



SCDOT BrM Mobile

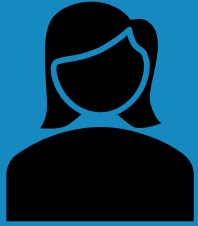
Change is Hard. Technology Helps.

BrMUG 2024 | Long Beach, CA | September 17-18



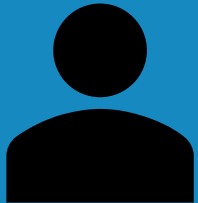
Overview

- ❖ Background
- ❖ Day in the Life: Inspector
 - ❖ Assignments
 - ❖ NBI Data
 - ❖ Element Data
 - ❖ Critical Findings
 - ❖ Multimedia
 - ❖ Inspection Procedures
 - ❖ Sync



Emily Bickley, P.E.

Assistant Director of Bridge
Management - Compliance



Ryan Jordan

District 4 Bridge Inspector

Background: BIO

Upload Docs

Uploaded Documentation

File Name:	74127_InspectionReport.pdf
Document Type:	Inspection Report
Date Uploaded:	9/8/2021 6:15:15 AM
Document Description:	Bridge Inspection Report
	Review Delete
File Name:	74127_BRIDGE_PHOTOS_1.pdf
Document Type:	Picture
Date Uploaded:	9/8/2021 1:14:43 PM
Document Description:	BRIDGE PHOTOS
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File Name:	74127_WATER_PROFILE_1.pdf
Document Type:	Picture
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Document Description:	WATER PROFILE
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File Name:	74127_HMMS_1.pdf
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File Name:	74127_Kenny_QC_form_149_1.pdf
Document Type:	Picture
Date Uploaded:	9/15/2021 10:29:38 AM
Document Description:	QC 149
	Review Delete

- Bridge Inspection Online
- Offline Access
- Complete Many PDFs
- Combine Report Manually



mobile bridge inspection

Access Code

scdot

Sign In

Background: BrM Mobile

- Implemented Sept. 2023
- Offline Access
- Streamline – No PDFs
- Submits Reports
- Layout Similar to BrM

SC BrM

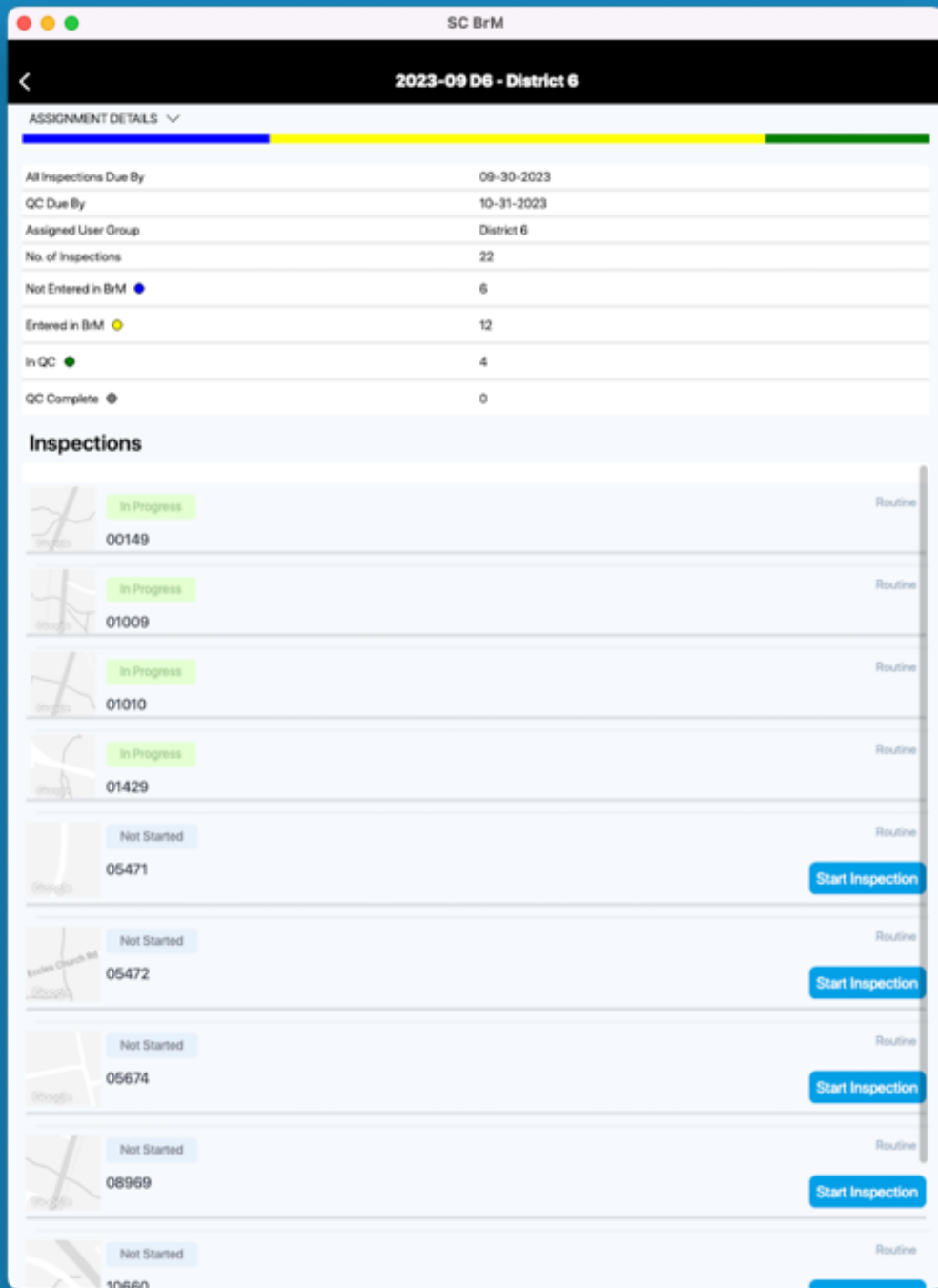
BRIDGE INSPECTION

Good morning
Rob

Inspection Assignments	Unscheduled Inspections
2023-09 D6 - District 6	District 6 22 Inspections Inspections Performed By 09-30-2023
2023-10 D6 - District 6	District 6 26 Inspections Inspections Performed By 10-31-2023
2023-11 D6 - District 6	District 6 15 Inspections Inspections Performed By 11-30-2023
2023-12 D6 - District 6	District 6 18 Inspections Inspections Performed By 12-31-2023
2024-01 D6 - District 6	District 6 23 Inspections Inspections Performed By 01-31-2024
2024-02 D6 - District 6	District 6 17 Inspections Inspections Performed By 02-29-2024
2024-03 D6 - District 6	District 6 16 Inspections Inspections Performed By 03-31-2024
2024-04 D6 - District 6	District 6 15 Inspections Inspections Performed By 04-30-2024
2024-05 D6 - District 6	District 6 29 Inspections Inspections Performed By 05-31-2024
2024-06 D6 - District 6	District 6 19 Inspections Inspections Performed By 06-30-2024
2024-07 D6 - District 6	District 6 17 Inspections Inspections Performed By 07-31-2024
	District 6

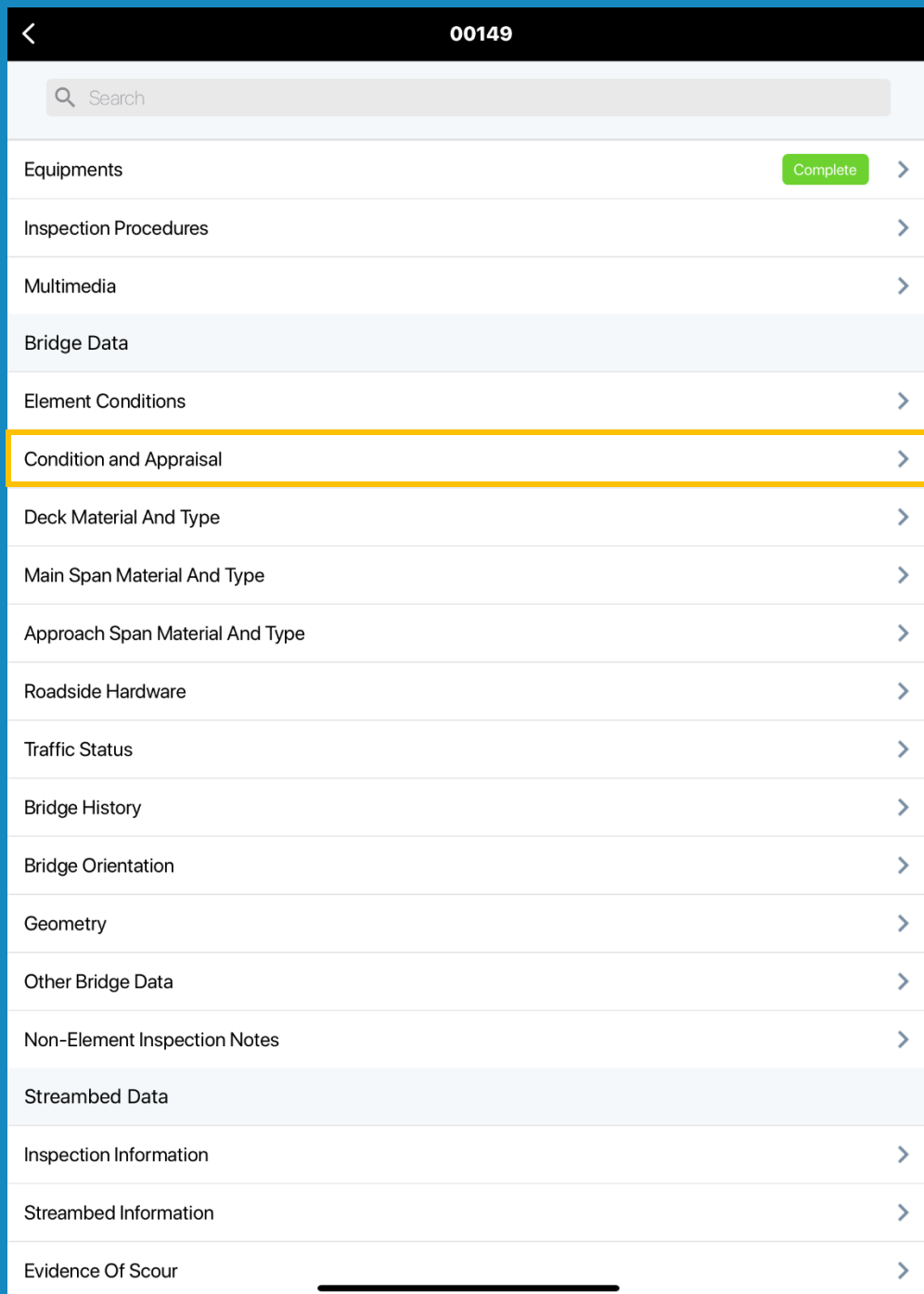
Assignments

- Assignment Navigation Screen
- Assignment Progress
- Choose Bridge



Assignments

- Assignment Navigation Screen
- Assignment Progress
- Choose Bridge



NBI Data

- Condition & Appraisal Screen
- Updating Values
 - Previous Values
- Add Photos
- Mark as Completed

Condition and Appraisal		Mark as Complete
Deck (058) *	6 Satisfactory	>
Superstructure (059) *	6 Satisfactory	>
Substructure (060) *	7 Good	>
Culvert (062) *	N N/A (NBI)	>
Bridge Railing (602) *	7 Good	>
Railing Transition (603) *	7 Good	>
Bearing (604) *	N N/A (NBI)	>
Joint (605) *	N N/A (NBI)	>
Approach Alignment (072) *	8 Equal Desirable Crit	>
Channel (061) *	7 Minor Damage	>
Channel Protection (601) *	8 Very Good, Inherent Def	>
Waterway Adequacy (071) *	6 Equal Minimum	>
Scour Condition Rating (631) *	8 - Insignificant	>
Scour Critical (412) *		>

NBI Data

- Condition & Appraisal Screen
- Updating Values
 - Previous Values
- Add Photos
- Mark as Completed

Deck (058) Close

Previous Inspection

6 Satisfactory

Current Inspection

0 Failed

1 Imminent failure

2 Critical

3 Serious

4 Poor

5 Fair ✓

6 Satisfactory

7 Good



8 Very Good

9 Excellent

N N/A (NBI)

