

Documentation for SiteManager® LIMS Project Materials to Final Materials – 24

1. SCOPE

This chapter intends to provide the Region personnel guidance on materials documentation from the beginning of a project to the closure of the project files when using SiteManager® Materials and the Laboratory Information Management System (SMM/LIMS). The materials documentation on a project needs to be accurate, complete, and processed within the official established timeframe after the issuance of the project's Final Acceptance Letter per Section 105.21(b). The Department has stipulated that the Final Material Certification Checklist will be signed electronically by the Region Independent Assurance representative, Region Materials Engineer, Project Engineer, Project Tester, and the Resident Engineer within 30 calendar days of the project's acceptance to ensure that the quality of the project is maintained and to avoid legal and contractual conflicts.

- 1.1 **The Materials and Geotechnical Record File Plan** is a guideline to assist with Materials Documentation retention. CDOT's record file plans are works in progress. They will be updated as the Subject Matter Experts supplement record information for the records listed in the record file plan and when federal and state laws or business needs change.

The materials finals documentation is in the Construction Engineering Record File Plan. Office to contact with questions.

The Records Management Program at 303-512-4905 or tammi.haddad@state.co.us

1.2 ELECTRONIC SIGNATURE GUIDELINES



Owner Acceptance Requirements for Electronic Records and Electronic Signatures Requirements

	Electronic Record (Preferred)			Paper Record
	Electronic Signature		Scanned Record	Original with Wet Signature
	Type I Signature	Type II Signature		Copy
Definition	<p>Law or regulation that dictates requirements Governed by the Bylaws and Rules of the Colorado State Board of Licensure for Architects, Professional Engineers, and Professional Land Surveyors or the Department of Personnel & Administration, Office of the State Controller</p> <p>Includes an attached digital authentication process that uses public key infrastructure or signature dynamics technology (encryption)</p> <p>Unique to the person, capable of verification, under the individual's sole control, and linked so changes invalidate the electronic signature</p>	<p>Virtual fingerprint that is unique to a person or entity and used to identify the signer</p> <p>Certifications and Buy America Signatures shall include the signer's name, date, and time the document was signed in addition to locking the document after signing</p>	<p>Scanned copy of an Original record or a copy of a record in PDF or another format</p>	<p>Document with a signature by a person who physically marks a document using a pen</p> <hr/> <p>Reproduction of the original paper record</p> <p>Scanned copy of an original paper record</p> <p>Printed copy of an electronic record (invalidates the electronic signature)</p>
Record Type	<p>Required on these electronic records:</p> <ul style="list-style-type: none"> Professional Engineer Seal Professional Land Surveyor Seal Change Orders Notary Agreements and Contracts with CDOT (including MOUs and MOAs) 	<p>Any electronic record not requiring a Type I signature may use Type II signature</p>	<p>A paper record may be scanned and becomes a copy</p> <p>A scanned record that requires a Type I signature or an original wet signature becomes an electronic copy</p>	<p>Original Paper Records that include a P.E. Seal, P.L.S. Seal, Change Orders, and notarized signatures require an original wet signature. A copy or scanned copy of these records is not an acceptable Original Record</p>
Software	<p>A particular software is not specified for Type I signatures</p> <p>Examples of software that meets the requirements - DocuSign and AdobeSign</p> <p>Examples of software that DOES NOT meet requirements - Adobe DC Pro and Blue Beam</p>	<p>CDOT approved electronic signature software.</p> <p>Examples of software include Adobe DC Pro, Blue Beam, DocuSign, and Adobe Sign.</p>	<p>Electronic records with a Type I signature will contain only Type I electronic signatures. Do not mix Type I signatures with Type II signatures or wet signatures.</p>	

Revised December 2022

1.3 BENTLEY CONNECTION CLIENT ProjectWise Cloud

Terminology.

PW = ProjectWise

PW Cloud = Data source

PW Web Connections = Web interface Connector to PW Cloud

PW Portal = Web Interface Platform

PW Project Dashboard = Project folder platform to find the PW Web Connection Link

PW Explorer = Desktop Graphical User Interface (GUI) to PW Cloud

ProjectWise Cloud eliminates the need for consultants to use VPN and provides the ability for CDOT project records to be automatically archived in the ProjectWise Cloud, thus eliminating the burden on CDOT employees to manually obtain and archive critical documents. The CDOT Record File Plans contain which project records need to be retained and which folder they are placed in. (Instructions on how to connect to the Bentley Connection Client are in this chapter).

Contact:

Kegan Wilson, M.P.A., *Analysis Iv, ProjectWise Program Administrator*

Kegan.wilson@state.co.us for further assistance.

You may view [my calendar](#) any time for current availability.

Please note that my normal business hours are 7am to 4pm MST & that my typical response time to emails received is within 48 hours.

For immediate PW assistance, please submit a [Mojo Helpdesk ticket](#).

For SAP PS Support or eConstruction Support with Survey123, please contact [Scott Lawson](#).

To reach my manager, please contact [Paul Turtle](#) & let him know how I am doing!

For guidance on [how to add users to your project in PW Cloud](#), please follow this link.

[Guidance for ProjectWise \(PW\) Explorer & PW Web Portal](#), please follow this link.

2. GENERAL REQUIREMENTS

The procedures referenced are to be followed as indicated for CDOT projects' electronic documentation. The materials documentation procedure begins at the Materials and Geotechnical Branch in the Documentation Unit with the creation of the Materials Documentation Records, CAR (CDOT Application for Reporting) Reports. These reports are as follows:

- CODE – Project Material Items Report
- Checklist – Owner Acceptance Sampling & Testing Checklist
- Checklist – Certification Checklist Report

The Region Materials Laboratory will review and edit the:
Independent Assurance Sampling & Testing Checklist (Form 379)

Materials Documentation records are to be prepared and reviewed as found in this chapter. Details on documentation procedures for project items are contained in the applicable sections of this manual, and they cover most situations encountered, but exceptions may require special attention.

3. CDOT PROJECTS – RESPONSIBILITIES & PROCEDURES

The Project Engineer, as the representative of the Chief Engineer, is responsible for the documentation of the material on a project. The Project Engineer shall take measures to ensure that the documentation procedures of the Department and the Region are followed. All referenced documentation activities within Sections of this chapter, are the responsibility of the Project Engineer or designee.

3.1 BEFORE CONSTRUCTION

Existing users of SiteManager® Materials/LIMS. The Finals Administrator can grant contract authority at any time. If the consultant is a New User to SiteManager® Materials/LIMS. Contract authority cannot be given until the consultant has been granted access from OIT to eVPN, SMM/LIMS, and the CDOT SAP NetWeaver Portal (CAR). Allow a minimum of 20 business days for access.

All testers are required to have completed SiteManager Materials training as well as the LIMS course "Materials Technician Certification" before starting on a CDOT project.

<https://www.codot.gov/programs/tetp/materials-technician-certification>

ACCESS TO THE CDOT APPLICATIONS

CDOT Employee Application Access

Use this Link: [CDOT Employee Access](#)

CDOT Consultant Onboarding and Application access Process

Changes effective on May 3, 2021

CDOT has implemented a new process to follow for Onboarding and Application Access requests to streamline and facilitate Consultant access. The consultant options for the applications below will no longer be available through the service desk portal.

This is for consultants only.

For the following applications:

- AASHTOWare Project SiteManager
- eConstruction Mobile Apps (IPR, CPIR)
- ESRI Geohub - Onboarding
- Bentley Connection Client ProjectWise Cloud
- OnTrack

Use this link: [Consultant Access](#)

Before Construction (Continued)

1. Review the Project Plans, Project Special Provisions (PSP), and Standard Special Provisions (SSP) to become familiar with any modified materials and testing procedures.
2. Review the CAR report – **Project Materials Item Report**. An item that has a red code of **No Testing Assigned** is a flag for the project tester. The project tester shall investigate the item in the PSP, SSP, Project Plans, and FMM, to determine what materials and tests will be required to complete the item. This information must be conveyed to the Central Lab Pavement Design Program or the Region Lab Manager. The materials codes, tests, and frequencies shall be added to meet the testing specifications.
3. Review the Owner Acceptance Sampling & Testing Checklist and Certification Checklist Reports to ensure the Pay Items, sampling frequencies, material codes, and tests represented by each item match the plans - Summary of Approximate Quantities, Project Special Provisions, and the Field Materials Manual, Chapter "OA Frequency Guide Schedule". Any deficiencies or errors must be documented and reported by e-mail to cdot_pavement.design@state.co.us Pavement Design Program at North Holly to have corrections made.

Example #1: Item 411 Emulsion - the contractor is using SS-1H, the Certification Checklist under Item 411 has CSS-1H material code. The material code will need to be changed to reflect the correct product being used.

Example #2: Item 304 ABC Class 6 Special, the Owner Acceptance checklist lists the material code (703.03.08.00) for aggregate ABC, the Project Special Provision (PSP) for this item states that recycled concrete, recycled asphalt, or a blend of recycled asphalt/aggregate can be used if it meets the gradation specification listed in the PSP. The contractor states they will be using 2 stockpiles of material. One is recycled concrete (703.03.10.00) and the other is RAP/aggregate blend (703.03.15.00). Both material codes for these stockpiles will need to be added under the item, and the aggregate ABC material code will need to be removed as that product will not be incorporated into the project. Tests required for each material shall reflect the requirements of the PSP. The Project Engineer shall be aware of the types of tests required and the frequencies of each test that the project Owner Acceptance tester will be performing.

4. The Region Materials Engineer or designee will notify the Project Engineer that the Independent Assurance Sampling & Testing Checklist (Form 379) has been reviewed and is available in SiteManager/CAR. The Project Engineer shall be aware of the type of tests and frequencies of these tests that the Independent Assurance (IA) tester is required to perform. It is the Project Engineer's or designee's responsibility to notify the Region Material Engineer's Independent Assurance technician of upcoming materials that will require Independent Assurance sampling and testing.

5. Project Tester will contact the Region Materials Engineer or the Region Documentation Coordinator for instructions on the region materials documentation retention process.
6. SiteManager/LIMs is the primary database for CDOT Materials documentation. COC/CTRs and other testing documentation of each sample record shall be uploaded into the SiteManager® using the attachment icon. This must be completed before the sample record is Authorized and Completed in the LIMS window – Review Sample. All documentation must have the Sample ID recorded on each form/worksheet. This includes all CDOT forms and worksheets either completed electronically or handwritten. All materials documentation not currently uploaded onto SiteManager®/LIMs shall be uploaded and stored in the ProjectWise Cloud CDOT project folders.
 - Certification Documents.
 - Core Documents.
 - OA Sampling and Testing Documents.
 - PC Testing Notebooks

NOTE 2: The ProjectWise Cloud for materials documentation retention is currently under development.

Contact your Region Materials Engineer, Materials Documentation Coordinator or Finals Administrators for regional guidance on the region's current Project Materials Documentation storage and retention program.

Note: ProjectWise Share is no longer being used for materials documentation retention.

CDOT Form 157s are not required to be completed for COC/CTRs documentation.

7. Samples submitted to the Central Laboratory do not require a hard copy of the CDOT Forms 157, 82, 83, 84, 411, and 1304 to be submitted with the sample if an email is shown on the form for the lab unit receiving the sample. Email the completed form to the appropriate lab's email address.
In the e-mail Subject line enter: Contract ID, CDOT Form #, Field Sheet #, and Lot # if applicable.
Example: C12345 Form 411 # 4115 Lot #5).

Note: Sample IDs are required to be documented in each form.

8. CDOT forms and worksheets can be found on the CDOT website at this location:

<https://www.codot.gov/library/forms>

<https://www.codot.gov/library/forms/materials-forms-serialized>

Forms and worksheets must be downloaded to your computer. It is recommended to download forms and worksheets before beginning a new project as these documents are updated throughout the year.

CDOT Forms are in Adobe Pdf format and cannot be filled out directly from the website in your web browser. You must first download the form and save to your computer before use.

CDOT forms and worksheets that are not electronically formatted, must be downloaded from the CDOT website, printed, and completed manually. If the document is not uploaded into the attachment icon, it must be kept in the project files until the Materials Final Documentation Coordinator has accepted the Materials documentation as Final. All materials documentation shall be uploaded and stored in the Project File Format as required by your region materials documentation retention program.

9. Review the Chapter in the Field Materials Manual - Special Notice to Contractors. Alert the contractor to the requirements of this chapter and the materials that will require the submittal of a Contractor's APL Verification (AV) Letter and the CDOT Form 595 representing the material. Ensure the contractor is aware of the items that will require submittals for Certificate of Compliance (COC) or Certified Test Report (CTR). Create an Excel spreadsheet to track the COC/CTR's required, received, and accepted or rejected. This spreadsheet can be used to notify the contractor and Project Engineer of the status of submittals. **See the example in this chapter "Addendum 3"**.
10. Attend pre-construction, pre-pave, pre-pour, scheduling, and Owner Acceptance (OA)/Process Control (PC) meetings.
11. The contractor shall submit at the Preconstruction meeting a list of proposed materials and the manufacturer of each material. Project personnel must evaluate that the proposed materials are on CDOT's Approved Products List (APL) or Qualified Manufacturers List (QML) for applicable items, per CP 11. CDOT's Approved Products List can be found using the following link.
<https://www.codot.gov/business/apl>

12. Materials supplied to the project that is not required to be selected from the CDOT's APL or QML – must meet the requirements for documentation of the CDOT Standards and Specifications, Section 106.12 and 106.13. The Project tester shall confirm that the Producer/Supplier (P/S) of the materials are in SiteManager® (SM) within the Producer/Supplier list. The material codes for the materials they produce must be associated with that P/S under Producer/Supplier Materials. For any P/S and associated material codes that are not in SM, use the form “Add Producer/Supplier/Material Code” found at the following link, under the tab “Hints, Guides, and Links”, and submit the completed form to the Region Materials Lab Manager or Training coordinator for the SiteManager® LIMS training course. Contact information can be found in “Contacts” at the link below. Open the link in Chrome or Edge. Do not use Internet Explorer. Download documents from this site to your computer. Open your Download folder and save the documents to your computer.

<https://sites.google.com/a/state.co.us/sitemanager-materials/>

13. Develop Random Sample Schedules as per CP 75 for each item requiring random sampling. Random sampling schedules are required for all materials. Excel spreadsheets can be used to generate random schedules. Schedules must be created for the entire item quantity before construction begins. Random Sampling Schedules can be accessed from the SMM site listed in #12, on the home page. The creation of daily random schedules is not acceptable. Do not share the random schedules with the contractor or PC tester.
14. Obtain from the contractor, any proposed concrete mix designs to be used on the project. Submit all required documentation electronically for mix design approval with a completed CDOT Form 1188 to the Concrete Unit at North Holly:

dot_concretemixdesigns@state.co.us

Obtain the most recent CDOT Form 1188 at:

<https://www.codot.gov/library/forms>

A concrete mix shall not be allowed to be placed on the project until the Concrete Unit has reviewed and approved the mix for the project and the CDOT Form 1373 has been issued. The project-specific CDOT Form 1373 is available in CAR - Concrete Mix Design Report for mixes approved for use on CDOT projects. The project specific CDOT Form 1373 shall be given to the contractor/supplier for the concrete batch tickets to reflect the correct CDOT concrete mix ID.

