

Condition Surveys of Inaccessible Areas of Concrete Dams

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Presentation Outline

Overview of Puget Sound Energy Dams

- Lower Baker Dam
- Upper Baker Dam

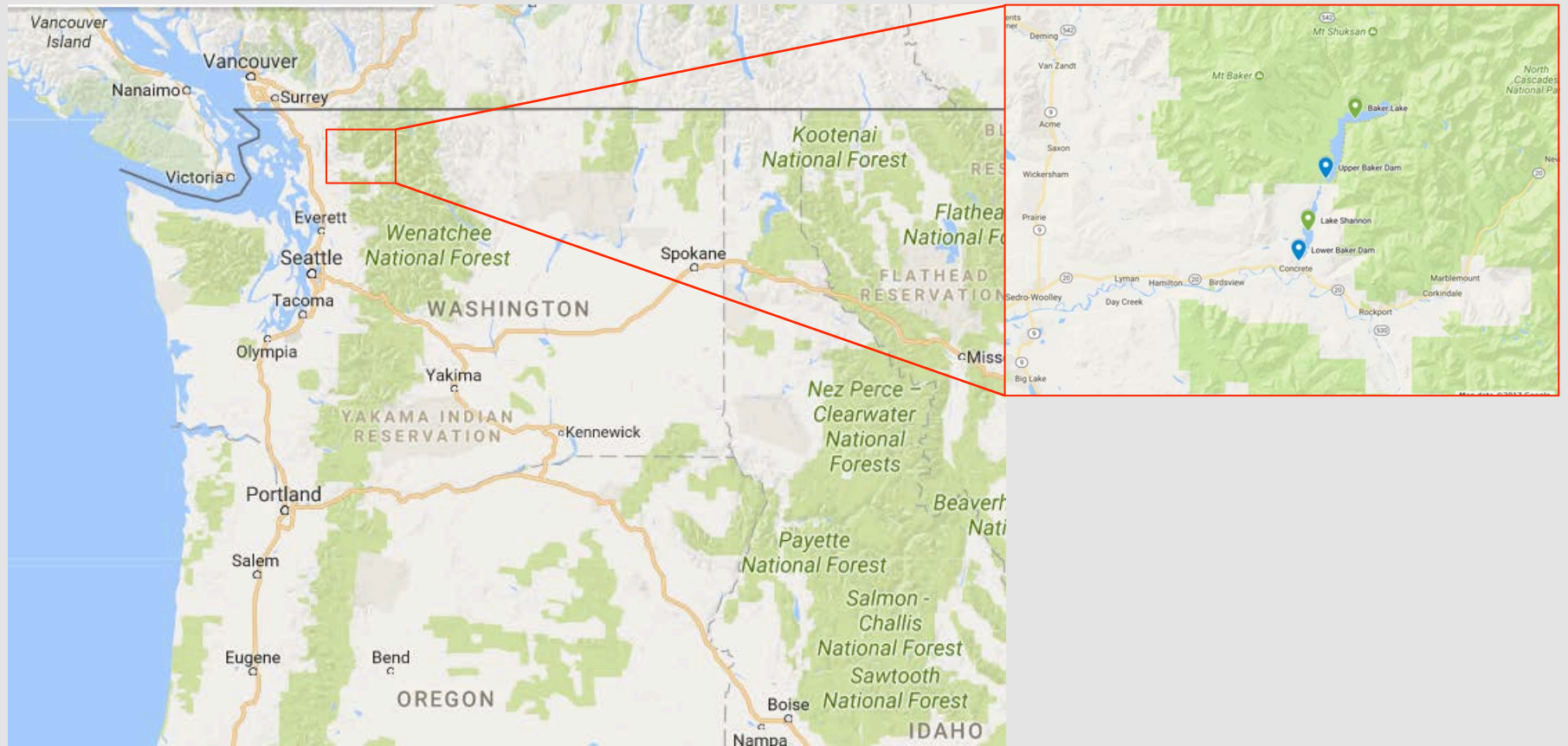