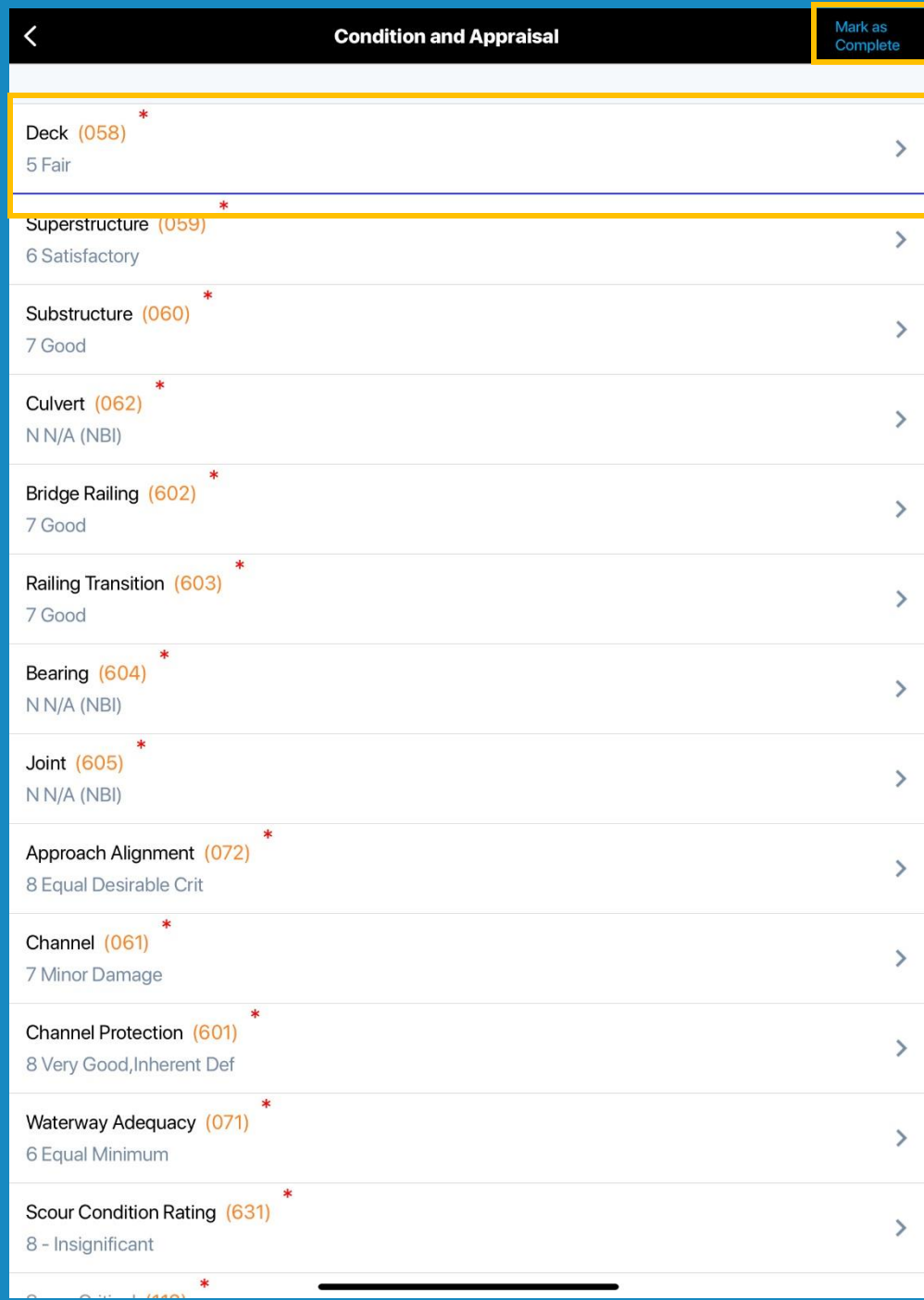
Unknown (NBI)

Multimedia

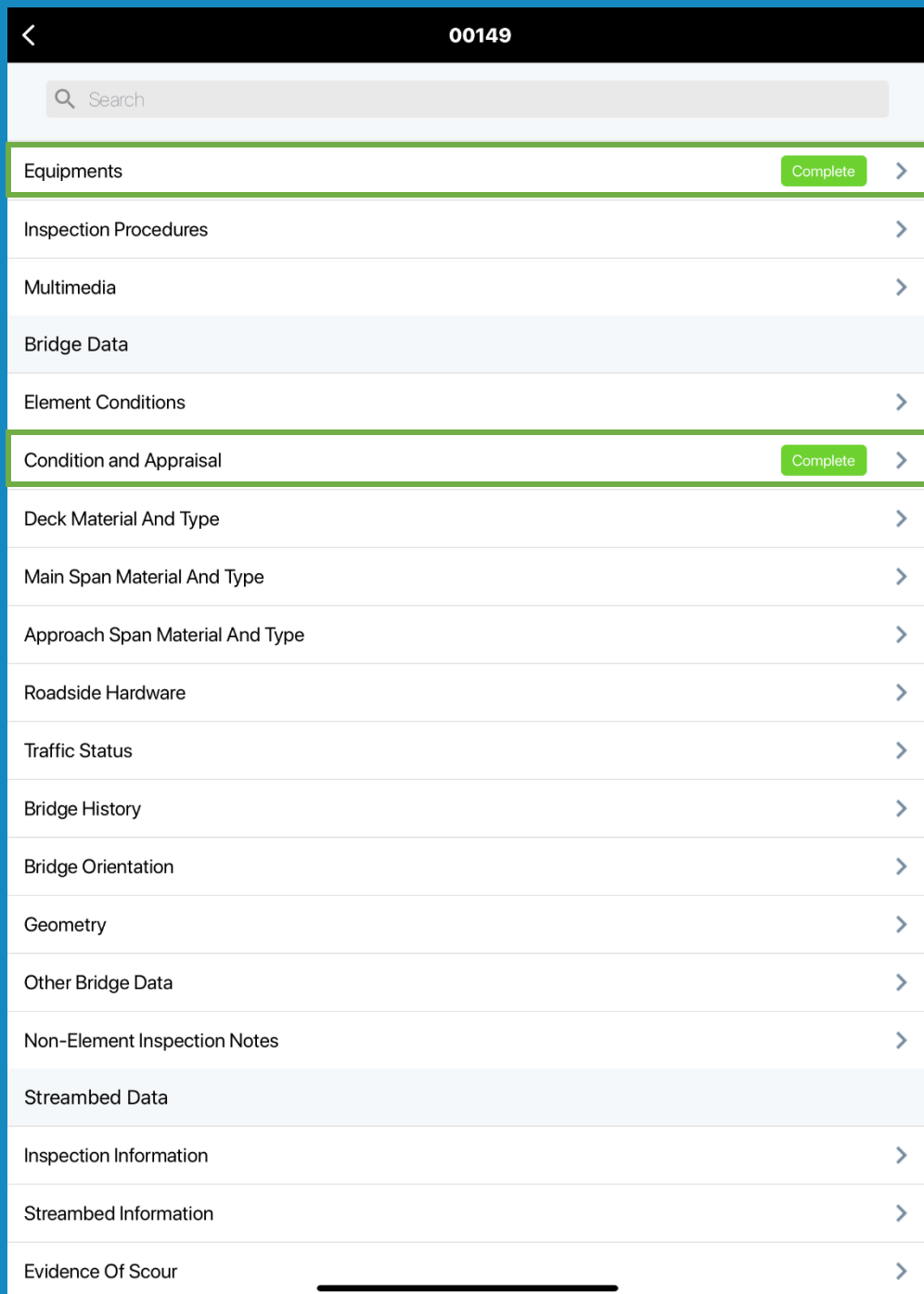
NBI Data

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 - Previous Values
- Add Photos
- Mark as Completed



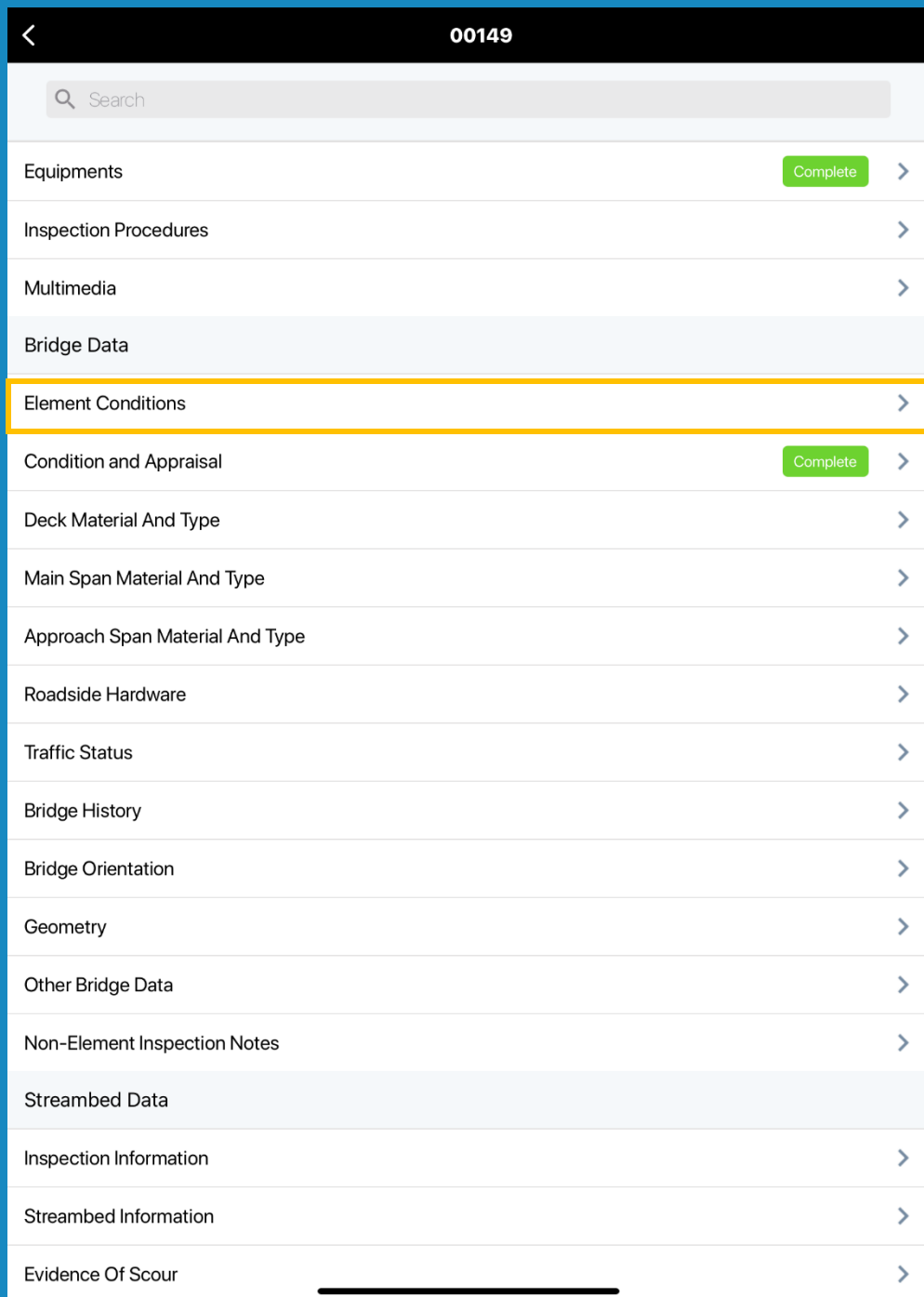
NBI Data

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 - Previous Values
- Add Photos
- Mark as Completed



