

Autodesk Construction Cloud

BEST MANAGEMENT
PRACTICES

Speaker: Joel Thomas

What is Autodesk Construction Cloud?

- ▶ Autodesk Construction Cloud is an online platform that connects teams, data, and workflows through all phases of construction

Best Management Practices in Autodesk

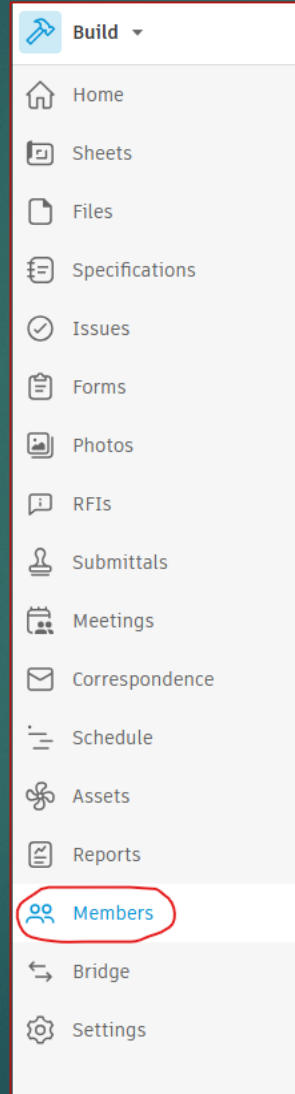
- ▶ Overview of today:
 - ▶ BMP Reporting Requirements in ACC
 - ▶ Updates to ACC BMP forms refresher
 - ▶ E-construction Consistency Goals
 - ▶ File Structure
 - ▶ Issues
 - ▶ Meetings

What does
HDOT use
Autodesk
for?

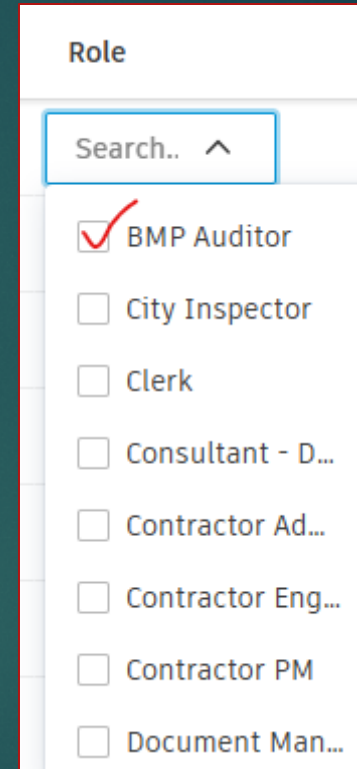
- ▶ Track, document, report, and enforce BMP compliance during all phases of construction.

Assigning roles in ACC...

- ▶ Once your project is created using the template in Autodesk, you will need to add members:



- Once you have entered team members, you can then assign project roles:



The “Why” behind the “What”

- ▶ We will be utilizing Dashboards to track projects
- ▶ One of the dashboard features includes BMP compliance
- ▶ The Dashboard will show which projects are using the modules correctly
- ▶ The Dashboard will also show which projects are not in compliance with BMP corrections

| Project Name | Value |
|---|-------|
| Kamehameha Highway, Kama... | 176 |
| Kalanianaʻole Highway Improv... | 155 |
| Ala Moana Boulevard Elevate... | 150 |
| Kamehameha Highway Rehab... | 145 |
| Asphalt Pavement Preservatio... | 141 |
| Interstate Route H-1 Rehabilit... | 132 |
| Interstate Route H-1 Airport V... | 119 |
| Freeway Management System... | 111 |
| Erosion Control and Best Man... | 109 |
| Farrington Highway Safety Im... | 109 |
| Asphalt Pavement Preservatio... | 102 |
| Misc PBMP Phase 3 (NTP giv... | 102 |
| Guardrail and Shoulder... | 101 |
| INTERSTATE ROUTE H-1... | 100 |
| Interstate Route H-1 Additio... | 98 |
| Ala Moana Freeway... | 98 |
| Interstate Route H-1 Airport V... | 97 |
| Interstate Route H-3 from H201 to MC... | 92 |



Refresher on key updates to the
weekly inspection reports and
monthly compliance forms in
ACC...