Condition Surveys

- Access
- Documentation

Ongoing Assessment

- Use of Survey Information

Geographic Setting



Lower Baker Dam: Overview



Concrete Gravity
Arch Dam in Skagit
County, WA

Completed 1925

285 feet tall, 550
feet across crest

2,278 acres at full
pool

Upper Baker Dam: Overview



Concrete Gravity
Dam in Whatcom
County, WA

Completed 1959

312 feet tall, 1,235
feet across crest

4,980 acres at full
pool

Industrial Rope Access



Industrial Rope Access

Existing anchors

Encirclement anchors

Removable anchors

Rig to haul



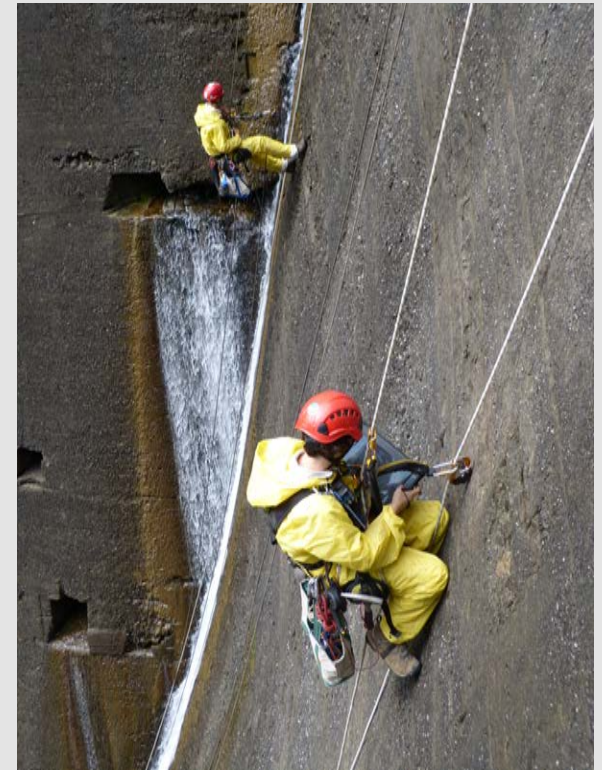
Inspection



Hands-on access
Hammer-sounding
Measurements
Documentation



Documentation

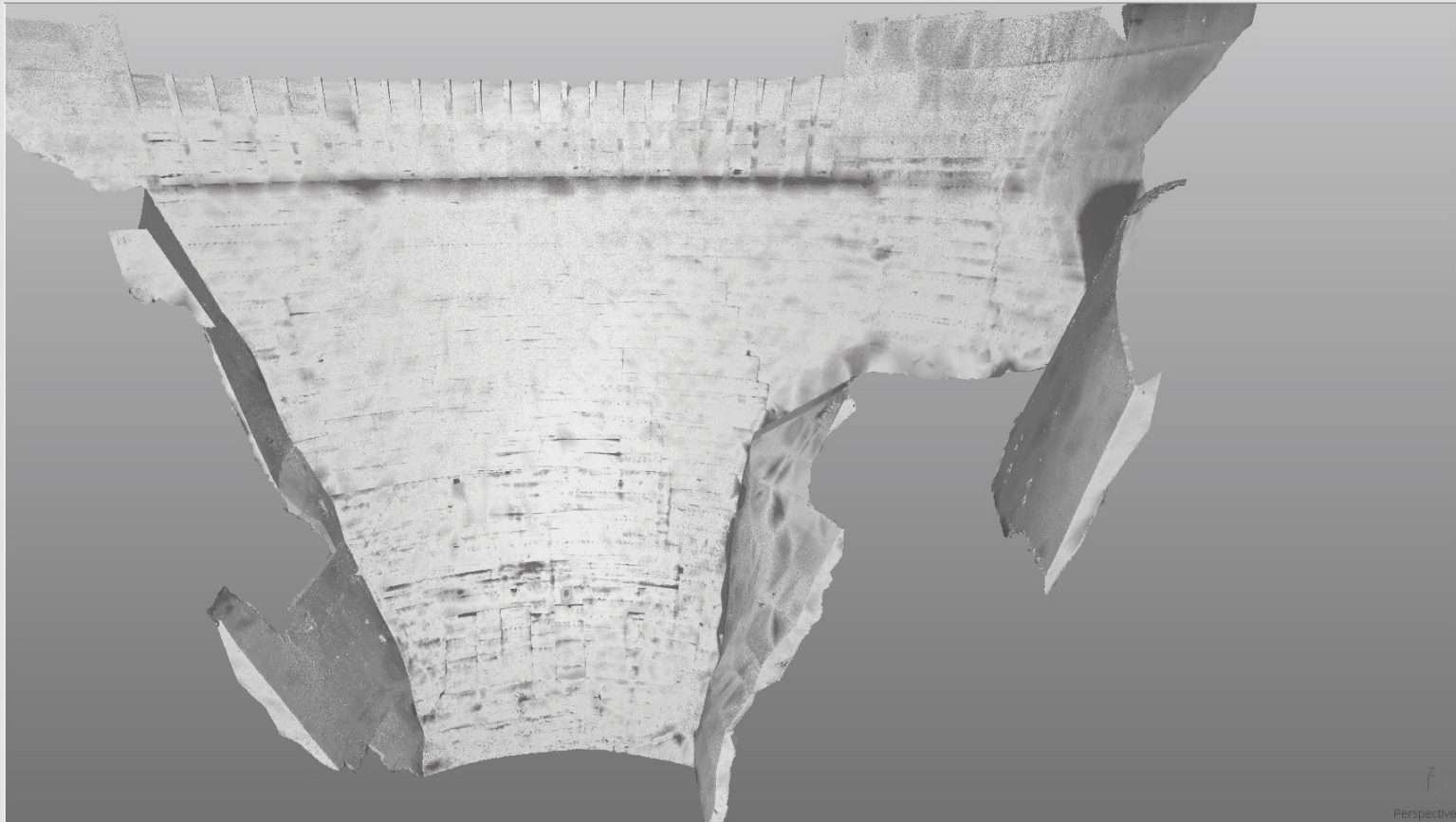


Tablet PC Annotation System

