability per 01030.13(g) with a lot number of what will be used on the project. The Construction Office shall use the submittal to verify that it matches the lot number on the seed tag and use the seed tag information to fill out form 734-5180 https://www.oregon.gov/odot/Forms/2ODOT/7345180.xlsx.

(Premixed Seed Blends Adjusted Rates of Application) and submit it as an FIR attachment during application. An additional FIR will need to be submitted that documents that minimum ground coverage is achieved at the end of the Establishment Period.

|                        |  | Prem<br>Adjusted        |          | ed Blen<br>of Applic |                                |          |                              |  |
|------------------------|--|-------------------------|----------|----------------------|--------------------------------|----------|------------------------------|--|
|                        |  |                         |          |                      |                                |          |                              |  |
| Project Name (Section) |  |                         |          |                      |                                |          |                              | Contract No.                               |
|                        |  |                         |          |                      |                                |          |                              |  |
| (Sub)Contractor        |  |                         |          | Seed Mix Type        |                                |          |                              | Lot/Batch No.                              |
|                        |  |                         | COLUN    | ΛN                   |                                |          |                              |  |
| l(a)                   | l(b)                                   |                         | III      | IV                   | V                              |          | VI                           | VII  |
| Botanical Name         | Common Name                            | Specified<br>(lb./acre) | Purity % | Germ. %              | Adjusted PLS<br>(lb. per acre) |          | % of Seed<br>(this lot#/mix) | lb. of Seed per<br>1 lb<br>(this lot#/mix) |
|                        |  |                         |          |                      |                                | ##       |                              |  |
|                        |  |                         |          |                      |                                | 拼        |                              |  |
|                        |  |                         |          |                      |                                | ##<br>## |                              |  |
|                        |  |                         |          |                      |                                | ##       |                              |  |
|                        |  |                         |          |                      |                                | ##       |                              |  |
|                        |  |                         |          |                      |                                | 拼拼       |                              |  |
|                        |  |                         |          |                      |                                | ##       |                              |  |
|                        |  |                         |          |                      |                                | ##       |                              |  |
|                        |  |                         |          |                      |                                | ##       |                              |  |
|                        |  |                         |          |                      |                                | ##<br>## |                              |  |
|                        |  |                         |          |                      |                                | ##<br>## |                              |  |
|                        |  |                         |          |                      |                                | ##       |                              |  |
|                        |  |                         |          |                      |                                | ##       |                              |  |
|                        |  |                         |          |                      |                                | ##       |                              |  |
|                        |  |                         |          |                      |                                | ##       |                              |  |
|                        |  |                         |          |                      |                                | ##       |                              |  |
|                        |  |                         |          |                      |                                | 拼        |                              |  |
|                        |  |                         |          |                      | See                            | d %      |                              |  |
|                        |  |                         |          |                      | Other Crop See                 | d %      |                              |  |
|                        | RESULTS                                |                         |          |                      | Weed See                       |          |                              |  |
|                        | Greatest Amount Calc. (from            |                         | 0.0      |                      | Inert Materi                   |          |                              |  |
|                        | Preme<br>Greatest Amount Calc. x Preme | easured Acre =          | 0.0      |                      | Tota<br>*should be close       |          | 00%                          |  |
|                        | Orealest Amount Calc. X FIEIR          |                         | 0.0      | J                    | Should be close                | io I     | 00 70                        |  |
| 734-5180 (03-09-23)    |  | `                       |          |                      |                                |          |                              |  |

If, after incorporation into the Project, Materials are found to not meet specifications (non-compliance), the RE, in conjunction with the POR, must determine if the Materials are to be removed and replaced or if they may remain in place as suitable for the use intended (See 00150.25). Materials that are not in close conformance with the Contract requirements, but are found suitable for the use intended, may be accepted provided that an adjustment is made to the amount paid to the Contractor for that item. [Refer to Chapter 12C - Quality Price Adjustments]

#### 12B-2 Field-Tested Materials

Most Agency Projects will include the Quality Assurance Program, under which the Contractor performs all sampling and field testing of Materials. The Agency will perform monitoring, verification testing, and independent assurance testing to verify the quality of Materials represented by the Contractor's tests. Refer to the Quality Assurance Program in the Manual of Field Test Procedures.

Accept field-tested Materials according to the Field Tested Materials Acceptance Guide included in the Manual of Field Test Procedures, or according to the individual Specifications for the Material. Be sure you are using the correct version of this guide. This will be the version in effect at time of Project advertisement. This guide is updated yearly and is available electronically at:

https://www.oregon.gov/ODOT/HWY/CONSTRUCTION/pages/mftp\_manual.aspx

| FIELD TESTED MATERIAL               | S ACCEPTANCE                   | GUIDE            |       | (Revised Noven | nber 2021) | Same F                           | requency for all                 | Tests (Minimur                       | ns)                                    |
|-------------------------------------|--------------------------------|------------------|-------|----------------|------------|----------------------------------|----------------------------------|--------------------------------------|--|
| MATERIAL                            | DESCRIPTION                    | TEST METHOD FORM |       |                |            | QUALITY ASSURANCE                |                                  |                                      |  |
| AND<br>OPERATION                    | OF<br>TEST                     | ODOT             | WAQTC | AASHTO         | 734-       | Contractor<br>Quality<br>Control | Independer<br>Project<br>Manager | nt Assurance/Ve<br>Region<br>Quality | erification<br>Materials<br>Laboratory |
|                                     |                                |                  |       |                |            |                                  |                                  | Assurance                            |  |
| SECTION 00680 - STOCKPILED          | AGGREGATES                     |                  |       |                |            |                                  |                                  |                                      |  |
| Aggregate Base and Shoulders        |                                |                  |       | <b>T</b> 00    |            |                                  |                                  |                                      |  |
| (See Section 00641)                 | Abrasion                       | T11000           |       | T 96           | 4000       | See                              | Submit to Lab                    |                                      | See                                    |
|                                     | Degradation                    | TM 208           |       |                |            | Section 4A                       | ublot equals 2,00                | ) Tene                               | Section 4A                             |
|                                     | Sampling Aggregates            |                  |       | R 90           | 1792       | AS                               | ubiot equals 2,000               | J TOTIS                              |  |
| (1) Perform at least 3 tests, QL's  | Reducing Aggregates            |                  |       | R 76           | 1792       |                                  |                                  |                                      |  |
| required                            |                                | 5                |       |                |            | 1/Sublot & Start of              |                                  |                                      | l                                      |
|                                     | <sup>(1)</sup> Sieve Analysis  |                  |       | T 27           |            | Production                       |                                  |                                      | l                                      |
|                                     | Un-Washed                      |                  |       |                |            |                                  |                                  | 1 per 10                             | l                                      |
| (2)                                 | <sup>(2)</sup> Sand Equivalent |                  |       | T 176          | 1792       |                                  |                                  | Sublots                              |  |
| <sup>(2)</sup> May be waived by QAE |                                |                  |       |                |            |                                  |                                  |                                      |  |
|                                     | Fracture (Method 1)            |                  |       | T 335          | 1792       | 1/5 Sublots & Start              |                                  |                                      | l                                      |
|                                     |                                |                  |       |                |            | of Production                    |                                  |                                      |  |
| Aggregate (Sanding Aggregate)       |                                |                  |       |                |            |                                  |                                  |                                      |  |
|                                     |                                |                  |       |                |            | AS                               | Sublot equals 1000               | ) Tons                               |  |
|                                     | Sampling Aggregates            |                  |       | R 90           |            |                                  |                                  |                                      |  |
|                                     | Reducing Aggregates            | S                |       | R 76           |            | 1/Sublot & Start of              |                                  | 1 per 10                             |  |
|                                     | Sieve Analysis                 |                  |       | T 27           |            | Production                       |                                  | Sublots                              |  |
|                                     | Un-Washed                      |                  |       |                | 1792       |                                  |                                  |                                      |  |
| <sup>(1)</sup> May be waived by QAE | <sup>(1)</sup> Cleanness Value | TM 227           |       |                |            |                                  |                                  |                                      |  |
|                                     |                                |                  |       |                |            |                                  |                                  |                                      |  |
|                                     | Abrasion                       |                  |       | T 96           | 4000       |                                  |                                  |                                      | See                                    |
|                                     | Degradation                    | TM 208           |       |                |            | See Section 4A                   | Submit to Lab                    |                                      | Section 4                              |
|                                     | Lightweight Pieces             |                  |       | T 113          | 4000       |                                  |                                  |                                      |  |
|                                     |                                |                  |       |                |            |                                  |                                  |                                      |  |
|                                     | Fracture (Method 1)            |                  |       | T 335          | 1792       |                                  |                                  |                                      | 1                                      |
|                                     | Elongated Pieces               | TM 229           |       |                |            | 1/5 Sublots &                    |                                  | 1 per 10                             |  |
|                                     | Wood Particles                 | TM 225           |       |                | 1792       | Start of Production              |                                  | Sublots                              |  |
|                                     |                                | ====             |       |                |            |                                  |                                  |                                      | i                                      |
|                                     |                                |                  |       |                |            |                                  |                                  |                                      |  |

The RE may accept relatively small quantities of some field-tested Materials without normal sampling and testing, as defined in the Field Tested Materials Small Quantity Guideline found in the Manual of Field Test Procedures.

#### **Small Quantity Table**

| Section        | Type of Material                                   | Approximate<br>Quantity |
|----------------|--|-------------------------|
| 00330          | Earthwork (Embankment)                             | 500 yd <sup>3</sup>     |
| 00330          | Earthwork (Excavation)                             | 500 yd²                 |
| 00345 & 00346  | Lime & Cement Treated Subgrade                     | 2000 yd²                |
| 00390 & 00395  | RipRap & Rock Gabions                              | 100 yd <sup>3</sup>     |
| 00405          | Ditch & Trench Excavation, Bedding and Backfill    | 50 yd <sup>3</sup>      |
|                | Commercial Grade Concrete                          |                         |
| 00440          | (Non-Structural Items)                             | 50 yd <sup>3</sup>      |
| 00495          | Trench Resurfacing                                 | 500 Ton                 |
| 00510          | Structure Excavation and Backfill                  | 500 Ton                 |
| 0A596, 0B596 & |  |                         |
| 0C596          | Retaining Walls                                    | 500 Ton                 |
| 00641 & 00642  | Aggregate Sub-base, Base & Shoulders               | 2000 Ton                |
| 00680          | Stockpiled Aggregate                               | 2000 yd <sup>3</sup>    |
| 00730          | Asphalt Tack Coat                                  | 50 Ton                  |
|                | Emulsified Asphalt Concrete Pavement               |                         |
| 00735          | (includes asphalt cement)                          | 2500 Ton                |
|                | Asphalt Concrete Pavement (Statistical Acceptance) |                         |
| 00745          | (ACP-each Level) (includes asphalt cement).        | 2500 Ton                |

#### **Test Summary Sheets**

Record documentation for field-tested Materials on either the Test Summary B or C forms.