15. Determine the requirement of aggregate samples to be submitted for Asphalt Job Mix Formula approval per CP 52. Contact the Region Materials Engineer to determine if sampling is necessary or if the materials have been recently tested for another project. It is recommended that enough samples be taken for Central Lab and any labs that will be performing correction or correlation testing for asphalt content. This includes the PC testing firm. Samples shall be combined and split to minimize variations. For information to submit aggregate samples per CP 52, see the instructions CP 52 Submittal Guide. (In the Hints, Guide, and Links tab.) This document can be found at <https://sites.google.com/a/state.co.us/sitemanager-materials/>

16. Coordinate with the Project Engineer, contractor, and PC technician to schedule a pre-testing meeting. Follow CP 16, Pre-Testing Meeting Agenda (CDOT Form 1322) if applicable.
17. Check the CDOT Forms website to download the most recent revision of any forms to be used on the project. Forms previously serialized can be found on the CDOT Forms website. Access to the previously serialized forms at:

<https://www.codot.gov/library/forms/materials-forms-serialized>

These forms will require the project to establish field sheet numbers unique to the project. The process will be a 10-digit field that starts with the five digits of the contract ID, not using the "C", followed by a "dash" followed by a 4-digit sequential number. The project materials personnel shall develop a list of 4-digit sequential numbers. Careful documentation must be done to strikeouts numbers that have been used. Groups of numbers may be established for each item estimating the needed amount based on quantities. Numbers 0001 to 0099 are **NOT** to be used by the field testers. These are reserved for the Region Labs. Instructions for the serialized form protocol are available in the 2023 Field Materials Chapter, Materials Forms - Instructions & Examples.

3.2 DURING CONSTRUCTION

1. Ensure all Form 43 Job Mix Formula reports are available in CAR, under Asphalt Job Mix Formula "Form 43 Report". Each Form 43 must be signed for HMA and SMA by the contractor, Project Engineer, and Region Materials Engineer for all mixes on the project. Send the Region Materials Engineer the completed signed Form 43s.
2. Ensure that for each class of concrete listed on the Owner Acceptance Sampling and Testing Report, the CDOT Form 1373 is available in CAR "Concrete Mix Design Report". Send the approved project-specific Concrete Mix design report (CDOT Form 1373) to the contractor and the **Supplier** to ensure the CDOT mix number is on the concrete tickets for concrete supplied to the project. **All SiteManager®** sample records for concrete require the approved CDOT mix design number shown on the CDOT Form 1373 to be completed on the Additional Sample Data tab. Use Design Type, the PCC and Mix ID will be the 1373 CDOT mix number.
3. Samples obtained for preliminary testing, approval for use, and meeting the requirements of 1 per project / 1 per source ARE NOT to be counted toward meeting the sampling and testing requirements for OA tests for Gradation, Atterberg Limits, and Soil Classification.
4. Sample and Test according to the Random Sample Schedule (CP 75) for each applicable item. Be aware of the frequencies of tests on the Owner Acceptance Sampling & Testing Checklist Report.
5. Communicate daily with Project Engineers and inspectors about placed quantities, activities, planned production, and material deliveries to ensure inspection and testing frequencies are met. Participate in weekly material testing and scheduling meetings to be up to date on project materials incorporation and deliveries.

6. Project Engineer shall communicate with all project personnel the field-adjusted quantities from Contract Modification Order (CMO), Minor Contract Revisions (MCR), and over-runs and under-runs report not associated with CMO or MCRs, no later than the written authorization to the Contractor to proceed with the work. Early notification of field-adjusted quantities and/or new items is needed for the tester to begin the documentation of the corresponding items and testing for items that require testing. Testers must be aware of adjusted quantities for items that are non-testable such as Approved Products List for Certificate of Compliance/Certified Test Reports.
7. When a CMO or MCR is approved by the Resident Engineer in SiteManager®, the CAR reports will automatically reflect the changes in adjusted existing or new items corresponding to the change order. Verify the materials, material codes, tests and testing frequencies for these added items are correct. Notify the Region Lab Manager of any concerns.
8. Alert the Region Material Engineer's IA technician of CMO or MCR's that include changes for revised quantities and/or added materials to assist them in verifying the changes appear on the CAR Report "Independent Assurance Sampling & Testing Checklist" (CDOT Form 379).
9. Complete documentation daily in SiteManager® Materials for sample record entries.
10. In LIMS, enter test results as soon as they become available.
11. Test results entered in LIMS **must** be **reviewed thoroughly** in the LIMS windows – **Review Test** and **Review Sample**. It is unacceptable for test results to be passed through these windows without a detailed review. The project tester will complete the review in these windows to verify data entry and accuracy of results.
12. Field Testers shall **not** Authorize, Complete or Void any sample records that are not in the Statewide Field when in the LIMS window "Review Samples". To eliminate this issue, field testers shall set their filter to "Lab Unit" and "FieldLab". **FieldLab** must be input exactly as shown, click the "Apply" button. It is the responsibility of all the other lab managers to review and authorize samples in their labs. This setting will allow the field tester access to samples that are in the statewide field lab and no other samples. This filter will not change after logging in and out.
13. For all Item 403 Paving, Review the CAR Report (AQL) for accuracy of acceptance Method, Total Cost per ton, HMA Cost per ton, (AC Cost per ton for binder paid separately), Mix ID, test results, quantities, and processes. These reports must be sent to the Project Engineer and Contractor daily.

14. For all Item 412 paving, review the CAR Report “Concrete Quality Level Report” (CQL) for accuracy of Acceptance Method, Bid Item Unit Price, Mix ID, thickness, test results, quantities, and processes are correct. **A minimum of 3 tests is required for each mix design and each process for both OA and PC testing for Item 412, concrete paving when acceptance method is Flexural Strength.** These reports must be sent to the Project Engineer and contractor daily.

NOTE 3: Asphalt 03, Voids 03, and Concrete 03 are no longer acceptable programs. The CAR - Asphalt Quality Level Report is required to be used for all projects advertised on or after January 1, 2018. The CAR - Concrete Quality Level report is required to be used for all projects advertised on or after January 1, 2020.

15. For HMA and SMA, it is advisable to **NOT** Authorize and Complete in LIMS –Review Sample window, the first 3-5 samples for each element until it is established that the Form 43 will not have any changes. This allows the mix design to be edited on the SM records if the change is retroactive to the first 3-5 samples of each element. It is advisable to **NOT** Authorize and Complete the last 2-3 samples for each mix design for each element and **all** longitudinal joint cores so that edits to the quantiles can be made to bring the AQL into compliance with the final paid quantity on the estimate.
16. For Item 412 Concrete Pavement, it is advisable to **NOT** Authorize and Complete in LIMS – Review Sample window, the last 2-3 samples for each mix design and process for both PC and OA elements so that edits to the quantiles can be made to bring the Concrete Quality Level report into compliance with the final paid quantity on the estimate.
17. Test results for Item 403 - HMA/SMA and Item 412 will populate to the respective CAR reports (AQL or CQL) after the results have been completed in LIMS – Enter Test Results window and the Save Icon is clicked. The “Test Complete” box does not have to be checked for the results of the test to appear on the AQL or CQL.
18. For Item 403 and Item 412, the records shall be reviewed thoroughly for correct test result entries in the Review Test window. Leaving the sample records in the Review Sample window allows the tester to access the records to edit the quantities to reflect the final quantities paid on the estimate.
19. Complete and file all daily worksheets or CDOT Forms in the project files. (Contact your regional Finals Materials Document Coordinator or Finals Administrator for the regions current CDOT Project Materials Document storage and retention program,). Document Sample IDs on each worksheet and/or CDOT Forms to identify the record. CDOT Forms 411 and 1304 are required to be completed and submitted for all binder and HMA samples.
Note 3: Summary forms such as CDOT Form 6, 58, 69, 156, 212, 323 are not required.

20. Complete CDOT Form 626 daily for each item's test results and obtain the contractor's electronic signature verifying that the contractor has been notified of all test results. Complete the form and sign it electronically, email it to the contractor for their electronic signature and have the contractor return it. Send a completed/signed copy to the Project Engineer and place the signed form in the Project Materials file. (Contact your regional Finals Materials Document Coordinator or Finals Administrator for the regions current CDOT Project materials documentation storage and retention program). CAR reports, Asphalt Quality Level and Concrete Quality Level reports can be substituted for Form 626 for the elements on these reports. Any test results for HMA/SMA, for example, CP 33 (% Moisture in the aggregate cold feed) and Concrete Paving that are not part of the Quality Level reports shall utilize the CDOT Form 626 to notify the contractor of test results. Examples of these types of tests for Item 412 concrete paving are temperature, % air entrainment, slump, water/cement ratio, and yield. For any concrete item other than Item 412, the compressive strengths must be reported on the CDOT Form 626 with the corresponding CAR report – Concrete Compressive Strength Report. This report shall be attached to Form 626. See Standard Specifications for Road and Bridge Construction -Section 601.17 (c). The CAR reports for HMA and SMA (Asphalt Quality Level Report) and Concrete Paving (Concrete Quality Level Report) should be sent to the Project Engineer and contractor daily. These emailed reports may serve as notification to the contractor of test results. All other test results must utilize the CDOT Form 626 to notify the contractor of ALL test results.
21. For materials submitted to Central Lab at North Holly, and all-Region Labs for testing, Sample IDs are required on forms and/or CDOT sample tag 633 or sample label 634. Tags and labels are available at Central Lab, North Holly location. Contact the CDOT North Holly Pavement Design Program, to schedule an appointment to obtain the tags and labels contact: edward.trujillo@state.co.us

All other forms are available on the CDOT website as electronically fillable. Some CDOT forms have an email address listed for the different programs within Central Lab. Use these emails to submit completed forms to these Units, do not submit a hard copy with the sample unless special instructions are needed for the sample. In the subject line state, the Contract ID, Field sheet number, and type of material.

See the lab emails below.

22. The Central Laboratory E-mails:
- cdot_bit.lab@state.co.us
 - cdot_chem.lab@state.co.us
 - cdot_conc.lab@state.co.us
 - cdot_euro.lab@state.co.us
 - cdot_flex.lab@state.co.us
 - cdot_phpr.lab@state.co.us
 - cdot_soils.lab@state.co.us
- 22a. The Pavement Design Unit E-mail:
- cdot_pavement.design@state.co.us
- 22b. The Concrete Mix Design Submittal E-Mail:
- dot_concretemixdesigns@state.co.us

23. Verify COC/CTR documents submitted by the contractor meet requirements of section 106.12 and 106.13. Place these documents in the Project file COC/CTR folder for materials on the CAR Certification Checklist Report. Create sample records in SiteManager® for COC/CTRs received immediately upon receiving them from the contractor.

These documents are required before installation or payment for the materials is completed. Electronic copies of COC/CTRs must be uploaded to each sample record using the SiteManager® attachment icon. Copies of the electronic COC/CTR's shall be stored within the COC/CTR project folder. (Contact your regional Finals Materials Document Coordinator or Finals Administrator for the regions current CDOT Project materials documentation storage and retention program). Any COC/CTR's and Contractor's APL- Verification (AV letter & Form 595) documents submitted electronically or hard copy by the contractor must have the required stamps and signatures according to CDOT Standards and Specifications, Section 106.12 and 106.13.

CDOT Form 157s are not required to be completed for COC/CTRs documentation.

24. Monitor the Owner Acceptance Sampling & Testing Checklist Report to ensure the testing frequencies are being met as the material placement progresses.
25. Monitor the CAR Report Summary of Samples – COC and CTR report to track material quantities paid are matching quantities of documentation received from the contractor. In the SiteManager sample record – Basic Sample Data window, the quantity cell shall be updated to reflect the amount of material shown on the COC/CTR's. The quantity field under the tab – Contract, is no longer used for any record. Upload recently received COC/CTR's in the sample record SiteManager® using the Attachment Icon.
26. Inform the Region Materials Engineer's IA representative of upcoming materials to be sampled and tested per the CAR Independent Assurance Sampling & Testing Checklist (CDOT Form 379) at least three days before material placement.
27. Compare the OA and Certification Checklists with the monthly estimate for discrepancies in items or quantities appearing on the CAR reports. Access the project estimate here: <https://www.codot.gov/content/payestimates/> Use Control key & "F" to use the "Find" feature, type in the contract ID without the "C". Locate the latest estimate to complete the review. A hard copy of the estimate is not needed for this check. If discrepancies are noted, contact the Region Lab Manager or Pavement Design Program at Central Lab for assistance.
28. Perform price adjustment calculations monthly before the cutoff date for the estimate per CDOT Standards and Specifications, Sections 105.03 thru 105.06. Verify price adjustments are reflected in the contract estimate. Access the **Price Reduction Calculator** at the link below, under Hints, Guides, and Links.
<https://sites.google.com/a/state.co.us/sitemanager-materials/>
29. As exceptions to the Specifications occur, document each occurrence to facilitate the completion of CDOT Form 474 Explanation of Exceptions at the closure of the project

30. Review the CAR reports, Asphalt Quality Report & Concrete Quality Report daily to ensure the reports accurately reflect the sample records created in SMM and that the results input into LIMS appears on the report. For instructions to complete the sample records correctly, utilize Addendum 1 (ASPHALT QUALITY LEVEL REPORT) and Addendum 2 (CONCRETE QUALITY LEVEL REPORT).

The CAR reports replace Asphalt03 and Voids03, and Concrete03 programs. The 03 programs are no longer to be used on projects.

31. Review PC data and tests result daily for compliance. Use CP12A, CP12B, and CP12C as applicable.
32. Review data entries to ensure accuracy of test results, and sample review as soon as possible to keep the Owner Acceptance Sampling & Testing Checklist Report up to date.
33. Use CAR Reports - Summary of Samples – COC and Summary of Samples – CTR to track COC and CTR samples created, quantities of materials delivered, attachments, and sample status. These reports will update when data is changed and saved in SiteManager®. COC and CTR records can be left in the SiteManager® LIMS windows of Review Tests or Review Sample allowing the record to be available to update the quantities of more documents of shipments that are delivered to the project. Keep the quantity cell updated in SiteManager® Materials – Basic Sample Data tab with the total quantities verified on the received COC/CTR's.
34. Use CAR reports, Summary of Samples - To track incomplete samples.
35. Resident and Project Engineers can use the CAR Reports – Summary of Samples – COC and CTR to verify quantities and documentation that have been received for materials that will be paid on the monthly estimate.