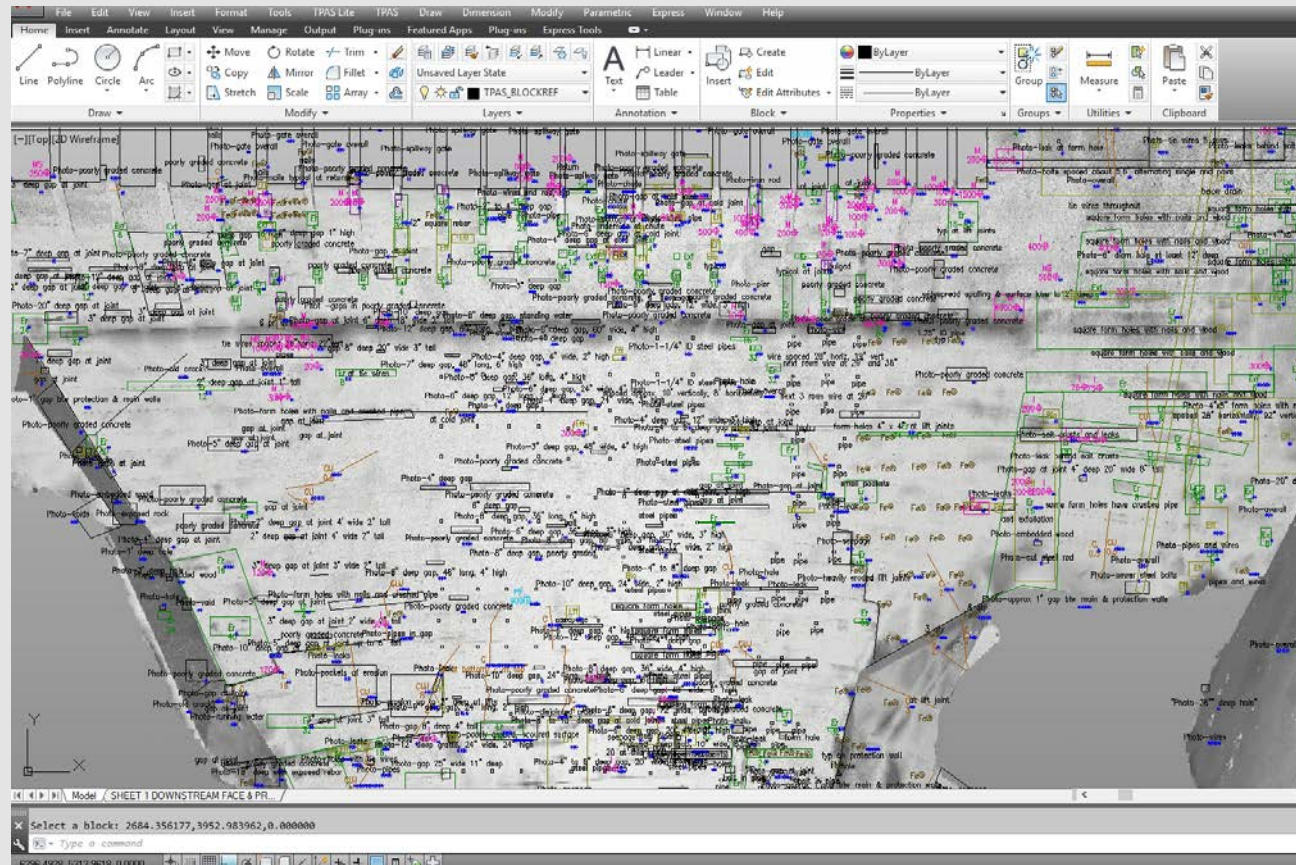
Tablets running windows with
AutoCAD

Small digital cameras

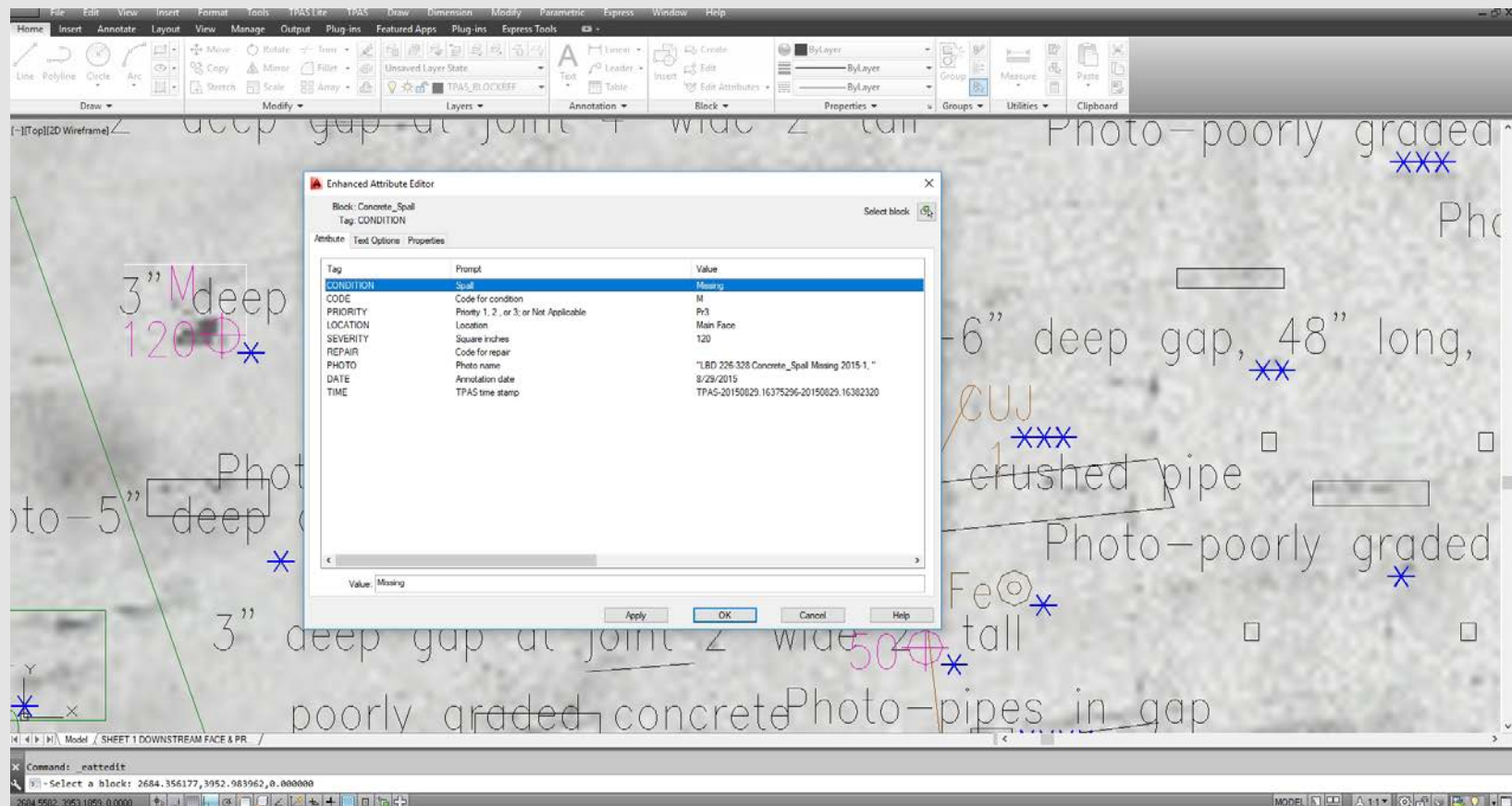
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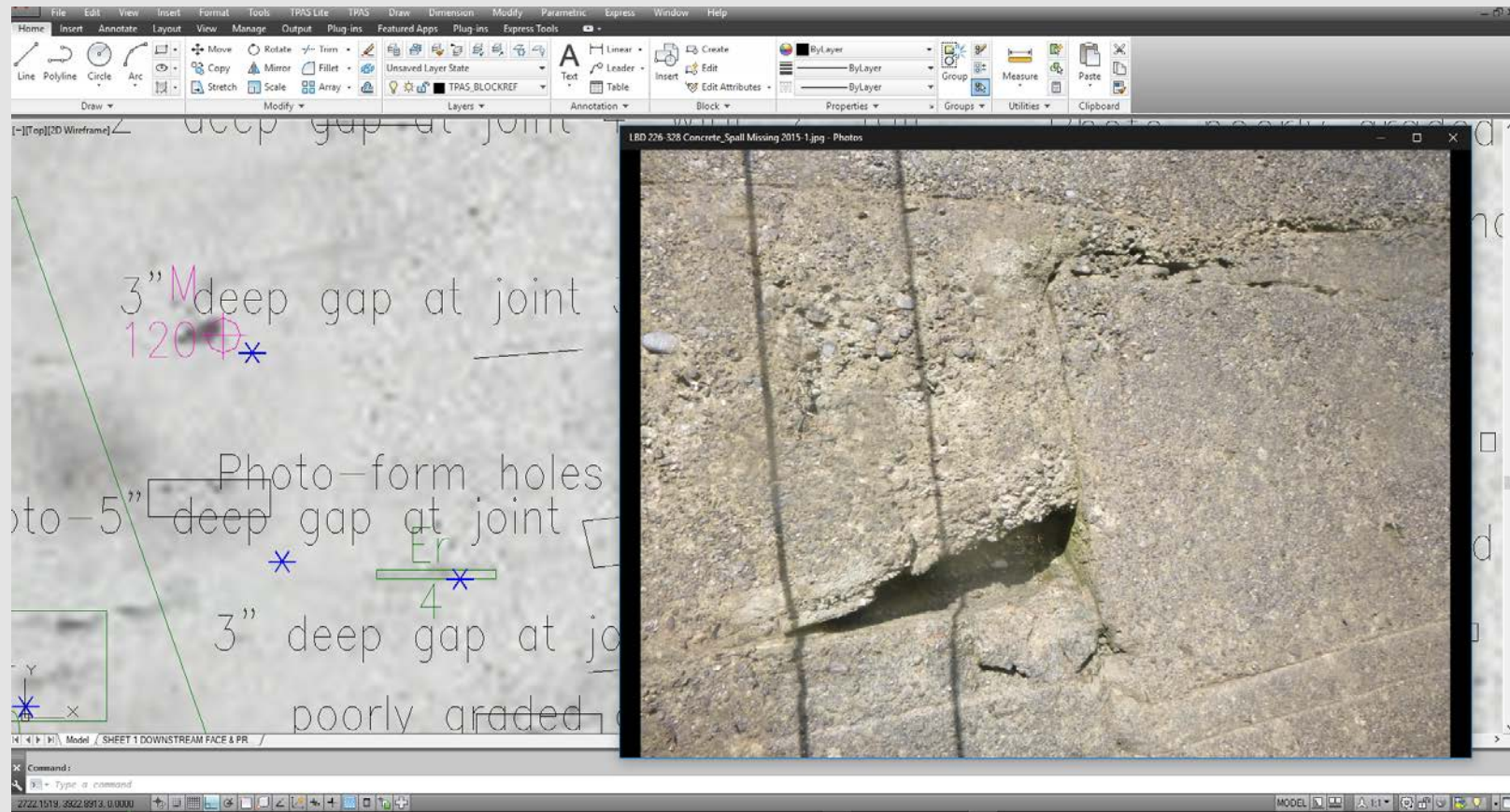
