



CARPENTERSVILLE DAM REMOVAL

OCTOBER STATUS UPDATE



HISTORY

Low head dam constructed in late 1830's-1840's

Dam and mill races created a power source for Carpentersville's developing industries

By mid 20th Century electricity replaced dams as the source of power

LET'S GO!

2015

Grant from IDNR awarded for Fabyan Forest Preserve causeway & Carpentersville Dam removals

2019

Engineering contract for the Carpentersville Dam removal is awarded to V3 Companies

2020

Engineering and permitting begins

2024

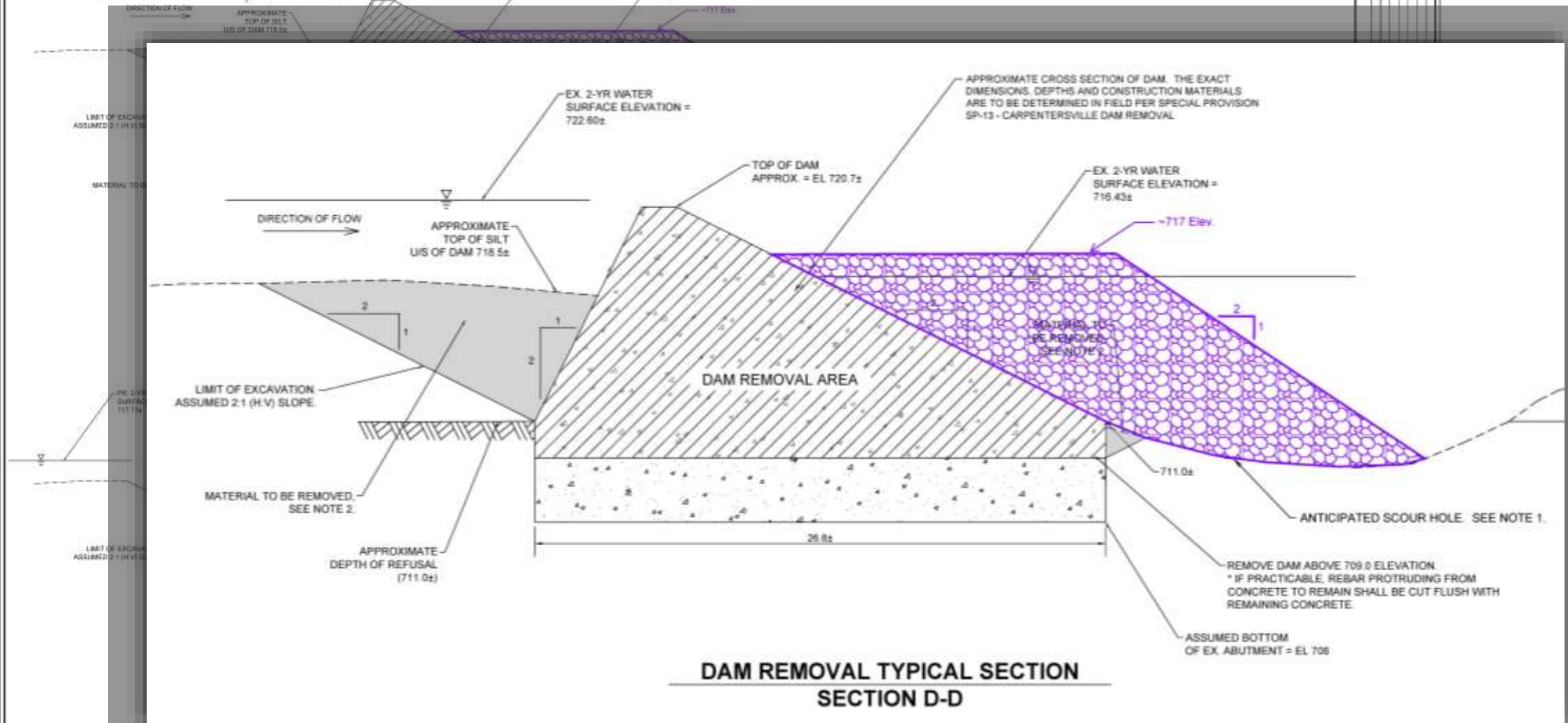
First notch on the dam begins September 20
Dam demolition will be complete and out of the water by November 4



Ribbon Tying Ceremony 9/4/2024

REMOVAL PLAN & LIMITS

DATE: 03/11/2024



**DAM REMOVAL TYPICAL SECTION
SECTION D-D**

**POST DAM REMOVAL TYPICAL CROSS SECTION
SECTION D-D**

2. MATERIAL TO BE REMOVED UPSTREAM AND DOWNSTREAM OF DAM TO BE PAID FOR AS EITHER "REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL (SP-16)" OR "NON-SPECIAL WASTE DISPOSAL (SP-19)".
- 2.1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO TEST THE MATERIAL PER SECTION ARTICLE 609 OF THE DOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE DESIGN AND CONSTRUCTION TITLE 35, SUBTITLE J, CHAPTER 1, PART 1100 TO DETERMINE IF THE SOILS ARE ELIGIBLE FOR CCDD DISPOSAL.
- 2.2. IF TESTING DETERMINES MATERIALS ARE SUITABLE FOR CCDD DISPOSAL, THE DISPOSAL SHALL BE PAID AS "REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL (SP-16)".