3.3 AFTER CONSTRUCTION

Note: Project Owner Acceptance personnel are to review the documentation of the material 100% by completing each of the following steps, 3.3 - 3.3.2

1. All CDOT project materials documentation are required to be filed using your regional required process of materials documentation folder management. (Contact your regional Materials Document Coordinator or Finals Administrator for the regions current CDOT Project materials document storage retention program).
2. Verify with the Project Engineer that the last progress estimate has been completed and authorized for payment. This ensures the quantities shown on the Owner Acceptance Sampling & Testing Checklist Report are accurate. Obtain the CDOT Form 105 from the Project Engineer documenting the pay items that will be deleted/not used for the project. Use the document to request that these deleted items be removed from the CAR reports – OA Sampling and Testing report and the Certification Checklist report. Send the request to: HQ OIT /Apps SiteManager Materials / LIMS support kyle.brooks@state.co.us

Project estimates can be accessed at this link. (Use Control – F, input the Contract ID without the “C”, in the find box. This will highlight the project, look for the latest estimate. Open the estimate, use Control – F, and input the item number in the "Find" box to search by item.)
<https://www.codot.gov/content/payestimates/>

3. Verify on the Owner Acceptance Sampling & Testing Checklist Report, that there are no incomplete tests by ensuring that the Sampled Tests to Date column is equal to the Completed Tests to the Date column. Discrepancies must be reconciled by either completing the sample record or voiding it.
4. Verify that the minimum sampling and testing requirements have been met by checking the **Completed Total Tests to Date** column is equal to or greater than the **Required Total Tests to the Date** column. Use the CAR report – Summary of Samples – ALL to find sample records that are not complete. After reconciling the columns, the Owner Acceptance Sampling & Testing Checklist Report shall be placed in the electronic documentation folder - Final Documentation. Deficiencies are required to be explained on the CDOT Form 474 Final Materials Certification - Explanation of Exceptions.
5. Review the CAR Reports – Asphalt Quality Level (AQL) (Final), and the Concrete Quality Level (CQL) (Final). A Final report showing errors shall not be accepted and errors must be corrected.
6. Review the AQL and CQL reports to verify the number of tests shown on the report equals the Completed Tests to Date for each test method shown on the Owner Acceptance Sampling & Testing Checklist Report. Asphalt content element may be the total tests completed for CP 85 and CP-L 5120 to meet the requirements. Mat Density element may be the total tests completed for CP 82, CP 44, and CP 81 to meet the requirements.
7. Verify the quantity of each Mix Design and each element on the AQL or CQL reports match the quantity for the item on the Owner Acceptance Sampling & Testing Checklist Report and the final quantity on the estimate. The Final quantity for HMA on the estimate is the quantity for mainline paving plus all paved bridge decks. The quantities for each element under a Mix Design must be equal or the report will state an error on the first page of the report.
8. Verify with the Project Engineer the dollar amount shown on the AQL and/or CQL report is correct on the estimate.

Notify the Region Materials Engineer that the Quality Level reports for the project is complete. Record the Contract ID and Final AQL in the subject line. Export the Final report and include it in the email. Please request an email confirmation reply that they have received the data.

9. Place the Final AQL and/or CQL and the email verification of receipt from OA/PC Manager to the project electronic files - Final Documentation folder. This is a requirement for the Final Documentation Materials Coordinator to verify the OA/PC manager has received the information that the project Quality Level reports are complete. **(See the example in this Section, Addendum 3).**
10. Verify COCs and CTRs have been received by ensuring the Certs Received to Date column on the CAR Certification Checklist, has a 1 or greater value, for any item showing a quantity paid. Verify Summary of Sample – COC and CTR records have the required attachment noted by showing an asterisk for each sample record.

Verify the quantity shown on the Summary of Samples - COC and CTR reports equal or exceeds the quantity paid, if not an explanation of missing COC/CTR's shall be in the Explanation of Exceptions. Items with a zero quantity, no explanation required. Items deleted by CDOT Form 105 completed by the Project Engineer can be deleted from the project CAR Reports. Send the completed Form 105 to the Central to request the items to be removed. Record in the subject line the **"Contract ID: Items to Remove from CAR Reports by Form 105"**.

E-mail requests to: cdot_pavement.design@state.co.us

11. Review CAR reports –Summary of Samples – (ALL) to verify all samples created for the project have a status of "COMP" It is a requirement that all sample records created for a project are in the "Complete" (COMP) status before the documentation of the material is accepted. Sample status of LOGD, RECV, TEST, PREA, must be either completed or voided.
12. Sample records created in SMM that may have been started but have not had tests assigned will be in the Pending status. These samples may have been forgotten about or made by mistake. The samples must be VOIDED. These types of samples in the Pending status will not be on the Summary of Samples reports. The Sample Backlog report must be reviewed to ensure no samples are in SM incomplete. Projects cannot be closed until all samples are either in the Complete or Void status. (See instructions on the SMM website under Hints, Guides, and Links, look for Sample Backlog Instructions.)
<https://sites.google.com/a/state.co.us/sitemanager-materials/>
13. Export and save the CAR Report - Summary of Samples – COC, CTR, QA, and ALL, to the project file. For availability to the checker for the final documentation review.
14. Pre-inspected items shall have CDOT Form 193, if applicable. This document shall be in the attachment icon on the SMM record for the item. Place Form 193 in the project files.
15. Check all Price Reductions and the supporting documents.
16. Ensure the contractor's PC documentation has been received electronically for HMA, SMA, PCCP, and Excavation & Embankment per the requirements of CP12A, CP12B, CP12C, respectively. Save the PC documentation into the project files.

3.3.1 CDOT FORM 474, - Final Materials Certification - Explanation of Exception for CAR report: Owner Acceptance Sampling & Testing Checklist Report.

1. Document on the CDOT Form 474, the date the project was accepted, and the date the final documentation is complete. This date shall be the same date that appears on the final copy of the Owner Acceptance Sampling & Testing Checklist. **(See an example of the checklist in this Section Pages 31,32, and 33).** Obtain the Project Acceptance letter from the Project Engineer for verification of the date of project acceptance.
2. Reference type of tests not used on the Owner Acceptance Sampling & Testing Checklist due to alternative methods completed.
3. Verify and document all shortages of required tests as indicated on the Owner Acceptance Sampling & Testing Checklist Report.
4. Explain quantities and dollars applied per the Quality Level reports. Explain process changes, compaction test sections, and any unusual change in the Quality Level reports. **(See the examples in this Section ADDENDUM 1, ADDENDUM 2).**
5. For items that show a Zero Total Quantity Installed, no explanation is required as this indicates no material was installed on the project.
6. Explain and attach supporting documents for material with Percent of reduction in contract price (P) less than 3.

Example of the CDOT Form 474 and the Adobe Sign 473/474 are in the Instructions chapter. Use the following link to view the instructional video for the Adobe Sign 473/474 document use.

<https://www.codot.gov/business/designsupport/materials-and-geotechnical>

7. Explain and attach supporting documents for material with a price reduction (P) greater than or equal to 3.
8. Explain and document all material repaired or replaced for (P) greater than 25.
Note 4: Reference to (P) values are addressed in Standard Specifications, Section 105.03.

3.3.2 CDOT FORM 474 Final Materials Certification - Explanation of Exception for CAR report: Certification Checklist Report.

1. Verify and document all missing COCs and CTRs as indicated on the Certification Checklist and deficiencies in quantities that are shown on the CAR report Summary of Samples – COC and CTR report. COC/CTRs documentation that was not received from the contractor, do NOT make sample records. Document these deficiencies on the CDOT Form 474.
2. Verify the required stamps are applied to the COC/CTRs and/or Contractor’s APL- Verification (See FMM chapter - Special Notice to Contractors, APL Verification (AV) Letter, and Form 595 example) and that the required information is complete on each stamp.
3. For COC/CTRs received, sample records in SiteManager® must have the documents uploaded through the attachment icon. Verify the attachment by checking the Summary of Sample – COC or CTR Report. An asterisk will be shown under the column “Attachment” for each sample record with an attachment.

4. INDEPENDENT ASSURANCE Sampling & Testing Checklist and CDOT Form 473 – Final Materials Certification Checklist

1. The Region’s Independent Assurance (IA) representative shall initiate the Adobe Sign CDOT Form 473/474. The Final Materials Certification Checklist - Form 473, by completing the top portion, electronically signing the form, and obtaining the Region Materials Engineer’s electronic signature.
2. The Region’s IA representative is responsible for documenting any deficiencies shown on the CAR Independent Assurance Sampling & Testing Checklist Report on Form 474, Explanation of Exceptions.
3. The Region’s IA representative shall ensure that differences between Independent Assurance tests results and Owner Acceptance test results if any, are explained.
4. The Region’s IA representative will send the completed documents for Independent Assurance testing to the project personnel. The Independent Assurance Sampling & Testing Checklist, IAT Comparison Report, and supporting documentation shall be part of the final documentation submittal and placed in the project files.
5. The Project Engineer shall verify the project tester has completed and attached the required documents and electronically sign the required section on Form 473.
6. Project personnel and the Resident Engineer’s signature are required on the CDOT Form 473. The completed form must be part of the final documentation with the CDOT Form 474 Final Materials Certification. (Explanation of Exceptions), for the Final Documentation project folder.

7. For projects tested by a consultant firm, the CDOT Form 1324 must be completed by the CDOT Representative responsible for the oversight of project materials for evaluating the performance of the consultant firm. The completed/signed Form 1324 shall be in the project files.
8. The Region Final Materials Documentation Coordinator or the Finals Administrator is responsible to transfer the required documents from the project files in the Bentley Connect Client ProjectWise Cloud, to the Final Documentation/Form 325 Packet.

5. INDEPENDENT REVIEW Requirements for Final Materials Documentation Completion

The Resident Engineer or his designee will notify the Region Finals Administrator or the Region Final Materials Documentation Coordinator when the materials files are completed and are ready for review. This review provides a greater degree of independence and critical evaluation. The Finals Administrator or their designee will check the following items.

1. Verify on the Owner Acceptance Sampling & Testing Checklist that the number of tests shown under the Required Total Tests to Date column has been met or exceeded in Completed Total Tests to Date.
2. Verify Sampled Total Test to Date column and Completed Total Test to Date column, match on the entire document. If any discrepancies are found between these two columns, the tester must be notified to reconcile the columns and the final should not be considered complete until the issue is resolved. Verify that all sample records created for the project have a status of Complete by reviewing the CAR report Summary of Samples – **All** report.
3. Verify that all required Certificates of Compliance (COCs) or Certified Test Reports (CTRs) have been received by reviewing the Certification Checklist Report. Certs Received to Date column must show a minimum of one for any item that has an amount shown in Total Installed Quantity for the item. Deficiencies must be explained on the CDOT Form 474 Final Materials Certification - Explanation of Exceptions.
4. Verify that all the COC/CTRs shown as completed on the Certification Checklist are in the ProjectWise Cloud folder under COC/CTRs. Review each document to verify compliance for signatures, stamp, quantity, pay item and document meets all requirements for the item.
5. Verify on the Independent Assurance Sampling Checklist - Completed Tests to Date column, the required number of tests are completed. Ensure any deficiencies of tests are documented on the CDOT Form 474.
6. Differences between the IA and OA test results must be explained on CDOT Form 474 if applicable.
7. Verify the CDOT Form 473, - Final Materials Certification Checklist has been completed and all required signatures are present.
8. Verify pre-inspected items have a CDOT Form 193, when applicable.

9. Check explanations and calculations for material accepted at full price, the material with price reductions, and material removed and replaced.

Note: Reference to P is addressed in the CDOT Standard Specifications, Section 105.03.

10. Verify the CAR Reports – Quality Level for applicable items (Asphalt or Concrete Paving) have no errors in the Final Report. Final reports showing errors are not acceptable. The first page of the Final Report will show any errors the program has found.
11. Verify the number of each test type completed on the Owner Acceptance Sampling & Testing Checklist, Completed Test to Date column, matches the number of tests shown on the CAR Report Quality Level for asphalt and concrete paving items, if applicable.
12. Verify the quantity for each element in the CAR Quality Level report matches the quantity for the item on the Owner Acceptance Sampling & Testing Checklist Report and the estimate. Check all items that apply to the element for the total quantity paid. This includes asphalt and concrete paving items.
13. Verify the Quality Level payment is correct on the last progress estimate.
14. Verify that the documents for Quality Level reports have been submitted to the Region Materials Engineer and Staff Materials Pavement Design Program OA/PC Manager by e-mail receipt on file.
15. CDOT Form 1324 (if applicable) must be completed and distributed to the Region Materials Engineer for review and signature and placed in ProjectWise Cloud folder – Final Materials Documentation. (Form 325 packet).
16. As part of the final Progress Estimate, the Project Engineer has included all the documentary evidence needed to show that the contractor has complied with the requirements of the Contract Plans and Specifications for all materials used per the CDOT Field Materials Manual - Quality Assurance Procedures for Construction and Materials Sampling and Testing chapter (Owner Acceptance Frequency Guide Schedule for Minimum Materials Sampling, Testing, and Inspection). The Region Finals Administrator is responsible for the development and signature of CDOT Form 325, Final Estimate Data, pages 1 and 2, and the distribution per Table 1, and shall be included in this process.

If the existence of discrepancies or unresolved differences remains, a meeting will be scheduled with the Finals Administrator or Finals Documentation Coordinator, Resident Engineer, and Project Engineer to resolve the issues.

The completion of Form 473 - Final Materials Certification Checklist and Form 474 Final Materials Certification - Explanation of Exceptions is required within 30 calendar days after the final acceptance of the project to achieve a timely closure. All signatures must be completed electronically on Form 473 and Form 474. If after the project task order is ended, anyone who receives missing documentation and completes SMM/LIMS entries shall complete another Form 474 to update the changes made as missing item documentation is completed. CDOT Form 473 and Form 474 is a requirement for the closure of each project.

17. Adobe Sign CDOT Form 473/474 Document Guidelines; The Materials Advisory Committee has approved the use of the Adobe Sign Form 473/474 starting July 1, 2021. Follow the Form 473/474 Adobe Sign document instructions in the 473/474 Adobe Sign Chapter in this Field Materials Manual.

6.0 CDOT FORM 211-Completion Instructions (Materials Documentation Request)

The Final Materials Documentation Project Closeout and the Final Materials Documentation Review or Audit activities will discover that occasionally required documents will be missing. Individuals performing the closeout, review, or audit should use this form or comparable e-mails to allow for a document trail in the effort to obtain the missing documents. The original project personnel may have misplaced or lost a field materials worksheet or report. The contractor may have not forwarded the required COCs and CTRs. Time is critical, indicate a due date and follow through immediately if that date has passed. If e-mail queries are being used, write in the "Subject", CDOT Materials Documentation Request, or CDOT Form 211. Attach the resolution Form 211 to the Adobe Sign CDOT Form 474 using the Form 211 Attachment button.

7.0 DISTRIBUTION OF MATERIALS DOCUMENTATION

**Table 1. Documentation Distribution
CDOT SiteManager® Project Final Materials Documentation Packet**

Documentation Order	Form / Report	Distribution				
		#1	#2	#3	#4	
Final Materials Certification Checklist with required documents	Form 473	Orig.	Notify	Notify	Notify	
Final Materials Certification - Explanation of Exceptions with supporting documentation (letters, CMOs, MCRs, etc.)	Form 474	Orig.	Notify	Notify	Notify	
CAR Report - Owner Acceptance Sampling & Testing Checklist	Form 250	Orig.	Notify		Notify	
CAR Report - Certification Checklist	-	Orig.	Notify		Notify	
CAR Report - Independent Assurance Sampling & Testing Checklist with supporting documentation	Form 379	Orig.	Notify	Notify	Notify	
Random Sampling Schedules	-	Orig.				
Price Reduction Documentation	-	Orig.				
CAR Quality Level Reports - Incentive/Disincentive documents	CAR Report QLR	Orig.	Notify			
Buy America Certification letters and Monthly Summary reports		Orig.				
PC Data results in digital records		Orig.				
Evaluation of Materials Testing (Consultant tested)	Form 1324 (CP 16)	Orig.	Notify.		Notify	

Table Note: Orig. = original with signature (if applicable) and placed into project files Final Materials Documentation Folder.

The Project Engineer will notify the Region Finals personnel when the documentation is available for review.

Notify = shall email a link to the Units under the Distribution list that all documents are available in the Project’s files as Final. The link referred to is the exact location Project’s Files.