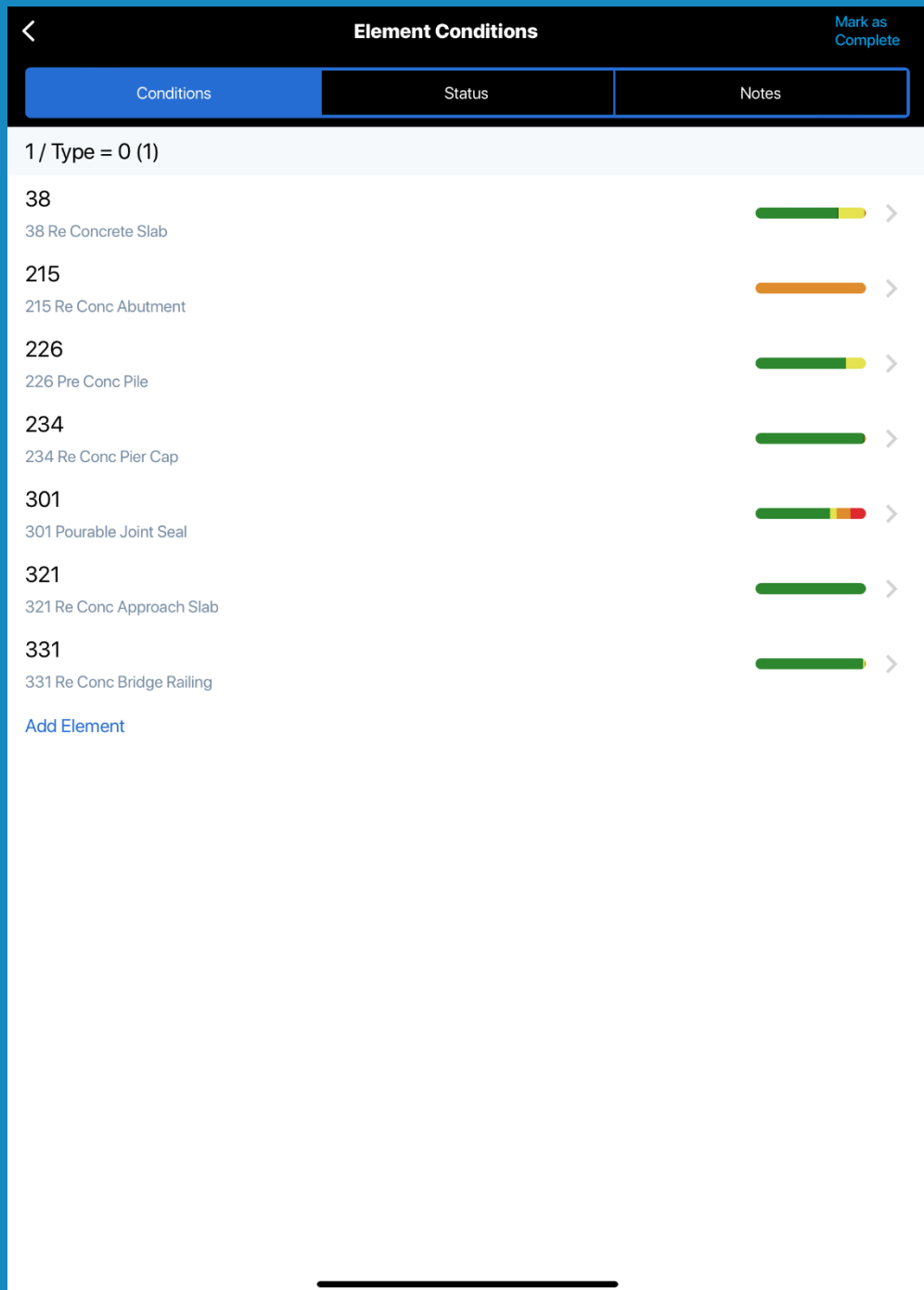
NBI Data

- Condition & Appraisal Screen
- Updating Values
 - Previous Values
- Add Photos
- Mark as Completed



Element Data

- Element Navigation Screen
- Updating Condition States
 - Add notes
- Add photos
- Mark as Completed



Element Data

- Element Navigation Screen
- Updating Condition States
 - Add notes
- Add photos
- Mark as Completed

38 Re Concrete Slab Mark as Complete

Structure Unit
1 / Type = 0 (1)

Environment
Sev. (4)

Condition State

▼

Quantity (sq.ft) Percentage (%)

Condition State	Quantity (sq.ft)	Percentage (%)
Total Quantity	33000	sq.ft
CS1	24674	sq.ft
CS2	7909	sq.ft
CS3	417	sq.ft
CS4	0	sq.ft

Defects

1090
1090 Exposed Rebar
Defect Notes >
Topside of Deck:
▶

1130
1130 Cracking (RC and Other)
Defect Notes >
Topside of Deck:
▶

1080

Element Data

- Element Navigation Screen
- Updating Condition States
 - Add notes
- Add photos
- Mark as Completed



Defect Notes

Topside of Deck:

- SN21 both lanes at bent 22, (1) spall in each lane up to 1' L. x 3' W. x 3" D. with exposed reinforcing showing 5% section loss (CS3, Q3 SF, Photo 30)

Underside of Deck:

- SN2 S fascia 5' from BT 3, (1) Spall with surrounding delamination 4' L. x 1' W. x 0.75" D. with exposed reinforcement and 5% section loss (CS3, Q4 SF)

- SN2 along N edge, (1) Spall 6" L. x 3" W. x 0.5" D. with exposed reinforcement and 5% section loss (CS3, Q1 SF, Photo 26)

- SN4 along N fascia, 2' L. x 6" W. x 0.25" D with exposed reinforcing bar showing 5% section loss (CS3, Q2 SF)

- SN8 along S edge at mid span, (1) Spall/Delam 15' L. x 1.5" W. x 1.25" D. with exposed reinforcement and 5% section loss (CS3, Q30 SF, Photo 27)

- SN9 along N edge, (1) Spall 1' L. x 4" W. x 0.5" D. with exposed reinforcement and 5% section loss (CS3, Q1 SF)

- SN10 along S edge, (2) Spalls up to 2' L. x 3" W. x 1.5" D. with exposed reinforcement and 5% section loss (CS3, Q2 SF)

- SN10 N fascia at BT 11, (1) Spall 4" L. x 8" High x 2" D. with exposed reinforcement and no loss (CS3, Q1 SF)

- SN14 along S edge, (1) Spall 3' L x 1' W x 2" D. with (2) exposed reinforcing bars showing 10% section loss (CS3, Q3 SF)

- SN22, (2) spalls 1.5' L. x 6" W. x 2" D. with exposed reinforcing showing 5% section loss (CS3, Q2 SF)

- SN23 along N edge, (1) Spall 6" L. x 6" W. x 1" D. with exposed reinforcement and 10% section loss (CS3, Q1 SF)

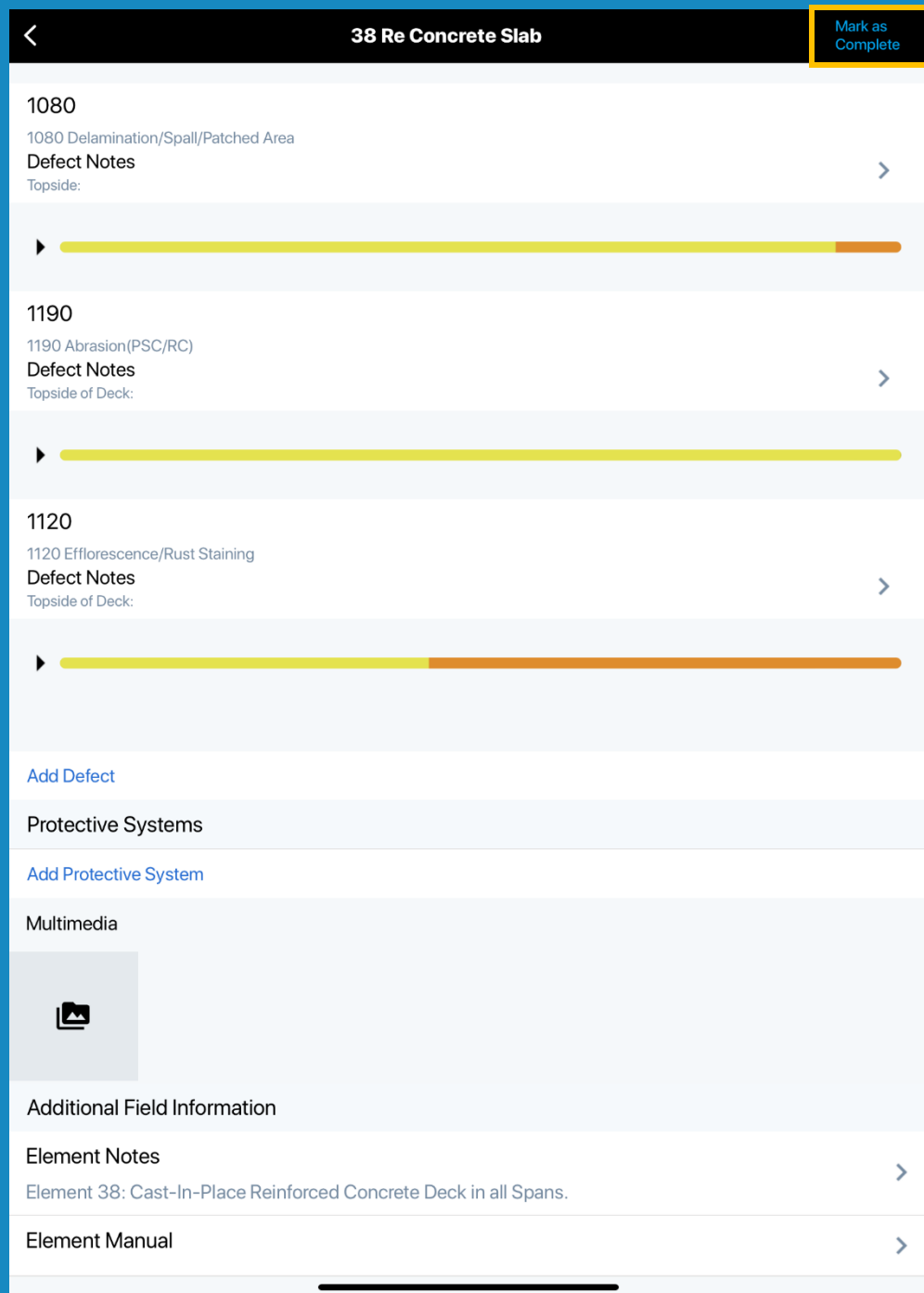
- SN24 along S edge, (3) Spalls 3' L. x 6" W. x 2" D. with exposed reinforcement and 10% section loss (CS3, Q9 SF)

- SN24 along N edge, (3) Spalls 3' L. x 6" W. x 2" D. with exposed reinforcement and 10% section loss (CS3, Q9 SF)

- SN25 along S edge, (1) Spall 2' L. x 6" W. x 0.25" D. with exposed reinforcement and 10% section loss (CS3, Q2 SF)

Element Data

- Element Navigation Screen
- Updating Condition States
 - Add notes
- Add photos
- Mark as Completed



Element Data

- Element Navigation Screen
- Updating Condition States
 - Add notes
- Add photos
- Mark as Completed

00149	
Non-Element Inspection Notes	>
Streambed Data	
Inspection Information	>
Streambed Information	>
Evidence Of Scour	>
Tidal Bridge Inspection Only	>
Scour Condition, POA, And Vulnerability	>
Posting Sign Values	
R-12-6-48 Legal Load Posting and Sign Posted Values	>
R-12-9-36 Emergency Vehicle Posting and Sign Posted Values	>
40T Combination Posting	>
Bridge Curb Reveal Measurements	>
Culvert Fill Measurements	>
Inventory	>
Cross Sections	>
Piles	>
Bearings	>
Joints	>
Clearance Dimensions	>
Critical Findings	>

Critical Findings

- Critical Findings Screen
- Existing CFs
- Reported during Sync
- Required Data
- Add photos
- Mark as Completed



Critical Findings

- Critical Findings Screen
- Existing CFs
- Reported during Sync
- Required Data
- Add photos
- Mark as Completed

Critical Findings

Reporter
E.Bickley (BickleyEJ@scdot.org)

Reporter Phone
555.555.5555

Reporter Email
BickleyEJ@scdot.org

Date of Finding *
08/28/2024

Time of Finding *
08:39

Category *
Inspection >

Initial Priority *
Urgent >

Initial Action Taken *
Close Br. w/ Insp. Trck >

Bridge Owner Contacted Date *
08/28/2024

Bridge Owner Contacted Time *
12:00

Contacted Name *
District 6 DBIS C. Fralix

Contacted Phone *
5555555555

Description *
Scour at Bent 2 due to flood event:
Pile 2-1 scour 8ft high with 4ft embedment remaining

Critical Findings

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- Existing CFs
- Reported during Sync
- Required Data
- Add photos
- Mark as Completed

Critical Findings

Date of Finding *
08/28/2024

Time of Finding *
08:39

Category *
Inspection >

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Close Br. w/ Insp. Trck >

Bridge Owner Contacted Date *
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12:00