1. The Test Summary B Sheet, form 734-1902B, is used to record all field-tested Materials except concrete Materials.

| TEST SUMMARY FOR FIELD TESTED MATERIALS (B)       |                                     |            |                |                                       |                               |                             |                              |  |     |                              |               |        | CONTRACT NO. 15163    |                | SHEE<br>2 OF     | T 2             |                            |                     |                     |                     |                         |          |                               |  |                |  |         |
|---|-------------------------------------|------------|----------------|---------------------------------------|-------------------------------|-----------------------------|------------------------------|--|-----|------------------------------|---------------|--------|-----------------------|----------------|------------------|-----------------|----------------------------|---------------------|---------------------|---------------------|-------------------------|----------|-------------------------------|--|----------------|--|---------|
| PROJECT NAME I-205: I-5 to OR213, Phase 3 Section |                                     |            |                |                                       |                               |                             |                              | ITE  | M N | Ю                            |               |        |                       |                | DI               | ESC             | RIF                        | PTIC                | N                   |                     |                         | UNIT     | ORIG.<br>QUANT.               | 1 11 V/L   |                |  |         |
|   | PARED B'<br>Henry Ng                | Y          |                |                                       | DATE<br>1/25/2021             |                             |                              |  |     | 52                           |               |        |                       | А              | ıgg              | reg             | ate                        | Ва                  | ase                 |                     |                         | Ton      | 2,200.0 1,587.48              |  |                |  |         |
|   |                                     |            |                |                                       | TESTING BY                    |                             |                              |  | /   | TEST                         |               |        | ME                    | TH             | OD               | ΑN              | ID F                       | RE                  | QUE                 | ENC                 | Ϋ́                      |          | QUAN                          | ITITIES  | T .            |  |         |
| LINE  | DATE OF SAMPLE, TEST, OR INSPECTION | REPORT NO. | DATA SHEET NO. | INSPECTION REPORT /<br>LAB REPORT NO. | QUALITY CONTROL BY CONTRACTOR | REGION-QUALITY VERIFICATION | REGION-INDEPENDENT ASSURANCE | CONTRACTOR-INDEPENDENT<br>ASSURANCE (SPLIT SAMPLE) |     | SOURCE MATERIAL (QUALIFYING) | MIX DESIGN    | letter | Cadman Check Weigning | Proctor Curves | In Place Density | Deflection Test | Cadman Statistical Summary | Cadman's Scale Cert | KR's Check Weighing | Density & Proofroll | Knife River Scale Certs | VISUAL   | IN COMPLIANCE<br>INCORPORATED | NON-COMPLIANCE<br>INCORPORATED                   | ☐ AG           | ORK PHASE  OR, PROD  PRODUCTION  DENSITY  OTHER  AND NON-COM | PLIANCE |
| 1   | 7/7/20                              |            |                |                                       | -                             | -                           | $\vdash$                     | $\vdash$   |     |                              | $\top$        | _      | 7                     | ┪              |                  |                 | -                          |                     |                     |                     |                         |          | 61.82                         |  | EST09 NOTE16   |  |         |
| 2   | 7/10/20                             |            |                |                                       | 1                             | T                           | Н                            |  |     |                              | $\vdash$      | _      | +                     | ┪              |                  |                 | Н                          | т                   |                     |                     | Н                       | Н        | 33.05                         |  | EST09 NOTE17   |  |         |
| 3   | 9/25/20                             |            |                |                                       | -                             | -                           | $\vdash$                     | $\vdash$   |     |                              | $\dashv$      | _      | $\dashv$              | $\dashv$       |                  | _               | -                          | т                   |                     |                     | $\vdash$                | Н        | 171.43                        |  | EST11 NOT      |  |         |
| 4   | 10/5/20                             |            |                |                                       | -                             | -                           | $\vdash$                     | $\vdash$   |     |                              | $\dashv$      | $\pm$  | $\dashv$              | $\dashv$       |                  |                 | -                          |                     |                     | $\vdash$            | $\vdash$                | -        | 33.53                         | <del>                                     </del> | EST11 NOT      |  |         |
| 5   | 10/6/20                             | -          |                |                                       | -                             | -                           | $\vdash$                     | $\vdash$   |     |                              | $\dashv$      | $^+$   | $\dashv$              | $\dashv$       |                  | _               | -                          |                     |                     |                     | $\vdash$                | -        | 67.18                         | <del>                                     </del> | EST11 NOT      |  |         |
| 6   | 10/7/20                             |            |                |                                       | -                             | -                           | $\vdash$                     | $\vdash$   |     |                              | $\dashv$      | +      | $\dashv$              | $\dashv$       |                  | _               | -                          | Н                   | Н                   |                     | $\vdash$                | Н        | 34.56                         | 1  | EST11 NOT      |  |         |
| 7   | 10/14/20                            |            |                |                                       | -                             | -                           | $\vdash$                     | $\vdash$   |     |                              | +             | _      | $\dashv$              | $\dashv$       |                  | _               | -                          | Н                   |                     |                     | $\vdash$                | Н        | 17.18                         | 1  | EST11 NOT      |  |         |
| 8   | 3/3/20                              | -          |                |                                       | -                             | +                           | x                            | $\vdash$   |     |                              | +             | +      | +                     | $\dashv$       |                  |                 | $\vdash$                   | -                   |                     | Н                   | $\vdash$                | Н        | 17.10                         |  | KR agg base, w |  | otore   |