Distribution

1. Resident/Project Engineer Electronic Files placed into the Project's Files.
2. Region Materials Engineer/Region Finals administrator is responsible for verifying the documentation is complete and acceptable by placing all files into the ProjectWise Cloud under the path: Contract ID/Construction/Finals Documentation/Form 325 and email a link to notify #3, #4 that the final documents are available.
3. FHWA (Oversite Projects)
4. Staff Materials Pavement Design Program (Documentation Unit)

Email address for item 4 is: cdot_pavement.design@state.co.us

For Final Documentation, in subject line record Contract ID - Final Materials Documents in the Bentley Connect Client (ProjectWise Cloud). The Region Final Materials Documentation Coordinator or the Region Finals Administrator is responsible for the items in Table 1 and is uploaded into the following ProjectWise Cloud connection path: Contract ID/Construction/Finals/Form 325 Packet.

8.0 ORGANIZATIONAL GUIDE FOR PROJECT MATERIALS Electronic Folder

SCOPE

The Electronic Folder for project materials in the ProjectWise Cloud is currently under development when the folders are developed follow this Organizational Guide for ProjectWise Cloud project materials storage and retention program. (Contact your regional Materials Document Coordinator or Finals Administrator for the regions current CDOT Project materials document retention program).

The Field Materials Manual includes the “OA Frequency Guide Schedule for Minimum Sampling, Testing, and Inspection”. This is the essential document to use when determining which CDOT Forms, worksheets, COCs, CTRs, and miscellaneous documents are required.

Final ProjectWise Cloud Materials Folders:

- Core Documents
 - CDOT Form 473 - Final Materials Certification Checklist
 - CDOT Form 474 – Final Materials Certification – Explanation of Exceptions with any supporting documentation.
 - CAR Final Quality Level reports (copy - original to remain in item number folder)
 - Buy America Documents

- OA Sampling and Testing Documents
 - CAR Report – Owner Acceptance Sampling & Testing Checklist
 - CAR Report - Certification Checklist
 - CAR Report - Independent Assurance Sampling & Testing Checklist and supporting documentation.
 - CAR Report - Summary of Samples- ALL, COC, CTR, IAT, and QA reports
 - Random Sampling Schedules (copy - original to remain in item number folder)
 - Price Reductions - if applicable

- Process Control Testing Notebooks
 - Quality Control Notebooks (digital) for all required elements

- Certification Documents
 - CDOT Form 1324, Evaluation of Materials Testing (CP 16) if applicable

8.0 ORGANIZATIONAL GUIDE FOR PROJECT MATERIALS ProjectWise Cloud Folder (Continued)

CDOT Form 157's **are not** required to be completed for COC/CTR documentation. The documentation received from the contractor must meet the requirements of Section 106.12 and 106.13 of the Standard Specifications for Road and Bridge Construction. Determine required documentation from the Field Materials Manual, OA Frequency Guide Schedule for Minimum Materials Sampling, Testing and Inspection, and the "Special Notice to Contractors" chapters. Each COC or CTR received must be uploaded into the attachment icon on each sample record in SiteManager® for the quantity and material the COC/CTR covers. Multiple COC/CTR's can be added to one sample record. As more attachments are added to the record, keep the quantity cell updated to reflect the total quantity cover by the attachments. Name and describe each attachment to identify it.

For materials from the APL or the QML that the contractor is electing to use on the project, it is recommended that the SiteManager® record be developed as soon as possible, due to the fact materials may expire from the APL or QML at any time. Creating the record when the documentation is received ensures the record reflects the material that appears on the corresponding lists at the time of approval.

Note 5: "Special Notice to Contractors" chapter shall be used to determine the requirements of the Contractor's APL – Verification (AV & CDOT Form 595) document to notify the project personnel of materials to be used on the project from the CDOT Approved Products Lists (APL) or verify that the manufacturer is listed on the CDOT Qualified Manufacturers List (QML).

9.0 Suspension to CDOT's SiteManager®: It is not necessarily tied to a review process and may occur at any time for cause. The process for suspension starts with a written complaint to the Materials and Geotechnical Branch Manager (MGBM) or his designee. This document must, at a minimum contain the name of the technician involved, name of the technician's company, date of the incident, detailed accounting of the incident, name, and contact information of individuals submitting the request. The Department may start an investigation based on other information, such as:

- Failure to timely supply required information.
- Repeated failure of a tester to meet CDOT requirements.
- Failure to take immediate corrective action relative to deficiencies in the performance of the Quality Control Program.
- Certifying materials that are not produced under an approved Quality Control Program for use on Department projects. (This would include any situation where falsification of records was determined.)

Upon receipt of the complaint, the MGBM will contact the Region Materials Engineer (RME) and Resident Engineer (RE) associated with the technician involved in the written complaint. The MGBM, RME, and RE will review the complaint to determine its credibility.

If the complaint is deemed credible the Department will contact the individual(s) submitting the information. The MGBM will determine if the individual is willing to discuss the reported incident. Documentation submitted to the MGBM for review is otherwise confidential. The MGBM will review the documentation/information within 30 days to determine whether further investigation is required. If further investigation is required, the Department will assign the appropriate Regional Materials Engineer to perform the investigation. The MGBM will review the information obtained through the investigation and may conduct additional interviews. The technician, their supervisor, and/or consulting firm involved will be notified of the Department's findings.

The technician shall have 15 working days to respond, in writing. At any point in the process, the MGBM may determine, due to insufficient evidence, to discontinue the process. The MGBM will then determine whether the violation(s) fall under the definition of Negligence or Abuse.

Negligence is defined as unintentional deviations from approved procedures or the unintentional failure to follow the requirements of the CDOT Field Materials Manual.

Abuse is defined as intentional deviations from approved procedures or the intentional failure to follow the requirements of the CDOT Field Materials Manual.

The appropriate process will be followed upon the determination of the category of the violation. If the process results in a period of suspension or revocation, the tester is prohibited from participating in all CDOT projects during that period.

Process for Negligence:

Negligence should be resolved in a positive fashion that promotes learning and increased understanding. The complaint process tracks technicians who have repeated incidents of negligence. This process will also allow a means of tracking common problems and issues.

A single incident of negligence may be resolved through intervention by the Tester's Supervisor. After assurances in writing to the Department by the supervisor that the problem(s) are fully corrected, a thorough review of the Tester's materials documentation by the Region Independent Assurance Tester (IAT) and the supervisor will be made to ensure that a full correction of the problem(s) has occurred. Documentation of each incident shall be sent to the MGBM. The Department will maintain records of each incident. If only one report, of a minor nature, is received in one year, no further action may be taken. However, if it is determined that the negligence is significant the requirements under "second incident" will be followed.

If the second incidence of negligence is reported within one year, the Department will require that the technician and his/her employer develop a corrective action plan. The MGBM will notify all the Regional IATs. This notification is intended to make the IATs aware of the problems being encountered.

If a third incident of negligence is reported within two years, the technician and his/her employer will receive a notice and a minimum one-year suspension will apply. The technician and his/her employer will be responsible for providing a plan to correct the deficiencies to ensure no further incidents occur.

Any further incidents of negligence will result in a permanent revocation. The Department can at any point re-classify repeated instances of negligence, as abuse. If this occurs, the issue would be dealt with through the process of abuse.

Regional Materials Engineers reserve the right to work with the tester and their supervisor to correct any aforementioned problems listed in the negligence section in place of a tester's suspension.

If a tester is suspended, they shall complete an internal training program within their company that is an outside certification and provide documentation showing such training has occurred. The documentation should include a specific description of the training performed, dates, location, procedures, who supervised the training, etc. The documentation will be submitted to the RME who will decide if the training is sufficient to reinstate the suspended tester.

Letters of Suspension and Revoking:

A letter stating a tester is being suspended and the reasoning behind the suspension will be sent to the tester, the tester's company, and the RME. The RME will maintain the letter in their records for future reference. If a tester is being revoked, the letter will be sent to the tester, the tester's company, the RME, and the Pavement Design and Documentation Manager. The RME and the Pavement Design and Documentation Manager will keep the letter on file for future reference.

Process for Abuse:

The Department will determine the severity of the abuse. The first finding of abuse will result in a minimum one-year suspension and may extend to the permanent revocation of an individual to test on any CDOT project. Any subsequent finding of abuse shall result in permanent revocation of the tester to work on any CDOT project.

Notice of suspensions or revocations will be emailed to the individual and his/her employer along with the individual's right to appeal. A proposed revocation or suspension is effective upon receipt by the technician and will be affirmed, modified, or vacated following any appeal.

The Department should also be aware that both State and Federal laws may govern construction projects, including Title 18, United States Code, Section 1020, that in brief states that anyone making falsifications on Federal-aid projects: "Shall be fined not more than \$10,000 or imprisoned not more than five years, or both."

Notification of Revocation to Other Agencies

The Department may notify the other state agencies or certifying agencies of anyone having been revoked for testing on a CDOT project through CDOT's SiteManager® program.

ATTENTION!

Referenced CDOT Materials Forms, except those indicated as "computer output", have been revised in 2017. All of these forms state: *Previous editions are obsolete and may not be used.* The use of Materials Forms older than what is indicated in the chapter of the FMM Materials Forms – Instructions & Examples are not authorized.

Example of Letter of Exceptions

(Word Document Format)

Add Project Information here as the header, sign, and date. Attach to the Adobe Sign CDOT Form 473/474 as a second option.

CAR Report Owner Acceptance Sampling & Testing Checklist:

Page 1

Item 203-00060: Embankment Material (Complete in Place): The contractor placed 4,115.00 CY of Embankment Material 2 inches thick. Material too thin to perform CP80aa Den/Moist Content of soil by nuclear gauge. Project specials required a PI of 5-15, a test result of 13. The project Engineer accepted the material.

The embankment, Rock not encountered on the project.

Item 304-06007 Aggregate Base Course (Class 6)

CP23aa not needed to be based on T180D performed which includes the plus 4 material.

CP25- Not performed due to a small quantity and no change in material observed.

Based on the quantity of 2,113 CY (2 -T89 and T90's) should have been completed. The second test would have covered the fraction of the 113 CY. Based on the results of test #1 -T89 (No Value) and the T90 (Non-Plastic), the 2nd test was not completed to cover the 113 CY.

Item 403-34741: Hot Mix Asphalt (Grading SX) (75) (PG 64-22)

Mix ID: 42017B1_20856_

Both Phase 1 and Phase 2 of the US 24 El Paso- Elbert county line projects were completed by Jones Contractors utilizing the same mix designs, the PC tester and the mobile voids trailer personnel were the same. For this reason, check testing and CPL5120C were not performed on phase 2 but were completed on phase 1.

The project was Voids Acceptance, 7,028 tons were placed on a thin lift leveling course (1.5 inches), Project Specials specified the leveling course to be a Pay Factor of 1 for the mat density and longitudinal joints, (CP 44, 15 tests completed). Joint cores were not taken, the SMM sample (SMITHJP178G082717) was used to document 7,028 tons for CP44L, Pay Factor of 1. The flood plain area required 947 tons to be placed. 2- The CP-44 test was completed in this area. 1,244 tons were placed with a 2-inch mat over a milled surface, 2- CP44's were taken due to the small area of placement. A total of 9,219 tons were placed and tested using CP44.

A total of 15,078 tons were placed and tested using CP81 and CP82.

The Asphalt Quality Level report for (42017B1_20856_) Mat Density, 1 compaction test section (CP82) representing 500 tons, 3 processes representing 23797 tons.

- Process 1: representing 947 tons, placed in the flood plain.
- Process 2: representing 15,822 tons placed, 2-inch middle mat.
- Process 3: Pay Factor of 1 representing 7,028 tons placed, 1-1/2 inch leveling course.

HMA (Grading SX) (75) (PG 64-22) total tons placed 24,297.

Asphalt content tested using CPL5120. CP85 and CP85C were not used.

CPL5120C was completed on phase 1.

Example of Letter of Exceptions (Continued)

(Word Document Format)

Add Project Information here as the header, sign, and date. Attach to the Adobe Sign CDOT Form 473/474 as a second option.

Item 403-34751 Hot Mix Asphalt (Grading SX) (75) (PG 64-28)

Page 2

Mix ID: 42017T1_20856_

The project was Voids Acceptance, 18,478 tons was placed for a 2-inch top mat. CP44, CP85, CP85C were not used due to alternative test methods used. CP81- 36 tests, CP82- 1 test, for a total of 37 tests completed.

Total tons placed 18,478 on top mat.

Total tons placed on project 42,775, with an incentive of \$134,599.11.

CP58- Contractor followed best paving practices. There was not any indication of temperature segregation seen in the mat densities. The mean mat density for the bottom mat was 93.3%. Top mat mean mat density was a 93.6%

Item 601-01000 Concrete Class B: Visual inspection due to a small quantity (1.3 CY), material placed in the headwall of pipe.

Item 603-10120 12 Inch Corrugated Steel pipe.

Pipe placed under sidewalk with a small amount of structure backfill mostly for bedding of pipe. Testing could not be performed due to the small area of placement. The compaction effort was performed by the contractor and the Project Engineer accepted it visually. See attached picture.

Item 608 00010 Concrete Curb Ramp.

Visual inspection does to small quantities, 37 SY, material placed in curb ramp for the sidewalk.

CAR Report Certification Checklist:

Item 216-00101 Soil Retention Blanket

After numerous requests to the contractor, no documentation was received. Material delivered was inspected and the label on the product was found to be on the CDOT APL, Western Excelsior-Excel C5-3 All Natural. Based on the material being an APL product, the Project Engineer accepted the material. Sample record created in SiteManager® to document the product, no attachment on sample record.

Item 601-01000 & 608-00010- Concrete

Cure, the small quantity used on both of these items, material visually accepted by the Project Engineer.

Item 627-00008 and 627-30405 Pavement Marking Materials

Two records were completed on each item to reflect white and yellow material.

COLORADO DEPARTMENT OF TRANSPORTATION Owner Acceptance Sampling & Testing Checklist	Contract No. STA0243-087	Region 4	Contract ID C20856
	Contract Location US 24 B Paso-Elbert CL Paving		
	Contractor SIMON CONTRACTORS	Award Date 04/05/2017	Ad Date 02/23/2017
			Field Materials Manual Year 2017

SMM Report 250 Revision Date 10/06/2017 Production

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*# Refer to Frequency Guide Schedule for further instructions.