Contacted Name *
District 6 DBIS C. Fralix

Contacted Phone *
5555555555

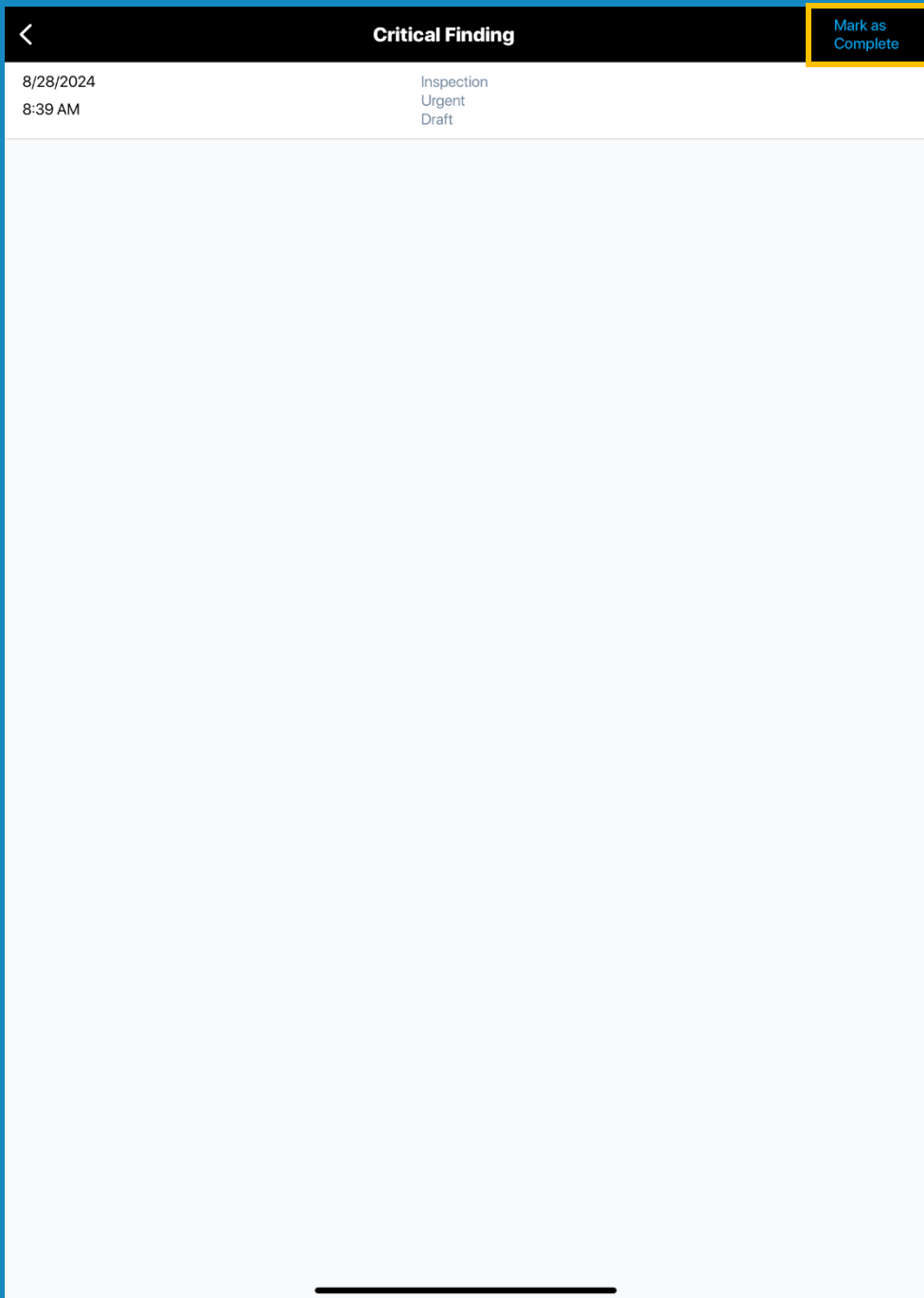
Description *
Scour at Bent 2 due to flood event:
Pile 2-1 scour 8ft high with 4ft embedment remaining.
Pile 2-2 scour 7.5ft high with 4.5ft embedment remaining.
Pile 2-3 scour 9ft high with 3ft embedment remaining.
Pile 2-4 scour 8ft high with 4ft embedment remaining.
Pile 2-5 scour 8.25ft high with 3.75ft embedment remaining. >

Multimedia



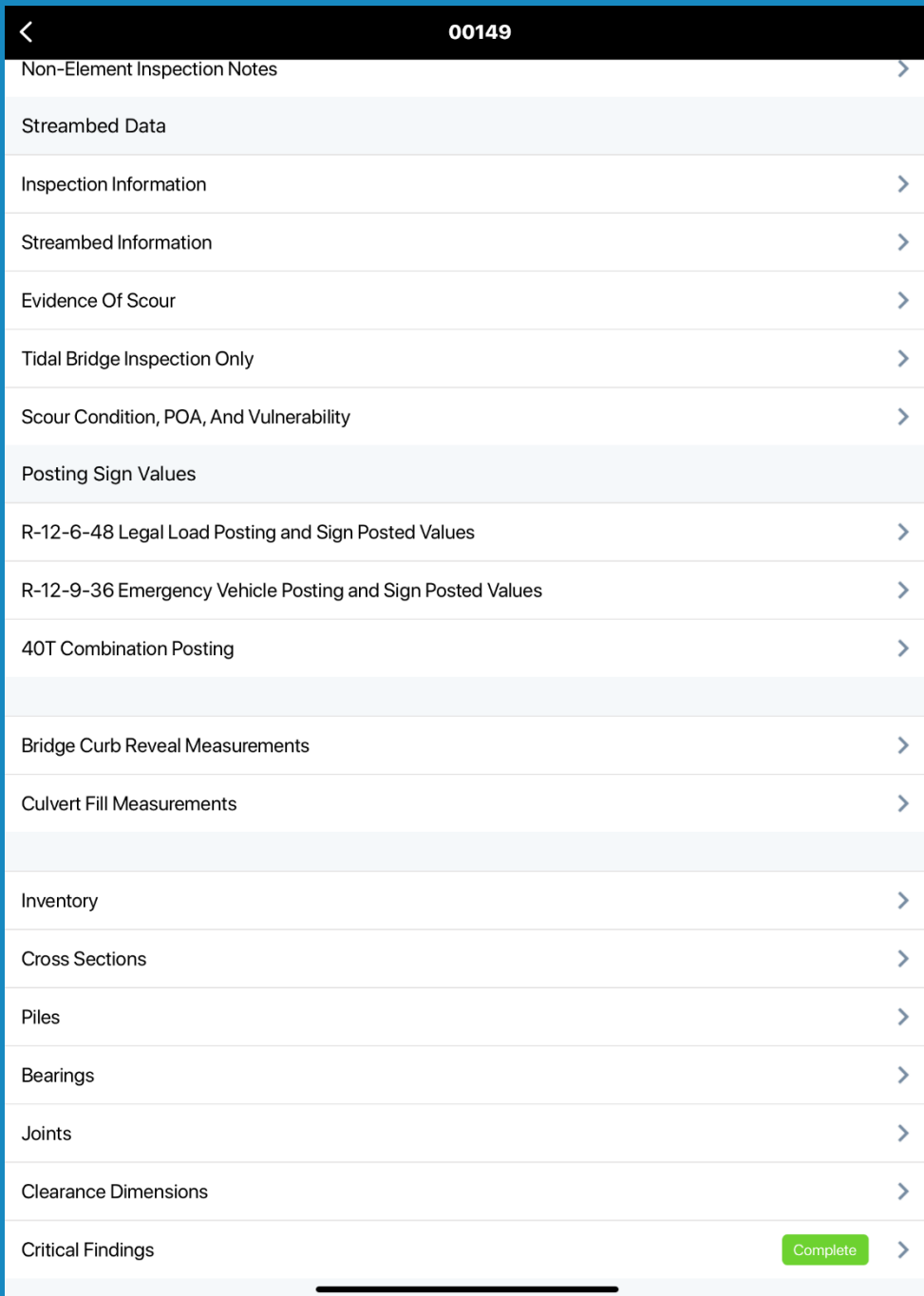
Critical Findings

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- Existing CFs
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- Required Data
- Add photos
- Mark as Completed