Filling out a BMP Weekly Inspection Report:

The screenshot displays a software interface for managing forms. The sidebar on the left contains navigation options: Build, Home, Sheets, Files, Specifications, Issues, Forms (highlighted with a red circle), Photos, RFIs, Submittals, Meetings, Correspondence, Schedule, Assets, Reports, Members, Bridge, and Settings. The central panel shows the 'Forms' section with tabs for 'Forms' and 'Templates'. Under 'Forms', there are sections for 'All Forms', 'My Current Forms', 'Template Folders' (including 'Sample Forms'), and 'Ungrouped Templates'. The 'Ungrouped Templates' section lists various forms, with 'BMP Weekly Inspection' highlighted by a red circle. The right panel shows a table of existing forms, with the first row highlighted by a red circle.

| <input type="checkbox"/> | Form name | Template | Description | Form date | ID | Status | Location |
|--------------------------|----------------------|----------------------|-------------------|--------------|------|--------|----------|
| <input type="checkbox"/> | BMP Weekly Ins... | BMP Weekly Ins... | BMP Weekly Ins... | Oct 28, 2024 | #406 | Closed | - |
| <input type="checkbox"/> | Certified Payroll... | Certified Payroll... | 20241020_CP#4... | Oct 28, 2024 | #411 | Closed | - |
| <input type="checkbox"/> | Certified Payroll... | Certified Payroll... | 20241013_CP#41... | Oct 28, 2024 | #410 | Closed | - |
| <input type="checkbox"/> | Certified Payroll... | Certified Payroll... | 20241006_CP#4... | Oct 28, 2024 | #409 | Closed | - |
| <input type="checkbox"/> | Certified Payroll... | Certified Payroll... | 20240929_CP#3... | Oct 28, 2024 | #408 | Closed | - |
| <input type="checkbox"/> | Certified Payroll... | Certified Payroll... | 20240922_CP#3... | Oct 28, 2024 | #407 | Closed | - |
| <input type="checkbox"/> | Certified Payroll... | Certified Payroll... | 20240915_CP#3... | Oct 25, 2024 | #405 | Closed | - |
| <input type="checkbox"/> | Certified Payroll... | Certified Payroll... | 20240908_CP#3... | Oct 24, 2024 | #403 | Closed | - |
| <input type="checkbox"/> | Certified Payroll... | Certified Payroll... | 20240901_CP#3... | Oct 24, 2024 | #404 | Closed | - |
| <input type="checkbox"/> | Certified Payroll... | Certified Payroll... | 20240825_CP#3... | Oct 24, 2024 | #402 | Closed | - |
| <input type="checkbox"/> | Certified Payroll... | Certified Payroll... | 20240818_CP#3... | Oct 24, 2024 | #401 | Closed | - |
| <input type="checkbox"/> | Certified Payroll... | Certified Payroll... | 20240811_CP#3... | Oct 24, 2024 | #400 | Closed | - |

Fill in your Project Information in the Header:

SITE-SPECIFIC BEST MANAGEMENT PRACTICE/STORM WATER POLLUTION PREVENTION INSPECTION AND MAINTENANCE REPORT

Date: Permit No.

Project Name:

Project Number: SWPPP Phase(s):

☐ Individual NPDES Permit Project (Receiving State Waters Inspection Required)

Type of Report:

☐ Pre-Construction Verification Inspection Report

☒ Weekly Report

☐ Independent (Third Party) Inspection

☐ Event Report

Inches of Rain for
past 24 hours (if Rain
Event)

Check All That Are Applicable:

☐ There is evidence of a discharge.

☐ There is evidence that a
polluted discharge is leaving or
has left the project site

☐ The polluted discharge was
contained prior to reaching the
storm drain system/receiving

NOTE: If any of the boxes above were checked, fill out HDOT Construction Discharge Report.