Date Printed 5/7/2018

Project	Item Code	Item Description	Item Unit	Quantity Reported to Date	Quantity Authorized to Date	Total Installed Quantity					
	Matl Code	Material Description Test Method Test Description	Material Unit	Conversion Factor	Special Instructions						
		Sample Type Frequency Line Item No.	Plan - CO Qty	Estimated Required Tests	Required Tests to Date	Sampled Tests to Date	Estimated Tests Remaining	Completed Tests to Date	Total Tests (+/-) to Date		
		Number of tests on this row based on summed quantity:			Total Plan - CO Quantity	Estimated Total Required Tests	Required Total Tests to Date	Sampled Total Tests to Date	Estimated Total Tests Remaining	Completed Total Tests to Date	Total Tests (+/-) to Date
20856-BID	US24 EL PASO-ELBERT CL EAST PA										
20856-BID	203-00060	Embankment Material (Complete In Place)	CY	1,000.00	4,115.00	4,115.00	4,115.00				
	203.03.01.01	Embankment, Soil	CY	1,000.00							
		T89 T89 Liquid Limit of Soils	QA *F	0035	2,992.00	1	1	1	0	1	0
					2,992.00	1	1	1	0	1	0
		T90 T90 Plastic Limit and Plasticity Index of Soils	QA *F	0035	2,992.00	1	1	1	0	1	0
					2,992.00	1	1	1	0	1	0
	203.03.01.02	Embankment, Rock	CY	1,000.00							
		CP21 CP21 Mechanical Analysis of Soils	QA *F	0035	2,992.00	1	1	0	1	0	-1
					2,992.00	1	1	0	1	0	-1
		CPL2103 CPL2103 SO4 Ion Content in H2O & Water Soluble of Soil	QA *F	0035	2,992.00	1	1	0	1	0	-1
					2,992.00	1	1	0	1	0	-1
		CPL2104 CPL2104 Det. Water-Soluble Chloride Ion Content in Soil	QA *F	0035	2,992.00	1	1	0	1	0	-1
					2,992.00	1	1	0	1	0	-1
		CPL3104 CPL3104 Durability of Shales for Use as Embankments	QA *F	0035	2,992.00	1	1	0	1	0	-1
					2,992.00	1	1	0	1	0	-1

COLORADO DEPARTMENT OF TRANSPORTATION Certification Checklist	Contract No. STA0243-087	Region 4	Contract ID C20856
	Contract Location US 24 E Paso-Elbert CL Paving		
	Contractor SIMON CONTRACTORS	Award Date 04/05/2017	Field Materials Manual Year 2017

SM Report CERT Revision Date: 02/13/2017 Page 1 of 4
 *% Refer to Frequency Guide Schedule for further instructions. Date Printed 5/7/2018
 20856-BID US24 EL PASO-ELBERT CL EAST PA

Project	Item Code	Item Description	Item Unit	Total Plan + CO Quantity	Quantity Reported to Date	Total Installed Quantity		
	Matl Code	Material Description	Material Unit	Conversion Factor	Special Instructions	Producer/Supplier Name	Rq'd Number of Certs	Certs Received to Date
	Test Method	Test Description	Sample Type	Rate/Frequency	Line Item No.			
20856-BID	208-00002	Erosion Log Type 1 (12 Inch)	LF		500.00	546.00	546.00	
	208.02.10.00	Erosion Control, Erosion Log	LF	1.0000				
	CERT	CERT Material Certification	COC	%	0036		1	1
20856-BID	212-00006	Seeding (Native)	ACRE		0.15	0.25	0.25	
	212.06.01.00	Seed, Native	ACRE	1.0000				
	CERT	CERT Material Certification	COC	%	0070		1	1
20856-BID	212-00032	Soil Conditioning	ACRE		0.15	0.25	0.25	
	212.02.02.00	Soil Conditioning	ACRE	1.0000				
	CERT	CERT Material Certification	COC	%	0075		1	1
20856-BID	216-00101	Soil Retention Blanket (Straw-Coconut) (Photodegradable)	S Y		730.00	1799.00	1799.00	
	216.02.02.00	Soil Retention Covering, Blanket	S Y	1.0000				
	CERT	CERT Material Certification	COC	%	0080		1	1
20856-BID	403-34741	Hot Mix Asphalt (Grading SX) (75) (PG 64-22)	TON		23652.00	24297.43	24297.43	
	702.01.01.03	Asphalt Cement, Binder, PG64-22	TON	1.0000				
	CERT	CERT Material Certification	COC	%	0095		1	1
	712.03.01.00	Hydrated Lime	TON	1.0000				
	CERT	CERT Material Certification	CTR	%	0095		1	1

COLORADO DEPARTMENT OF TRANSPORTATION Independent Assurance Sampling & Testing Checklist	Contract No. STA0243-087	Region 4	Contract ID C20866
	Contract Location US 24 @ Paso-Elbert CL Paving		
	Contractor SIMON CONTRACTORS	Award Date 04/05/2017	Field Date 02/23/2017
Field Materials Manual Year 2017			

SM Report 379 Revision Date 10/06/2017 Production

Page 1 of 3

*A Refer to Frequency Guide Schedule for further instructions.

Date Printed 5/7/2018

Project	Item Code	Item Description		Item Unit	Quantity Reported to Date	Quantity Authorized to Date	Total Installed Quantity						
Matl Code	Material Description	Material Unit	Conversion Factor	Special Instructions	Estimated Required To Date	Required To Date	Sampled To Date	Estimated To Date Remaining	Completed To Date	Tests (+/-) To Date			
Test Method	Test Description	Sample Type	Rate / Frequency	Line Item No.	Plan + CO Qty	Estimated Required To Date	Required To Date	Sampled To Date	Estimated To Date Remaining	Completed To Date	Tests (+/-) To Date		
Number of tests on this row based on summed quantity:					Total Plan + CO Quantity	Estimated Total Required To Date	Required Total To Date	Sampled Total To Date	Estimated Total To Date Remaining	Completed Total To Date	Tests Total (+/-) To Date		
20856-BID	US24 EL PASO-ELBERT CLEAST PA												
20856-BID	403-34741	Hot Mix Asphalt (Grading SX)(75) (PG 64-22)		TON	24,297.43	24,297.43	24,297.43						
	403.02.01.11	Hot Mix Asphalt (SX)(75)(PG64-22)		TON	1.0000								
	CP44	CP44 Bulk Sp G & Comp. of HMA Using SSD Specimens		IAT	1/10000	0095	23,852.00	3	3	3	0	3	0
							23,852.00	3	3	3	0	3	0
	CP44L	CP44L Bulk Sp G & Comp. of HMA Using SSD Specimens - Long		IAT	1/10000	0095	23,852.00	3	3	2	1	2	-1
							23,852.00	3	3	2	1	2	-1
	CP48aa	CP48aa-Voids in the Mineral Aggregate (VMA)		IAT	1/10000	0095	23,852.00	3	3	3	0	3	0
							23,852.00	3	3	3	0	3	0
	CP51	CP51 Maximum Specific Gravity of HMA		IAT	1/10000	0095	23,852.00	3	3	3	0	3	0
							23,852.00	3	3	3	0	3	0
	CPL5106	CPL5106 Res. to Deformation of Bitum. Mixtures; Hveem		IAT	1/10000	0095	23,852.00	3	3	3	0	3	0
							23,852.00	3	3	3	0	3	0
	CPL5115	CPL5115 Dens. of Bitum. Mix Specimens Compacted by the SGC		IAT	1/10000	0095	23,852.00	3	3	3	0	3	0
							23,852.00	3	3	3	0	3	0

Addendum 1

1.0 ASPHALT QUALITY LEVEL REPORT

Introduction:

The Asphalt Quality Level Report is used to document the project incentive/disincentive for asphalt paving. The report will generate by choosing the contract and project in CAR. It will be possible to run versions of the report in three ways:

- Item Code – shows the quality level, incentive or disincentive, for each asphalt item on the project.
- Interim – shows a preliminary report without checking for element totals to ensure the tons for each element match.
- Final – shows the final report and will check the element totals to ensure they match.

CAR Asphalt Quality Level Report:

The first page of the report will display any error messages that indicate what might need to be fixed in SiteManager and the report can be generated at any point during the project to get an indication of the moving quality level. The report is broken into the various elements that are used to make up the incentive/disincentive for each Item Code/Mix Design with a summary for each process at the bottom of the element. Elements are included in the report based on whether the mix design is determined to be voids or gradation. Each element has a header, which includes Item Code, Material Code, Mix Id, HMA Cost/ton, etc. There is also a secondary header to indicate spec limits and W and V factors and if the report is final or interim. The bottom of each element will indicate the processes that are included and an element summary.

At the end of each item section, there is a summary for each mix design and then a final summary at the end of the report for a comparison of the element totals and a list of the total incentive/disincentive by mix design.

Asphalt Quality Level Report

Department of Transportation

State of Colorado

Report Date: 5/7/2018

Contract ID: C20856

Project Number: 20856-BID

Region No: 4

Fed/State Project #: STA0243-087

Ad Date: 20170323

Acceptance Type: Void Acceptance

Location: US 24 El Paso-Elbert CL Paving

Item Code: 403-34741

Material Code: 403.02.01.11

Mix ID: 42017B1_20856_

Design Type: SX

P/S: Simon Contractors

Gyrations: 75

Total Cost/ton: \$72.00

HMA Cost/ton: \$72.00

AC Cost/ton: \$0.00

(FINAL REPORT **)**

Asphalt Content

Upper Test Limit: 6.00

V Factor: 0.2

Lower Test Limit: 5.40

W Factor: 10

Design Sp Gr: 2.424

Test Date	Sample ID	Test Quantity	Total Quantity	Max Sp Gr	% AC	SQL
1 07/25/2017	ELLISB177P075534	1000	1000	2.439	5.42	
2 07/25/2017	ELLISB177P102740	1000	2000	2.426	5.69	
3 07/26/2017	ELLISB177Q092930	1000	3000	2.438	5.68	100
4 07/26/2017	GONSERS177V073643	1000	4000	2.446	5.51	94
5 07/28/2017	ELLISB177S112718	1000	5000	2.425	5.61	98
6 07/28/2017	ELLISB177S144315	1000	6000	2.420	5.68	100
7 07/31/2017	ELLISB177V104002	1000	7000	2.429	5.59	100
8 08/01/2017	ELLISB1781112006	1000	8000	2.430	5.53	100
9 08/01/2017	ELLISB1781184212	1000	9000	2.428	5.74	100
10 08/02/2017	ELLISB1782103724	1000	10000	2.424	5.73	100
11 08/02/2017	ELLISB1782121632	1000	11000	2.427	5.78	100
12 08/02/2017	ELLISB1782150453	1000	12000	2.430	5.65	100
13 08/04/2017	ELLISB1784122100	1000	13000	2.420	5.95	100
14 08/04/2017	ELLISB1784123036	1000	14000	2.427	5.87	100
15 08/04/2017	ELLISB1784161309	1000	15000	2.424	5.69	99
16 08/09/2017	ELLISB1789161743	1000	16000	2.433	5.70	100
17 08/11/2017	ELLISB178B084245	1000	17000	2.434	5.68	100
18 08/11/2017	ELLISB178B130304	1000	18000	2.427	5.61	100
19 08/11/2017	ELLISB178B163659	1000	19000	2.435	5.73	100
20 08/12/2017	ELLISB178C145905	1000	20000	2.441	5.43	100
21 08/12/2017	ELLISB178C172546	1000	21000	2.428	5.48	95
22 08/14/2017	ELLISB178E140506	1000	22000	2.442	5.47	88
23 08/14/2017	ELLISB178E154629	1000	23000	2.427	5.61	88
24 08/15/2017	ELLISB178F100503	1000	24000	2.434	5.43	87
25 08/15/2017	ELLISB178F115131	297	24297	2.435	5.60	95

Like other CAR reports the data is pulled from SiteManager once the report title is clicked in the Trns*port folder. Error checking is included in the report to help show what data is missing. This may include not having a Control Type, Control Number, or having incomplete data in a test template, etc.

Maintain Sample Information Window:

The report pulls data for all Quality Acceptance Testing samples on a project that have a 403.02.xx.xx material code. The following are also critical fields used by the report that must be correctly populated in SiteManager®

The screenshot shows a software window titled "Maintain Sample Information" with several tabs: "Basic Sample Data", "Addtl Sample Data", "Contract", "Other", and "Tests". The "Basic Sample Data" tab is active, displaying a form with the following fields:

- Smpl ID:** GOODSELM1655125717
- Status:** Complete
- Revised By:** (empty)
- Revising:** (empty)
- Sample Date:** 05/04/16
- Link To:** (empty)
- Link From:** (empty)
- Log Date:** 05/05/16
- Smpl Type:** Quality Acceptance Testing
- Acpt Meth:** Sample and Test
- Material:** 403.02.01.08 (highlighted in yellow)
- Hot Mix Asphalt (Sx)(75)** (highlighted in yellow)
- Sampler:** ROOTR
- Richard Root, R3**
- P/S:** United Companies Of Mesa County
- GEN100042**
- Type:** General
- City:** Grand Junction
- Prod Nm:** (empty)
- Mnfctr:** United Companies Of Mesa County
- GEN100042**
- Town:** (empty)
- Geog Area:** Spaces
- Intd Use:** (empty)
- Repr Qty:** 1,000.000
- Ton**
- Lab Control Number:** CNGOODSELM1655125717
- Auth By:** GOODSELM
- Auth Date:** 05/11/16
- Lab Reference Number:** AC1

Sample Date: This field will default to the date the sample was created; however, it can be changed to any time before the sample creation date. **All samples should be created in the order they were obtained and tested.**

Smpl Type: The Quality Level Report picks up samples with a sample type of Quality Acceptance Testing and an Acceptable Method of Sample and Test.

Repr Qty: This field is used to calculate the quantity represented by the sample being entered. When populated to the report these quantities will be used for each process/mix design to obtain a total quantity for the element.

Control Type: Use this field to record what type of paving is being performed. Whether it be a normal Process, a Process Test Section (CTS or DCS), or a Pay Factor of 1 for, mat, or joint density. A process is a number of like samples that are grouped, a detailed definition can be found in section 105.05 of the CDOT Standard Specification for Road and Bridge Construction. There are three types of processes that the report uses:

- Process Test Section: Using the CP82 template from SiteManager which can use either 3 tests (Demonstration Control Strip) or 7 tests (Compaction Test Section).
- Pay Factor of 1: This process is used when the pay factor for the element should be set to one. This option should be chosen with paving a leveling course, a bond breaker, roller pass study, or for the Furnish Asphalt item.
- Process: This process will be used for day-to-day paving operations.

Cntrl Number: This field will identify the number of the process. There may be several different processes on a project which will require different combinations of processes and control numbers. For example, you may have Process Type: Process with "Cntrl Number": 1 for a 4" bottom lift and a Process Type: Process with a "Cntrl Number": 2 for a 2" top lift. There may be several test sections on a project, and each should have a unique "Cntrl Number".

Design Type: This field will be SUPERPAVE for asphalt paving.

Mix ID: This field is populated with the mix design that represents the material being tested. The mix design must also be approved for your project and the proper association made in SiteManager® by the Region Lab Manager.

The screenshot shows a software window titled "Maintain Sample Information" with several tabs: "Basic Sample Data", "Addtl Sample Data", "Contract", "Other", and "Tests". The "Basic Sample Data" tab is active. The form contains the following fields and values:

- Smpl ID: GOODSELM1655125717
- Buy American: Spaces
- Reqst By: PROJECT
- Witnessed By: R00TR
- Smpl Size: 1 Can
- Dist from Grade: Spaces
- Station: 164+50
- Offset: EB TL
- Reference:
- Smpl From: ROADWAY TK.540690
- Smpl Origin:
- Control Type: PROCESS
- Cntrl Number: 1
- Seal Number:
- Design Type: SUPERPAVE
- Mix ID: 32016B20514-1A
- Plant ID:
- Plant Type: Spaces
- Sample Created from DWR:
- Creator User ID: GOODSELM
- Include Standard Remarks:
- DWR Date: 00/00/00
- Last Modified User ID: GOODSELM
- Last Modified Date: 05/10/16
- DWR Inspector:

Material Test Templates:

The type of acceptance is determined automatically from the Mix Design in SiteManager® and it can be Voids acceptance or gradation acceptance. The material test templates used by the report are summarized in the tables below.

Voids Acceptance:

Mat Density	CP44 or CP81
Joint Density	CP44L
AC Content	CPL5120 or CP85
Voids	CPL5115
VMA	CP48
Compaction Test Section	CP82

Gradation Acceptance:

Mat Density	CP44 or CP81
Joint Density	CP44L
AC Content	CPL5120 or CP85
Gradation	CP31HMA
Compaction Test Section / Demonstration Control Strip	CP82

Binder Paid Separately:

When the binder is paid for separately from HMA the **ACCOST template will need to be completed for each Item Code/Mix ID combination** that is used on the project. **The ACCOST template shall be completed before any other tests for each HMA item.** There are two fields on the ACCOST template; The Bid Item # should indicate the 411 Item Code for the binder that is used in the asphalt mix and also listed on the CAR report Owner Acceptance Sampling Checklist. The price per ton of the 411 items will also be entered into the ACCOST template in the AC Cost field. These two pieces of data are used to connect the 403 HMA item to the 411 items which the report will use to calculate the Total Cost/ton of HMA.