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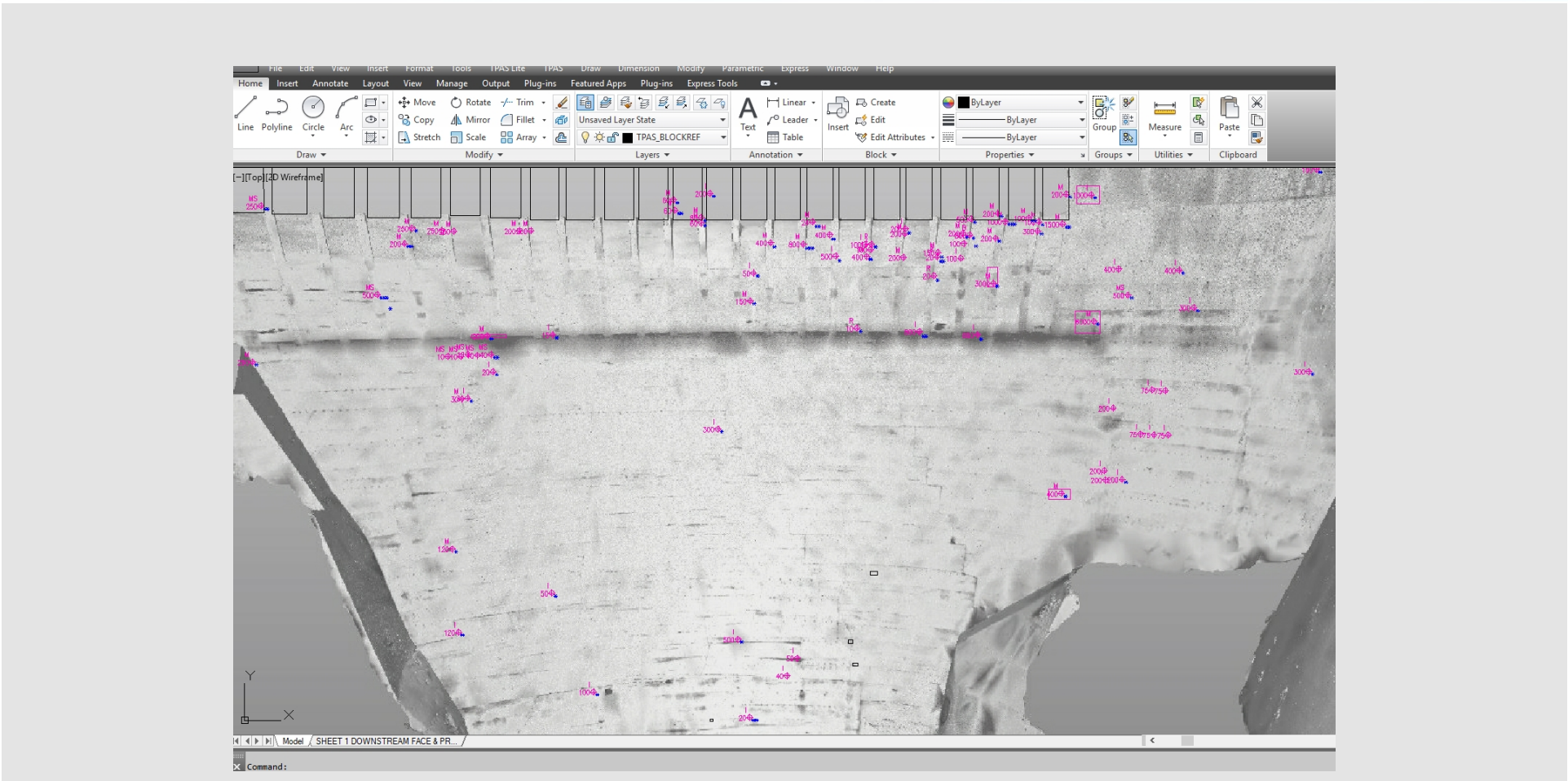
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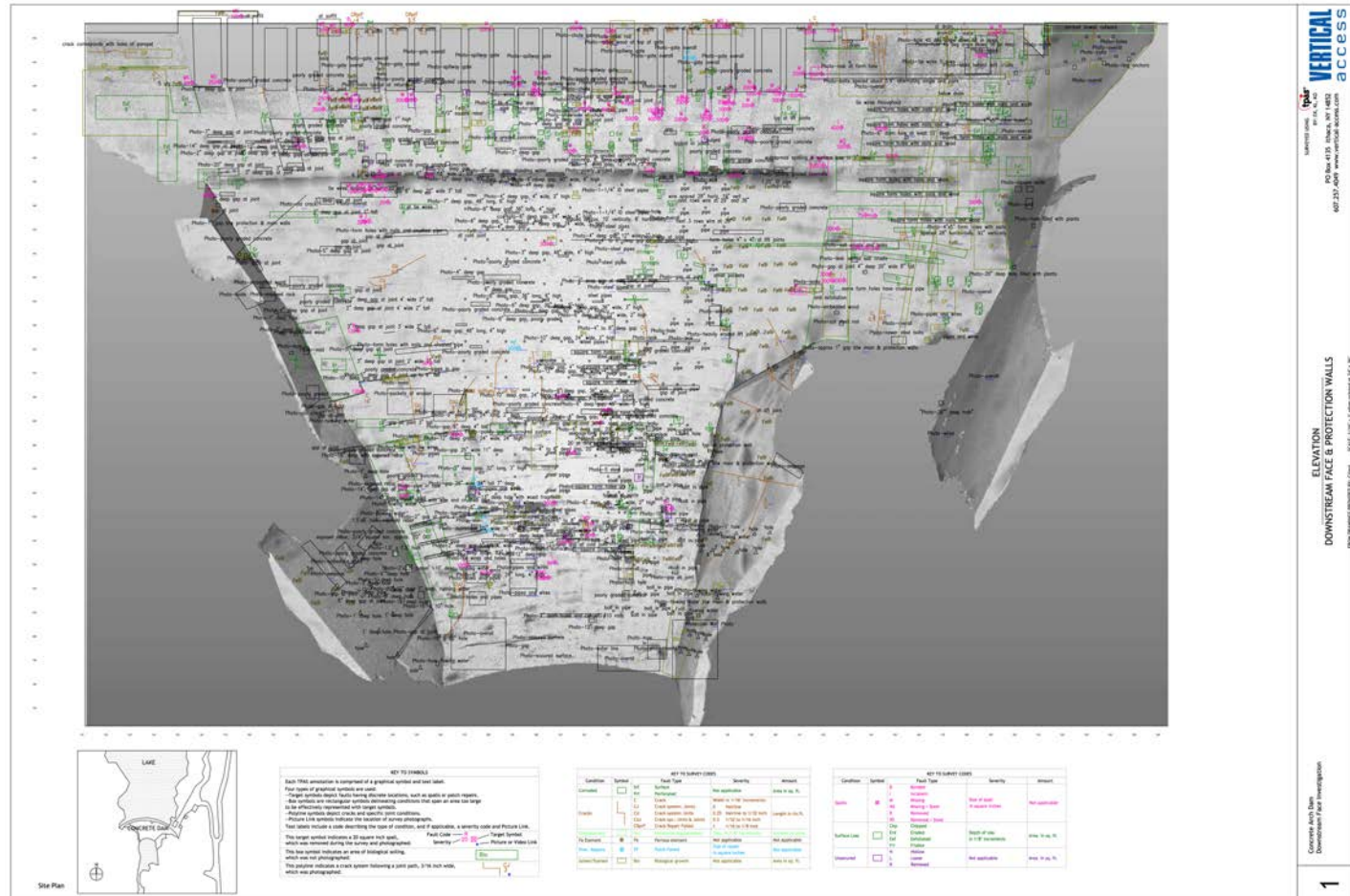
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Documentation: TPAS