BMP Measures and Devices Currently Installed on the Project:

BMP Measures and Devices Currently Installed on the Project:

| Location | Activity & Type of BMP Measure/Device | Action Required? (Y/N) | Notes/Comments |
|-----------------|--|------------------------|---|
| Staging Area #1 | Spill Prevention and Control - Staging Area Drip Protection | N | No issues with geotextile filter fabric installed over plastic. |
| Staging Area #1 | Sediment Control - Staging Area Perimeter Control | N | Biosocks installed around staging area. |
| Staging Area #1 | Sediment Control - South Entrance Rock Construction Entrance | N | Aggregate in good condition and no tracking observed. |
| Staging Area #1 | Sediment Control - North Entrance Rock Construction Entrance | Y | Rock entrance is overwhelmed with fines. |
| Staging Area #1 | Good Housekeeping - Hazardous Materials and Waste Management | Y | Containers were not observed in secondary containment. |
| Staging Area #1 | Good Housekeeping - Sanitary Waste Management | N | Portable toilet is secured. |
| Staging Area #1 | Good Housekeeping - Solid Waste Management | N | Waste container is covered and less than 2/3 full. |
| Staging Area #1 | Sediment Control - Curb Inlet Protection | N | Curb inlet guards anchored by gravel bags at curb inlets. |
| | | | |

Then, scroll down to the BMP Deficiencies portion and fill in the deficiency data:
(Note, this is a new portion of the report)

Star Upload Print Search Up Down 5 / 7 Monitor Chat Edit Signatures Attachments Link Email

**SITE-SPECIFIC BEST MANAGEMENT PRACTICE/STORM WATER POLLUTION
PREVENTION INSPECTION AND MAINTENANCE REPORT**

BMP Deficiencies Found and Corrective Actions Taken:

| Date Found | Location | Activity and Type of BMP Measure/Device | Deficiency Description | Amendment Required? (Y/N) | Date Corrected | Corrective Action Description |
|------------|----------|---|------------------------|---------------------------|----------------|-------------------------------|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

BMP Deficiencies Found and Corrective Actions Taken:

| Date Found | Location | Activity and Type of BMP Measure/Device | Deficiency Description | Amendment Required? (Y/N) | Date Corrected | Corrective Action Description |
|------------|----------------------|---|---|---------------------------|----------------|--|
| 5/8/24 | Staging Area #1 | North Entrance Rock Construction Entrance | Rock construction entrance is overwhelmed with fines. | N | 5/8/24 | Rock construction entrance was refreshed and fines were removed. |
| 5/8/24 | Staging Area #1 | Hazardous Materials and Waste Management | Hazardous material containers were not contained in secondary containment. | N | | |
| 5/8/24 | H-1 EB Sta 125 - 129 | Biosock Perimeter Control | Tears in biosocks exposing filter media. | N | | |
| 5/8/24 | H-1 EB Sta 121 - 125 | Curb Inlet Protection | Curb inlet guards were moved out of position and 2 gravel bags were broken. | N | | |
| 5/1/24 | H-1 EB Sta 129 - 133 | Curb Inlet Protection | REPEAT: Curb inlet guards were not anchored at ends and overlaps. | N | | |

Fill in the corrective action work on same report where deficiency was notated once corrective work is complete:

BMP Deficiencies Found and Corrective Actions Taken:

| Date Found | Location | Activity and Type of BMP Measure/Device | Deficiency Description | Amendment Required? (Y/N) | Date Corrected | Corrective Action Description |
|------------|----------------------|---|---|---------------------------|----------------|--|
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| 5/8/24 | H-1 EB Sta 125 - 129 | Biosock Perimeter Control | Tears in biosocks exposing filter media. | N | 5/9/24 | Damaged biosocks were replaced and reinstalled. |
| 5/8/24 | H-1 EB Sta 121 - 125 | Curb Inlet Protection | Curb inlet guards were moved out of position and 2 gravel bags were broken. | N | 5/9/24 | Curb inlet guards were repositioned and damaged gravel bags were replaced and reinstalled. |
| 5/1/24 | H-1 EB Sta 129 - 133 | Curb Inlet Protection | REPEAT: Curb inlet guards were not anchored at ends and overlaps. | N | 5/9/24 | Curb inlet guards were anchored with gravel bags at ends and overlaps. |

Photos...

- ▶ Reminder, if not already doing so, BMP-related photos should be uploaded into ACC rather than Headlight. BMP issues are tracked in ACC, not Headlight.
- ▶ Once you have filled out your report, you are able to link photos that you uploaded into ACC.

Photos...