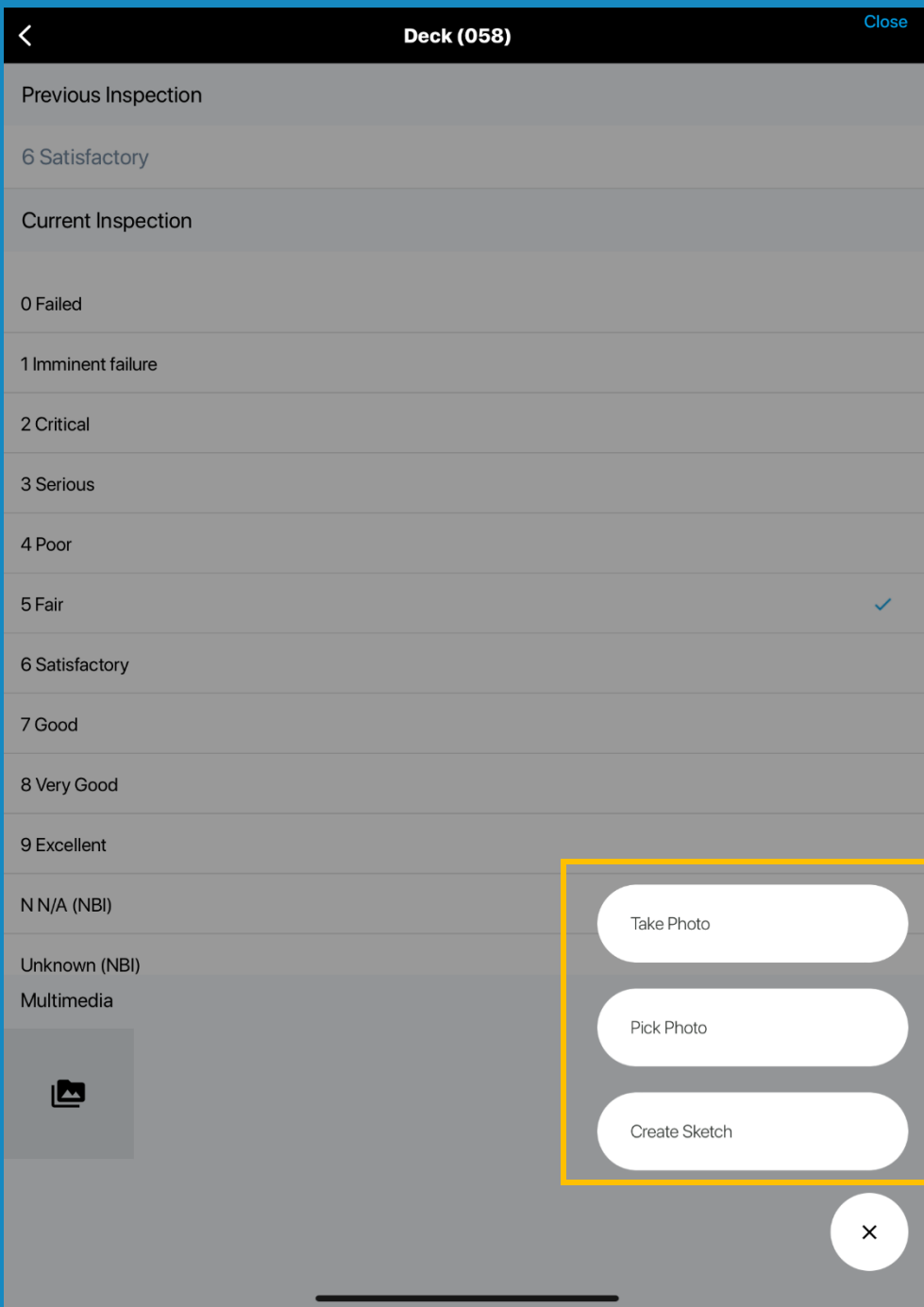
Critical Findings

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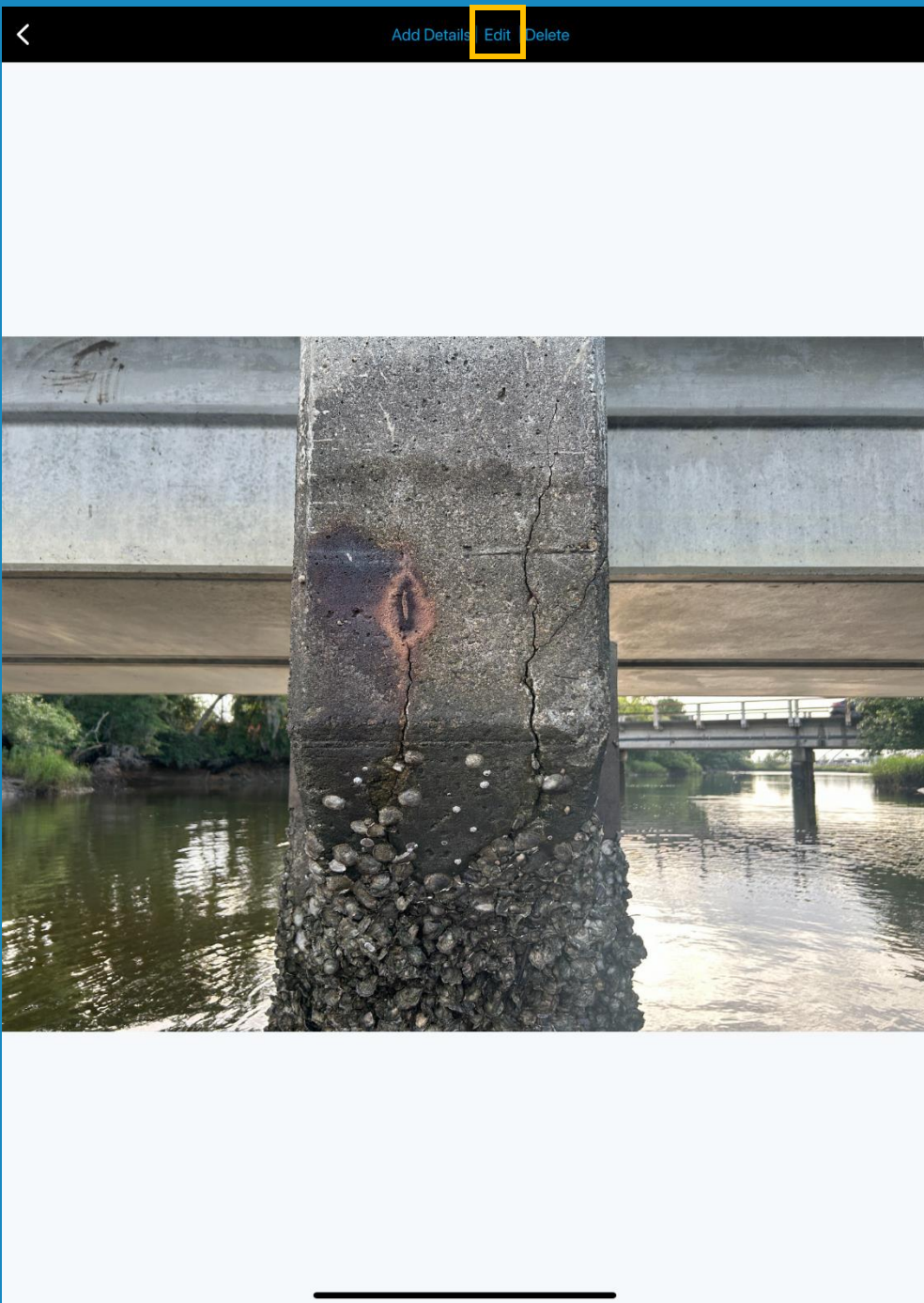
Critical Findings

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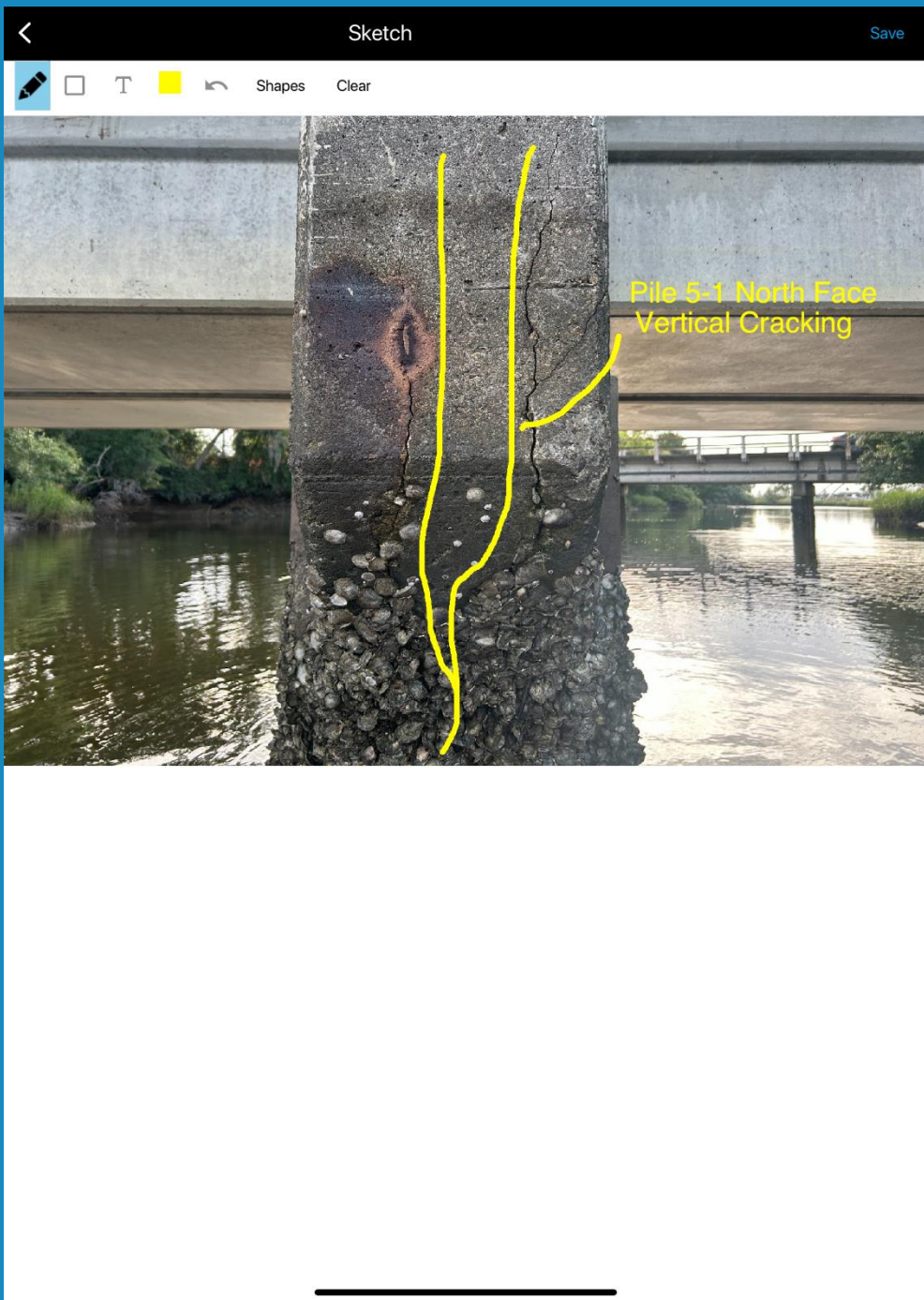
Multimedia

- Upload/Take Photos
- Edit Photos
- Add Details
 - Category
 - Notes



Multimedia

- Upload/Take Photos
- Edit Photos
- Add Details
 - Category
 - Notes



Multimedia

- Upload/Take Photos
- Edit Photos
- Add Details
 - Category
 - Notes



Multimedia

- Upload/Take Photos
- Edit Photos
- Add Details
 - Category
 - Notes

< Add Details

Include in Report

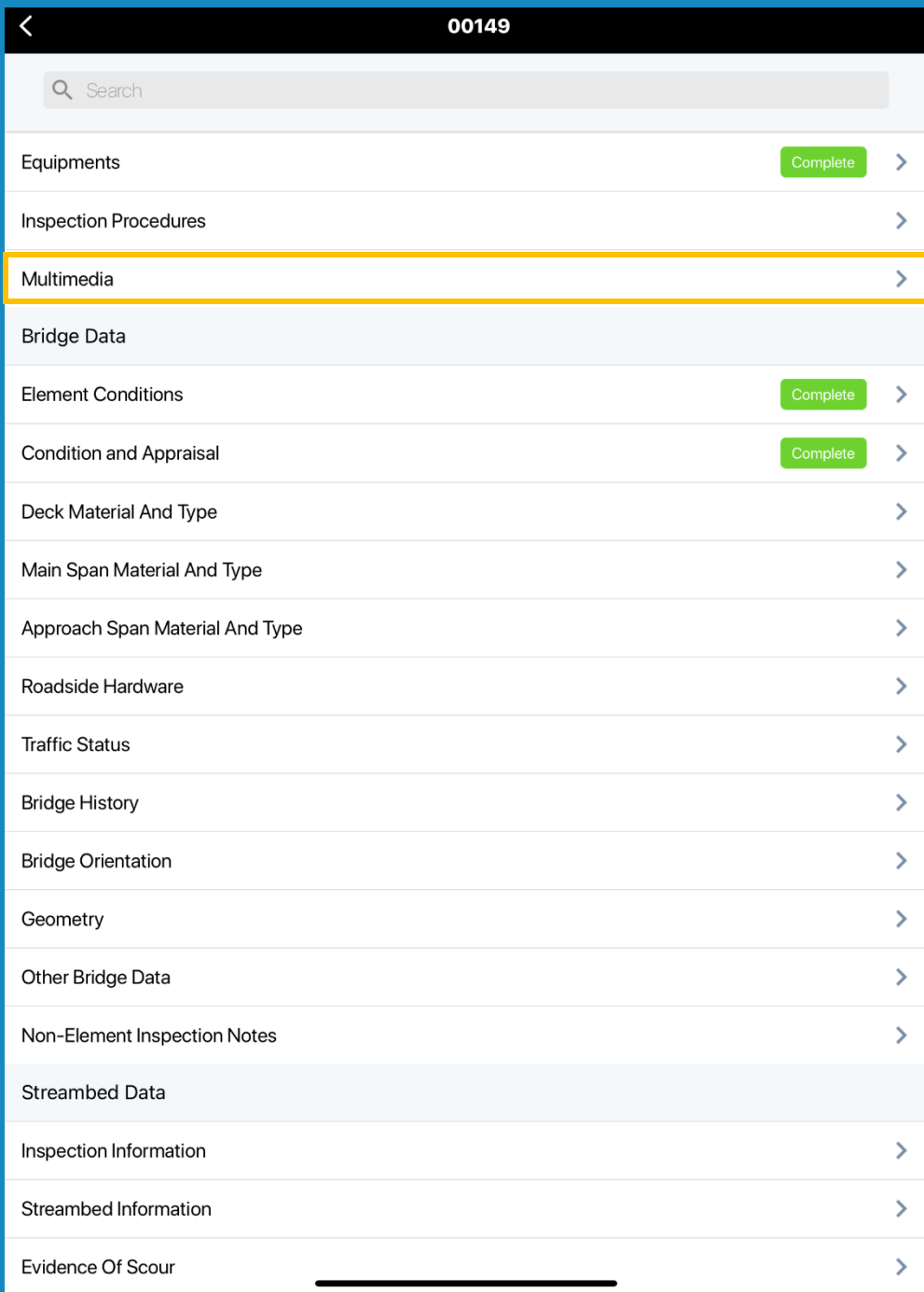
Category
Inspection Photo >

Sub-Category >

Multimedia Notes >
Pile 5-1 North Face, Vertical Cracking up to 0.25in wide x 6ft long. (CS3, Q1, Photo 12)