| 9   | 3/3/20                              | -          |                |                                       | -                             | -                           | x                            | $\vdash$   |     | -                            | +             | +      | +                     | $\dashv$       | _                | -               | ⊢                          | Н                   | Н                   | Н                   | $\vdash$                | Н        |                               | <del>                                     </del> | KR agg base, w |  |         |
| 10  | 5/18/20                             |            |                |                                       | +                             | -                           | <del>  ^</del>               | $\vdash$   |     | -                            | +             | -      | x                     | $\dashv$       | -                | -               | -                          | Н                   |                     |                     | $\vdash$                | Н        |                               | <b>-</b>   | Cadman Ch      |  |         |
| 11  | 5/6/20                              | -          |                |                                       | -                             | $\vdash$                    | ⊢                            | $\vdash$   |     |                              | +             | +      | <del>^</del> +        | $\dashv$       |                  | _               | ⊢                          |                     | х                   |                     | $\vdash$                | Н        |                               |  | KR Coffee L    |  | y       |
| 12  | 5/28/20                             | -          |                |                                       | l <sub>x</sub>                | ⊢                           | ⊢                            | $\vdash$   |     |                              | +             | +      | +                     | $\dashv$       |                  | _               | ⊢                          | Н                   | ^                   | x                   | ⊢                       | Н        | 1,600                         |  | Site "S" 4 tot |  | note    |
| 13  | 5/28/20                             |            |                |                                       | <del>  ^</del>                | $\vdash$                    | $\vdash$                     | $\vdash$   | -   | -                            | $\rightarrow$ | +      | $\dashv$              | $\dashv$       | -                | $\vdash$        | $\vdash$                   | $\vdash$            | $\vdash$            | X                   | $\vdash$                | $\vdash$ | 2.000                         | +  | Site "K" 3 sho |  |         |
| 14  | 5/28/20                             | $\vdash$   |                |                                       | +^                            | $\vdash$                    | l_                           | $\vdash$   | -   |                              | $\vdash$      | +      | +                     | $\dashv$       | -                | $\vdash$        | $\vdash$                   | $\vdash$            | $\vdash$            | -                   | $\vdash$                | Н        | ۷,000                         |  | QA QV 5 sho    |  |         |
| 15  | 7/7/20                              | $\vdash$   |                |                                       | l <sub>x</sub>                | $\vdash$                    | X                            | $\vdash$   | -   | $\vdash$                     | $\rightarrow$ | +      | $\dashv$              | $\dashv$       | $\vdash$         | $\vdash$        | $\vdash$                   | $\vdash$            | $\vdash$            | X                   | $\vdash$                | Н        | 800                           | -  | Site "D" NB    |  | juua    |
| 16  | _                                   | $\vdash$   |                |                                       | <del>  ^</del>                | $\vdash$                    | $\vdash$                     | $\vdash$   |     |                              | $\vdash$      | +      | +                     | $\dashv$       |                  | $\vdash$        | $\vdash$                   | Н                   | $\vdash$            | X                   | ٠.                      | Н        | 000                           | -  | See BI # 53    | ۵۱۱۷۱۵   |         |
|   | 2/5/20                              | $\vdash$   |                |                                       | +-                            | $\vdash$                    | $\vdash$                     | $\vdash$   | _   | -                            | $\vdash$      | +      | +                     | $\dashv$       | -                | $\vdash$        | $\vdash$                   | $\vdash$            | $\vdash$            | <u> </u>            | X                       | Н        | 400.00                        | -  |                |  |         |
| 17 5/6/20 x Tony Nguyen RAS Revi                  |                                     |            |                |                                       |                               |                             |                              | _  |     |                              | +             | +      | $\dashv$              |                | <u> </u>         | ۱.              | ш                          |                     | Х                   | 뉴                   |                         |          | <u> </u>                      | "S" median,                                      | good result    |  |         |
| 18  | 1/26/20                             | $\vdash$   |                | rony                                  | Ng                            | uye                         | n K                          | AS R   | evi | ewe                          | d             | +      | 4                     | _              |                  | _               | 10                         | ny                  | Νgι                 | ıyeı                | n K                     | 45       | Reviewed                      | -  |                |  |         |
| 19  | $\vdash$                            | $\vdash$   |                |                                       | ₩                             | ⊢                           | <b>—</b>                     | $\vdash$   |     |                              | $\vdash$      | _      | 4                     | _              |                  | _               | <b>—</b>                   | Ш                   |                     | $\vdash$            | ⊢                       | Н        |                               |  |                |  |         |
| 20  |                                     | $\vdash$   |                |                                       | ₩                             | ــــ                        | _                            | $\vdash$   |     |                              | $\vdash$      | _      | 4                     | _              |                  |                 | _                          |                     |                     |                     | L                       | Ш        |                               |  | L              |  |         |
| 21  | -1902B (8-2                         |            |                |                                       | _                             | _                           |                              |  |     |                              |               |        | _1                    |                |                  |                 | L                          |                     |                     | L                   |                         |          |                               |  | NSTRUCTION/H   |  |         |