VERTICAL
ACCESS

ELEVATION
DOWNSTREAM FACE & PROTECTION WALLS

Copyright 2010
Downstream Face Investigation

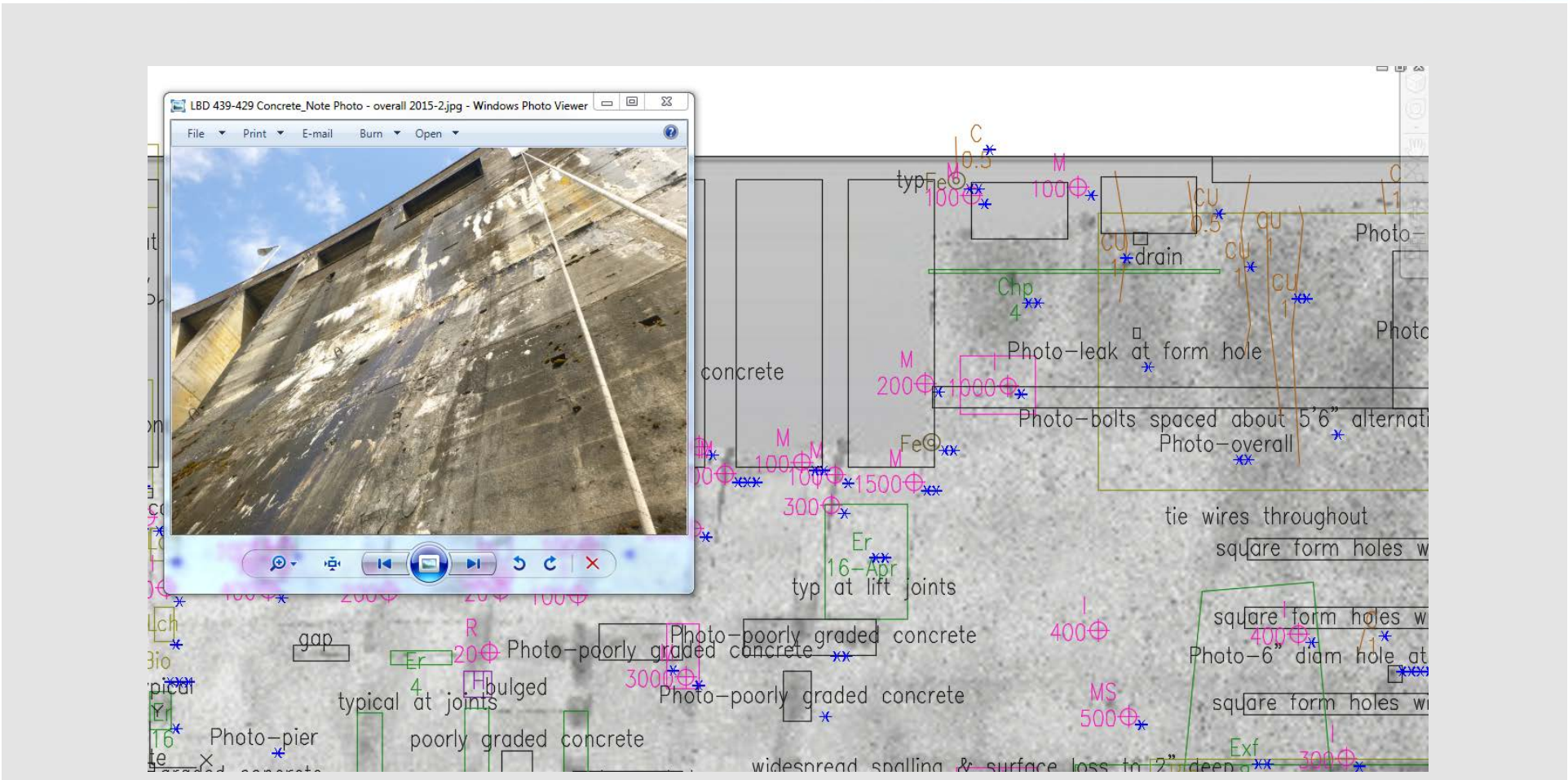
Why?