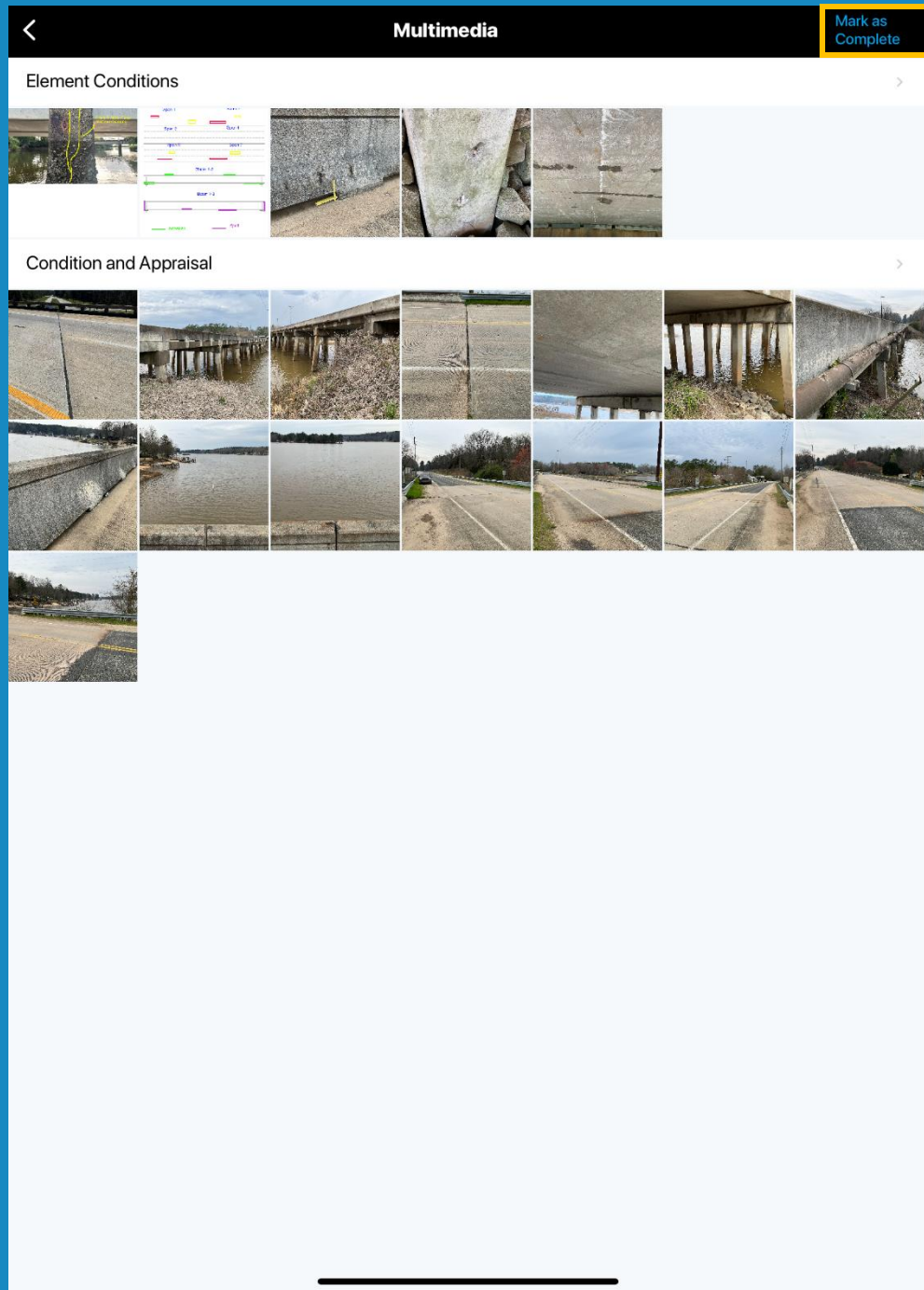
Multimedia

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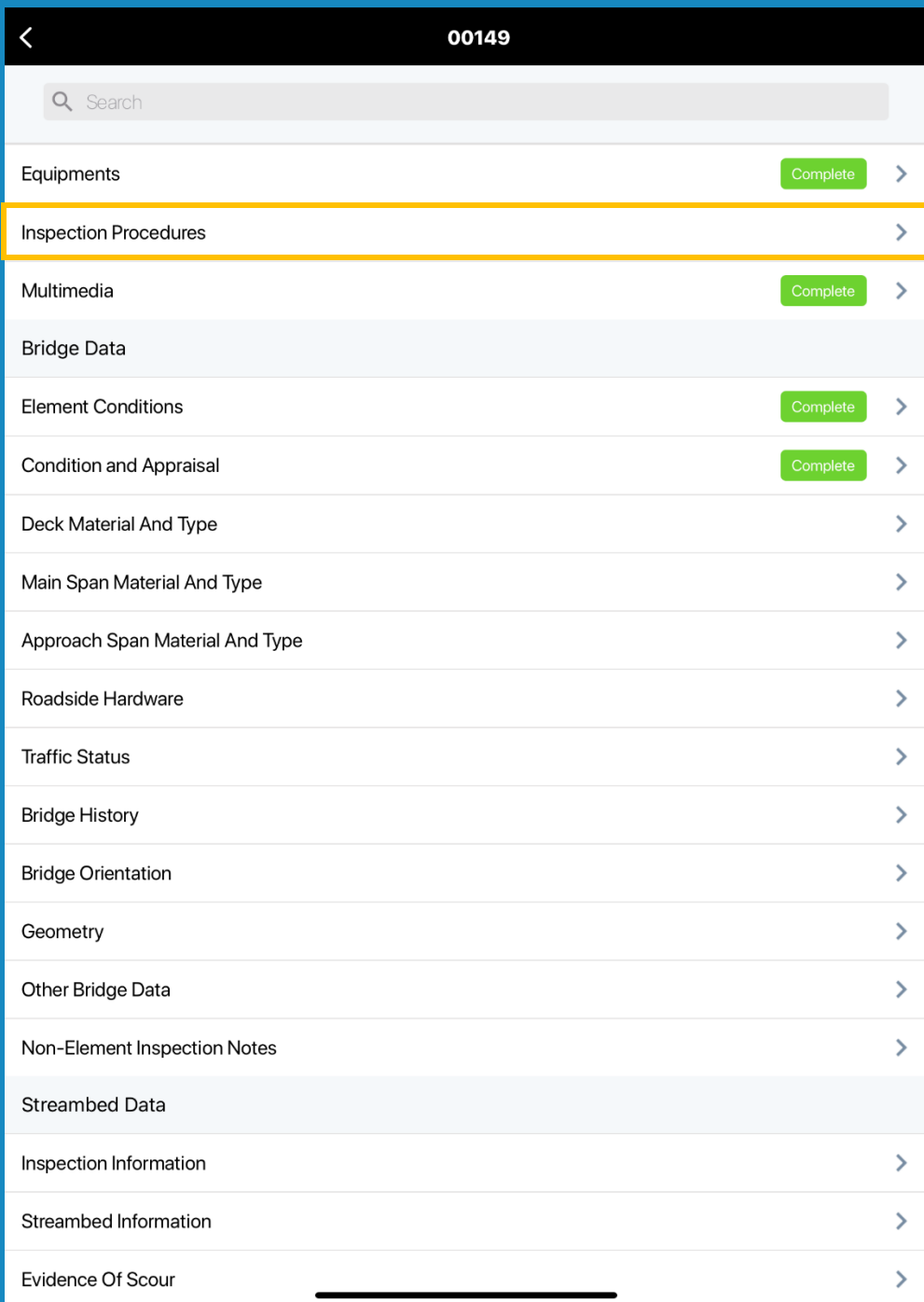
Multimedia

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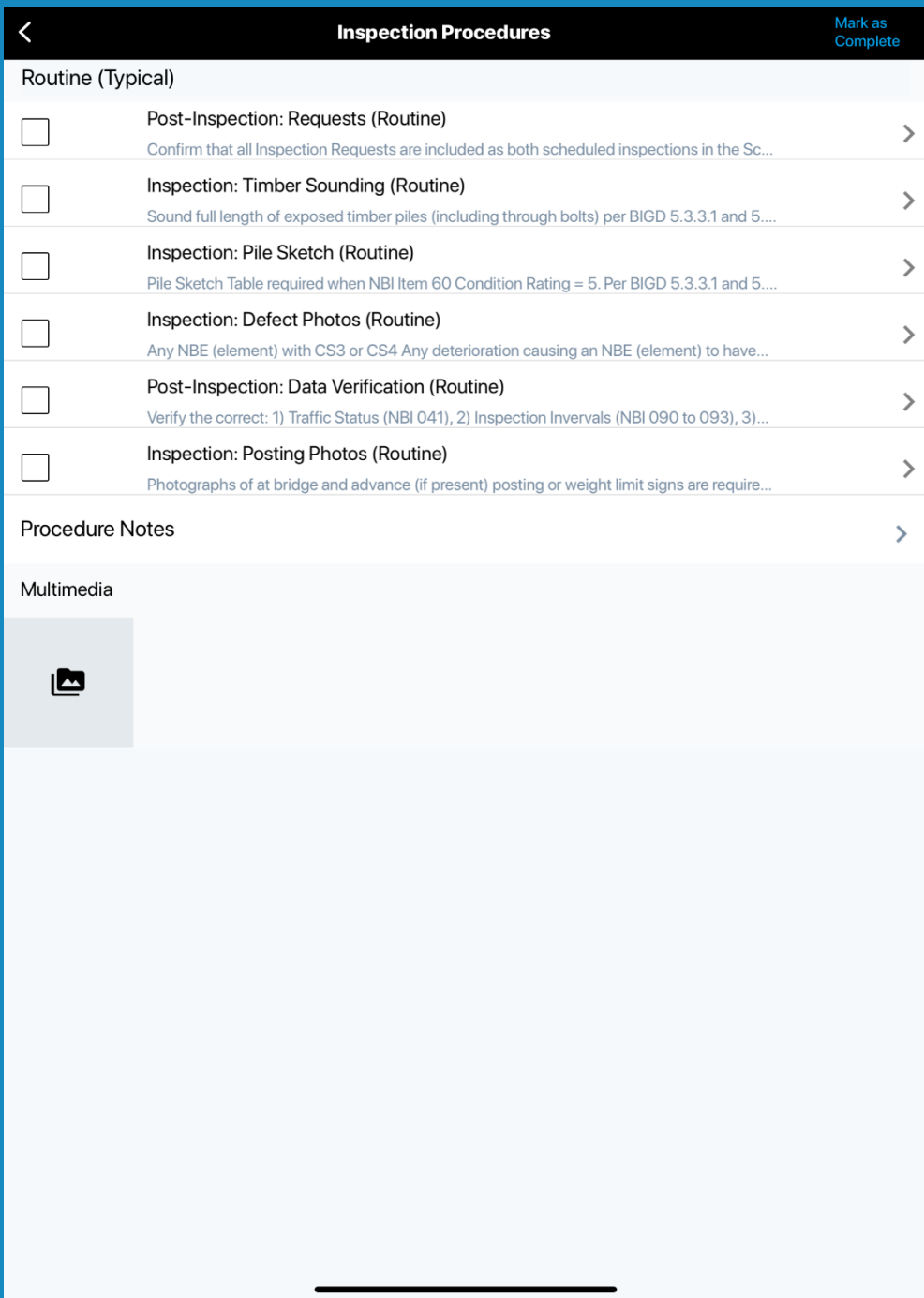
Multimedia

- Upload/Take Photos
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- Mark as Completed



Procedures

- Procedures Screen
- Existing Procedures
- Check as Completed
 - Notes, if needed
- Add photos
- Mark as Completed



Procedures

- Procedures Screen
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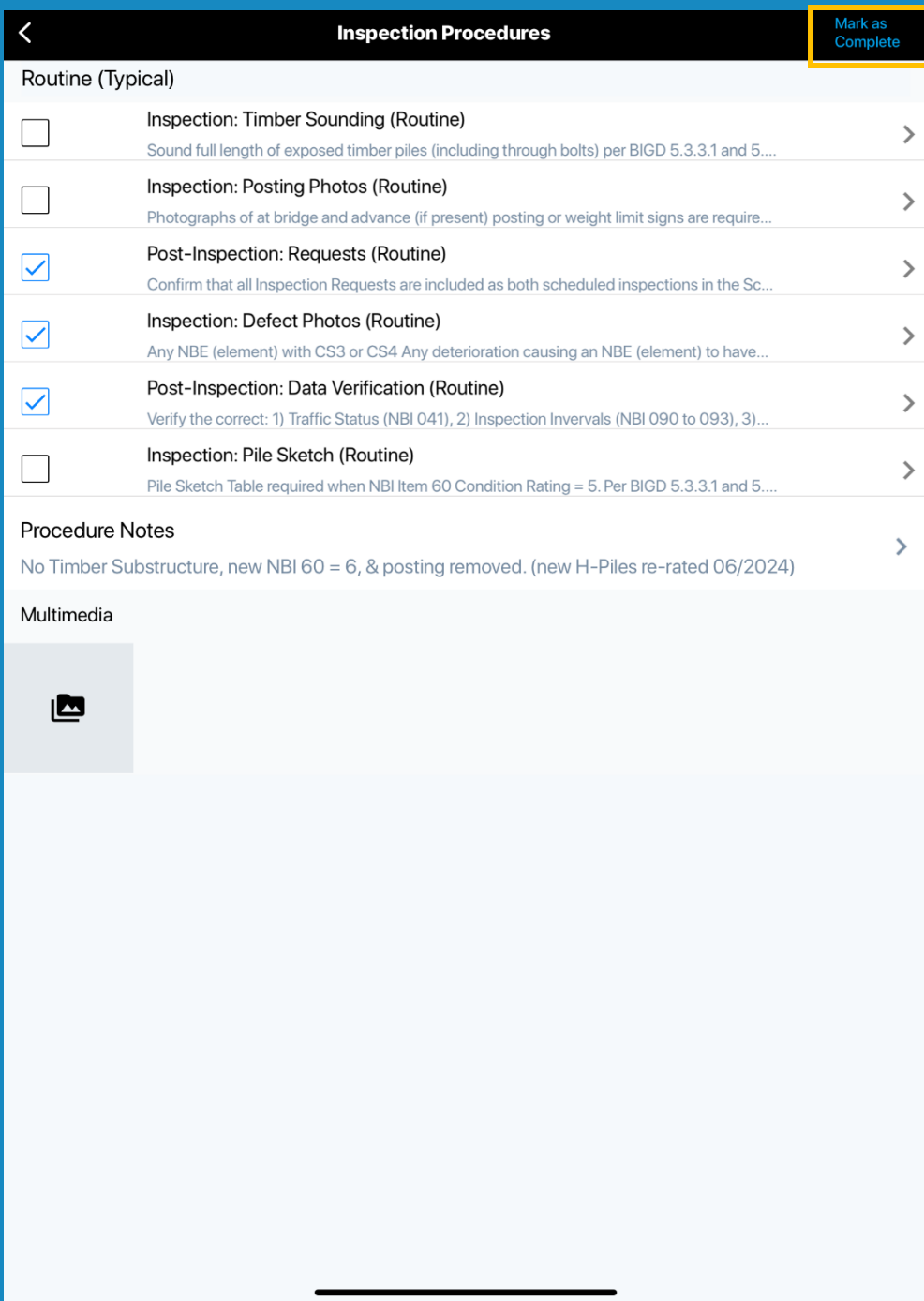