2. The Test Summary C sheet, form 734-1902C, is used for all concrete Materials.

| 7[  | regon<br>spartment<br>frensports | ation                                      |                 | TEST SUMMARY FOR<br>ESTED CONCRETE MATERIALS (C) |              |                                      |                                   |                   |             |       |             |          |                   |               |                      |          |          | RACT NO.<br>5293 | SHEET<br>1 OF                                   |  |  |                  |               |
|---|----------------------------------|--|-----------------|--|--------------|--------------------------------------|-----------------------------------|-------------------|-------------|-------|-------------|----------|-------------------|---------------|----------------------|----------|----------|------------------|---|--|--|------------------|---------------|
| PROJECT NA  |                                  |  |                 | CLASS OF CONCRETE:                               |              |                                      |                                   |                   |             |       |             |          |                   |               |                      | UNIT     | ORIG     | S. QUANTITY      | FINAL QUANTITY                                  | 1  |  |                  |               |
| PREPARED I  |                                  | ples - Greenwood (3rd St., Bend) Se        |                 | ATE  |              | Commercial Grade Concrete Class 3000 |                                   |                   |             |       |             |          |                   |               |                      |          |          |                  |   |  |  |                  |               |
| Stuart Cobin  |                                  |  | b               | 4/4/2022   |              | CO                                   | IIIIIeiciai                       | UI 8              | ue (        | JOIN  | Jec         | - (1     | a33 .             | 000           | ,                    |          |          |                  |   |  |  |                  |               |
| TESTING FREQUENCIES:  1 set per 20 yd3 cumulative. Maximum of one set per c |                                  |  |                 | day.   |              |                                      |                                   |                   |             |       |             |          |                   |               |                      |          |          |                  |   |  |  |                  |               |
|   |                                  |  |                 |  |              |                                      |                                   |                   | _           | TEST  | METH        | OD AN    | ND FRE            | QUEN          | ICY                  |          |          |                  |   |  |  |                  |               |
| DATE MATERIAL<br>PLACED   | BID ITEM NUMBER                  | DESCRIPTION OF WORK<br>(curb, inlet, etc.) | QUANTITY PLACED | ACCUMULATIVE                                     | MIX DESIGN # | REGION - QUALITY<br>VERIFICATION     | INSPECTION /<br>LAB REPORT<br>NO. | CYLINDERS Y or N? | AIR CONTENT | SLUMP | CONCRETE    | DENSITY  | W/C RATIO / YIELD | BREAK RESULTS | 28-DAY BREAK RESULTS |          |          |                  | ADJUSTMENT FOR NON-<br>COMPLIANCE<br>MATERIALS? | COMMENTS   |  |                  |               |
|   |                                  |  |                 |  |              |                                      |                                   | Ŭ                 |             |       |             |          | Ĺ                 |               | 28-                  |          |          |                  | AD  |  |  | Doc Express Link |               |
|   |                                  | Mix Design                                 |                 |  | HC 33HS521A  |                                      |                                   |                   |             |       |             |          | _                 |               | _                    |          | _        |                  |   | Reviewed By ODOT                                 |  |                  |               |
| 3/23/22   | 89                               |  | 12.50           |  |              | _                                    |                                   | Υ                 | 4.5         | 4.5   | 72          | 140      | -                 | х             | 4310                 | _        | ₩        |                  | N   |  |  |                  |               |
| 3/24/22   | 89                               |  | 15.50           |  |              | $\vdash$                             |                                   | Υ                 | 5.6         | 3     | 83          | 139      | 0.47              | ×             | 5350                 | _        | ــــــ   |                  | N   |  |  |                  |               |
| 3/28/22   | 85                               |  | 10.00           |  |              | _                                    |                                   | Υ                 | 4.8         | 3     | 80          | 141      | 0.47              | ×             | 6080                 | _        | ـــــ    |                  | N   |  |  |                  |               |
|   | 89                               |  | 8.00            |  |              | _                                    |                                   | N                 |             |       | _           | ┞        | ₩                 | _             | ┺                    | _        | ـــــ    |                  |   |  |  |                  |               |
| 3/29/22   | 89,85                            |  | 16.00           |  |              | _                                    |                                   | Υ                 | 4.6         | 5     | 72          | 140      | -                 | ×             | 5390                 | _        | ₩        |                  | N   |  |  |                  |               |
| 3/30/22   | 89                               |  | 17.50           |  |              | _                                    |                                   | Υ                 | 4.9         | 4.5   | 70          | 140      | 0.47              | ×             | 5580                 | _        | ₩        |                  | N   |  |  |                  |               |
| 3/31/22   | 89                               |  | 10.00           |  |              |                                      |                                   | N                 | 6.5         | 4     | 76          | 138      | -                 | ×             | 5900                 | _        | ₩        |                  | N   |  |  |                  |               |