Build ▾ HDOT Test Project ▾

Forms /

BMP Weekly Inspection Report Template

This form is only visible to you.

Select a location ▾

Description
Test - rain event report

Due date
11/1/2024 ▾

Once submitted, this form will be visible to 440 members

References (0) Add references ▾

Add references to other objects or project files.

Notes
Add additional details ▾

Issues

Forms

Photos

RFIs

Submittals

Meetings

Correspondence

Schedule

Assets

Reports

Members

Bridge

Settings

Add photo reference

+ Upload new

220929 JK PID 496 KAM HWY STA 102_50 LS 2
Sep 29, 2022 9:43 AM

20220906_213314_photo
Sep 6, 2022 9:33 PM

Makea outlet anchors.PNG

20220816_144845_photo
Aug 16, 2022 2:48 PM

Cancel Add photo

ve and tha
construction

repared un

supervision in accordance with a system designed to assure that qualified personnel pro
the information submitted. Based on my inquiry of the person or persons who manage

On the last page of the report, the inspector enters name, signs, and dates:

**SITE-SPECIFIC BEST MANAGEMENT PRACTICE/STORM WATER POLLUTION
PREVENTION INSPECTION AND MAINTENANCE REPORT**

Comments/Remarks:

| |
|--|
| |
| |
| |

I certify that I am the person who performed the inspection documented above and that all information recorded on this form is a true and accurate representation of what was observed at the construction site recorded above.

| |
|--|
| |
|--|

Inspector Name & Title

| |
|--|
| |
|--|

Signature

| |
|--|
| |
|--|

Date

Before you Submit...

- ▶ Once you submit your Weekly BMP Report, the report will lock, disabling editing
- ▶ Therefore, it is important to wait until you have entered the corrective work and corrective photos before you Submit.
- ▶ If you do submit and need to re-open the report, you may do so.

After you Submit...

- ▶ Print/export the form and submit E-sign to the Resident Engineer.
- ▶ Once signed, rename the file and load into the 'Files' portion of ACC

BMP Monthly Compliance Report

Permit No.

County/Island

Construction Start Date

Project No

Acreage Disturbed

Percent of Work
Completed

This form must be completed within 2 working days of the end of the month and must be kept on-site and made available by the end of the next business day when requested by DOH. In addition, this form is required to be submitted to DOH with the Notice of Cessation at the completion of the project.

1. BMP Deficiencies Found and Associated Corrective Action

| Date Found | Location | Activity and Type of BMP Measure/Device | Deficiency Description | Date Corrected | Corrective Action Description |
|------------|----------|---|------------------------|----------------|-------------------------------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Note, you do not need to add deficiencies found in the third-party inspection report, unless those deficiencies were also noted during the weekly report

Fill in your data:



| 1. BMP Deficiencies Found and Associated Corrective Action | | | | | |
|--|----------------------|---|---|----------------|--|
| Date Found | Location | Activity and Type of BMP Measure/Device | Deficiency Description | Date Corrected | Corrective Action Description |
| 5/1/24 | H-1 EB Sta 129 - 133 | Curb Inlet Protection | REPEAT: Curb inlet guards were not anchored at ends and overlaps. | 5/9/24 | Curb inlet guards were anchored with gravel bags at ends and overlaps. |
| 5/8/24 | Staging Area #1 | North Entrance Rock Construction Entrance | Rock construction entrance is overwhelmed with fines. | 5/8/24 | Rock construction entrance was refreshed and fines were removed. |
| 5/8/24 | Staging Area #1 | Hazardous Materials and Waste Management | Hazardous material containers were not contained in secondary containment. | 5/9/24 | Hazardous material containers were placed into secondary containment. |
| 5/8/24 | H-1 EB Sta 125 - 129 | Biosock Perimeter Control | Tears in biosocks exposing filter media. | 5/9/24 | Damaged biosocks were replaced and reinstalled. |
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| | | | | | |

Reminder on BMP Inspection Frequency Requirements:

- ▶ Weekly BMP inspection: Completed every 7 calendar days with Contractor.

Independent third-party inspections can count as the “weekly” BMP inspection, but from a reporting standpoint, this still need to be input into ACC as the ‘weekly inspection’ (Separate from the third-party report).