Post-Inspection: Requests (Routine)

Confirm that all Inspection Requests are included as both scheduled inspections in the Schedule Table and the Requests Table when needed. Confirm requests include Load Rating (if needed) (NBI GCR 7 to 5 or NBI GCR to 4, Element CS4, etc.). Confirm requests include Hydraulic Appraisal (if needed) (NBI 071 and NBI 113). Confirm requests include UW (Unscheduled) (Water Depth 4' or more at Bent).

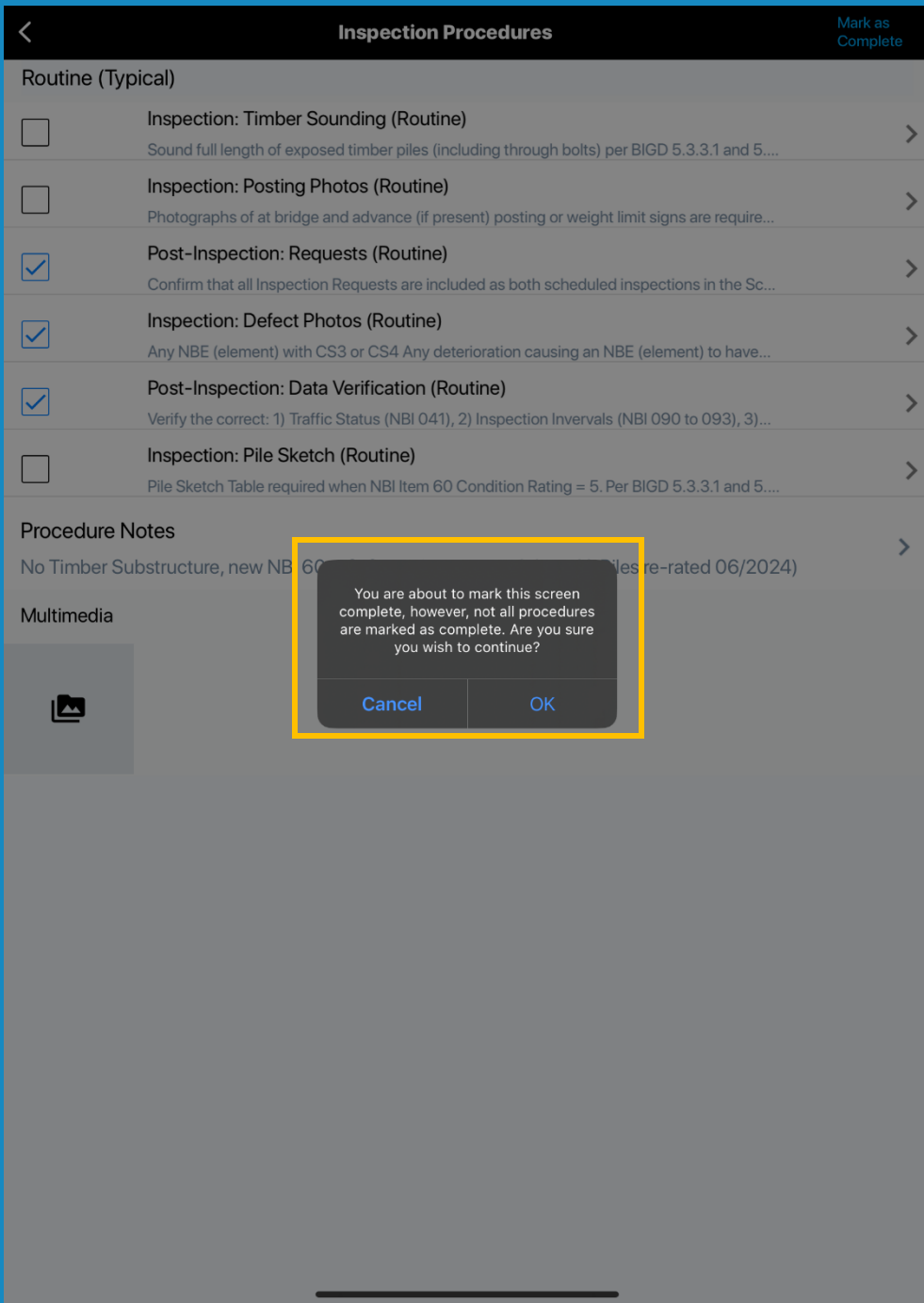
Procedures

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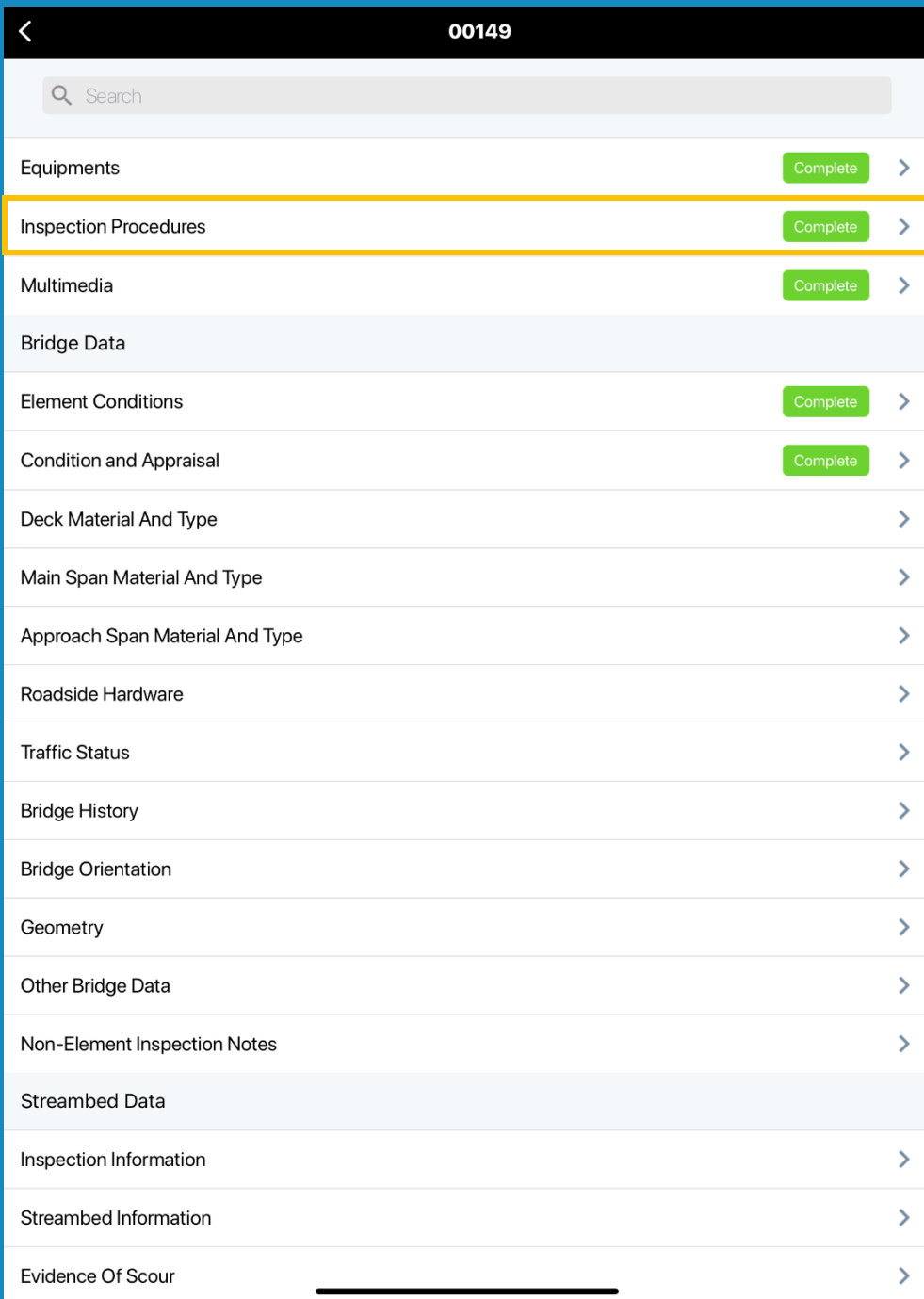
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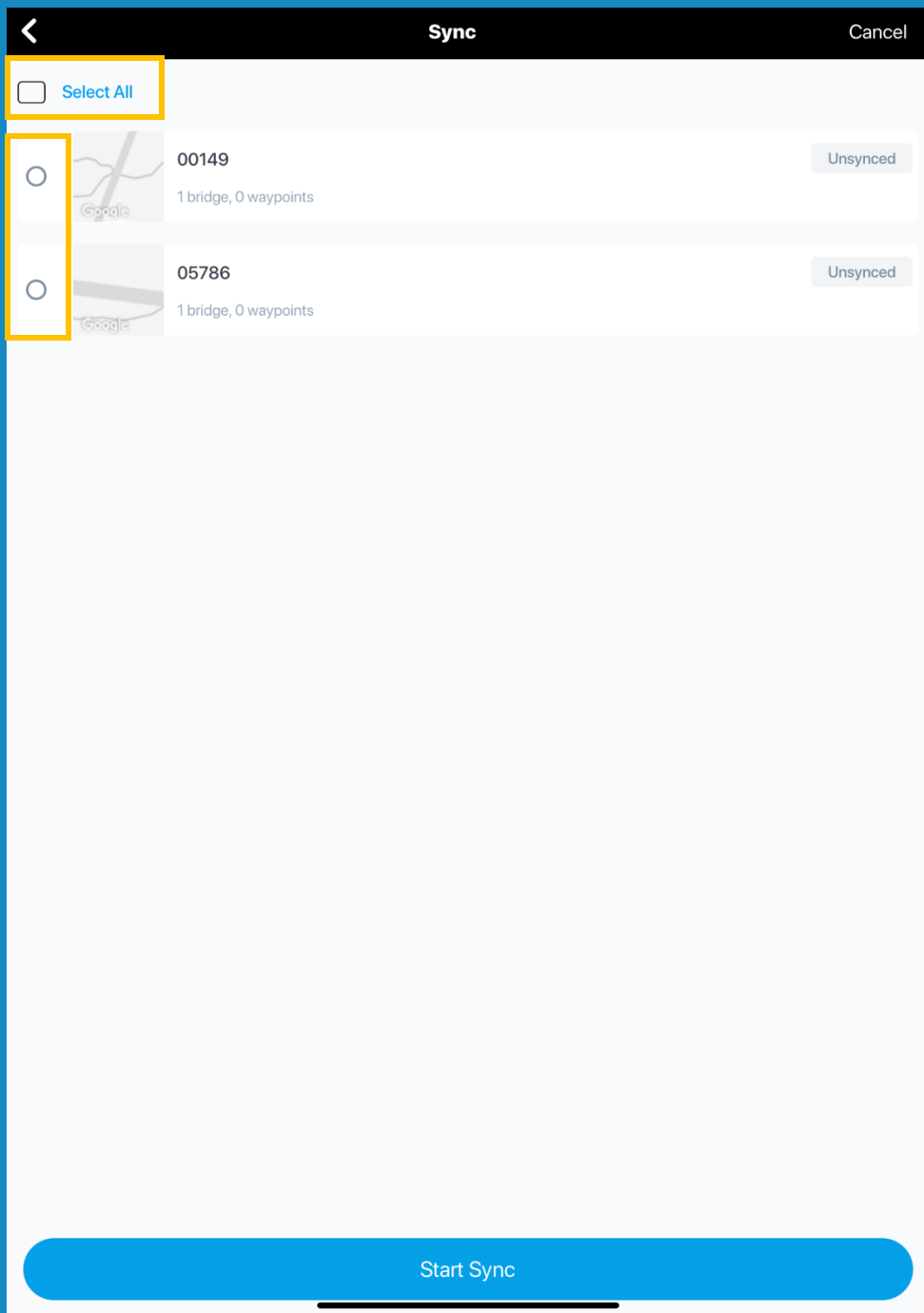
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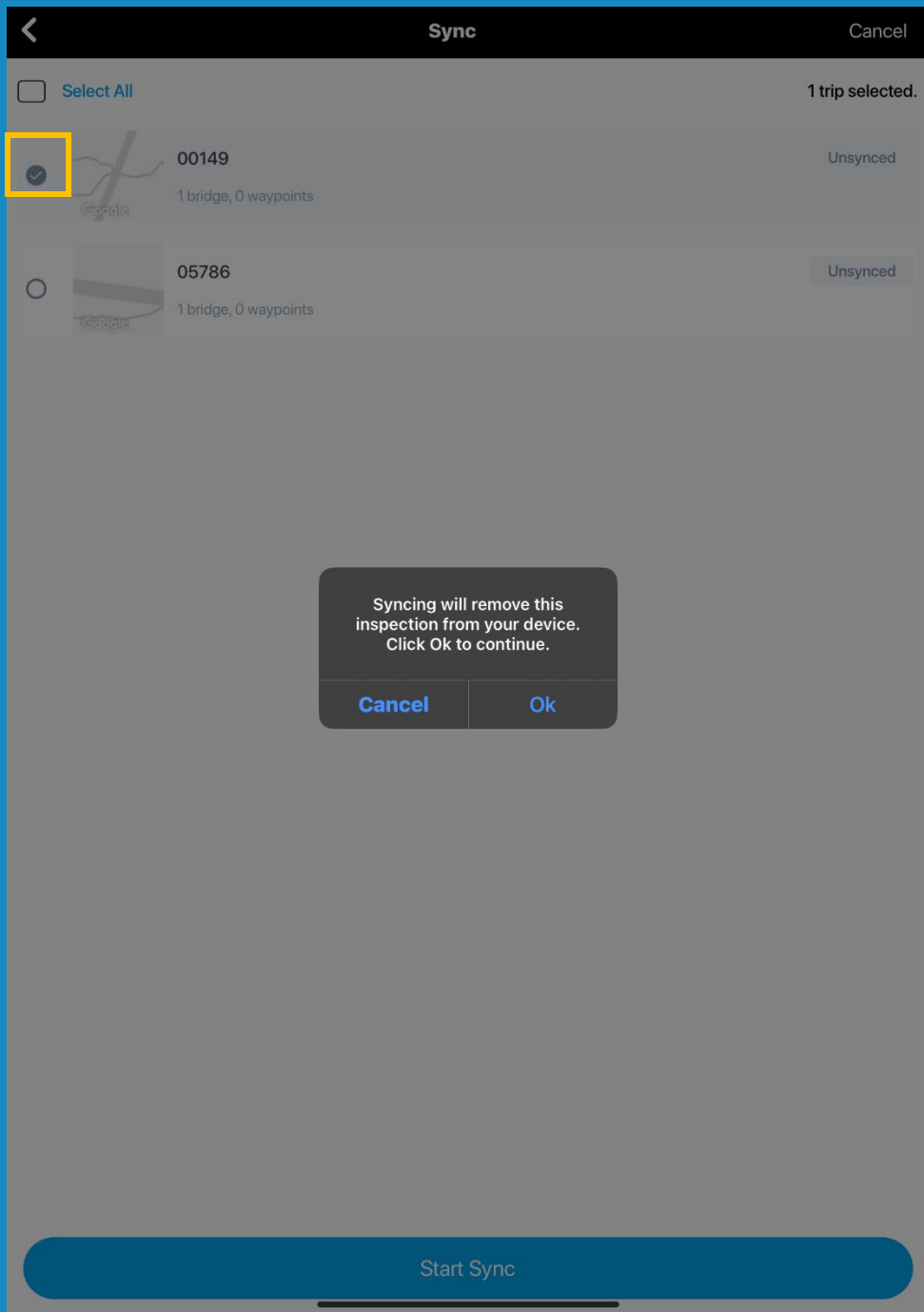