| 4/1/22  | 89                               |  | 8.00            |  |              |                                      |                                   | Υ                 | 4.7         | 3     | 64          | 140      | 0.46              | ×             | 5900                 | _        | ₩        |                  | N   | Good Also for BI85                               |  |                  |               |
| 4/4/22  | 83                               |  | 7.50            |  |              |                                      |                                   | N                 |             |       | _           | _        | $\vdash$          | _             | _                    | _        | ₩        |                  |   |  |  |                  |               |
| 4/5/22  | 83                               |  | 7.50            |  |              |                                      |                                   | Υ                 | 5.8         | 5     | 61          | 140      | 0.47              | ×             | 5160                 | _        | _        |                  | N   |  |  |                  |               |
| 4/6/22  | 83                               |  | 16.00           | _  |              | $\vdash$                             |                                   | N                 |             |       | <u> </u>    | ₩        | ⊢                 | _             | ⊢                    | _        | ₩        | $\vdash$         |   |  |  |                  | $\overline{}$ |
| 4/7/22  | 83                               |  | 10.00           |  |              | -                                    |                                   | Υ                 | 5.7         | 4     | 69          | 140      | 0.48              | х             | 5870                 | _        | ــــ     | $\vdash$         | N   |  |  |                  |               |
| 4/8/22  | 89                               |  | 9.00            |  |              | -                                    |                                   | N                 | $\vdash$    | _     | $\vdash$    | $\vdash$ | $\vdash$          | _             | -                    | _        | -        | $\vdash$         |   |  |  |                  | -             |
| 4/11/22   | 89                               |  | 10.00           |  |              | -                                    |                                   | Υ                 | 5.4         | 3.5   | 66          | 139      | 0.49              | ×             | 5670                 | $\vdash$ | -        | $\vdash$         | N   |  |  |                  | $\overline{}$ |
| 4/12/22   | 89                               |  | 11.50           | _  |              | $\vdash$                             |                                   | N                 | Н           |       | $\vdash$    | $\vdash$ | $\vdash$          | $\vdash$      | +                    | $\vdash$ | $\vdash$ |                  |   |  |  |                  |               |
| 4/14/2022   | 85                               |  | 5.50            |  |              | $\vdash$                             |                                   | N                 |             |       | $\vdash$    | $\vdash$ | +                 | $\vdash$      | +                    | $\vdash$ | +        |                  |   |  |  |                  | -             |
| 4/15/2022   | 89                               |  | 4.50            |  |              |                                      |                                   | N                 |             |       |             | $\vdash$ | t                 |               | 1                    |          | 1        |                  |   | <del>                                     </del> |  |                  | $\neg$        |
| 4/18/2022   | 83,85                            |  | 10.00           |  |              |                                      |                                   | Y                 | 5.5         | 4     | 70          | 140      | 0.48              | ×             | 6640                 | -        | +        | $\vdash$         | N   |  |  |                  | -             |
| 4/18/2022   | 89                               |  | 2.50            |  |              |                                      |                                   | N                 | 010         | Ť     | 1,0         | 1.00     | V0                | Ť.            | 1                    |          | 1        |                  |   | <del>                                     </del> |  |                  | $\neg$        |
| 4/19/2022   | 89                               |  | 10.00           | <del>                                     </del> | <b> </b>     |                                      |                                   | N                 |             |       | $\vdash$    | $\vdash$ | t                 | $\vdash$      | t                    |          | t        |                  |   |  |  |                  | -             |
| 4/19/2022   | 85                               |  | 3.50            |  | <b>†</b>     |                                      |                                   | N                 |             |       | $\vdash$    | $\vdash$ | +                 | $\vdash$      | +                    |          | -        |                  |   |  |  |                  | -             |
| 4/20/2022   | 89                               |  | 20.00           |  |              |                                      |                                   | Y                 | 5.2         | 5     | 71          | 139      | 0.49              | ×             | 5720                 |          | -        |                  | N   |  |  |                  | -             |
| 4/21/2022   | 89                               |  | 18.50           |  | <b>—</b>     |                                      |                                   | N                 |             | ŕ     | -           | 100      | 1.743             | Ĥ             | 15720                |          | -        |                  |   |  |  |                  | -             |
| 4)21/2022   |                                  | <del> </del>                               | 16.30           | -  | <del> </del> | +                                    | <del></del>                       | <u> </u>          | $\vdash$    | -     | <del></del> | +        | +                 | -             | +                    | -        | +        | -                | -   | <del> </del>                                     |  | <del> </del>     |               |