The screenshot shows a software window titled "Enter Test Results" with a sub-tab "Test Data". The main content area is titled "ACCOST Document AC Cost per Ton of HMA". On the right side, there are three radio buttons: "In Spec", "Out of Spec", and "No Spec" (which is selected). Below the radio buttons is a "Print" button. On the left side, there are two input fields: "Bid Item #:" with the value "411-03354" and "AC Cost:" with the value "320.00". At the bottom, there is a "Remarks:" label followed by a large empty text box.

Addendum 2

1.0 CONCRETE QUALITY LEVEL REPORT

INTRODUCTION:

Specifications for concrete paving are found in the Standard Specifications for Road and Bridge construction sections 105.06, 106.06, and 412. The Quality Level Report is used to replace the Conctete03 program. The report will generate by choosing the contract and project in CAR. It will be possible to run different versions of the report by using the expand (+) and collapse (-) icons



- Item Code – shows the quality level, incentive or disincentive, for each concrete item on the project.
- Interim – shows a preliminary report without checking for element totals or sample completion to ensure the square yards for each element match.
- The final – final report will check the element totals to ensure they match.

Like other CAR reports the data is pulled from SiteManager once the report title is clicked in the Trns*port folder. Error checking is included on the first page of the report to show what data is missing or incorrect. This may include a blank Control Type, Control Number, or having incomplete data in a test template, etc.

Maintain Sample Information Window:

The report pulls data for all Quality Acceptance Testing samples on a project that has 412 and 601 material codes. The following are critical fields used by the report that must be correctly populated in SiteManager:

BASIC SAMPLE DATA TAB:

Sample Date: Defaults to sample creation date and can be changed to any time before the sample creation date. Sample creation should be completed in the order they are obtained and tested so they appear in the correct order on the report.

Smpl Type: The Quality Level Report picks up samples with a sample type of Quality Acceptance Testing and an "Acpt Meth" of Sample and Test.

Material: The material codes used for concrete paving will begin with either 412 (Thickness) or 601 (Strength) refer to the OA Sampling and Testing Checklist for the exact code.

Repr Qty: These quantities will be added together for each process/mix design to obtain a total quantity for the element.

Maintain Sample Information

Basic Sample Data | **Addtl Sample Data** | Contract | Other | Tests

Smpl ID: SEMUSD1586094653 Buy American: Spaces

Reqst By: PROJECT Witnessed By: SEMUSD

Smpl Size: 1 Lot

Dist from Grade: Spaces

Station: 277+50 Offset: Reference:

Smpl From: GRADE

Smpl Origin:

Control Type: PROCESS Cntrl Number: 1 Seal Number:

Design Type: PCC Mix ID: 2015081R

Plant ID: Plant Type: Spaces

Creator User ID: SEMUSD Include Standard Remarks: Sample Created from DWR DWR Date: 00/00/00

Last Modified User ID: MAYHEWT Last Modified Date: 03/25/16 DWR Inspector:

ADDTL SAMPLE DATA TAB:

Control Type: Used to record what type of paving being performed. For concrete paving only use the control type: PROCESS.

Cntrl Number: This field will identify the number of the process. There may be several different situations on a project that will require different combinations of processes and control numbers. For example, you may have Control Type: Process with Cntrl Number: 1 for mainline concrete pavement and a Control Type: Process with a Cntrl Number: 2 for hand pours. For the pavement thickness element, a new mix design is not a reason to create a new process as per 105.06 (a) of the Standard Specifications

Design Type: This field will be **PCC** for concrete paving.

Mix ID: Populated with the mix design that represents the material tested. The mix design must be approved by the HQ Concrete Unit for your project and the proper association between the mix design and project made in SiteManager.

Note: For the Thickness element, do not enter a mix design on the sample record, as the cores are associated with the 412-paving element and not the 601 concrete elements. Mix designs are only associated with 601 concrete elements.

Contract ID	Project	Line Item	Proposal Line Number	Item Code	Line Item Desc	Fed State Proj Nbr
C17136R-ALT	17136R-ALTB2	0220	0725	412-00800	*Concrete Pavement (8 Inch)	STA 0142-051

CONTRACT TAB:

On the Contract, Tab, choose the appropriate contract and line item that is associated with the sample. There should only be one.

Material Test Templates:

Automatic determination of the type of acceptance uses the presence or absence of the T 97-28 and T 97-QC templates.

Compressive Strength Acceptance:

Thickness	T148
Compressive Strength	C39-28 or T24-28

Flexural Strength Acceptance:

Thickness	T148
Flexural Strength QA	T97-28
Flexural Strength QC	T97-QCaa and C496

Note: Canceled tests and voided samples will not be included in the report.

CAR Quality Level Report:

The report will be accessible in CAR and there will be an interim and final report which can be viewed by expanding the group tree by clicking the +. Reports can then be exported to a PDF to be saved or printed using the "Export this Report" icon.

The first page of the report will display any error messages that indicate what might need to be fixed in SiteManager and the report can be generated at any point during the project to get an indication of the moving quality level. The report is broken into the various elements that are used to make up the incentive/disincentive for each Item Code/Mix Design with a summary for each process at the bottom of the element. The elements that make up the report are:

- Thickness
- Compressive Strength
- F & t-Test Comparison
- Flexural Strength

Elements are included in the report based on the presence of the C39-28 or the T97-28/T97-QC templates as well as the F & t Comparison made between the T97-28 and T97-QC

At the end of each item section, there is a summary for each mix design and a final summary at the end of the report for a comparison of the element totals and, a list of the total incentive/disincentive.

Thickness

The thickness section of the report will use the T148 data and will obtain both the thickness test result and the Plan thickness from this template. There will be a warning message at the bottom of the element to indicate if a result is lower than the lower tolerance limit. If a test result is more than 1" below the lower tolerance limit it will be but in a separate process. I/DP will not be calculated on that test as this is a "remove and replace" situation.

Compressive Strength

The compressive strength section of the report will use the C39-28 or the T24-28 template. There will be a warning message on the report if a test value is less than the lower tolerance limit. There is no 2 x V out of tolerance or removal and replacement for concrete paving. If a test is below the lower tolerance limit and the contractor chooses to core, a T24 test is should be added to the same sample ID that contains the C39 test. Although a core may be older than 28 days the T24-28 template should still be used in SiteManager Materials/LIMS. The break date and age will be recorded on the template.

Handling Failures or Low-Test results

Thickness:

- If a core Or MPI (Magnetic Pulse Induction) Reading is lower than the PT (Plan Thickness) by more than 1.0 inches, obtain additional core, if the core is greater than Plan Thickness minus 1.0 inch no action is necessary, document additional core results into SMM as Information Only.
- When the measurement of any core or MPI is less than PT minus 1.0 inch, whether randomly located or not, the area represented by this core shall become a separate process and this core will not be used to compute an I/DP. This is a "remove and replace" situation. The actual thickness of the pavement in this area will be determined by taking exploratory cores. Cores shall be taken at intervals of 15 feet or less, parallel to the centerline in each direction from the affected location until two consecutive cores are found in each direction which is not less than PT minus 1.0 inches.
 - Obtain exploratory cores to define the out-of-specification area, document additional core results in SMM as Information Only.
 - Once the removal and replacement have been completed create **four additional QA samples** for the four additional cores that represent that area. Assign the same unique process number to the samples, which is different from the original sample. The total represented quantity of the four cores should total the area represented.

Compressive Strength:

- The higher value between the C39-28 and the T24-28 shall be used when compressive strength is less than TL (4500psi) and the contractor takes additional cores (T24).
- Add the T24-28 to the same sample ID that contains the original C39-28. This can be done using the Maintain Test Queue in LIMS.
- Both tests are left as valid tests and the report will choose the higher value for the I/DP calculations.

Flexural Strength:

- Determine if the contractor or CDOT flexural strength results will be used for acceptance. When an acceptance flexural strength is less than 570 psi the contractor may take cores for split tensile testing (C496) at the location of the corresponding acceptance test. The higher value between the T97-QC and C496 shall be used. The C496 template includes a field for the correlated flexural strength as per CP65. This correlation will be figured outside of SMM/LIMS and manually entered into the template.
 - Add the C496 test to the original sample that contains the low T97-QC. This can be done using the Maintain Test Queue in LIMS.
 - Both tests are left as valid tests and the report will choose the higher value for the I/DP Calculations

A partial list of error or informational messages that appear on the first page of the report:

A sample ID with two of the same valid tests. (I.e., two T148 tests on the sample)

Specification Height on T148 template is null or zero.

The average Core Inch Height cell is null or zero on T148.

Sample with zero (0) Rep. Qty.

Valid sample created with valid control type and null (blank) control number.

Total quantities do not match among element totals (final only)

Not all samples are complete (final only)

Compressive and Flexural samples the Mix ID is blank.

If there is more than one Item on the Contract tab

Messages included below the element:

C39-28 value is below Plan Value

T148 value below Plan Value by more than 1 inch

T148 value below Plan Value by more than .4" but not more than 1 inch

T148 value is more than 1 inch above plan value.

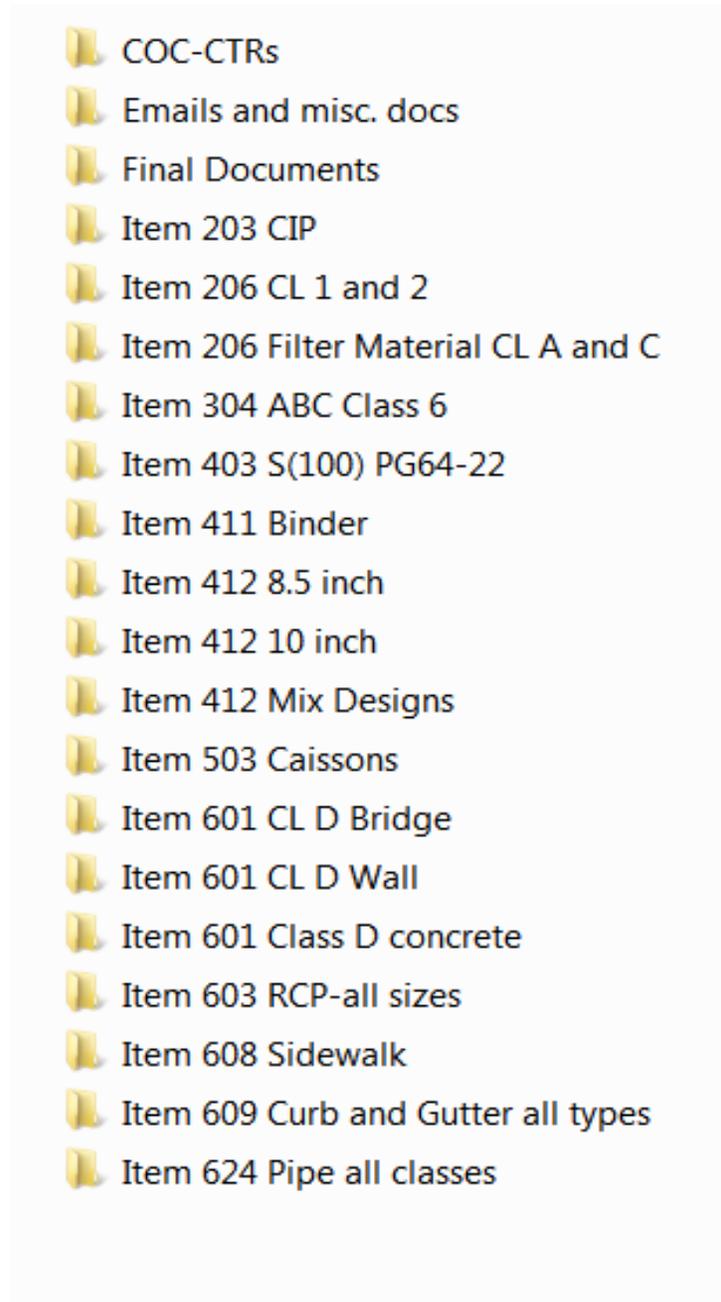
Element message for a T148 Value below Plan Value but above TL

Test data that is > 1 inch above Plan Value

Addendum 3

Certification Checklist Requirements						
Dated submitted to PE & Contractor:			August 1, 2018			Page 1 of 3
ITEM Number	Type of Document Required COC or CTR	APL or QML Material Required	Requires Contractor APL/QML Verification YES/NO	Date COC/CTR Received	Accepted or Rejected	Notes
206-00360 Mech Reinforcement	COC	NY-APL for geotex	YES	08/17/18	Accepted	
207-00205 Top Soil	CTR	NO	NO	05/25/18	Rejected	Missing stamp and signature
208-00009 Erosion Logs Typ 2	COC	YES-APL	YES	04/05/18	Rejected	Missing stamp & signature
208-00020 Silt Fence	COC	NO	NO	06/05/18	Accepted	
208-00051 Storm Drain Inlet Protection	COC	YES-APL	YES			
210 Modify Manhole	COC	Precast-YES QML	YES			Poured in place-does not require verification letter
212-00006 Seeding	COC	NO	NO			
212-00032 Soil Conditioning	COC	NO	NO			
213-00003 Mulching Weed Free HAY	COC	NO	NO			
213-00012 Mulch Tackifier	COC	NO	NO			

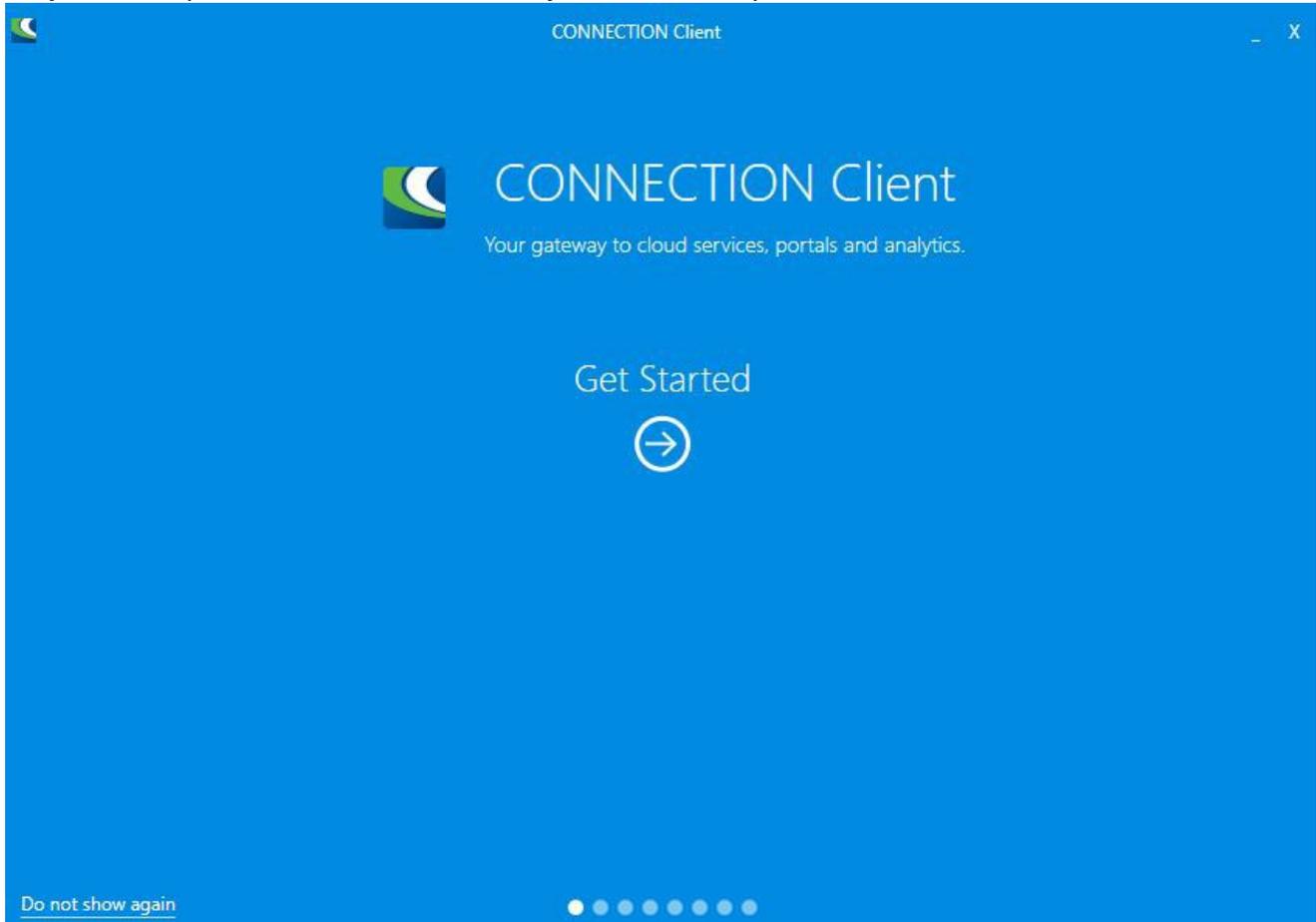
Example of Required Process Control Notebook Folders



Instructions for the Bentley Connect Client ProjectWise Cloud for project record retention.