- ▶ Rain events: Within 24 hours of the 0.25” rain event, with the Contractor
- ▶ Monthly Compliance Reports: Completed within two working days of the end of the month

BMP Reporting Frequency:

**Weekly BMP
Inspection Reports**

(Including Rain Event Reports)



**Complete within 24
hours of inspection**

(SUBMIT reports within 7 days)

**BMP Monthly
Compliance Forms**



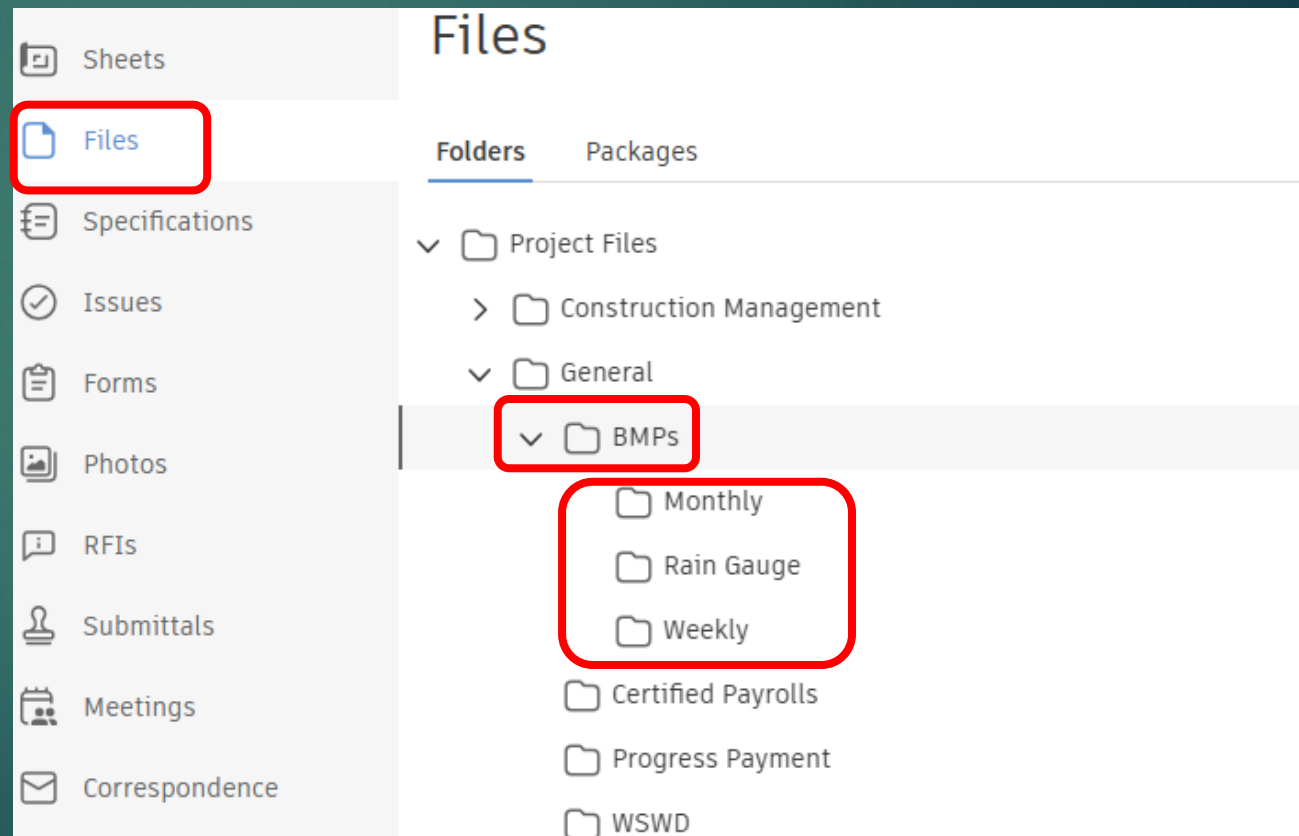
**Complete with 2
working days of the
end of the month**

E-Construction Goal: Increase Consistency across Projects

- ▶ File Structure
- ▶ Issues
- ▶ Meetings

Consistency...

► File Structure:



Consistency...