Field-tested Materials with failing test results must also be entered on the Test Summary B or C sheets along with the quantity they represent. For Materials with failing test results, the RE, in conjunction with the POR, must determine if the Materials are to be removed and replaced or if they may remain in place as suitable for the use intended (See 00150.25). Materials that are not in close conformance with requirements, but are found suitable for the use intended, may be accepted provided that an adjustment is made to the amount paid to the Contractor for that item. [Refer to Chapter 12C – Quality Price Adjustments.]

If specified in the Contract, the Contractor may receive a premium price adjustment (bonus) for some Materials, such as ACP, which meet the Contract requirements for such an adjustment. Administer and calculate the adjustment in accordance with the Contract. [Refer to Chapter 12C - Quality Price Adjustments.]

#### QC/QA Testing Evaluation

Verification/independent assurance tests should be listed on Test Summaries B and C and noted if both verification and IA tests passed or failed. If either one or both failed, clearly show in the Test Summaries that they were resolved. The Contractor's quality control tests cannot be accepted until validated by passing IA and verification tests. Use form 734-5232 to enter both QC and QA data, compute the differences, measure the difference against the IA parameter table and check the appropriate boxes. How the failing test was resolved needs to be addressed on the 734-4040 form, preferably attached to the failing test in question. The QCCS and RE should work together resolving failed IA and verification tests, discussing the tests ,and include a proposed resolution.

### **ACP Aggregate IA/V Results**

| PROJECT NAME (SECTION)  |                     |                            | -00-   | 84.44         |                   |           | CONTRACT NO    |                        |                      |                         |  |  |  |  |  |
|-------------------------|---------------------|----------------------------|--|---------------|-------------------|-----------|----------------|------------------------|----------------------|-------------------------|--|--|--|--|--|
|                         |                     |                            |  |               |                   |           | PROJECT MANAGE |                        |                      |                         |  |  |  |  |  |
| MATERIAL DESCRIPTION    |                     |                            | BID ITEM No.   | DATE SAMPLED  | R                 |           |                |                        |                      |                         |  |  |  |  |  |
| CONTRACTOR              |                     |                            | SUPPLIER SOURCE No.  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
| QA TEST No. ID          | QC TEST No. ID      | TES                        | TEST PROCEDURE or PROCESS UNDER INVESTIGATION - (ONLY IF IAN PARAMETERS NOT MET) |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
|                         |                     |                            |  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
| Met I.A. Para           | ameters             | Q.A. N                     | let Verificat  | ion           | Q.A. Com          | pares Re  | asonably to    | Ongoing Q              | C Data               |                         |  |  |  |  |  |
| Failed I.A. P           | arameters           | Q.A. F                     | ailed Verific  | ation         | Q.A. Does         | s Not Con | npare Reaso    | nably to On            | going Q              | C Data                  |  |  |  |  |  |
| —                       |                     |                            |  |               | _                 |           |                |                        |                      |                         |  |  |  |  |  |
|                         |                     | rding to QA Prog           |  | T             |                   |           |                |                        |                      |                         |  |  |  |  |  |
| Gradation<br>Sieve Size | Tolerances<br>( ± ) | Contractor<br>Q.C. Results | ODOT<br>Q.A. Results   | JMF<br>Target | Specific<br>Lower | Upper     | Difference     | IA<br>Parameters       | Met IA<br>Parameters | Out of IA<br>Parameters |  |  |  |  |  |
|                         |                     |                            |  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
|                         |                     |                            |  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
|                         |                     |                            |  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
|                         |                     |                            |  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
|                         |                     |                            |  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
|                         |                     |                            |  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
|                         |                     |                            |  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
|                         |                     |                            |  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
| #200                    |                     |                            |  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
|                         |                     |                            |  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
| Particle Analysis       |                     | Contractor                 | ODOT   | JMF           | Cassific          | estions I |                | I                      |                      |                         |  |  |  |  |  |
| Fracture                | two face            | Q.C. Results               | Q.A. Results   | Target        | Specific<br>Lower | Upper     | Difference     | IA<br>Parameters ( ± ) | Met IA<br>Parameters | Failed IA<br>Parameters |  |  |  |  |  |
|                         | 1"                  |                            |  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
|                         | 3/4"                |                            |  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
|                         | 1/2"                |                            |  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
|                         | #4                  |                            |  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
| Fracture                | one face            |                            |  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
|                         | #8                  |                            |  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
| Wood                    | Particles:          |                            |  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
| Elongate                | d Pieces:           |                            |  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
| Sand E                  | quivalent:          |                            |  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
| REMARKS:                |                     |                            |  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
|                         |                     |                            |  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
|                         |                     |                            |  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |
| QCCS NAME               |                     | CERTIFICATION NUM          | /BER   | SIGNATURE     |                   |           |                | DATE                   |                      |                         |  |  |  |  |  |
|                         |                     |                            |  |               |                   |           |                |                        |                      |                         |  |  |  |  |  |

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| Cregon  |              |                      |         | Print Form          |
|---|--------------|----------------------|---------|---------------------|
| Department of Transportation                          | QC/QA        | Testing Investiga    | tion    |                     |
| Project Name (Section)                                |              |                      |         | Contract No.        |
| ,   |              |                      |         |                     |
| Contractor/Supplier Name                              |              | Project Manager Name |         | Bid Item No.        |
| Contractor/Supplier Name                              |              | Project Manager Name |         | QA Test Number I.D. |
|   |              |                      |         |                     |
| Test Procedure or Process Under Investigation         |              |                      |         | QC Test Number I.D. |
| Failed I.A. Parameters                                |              | Questionable QC      | History |                     |
| QC Failed Verification                                |              | QA Failed Verifica   | tion    |                     |
| Investigation Information (fields expand when         | filled)      |                      |         |                     |
| Investigation Description                             |              |                      |         |                     |
|   |              |                      |         |                     |
|   |              |                      |         |                     |
| Investigation Summary                                 |              |                      |         |                     |
|   |              |                      |         |                     |
|   |              |                      |         |                     |
| Conclusion/Resolution                                 |              |                      |         |                     |
|   |              |                      |         |                     |
|   |              |                      |         |                     |
| Comments/Follow-ups                                   |              |                      |         |                     |
|   |              |                      |         |                     |
|   |              |                      |         |                     |
|   |              |                      |         |                     |
| Individual Performing Investigation (please print)    | Company Name |                      | Sign    | Date                |
|   |              |                      |         |                     |
| Project Manager or CPM Review/Approval (please print) | Company Name |                      | Sign    | Date                |
| Distribution: QAC, QC, PM, CPM, QAE and project file  |              |                      |         |                     |