Logging on to Bentley Connection Client:

When you log in on the Connection Client (the blue and green wavy icon) it will take you first to the Connection Client log on. When you try to enter your password, it transfers you to an OIT SSO Portal log-on page. In "username" fill in "dot\your username" (not your email address). Next, fill in your CDOT password in the password window. This will then automatically route you to your Bentley Project Share portal. This contains the Project Share sites you have been invited to.



Step 1



Sign In

Access your Bentley Services

Email

Password

[Forgot password?](#)

Don't have a profile? [Register](#)

Step 2

State of Colorado - SSO Portal

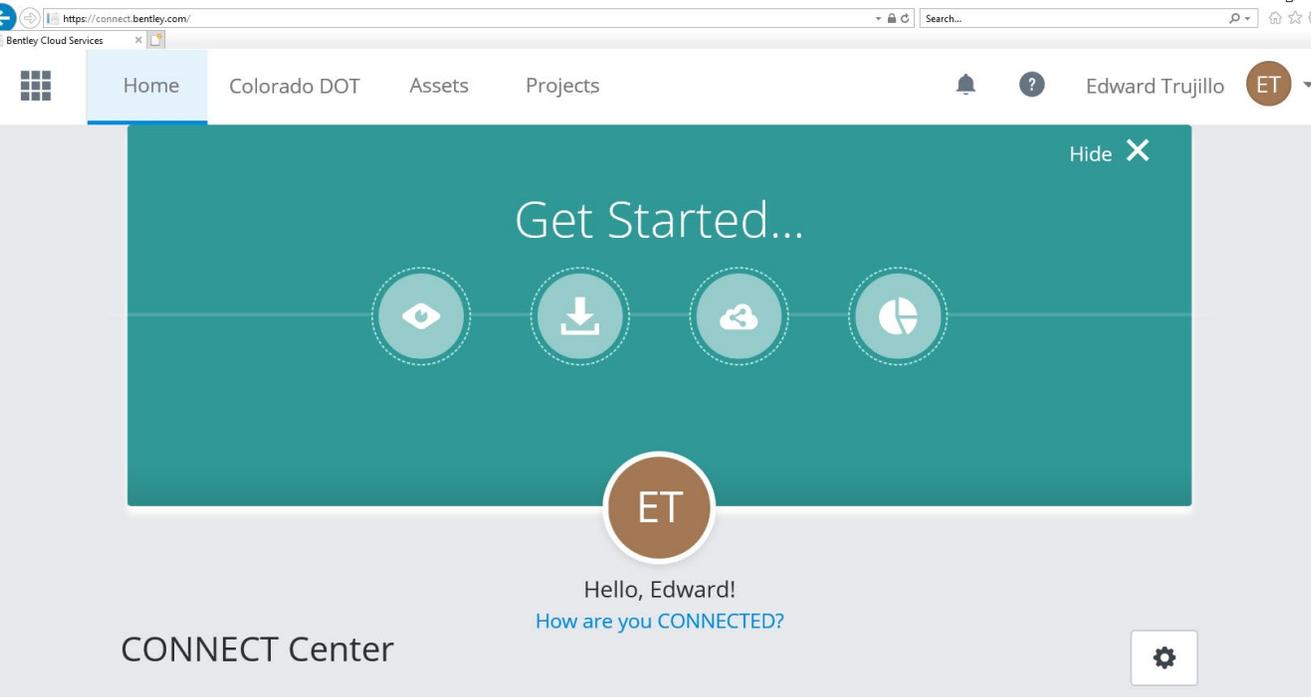
Sign in with your organizational account

 ✕

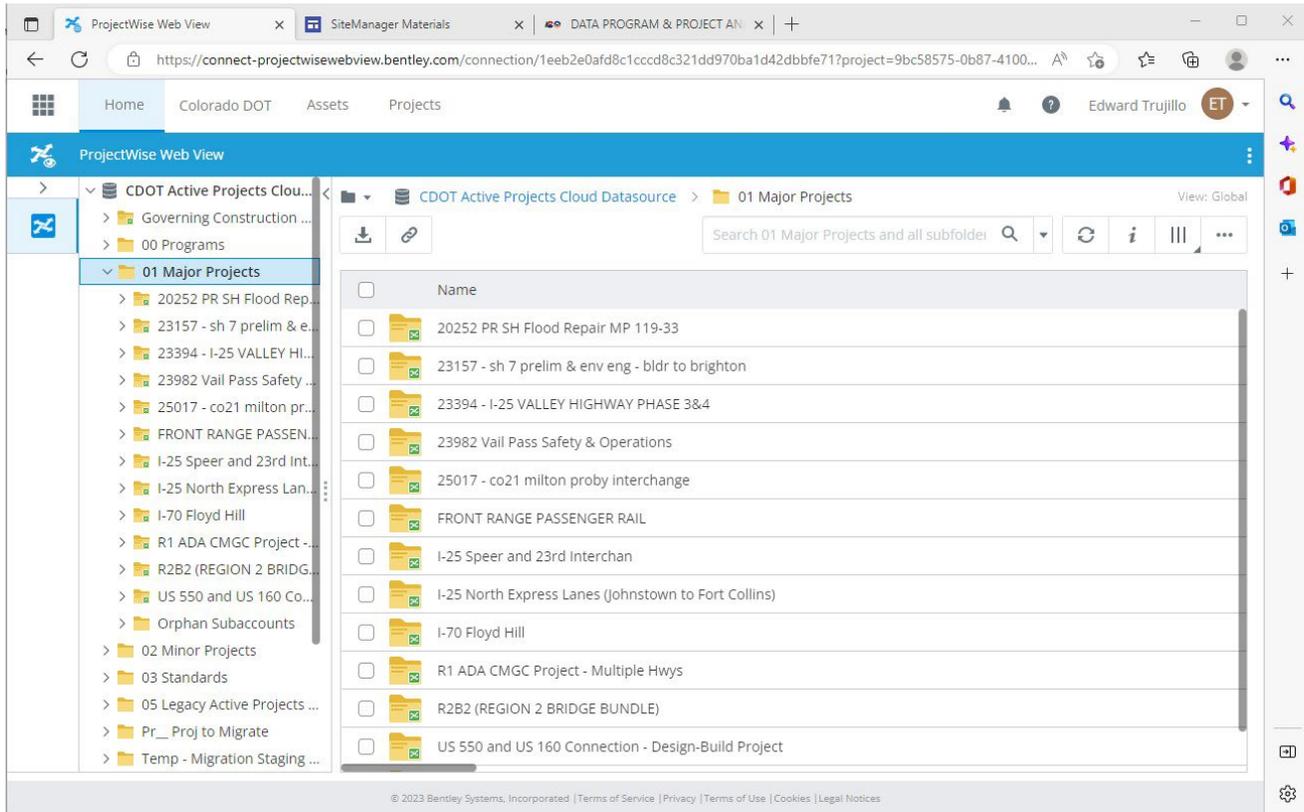
Sign in

© 2013 Microsoft

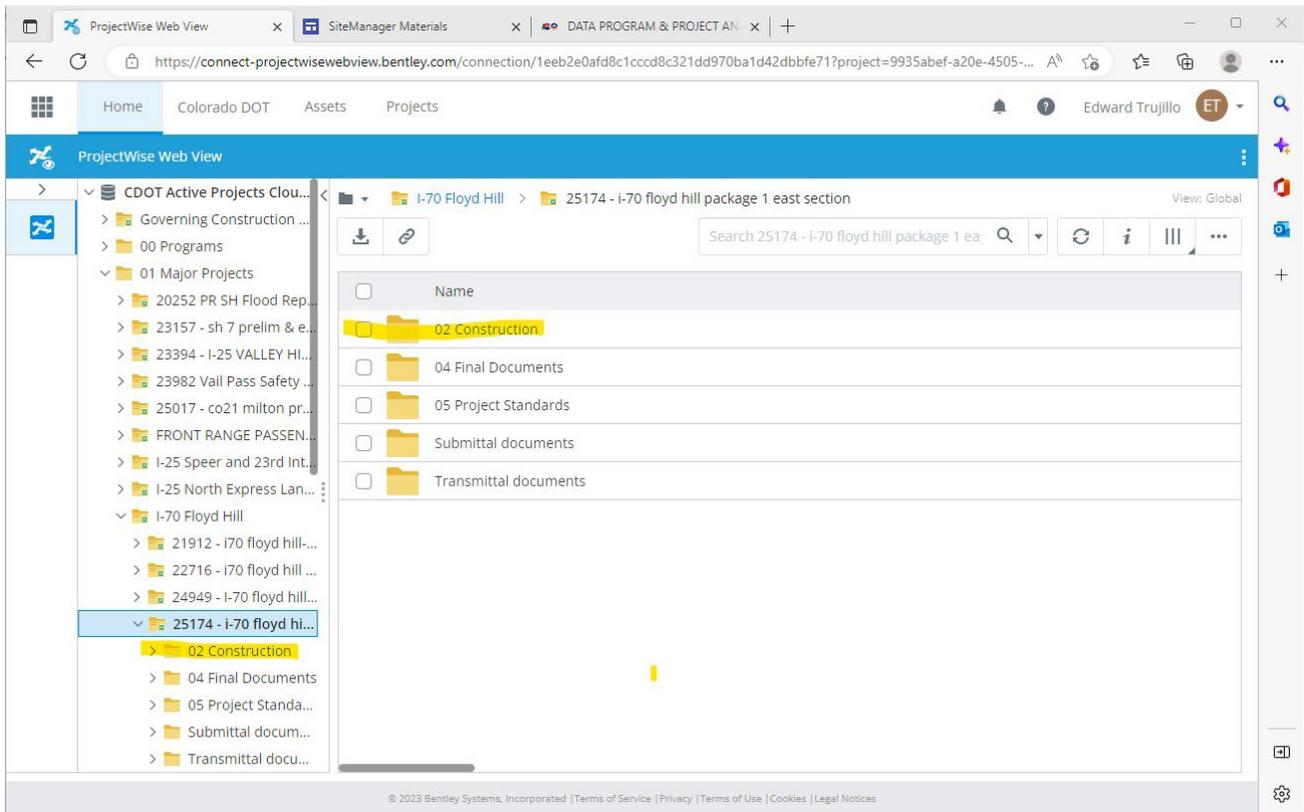
Step 3



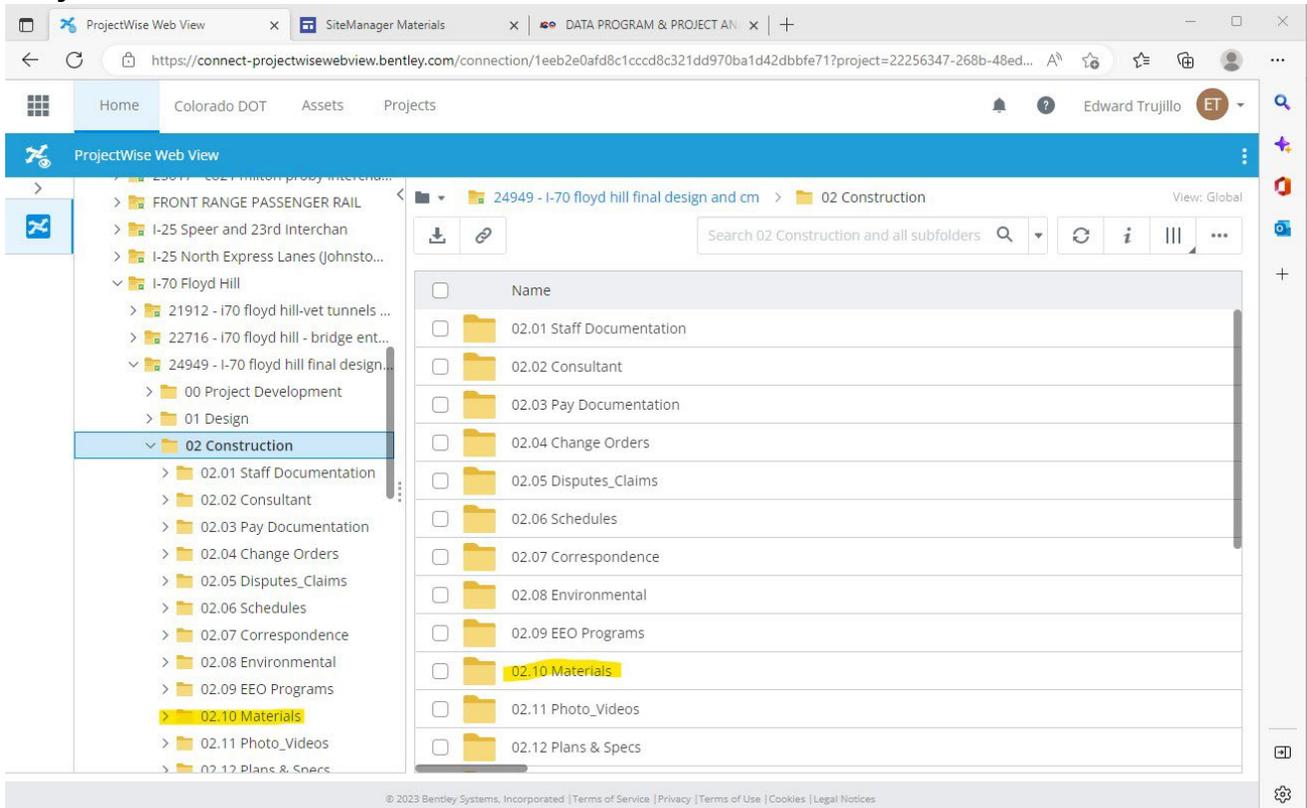
The ProjectWise Cloud Web View Materials Folders will be standardized to look as follows: The Electronic Folder for project materials in the ProjectWise Cloud is currently under development when the folders are developed, they will be standardized to look as follows. (Contact your regional Materials Document Coordinator or Finals Administrator for the regions current CDOT Project materials document storage program).