► File Structure:

► Naming Conventions

Weekly Report Example:

| | | |
|--------------------------|---|--|
| <input type="checkbox"/> |  | 01_05_2024_BMP Weekly Inspection (LT) - signed.pdf |
| <input type="checkbox"/> |  | 01_09_2024_BMP Weekly Inspection (LT) - signed.pdf |
| <input type="checkbox"/> |  | 01_16_2024_BMP weekly Inspection (MA) - signed.pdf |
| <input type="checkbox"/> |  | 01_23_2024_BMP Weekly Inspection (MA) - signed.pdf |
| <input type="checkbox"/> |  | 01_31_2024_BMP Weekly Inspection (MG) - signed.pdf |
| <input type="checkbox"/> |  | 02_05_2024_BMP Event Inspection (MA) - signed.pdf |
| <input type="checkbox"/> |  | 02_06_2024_BMP Weekly Inspection (LT) - signed.pdf |
| <input type="checkbox"/> |  | 02_14_2024_BMP Weekly Inspection (MA) - signed.pdf |

Monthly Report Example:

| | | |
|--------------------------|---|---|
| <input type="checkbox"/> |  | BMP Monthly Compliance Report (April 2024) - signed.pdf |
| <input type="checkbox"/> |  | BMP Monthly Compliance Report (Aug 2024) - signed.pdf |
| <input type="checkbox"/> |  | BMP Monthly Compliance Report (Dec 2023) - signed.pdf |
| <input type="checkbox"/> |  | BMP Monthly Compliance Report (Feb 2024) - signed.pdf |
| <input type="checkbox"/> |  | BMP Monthly Compliance Report (Jan 2024) - signed.pdf |
| <input type="checkbox"/> |  | BMP Monthly Compliance Report (July 2024) - signed.pdf |
| <input type="checkbox"/> |  | BMP Monthly Compliance Report (June 2024) - signed.pdf |
| <input type="checkbox"/> |  | BMP Monthly Compliance Report (March 2024) - signed.pdf |
| <input type="checkbox"/> |  | BMP Monthly Compliance Report (May 2024) - signed.pdf |
| <input type="checkbox"/> |  | BMP Monthly Compliance Report (Sep 2024) - signed.pdf |

You've got Issues.

(We've got the whole subscription)

- ▶ Issues are a powerful tool that can be used in ACC.
- ▶ Issues are used to track status of BMP deficiencies between HDOT and the Contractors.
- ▶ Issues can be easily tracked, referenced, and monitored in just about any location in ACC (Submittals, RFI's, Meeting Minutes, Drawings, Schedule, etc)

Creating an Issue:

The screenshot displays a software interface with a sidebar on the left and a main content area. The sidebar contains a list of navigation items: Home, Sheets, Files, Specifications, Issues, Forms, Photos, RFIs, Submittals, Meetings, Correspondence, Schedule, Assets, Reports, Members, Bridge, and Settings. The 'Issues' item is highlighted with a red box. The main content area is titled 'Issues' and features a '+ Create issue' button, also highlighted with a red box. Below this button is a list of issues, each with a checkbox and a title. The 'Create issue' modal is open on the right, showing fields for 'Start from a template', 'Title', 'Status', 'Type', 'Description', 'Watchers', 'Location', and 'Location details'.

Home

Sheets

Files

Specifications

Issues

Forms

Photos

RFIs

Submittals

Meetings

Correspondence

Schedule

Assets

Reports

Members

Bridge

Settings

Issues

+ Create issue

- ☐ Title
- ☐ 10/28/24 Drain inlet protection not properly installed
- ☐ 10/28/24 Drain protection need to pullout during heav...
- ☐ 10/28/24 Sediment build-up at Drain inlet
- ☐ 10/28/24 Dust fence down
- ☐ 10/28/24 Rebar not fully covered
- ☐ 10/28/24 Dumpster not covered
- ☐ 10/21/24 Stock pile not fully covered
- ☐ 10/21/24 Rebar not fully covered
- ☐ 10/21/24 No Drip protection on the equipment.
- ☐ 10/14/24 Concrete waste not covered

Create issue

Start from a template

Select template

Title *

BMP-Deficiency

Status

Open

Type

BMP > BMP-Deficiency

Description

Describe the issue

Watchers ⓘ

Select watchers

Location

Select a location

Location details

Enter location details

Creating an Issue:

Create issue

Assigned to

Select a member, role, or company

Due date

Select date

Start date

Select date

Placement

Select...