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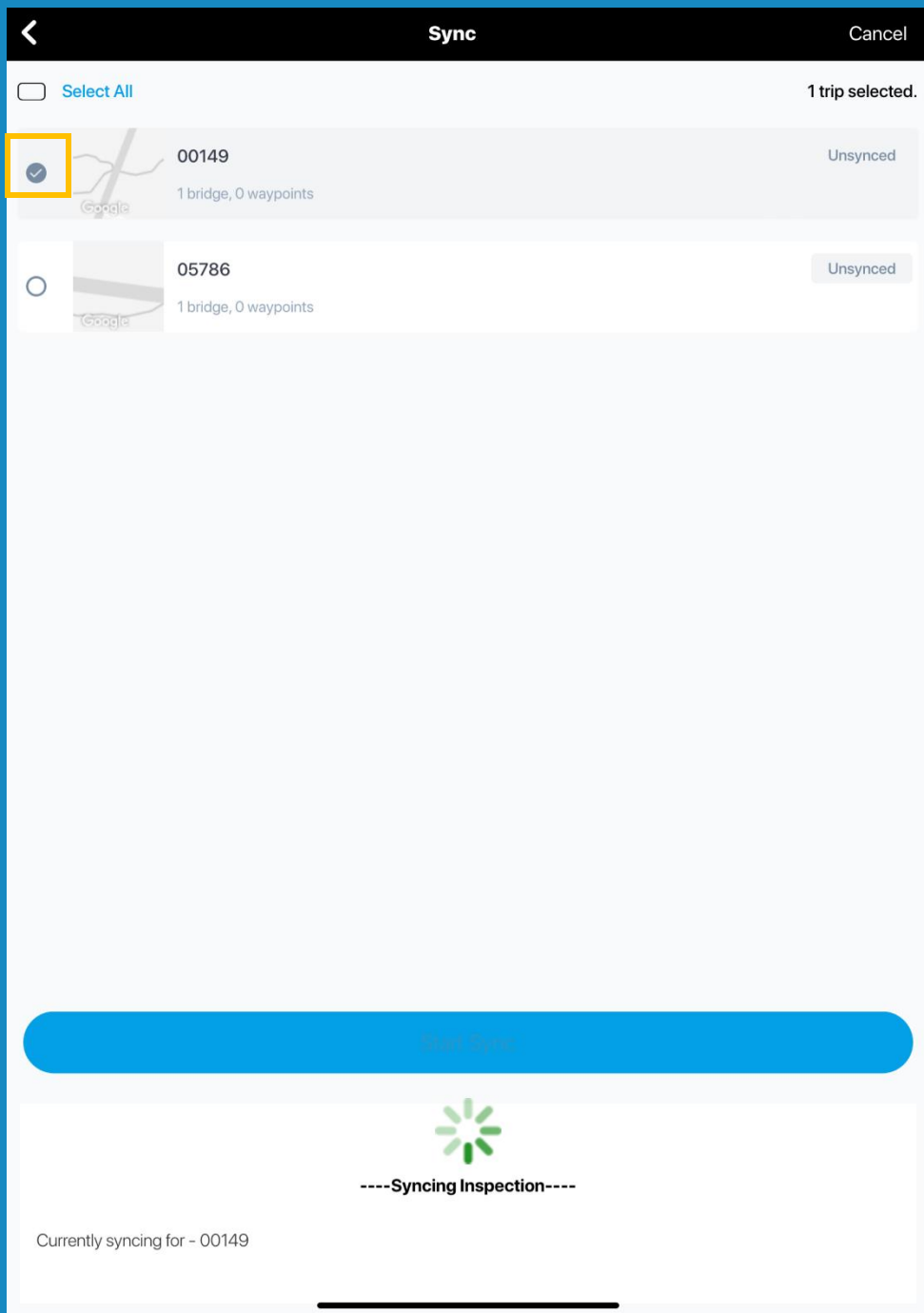
Sync

- Sync with 2 clicks
- Sync Successful Message
- Critical Findings Submitted



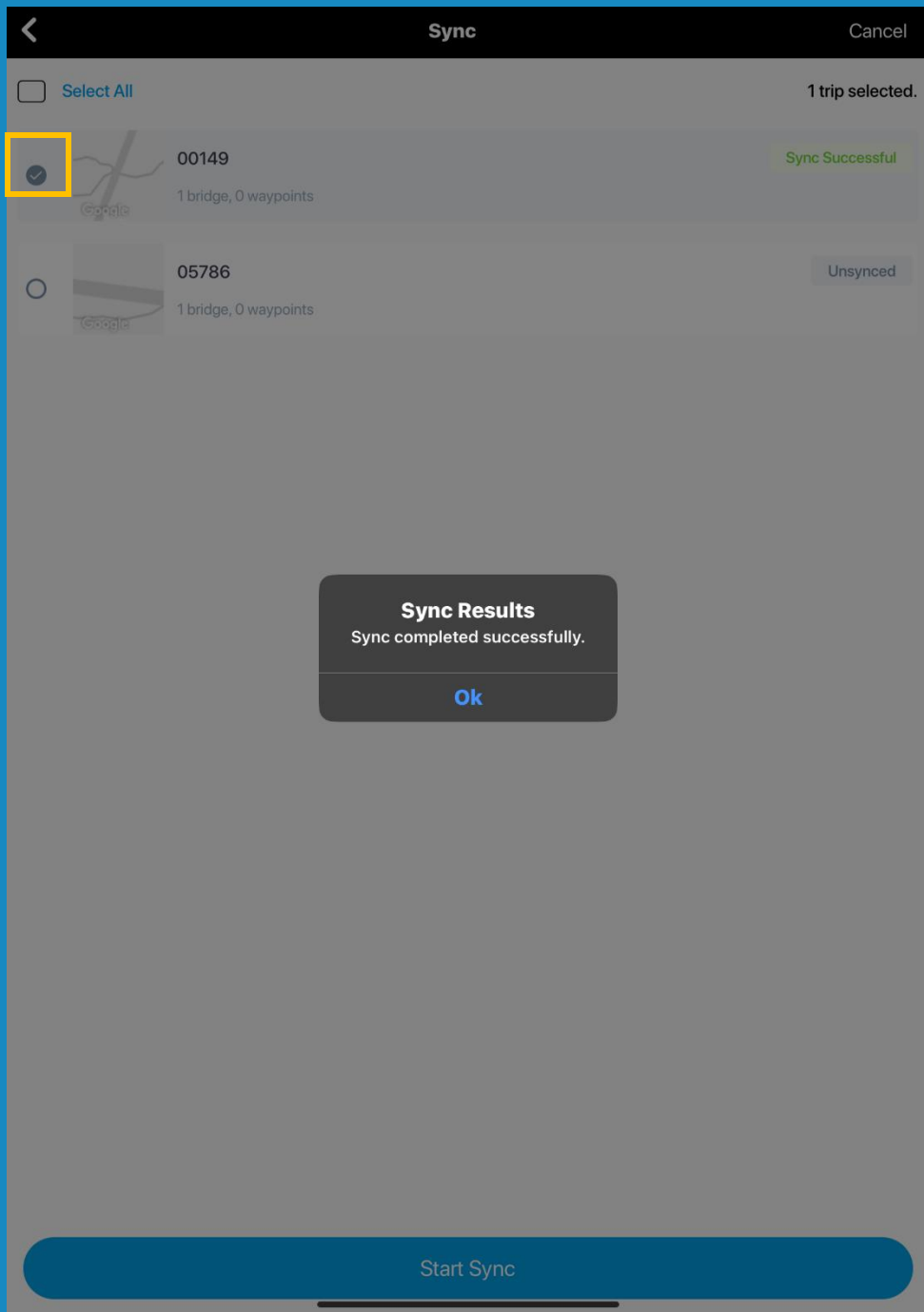
Sync

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Sync

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- Sync Successful Message
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Sync

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- Sync Successful Message
- Critical Findings Submitted

Change is Hard.
Technology Helps.

Summary

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Questions?

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