ProjectWise Web View- To view the Materials folder, choose your project and then choose Construction.



ProjectWise Web View- Choose Materials to view folders.



Example CDOT Form 473 Adobe Sign Document

COLORADO DEPARTMENT OF TRANSPORTATION		Contract ID* 23542	Project No.* STR 141-031
Final Materials Certification Checklist		Region* 3	Location* SH 14 Walden S & SH125 Walden N
<p>The Independent Assurance Sampling Schedule for this project has been substantially followed and the test results of the IA samples are in reasonably close agreement with the Owner Acceptance (OA) sample test results. Exceptions to this statement have been previously commented on and documented when the test results were reported or are explained on an attached sheet.</p> <p>Independent Assurance (IA) samples were tested with independent equipment unless noted on CDOT Form 474 - Explanation of Exceptions, see attached.</p>			
Project Materials Lab inspected by:* Darren Phipps	Date of inspection:* 06/15/2022	Method of Acceptance for Item 403* Project	
1) IA Summary Report (Form 379), attached with IA Explanation of Exceptions*.....			Yes
IA Attachments and Supporting Documents		IA Tester*	
IA 379	474 IA Exceptions	 E Trujillo (Feb 28, 2023 10:22 MST)	
Region Materials Engineer Comments: I have reviewed and agree with IA 379 for Project STR 141-031 SA 23542.			
RME Attachment		Final IA Review Region Materials Engineer*	
		 Ed Trujillo (Mar 1, 2023 11:09 MST)	
Project Tester - Document all shortages of tests, missing COC/CTR's and explain all quality level incentives/disincentives, price reductions and include supplemental documents as required on the CDOT Form 474 - Final Materials Certification Explanation of Exceptions.			
2)CDOT Form 474 - Final Materials Certification Explanation of Exceptions with supplemental documentation as required*.....			Yes
3)Completed O/A and Certification Checklists*.....			Yes
4)Completed Random Sampling Schedules (all required elements)*.....			Yes
5)Quality Control Notebooks (digital) for all required Items*.....			Yes
6)Evaluation of Materials testing, Form 1324*.....			Yes
7)Buy America monthly summary reports*.....			Yes
8)CAR Quality Level Reports - Incentive/Disincentive documents/AQL/CQL, e-mail confirmation from HQ Pavement Design.....			Yes
OA/PC Program Manager*. (cdot_pavement.design@state.co.us)		Project Tester:*	
Project Acceptance Date:* 06/15/2022		 Eddie Trujillo (Mar 1, 2023 7:50 MST)	
This is to Certify that: O/A Sampling & Testing Checklist, Certification Checklist and IA Checklist have met the minimum required testing. Explanation of Exceptions and Buy America summaries are complete. All documentation has been reviewed.			<input checked="" type="checkbox"/>
This is to Certify that: The results of the tests on the acceptance samples indicate that the material incorporated in the construction work, and the construction operations controlled by sampling and testing, were in conformity with the approved plans and specifications, and such results compare favorably with results of the Independent Assurance sampling and testing. This form is complete, includes all attachments, and has been reviewed and accepted.			<input checked="" type="checkbox"/>
Project Engineer:*		Resident Engineer:*	
 Edward Trujillo (Mar 1, 2023 11:36 MST)		 Edward Trujillo (Mar 1, 2023 11:37 MST)	
<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Region Finals Materials Documentation Coordinator or the Region Finals Administrator has verified items 1-8. O/A Sampling Checklist, Certification Checklist, IA Checklist and all documentation is complete. Check for COMP status on Summary of Samples (All) Report. <input checked="" type="checkbox"/> All items have been properly documented, attached to this form, and have been placed in ProjectWise/Share (PWS) according to the Record File Plan. If 'NO' is chosen then you must attach a statement with explanation. 			
Region Finals Materials Documentation Coordinator or the Region Finals Administrator*		Finals Attachments and Supporting Documents	
 Final Admin (Mar 1, 2023 12:03 MST)			

CDOT Form 473SMM 04/2021

Example CDOT Form 474 Adobe Sign Document

Colorado Department of Transportation Final Materials Certification Explanation of Exceptions		Contract ID:* 23542 Region:* 3 Project Acceptance Date:* 06/15/2022 Project Number:* STR 141-031 Project Location:* SH 14 Walden S & SH125 Walden N Contractor:* McAtee Construction Company Project Final Documentation Completion Date:* 10/31/2022 CDOT or Consultant Company Name:* RockSol
<input checked="" type="radio"/> Owner Acceptance* <input type="radio"/> Innovative Contract* <input type="radio"/> Local Agency* <input type="radio"/> CDOT Maintenance* <input type="radio"/> Other*		Electronic signature of Project Tester*  <small>Ed Trujillo (Mar 1, 2023 10:18 MST)</small>
CDOT Project Sampling and Testing by Consultant:* YES <input checked="" type="radio"/> NO <input type="radio"/>		
CAR - Quality Level Reports		
FINAL CAR report		Data Reviewed by:
<input checked="" type="checkbox"/> Asphalt Quality Level  <small>Ed Trujillo (Mar 1, 2023 11:36 MST)</small>		Data Checked by:  <small>Ed Trujillo (Mar 1, 2023 11:36 MST)</small>
Asphalt Quality Level Comments: I have attached the Asphalt Quality Level Report for project 23542.		
<input checked="" type="checkbox"/> Concrete Quality Level  <small>Ed Trujillo (Mar 1, 2023 11:36 MST)</small>		 <small>Ed Trujillo (Mar 1, 2023 11:36 MST)</small>
Concrete Quality Level Comments: I have attached the Concrete Quality Level Report for project 23542.		
Project Letter of Exceptions and Supporting Document Attachments*  474 Tester Exceptions  474 Support Docs Project Exceptions Comments:* The project letter of Exceptions is attached in a word document and a CDOT Form 474 2 pages.		
Supplemental Attachments*  OA Sampling and Testing Checklist  CAR - AQL and/or CQL Reports (With e-mail conformation receipt)  Summary of Samples Report  Certification Checklist Report  Quality Control Notebook (Storage Location Information or Link)  CDOT Form 1324  Random Sampling Schedule  Buy America Monthly Summary Report		
Consultant Firm PE Comments: I am missing Page 1 of the CDOT Form 474 with the Letter of Exceptions. I have requested from the tester the missing document so I can attach it to this form.		Consultant PE Supplemental Attachments  Consultant PE Attachment
Instructions: Signature of Project Tester shall be signed after explanations are complete. Hand signed document is not acceptable, only electronic signatures. On or before January 2020, all CDOT, local agency, and consulting Engineers shall utilize electronic Sealing. Requests for exemptions shall be submitted to the Chief Engineer prior to mechanical Seals being utilized with the reason why electronic Sealing cannot be used. Beginning January 2021, there will be no exemptions to the electronic Sealing requirement, except where stated in section (V) (C) of CDOT Procedural Directive 508.1, REQUIREMENTS FOR THE USE OF THE PROFESSIONAL ENGINEER'S SEAL. See FMM Electronic Documentation chapters - for more information		Consultant Firm PE Electronic Signature*  <small>Ed Trujillo (Mar 1, 2023 11:34 MST)</small> Consultant PE Seal  PD 508-1*

Previous editions of this form are obsolete and may not be used

CDOT Form 474 06/21

Example of Attachment CDOT Form 474 Letter of Exceptions.

Colorado Department of Transportation Final Materials Certification Explanation of Exceptions		Contract ID: 12345	Region: 3	Page 1 of 1
		Project Acceptance Date: 02/17/23		
<input checked="" type="checkbox"/> Owner Acceptance <input type="checkbox"/> Independent Assurance <input type="checkbox"/> Innovative Contract <input type="checkbox"/> Local Agency <input type="checkbox"/> CDOT Maintenance <input type="checkbox"/> Other		Project Number: NHI 010-9874		
		Project Location: North I-25		
		Contractor: Contracting and Assoc.		
		Project Final Documentation Completion Date: 02/17/23		
Electronic signature of Project Tester John Doe Digitally signed by John Doe Date: 2023.02.28 11:21:23 -07'00'		Type "CDOT" or Consultant Company Name: CDOT		
CDOT Project Sampling and Testing by Consultant: YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>				
CAR - Quality Level Reports				
FINAL CAR report		Data Reviewed by:		Data Checked by:
<input checked="" type="checkbox"/> Asphalt Quality Level	John Doe Digitally signed by John Doe Date: 2023.02.28 11:21:36 -07'00'	Project Engineer Digitally signed by Project Engineer Date: 2023.02.28 11:51:36 -07'00'		
Comment				
<input checked="" type="checkbox"/> Concrete Quality Level	John Doe Digitally signed by John Doe Date: 2023.02.28 11:21:55 -07'00'	Project Engineer Digitally signed by Project Engineer Date: 2023.02.28 11:51:50 -07'00'		
Comment				
Type or Attach Letter of Exceptions in word format and other required documents before signing this Form. Item 403-34751 Hot Mix Asphalt (Grading SX) (75) (PG 64-26) Mix ID: 42017T1_20856. The project was Voids Acceptance, 18,478 tons was placed for a 2 Inch top mat. CP44, CP85, and CP85C were not used due to alternative test methods used. CP81-36 tests, Cp82-test, for a total of 37 tests. Total tons placed 18,478 tons on top mat. Total tons placed on project 42,775 , with an incentive of \$134,599.11. CP 58 Contractor followed best paving practices. There was not any indication of temperature segregation seen in the mat densities. The mean mat density for the bottom mat was 93.3%. Top Mat mean mate density was a 93.6%. Item 601.01000 Concrete Class B: Visual Inspection due to a small quantity (1.3CY), material place in the headwall of pipe. Item 603-10120 12 inch Corugated Steel pipe: Pipe placed under sidewalk with a small amount of structure backfill mostly for bedding of pipe. Testing could not be performed due to the small area of placement. The compaction effort was performed by the contractor and the Project Engineer accepted it visually. See attached Picture. (Letter of Exceptions will continue on page 2)				
Project Engineer Comments Item 216-00101 Soil Retention Blanket After numerous requests to the contractor, no documentation was received. Material delivered was inspected and the label on the product was found to be on the CDOT APL, Western Excelsior- Excoel C5-3 All Natural. Based on the material being an APL product, the Project Engineer accepted the material. Sample record created in SiteManager® to document the product, no attachment on sample record.				
		Project Engineer Signature Project Engineer Digitally signed by Project Engineer Date: 2023.02.28 11:30:15 -07'00'		
Consultant Firm PE Comments:				
Instructions: Signature of Project Tester or Project Engineer shall be signed after explanations are complete. Hand signed document is not acceptable, only electronic signatures. On or before January 2020, all CDOT, local agency and consulting Engineers shall utilize electronic Sealing. Requests for exemptions shall be submitted to the Chief Engineer prior to mechanical Seals being utilized with the reason why an electronic Sealing cannot be used. Beginning January 2021, there will be on exemptions to the electronic Sealing requirement, except where stated in section (V) (C) of the CDOT Policy Directive 508.1, REQUIREMENTS FOR THE USE OF THE PROFESSIONAL ENGINEER'S SEAL See FMM Documentation chapters - After Construction - for more information All CAR - Quality Level Reports must be Final Report with no errors.				
		Consultant Firm PE Electronic Signature Consultant Firm PE Electronic Stamp as per PD 508-1: 		
<small>Previous editions of this form are obsolete and may not be used</small>				
<small>CDOT Form 474 02/2023</small>				

Example of Attachment CDOT Form 474 Letter of Exceptions Page 2

Colorado Department of Transportation Final Materials Certification Explanation of Exceptions		Contract ID: 12345	Region: 3	Page 2 of 2
		Project Acceptance Date: 02/17/23		
<input checked="" type="checkbox"/> Owner Acceptance <input type="checkbox"/> Independent Assurance <input type="checkbox"/> Innovative Contract <input type="checkbox"/> Local Agency <input type="checkbox"/> CDOT Maintenance <input type="checkbox"/> Other		Project Number: NHI 010-9874		
Electronic signature of Project Tester John Doe Digitally signed by John Doe Date: 2023.02.28 11:46:36 -07'00'		Project Location: North I-25		
Type "CDOT" or Consultant Company Name: CDOT		Contractor: Contracting and Assoc.		
Project Final Documentation Completion Date:		Project Sampling and Testing by Consultant: YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		
CAR - Quality Level Reports				
FINAL CAR report		Data Reviewed by:		Data Checked by:
<input type="checkbox"/> Asphalt Quality Level Comment	John Doe Digitally signed by John Doe Date: 2023.02.28 11:46:59 -07'00'	Project Engineer Digitally signed by Project Engineer Date: 2023.02.28 11:48:50 -07'00'		
<input type="checkbox"/> Concrete Quality Level Comment	John Doe Digitally signed by John Doe Date: 2023.02.28 11:47:21 -07'00'	Project Engineer Digitally signed by Project Engineer Date: 2023.02.28 11:49:08 -07'00'		
<p style="color: red;">Type or Attach Letter of Exceptions in word format and other required documents before signing this Form.</p> (Letter of Exceptions Continued from page 1) Item 608.00010 Concrete Curb Ramp. Visual Inspection due to small quantities, 37 SY, material placed on ramp for the sidewalk. CAR Report Certification Checklist: Item 216.001.1 Soil Retention Blanket: After numerous requests to the contractor, no documentation was received. Material delivered was inspected and the label on the product was found to be on the CDOT APL, Western Excelsior-Excel CS-3 All Natural. Based on the material being an APL product, the Project Engineer accepted the material. Sample record created in SiteManager to document the product, No attachment on sample record. Item 601.01000 & 608.00010 Concrete: Cure, The small quantity used on both of these items, Material visually accepted by the Project Engineer. Item 627.-00006 and 627-304705 Pavement Marking Materials: Two records were completed on each item to reflect white and yellow material. (End of Letter of Exceptions)				
Project Engineer Comments I have reviewed the documents and concur with the results.				
		Project Engineer Signature Project Engineer Digitally signed by Project Engineer Date: 2023.02.28 11:47:46 -07'00'		
Consultant Firm PE Comments:				
Instructions: Signature of Project Tester or Project Engineer shall be signed after explanations are complete. Hand signed document is not acceptable, only electronic signatures. On or before January 2020, all CDOT, local agency and consulting Engineers shall utilize electronic Sealing. Requests for exemptions shall be submitted to the Chief Engineer prior to mechanical Seals being utilized with the reason why an electronic Sealing cannot be used. Beginning January 2021, there will be an exemption to the electronic Sealing requirement, except where stated in section (V) (C) of the CDOT Policy Directive 508.1, REQUIREMENTS FOR THE USE OF THE PROFESSIONAL ENGINEER'S SEAL See FMM Documentation chapters - After Construction - for more information All CAR - Quality Level Reports must be Final Report with no errors.		Consultant Firm PE Electronic Signature Consultant Firm PE Electronic Stamp as per PD 508-1: 		

Previous editions of this form are obsolete and may not be used

CDOT Form 474 01/2023

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