Root cause

Select a root cause

Date Contractor Notified

Enter text

Amendment Required

Select an option

BMP Activity

Select an option

BMP Measure

Select an option

Date Found (MM/DD/YY)

Enter text

Station

Enter text

Direction

Enter text

Cancel

Create

Tracking Issues using meetings

Meetings >

Agenda

01

Project Weekly Meeting

Date Nov 1, 2024

Time 12 : 00 AM

-

12 : 00 AM

Location Unspecified

Video conference link Unspecified

Add link

Description

Weekly Team Meeting

Meeting discussion

Environmental

1. BMP Deficiencies

Add issue reference

+ Create

Search

| ID | Title | Status | Type | Assigned to | Due date | Placement |
|---|----------------|--------|--------------------|-----------------------|-------------|---------------------------|
| <input type="checkbox"/> #42 | BMP Deficiency | Closed | BMP BMP Deficiency | - | - | A-000 (COVER) |
| <input type="checkbox"/> #41 | Sample C | Open | C-M HMA Core-Mat | - | - | - |
| <input type="checkbox"/> #40 | Sample B | Open | C-M HMA Core-Mat | - | - | - |
| <input type="checkbox"/> #39 | Sample A | Open | C-M HMA Core-Mat | - | - | - |
| <input checked="" type="checkbox"/> #38 | BMP Deficiency | Open | BMP BMP Deficiency | - | - | - |
| <input checked="" type="checkbox"/> #36 | BMP Deficiency | Open | BMP BMP Deficiency | - | - | A-101 (FLOOR PLAN) |
| <input checked="" type="checkbox"/> #34 | BMP Deficiency | Open | BMP BMP Deficiency | Joel Thomas - jtho... | - | A-401 (INTERIOR ELEVAT... |
| <input checked="" type="checkbox"/> #33 | BMP Deficiency | Open | BMP BMP Deficiency | - | - | 13 (DEMOLITION AND ER... |
| <input checked="" type="checkbox"/> #32 | BMP Deficiency | Open | BMP BMP Deficiency | GC Builder | Jan 3, 2023 | - |

5 issues selected Clear

Cancel

Add issues

Tracking Issues using meetings

Meetings > Agenda ▾ | 01 | Project Weekly Meeting

Video conference link Unspecified Add link

Changes save automatically

Description

Weekly Team Meeting

Meeting discussion

Environmental

1. BMP Deficiencies Open ▾

5 References

+ Add topic

Meeting summary

Add meeting summary

Meeting attachments

Add meeting attachments

Invitees References

References

Meeting Items


< Environmental - Item 1

References Add references ▾

Issues

- BMP #38 - BMP Deficiency Unassigned
- BMP #36 - BMP Deficiency Unassigned
- BMP #34 - BMP Deficiency Joel Thomas
- BMP #33 - BMP Deficiency Unassigned
- BMP #32 - BMP Deficiency GC Builder

HDOT Wiki Site... <https://hdot.wiki>



HDOT Wiki Site
Highways Construction

Accountability Safety Community Innovation Teamwork

[For Review & Info](#) [Interpretations](#) [How To](#) [Resources](#) [Training Materials](#) [FAQ](#) [Welcome](#)

SEARCH

Search

LOGIN

Joel Thomas

Log Out

Core Values

- Accountability
- Safety
- Community
- Innovation
- Teamwork

[Training Materials](#) > [E-Construction Training Materials](#)

E-Construction Training Materials

In 2021, all construction staff were mandated to use an integrated E-Construction platform utilizing Autodesk Construction Cloud, HeadLight, and PlanGrid. Learn and familiarize yourself these various programs using the resources provided below.

★

Updated Onboarding Trainings

In the last quarter of 2022, we conducted a new series of onboarding sessions. All of the trainings were recorded and are available to you below! Stay tuned for more training sessions!



ACC Contractor Onboarding (August 2023)

Copy link

Questions? Just Ask

Questions on BMP requirements, reach out to:
BMPhighwaysoahu@stormwaterhawaii.com

Or questions on ACC: Econ@qrse.com

for more information.