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An investigation is required for all materials failing to meet the verification and independent assurance because of the potential impact on the quality of the material produced or incorporated into the project. If verification testing fails to meet the specifications, other than gradation, QA will immediately notify the RE. The RE will evaluate the results and resolve the discrepancy. If the Contractor's test results and QA's test results for IA samples are not within IA parameters, the RE will evaluate the results and resolve the discrepancy. When performing an investigation use form 734-4040 to guide the process.

An investigation will be conducted by the RE to determine whether to reject the material or if the material is suitable for the intended purpose according to section 00150.25 and what price adjustment may be applied.

## 12B-3 Review Procedures for Quality Documentation Review by the Resident Engineer

The RE must review all Project quality records to assure that the required documentation has been received and that the Material either meets Contract requirements, or that price adjustments have been appropriately assessed. Refer to Chapter 12C - Quality Price Adjustments.

Steps in the documentation review by the RE process include:

- 1. Verify all required quality documentation is recorded and incorporated quantities are updated on the Test Summary A, B and C sheets.
- 2. Ensure quality documents related to multiple Bid items are correctly cross-referenced on the Test Summary sheets.
- 3. Check all Contract Change Orders (CCOs) and the Special Provisions for any changes to the testing and acceptance documentation. If a CCO modifies testing or acceptance requirements, include a copy of that CCO with the documentation and enter it on the Test Summary sheet. If a CCO adds new line items, add them to the Test Summary sheets.
- 4. For all Pay Items and quality price adjustments, review all field and nonfield testing documentation requirements.
- 5. The person entering the data should sign and date the Test Summary sheets. The RE's quality documentation process should include a second-person review and check of the data entry.
- 6. List all quality-related price adjustments, including bonuses and quality related CCOs, on the Final Materials Certification form 734-1979. Only quality-related adjustments are listed on the Final Materials Certification; quantity price adjustments such as liquidated damages are not to be listed. Refer to Chapter 12C Quality Price Adjustments and Chapter 37 Submittal of Final Project Documentation.

- 7. Update the Foreign Steel Summary, form 734-1968. Using the information shown on the Certificate of Materials Origin forms submitted by the Contractor for all steel or iron Materials, list all Materials of foreign or unknown origin on the Foreign Steel Summary. In order for the RE to accurately know how much foreign Material has been incorporated into the Project, the Foreign Steel Summary must be kept up-to-date throughout the life of the Project. Attach copies of the CMOs for foreign steel to the Foreign Steel Summary when submitting with the final Project documentation. Refer to Chapter 37 Submittal of Final Project Documentation.
- 8. If there are any quality or quantity issues outstanding for which the RE is requesting an exception, the Documentation Review Report Supporting Documentation: RE Exception Explanation, form 734-2704 will need to be completed. The RE must also obtain, and attach to this form, written concurrence from the applicable Technical Resource (TR) and Professional of Record (POR). In addition, this form needs to be signed by both the RE and RAS, and submitted with the final Project documentation. This form will be signed off by the Contract Administration Engineer (CAE) at the time of final documentation acceptance, and designated as "Accepted Participating (federal funds)", "Accepted Non-Participating", "Not Accepted (Return to RE) Prepare CCO", or "Not Accepted (Return to RE) Other". Refer to Chapter 37 Submittal of Final Project Documentation.

#### **Review by the Region Assurance Specialist (RAS)**

The RAS will regularly review Project documentation throughout the life of the Project. The frequency of those reviews will depend on Project size, duration, complexity, RE's experience in administering ODOT construction Contracts.

The RAS will review and provide guidance in quality documentation procedures used to support payments to the Contractor, including but not limited to:

- Quality documentation requirements as determined by the Contract for field and non-field tested Materials.
- Test Summaries A, B and C (purpose, how to set up, how to track quality documentation, etc.).
- Types of quality documentation (quality compliance certifications, Certificate of Materials Origin, test results, warranties, Blue and Green sheets, etc.).
- Price adjustments associated with non-specification Materials and Materials with superior quality (Concal, StatSpec, smoothness, etc.).
- Emphasize that quality documents need to be received by the RE prior to Materials installation and payment.

At the time of the periodic Project review, the RAS will review the quality documentation to determine whether it fulfills the Contract requirements and supports the payments that have been made to the Contractor. The RAS will report any deficiencies to the RE. The RAS will also address the reported deficiencies and their resolution at the next scheduled periodic review.

The RAS will list the following on the Documentation Review Report or Completion Strategy and Action Plan, regarding quality:

- Any quantity, or quality documentation deficiencies, or documents that do not comply with Agency requirements;
- Acceptability of the documents, documentation, or Materials that may need an alternate acceptance method such as an exception or Contract Change Order [Refer to Exception vs. CCO guidance document]; and
- Any other Project related comments.

For final Project documentation acceptance, refer to Chapter 37 - Submittal of Final Project Documentation.