On-site Assessment



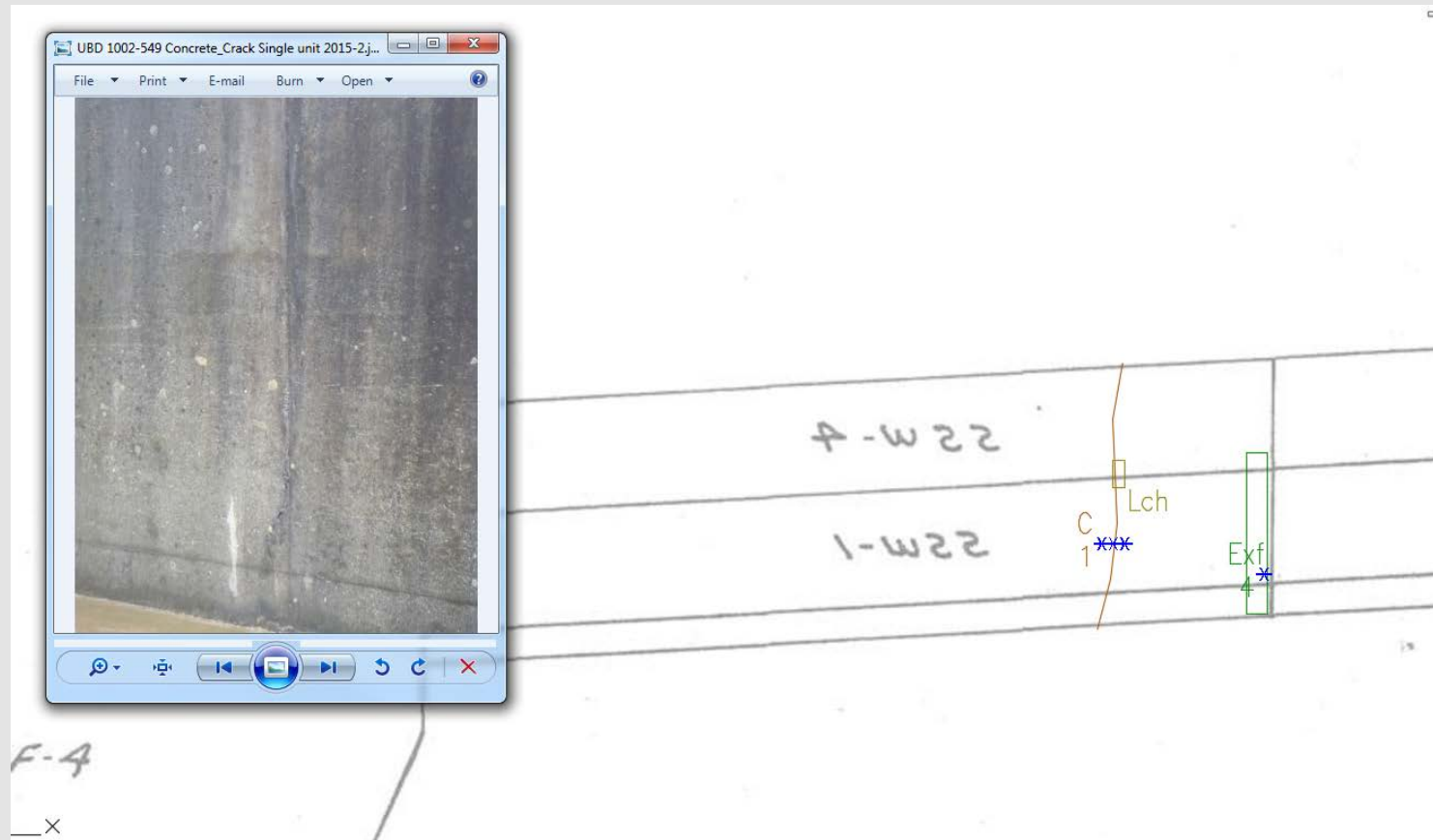
On-site Assessment



On-site Assessment



On-site Assessment



Follow-up Inspection



Thank You

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PUGET
SOUND
ENERGY