- 3.1. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE APPROPRIATE SIZE AND DEPTH OF THE NOTCH AND PROVIDE TO ENGINEER FOR APPROVAL.
- 3.2. DAM MATERIAL REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND SHALL BE REMOVED FROM PROJECT SITE AND PROPERLY DISPOSED OF IN ACCORDANCE WITH ALL STATE AND FEDERAL GUIDELINES.
- 3.3. IF ANY COMPONENT OF EQUIPMENT IS PLACED INTO THE WATER, THE HYDRAULIC FLUID SHALL BE ENVIRONMENTALLY FRIENDLY, NON-TOXIC TO FISH AND AQUATIC SPECIES AND CLASSIFIED AS INHERENTLY BIODEGRADABLE.

SEE SHEET C3.0 FOR DAM REMOVAL CROSS SECTION LOCATIONS



DATE: 03/11/2024

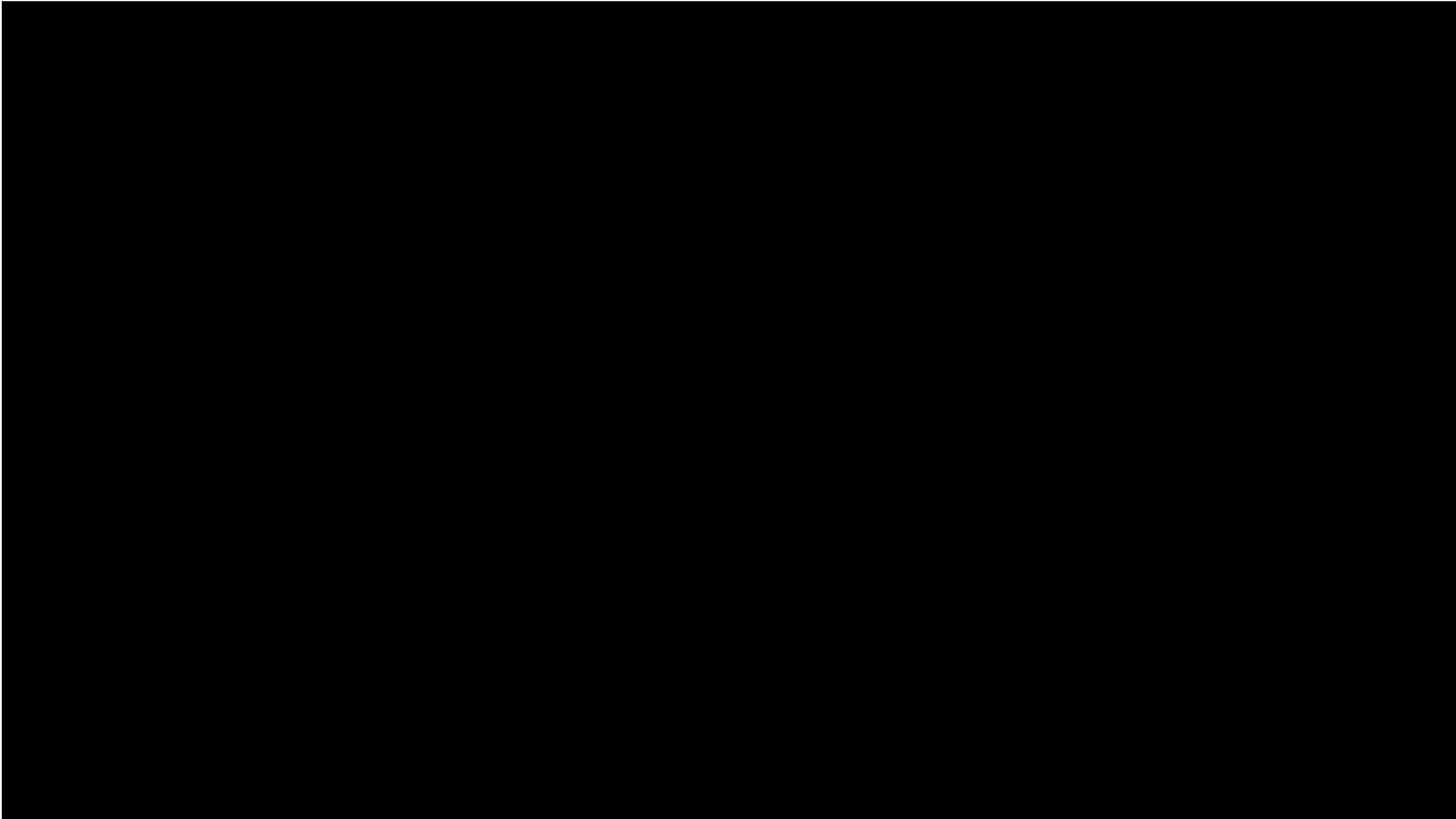
DRAWING NO.

C3.1



NOTCHING DAY

Sept. 20, 2024



TIMELINE

Day 1 (9/20/24)

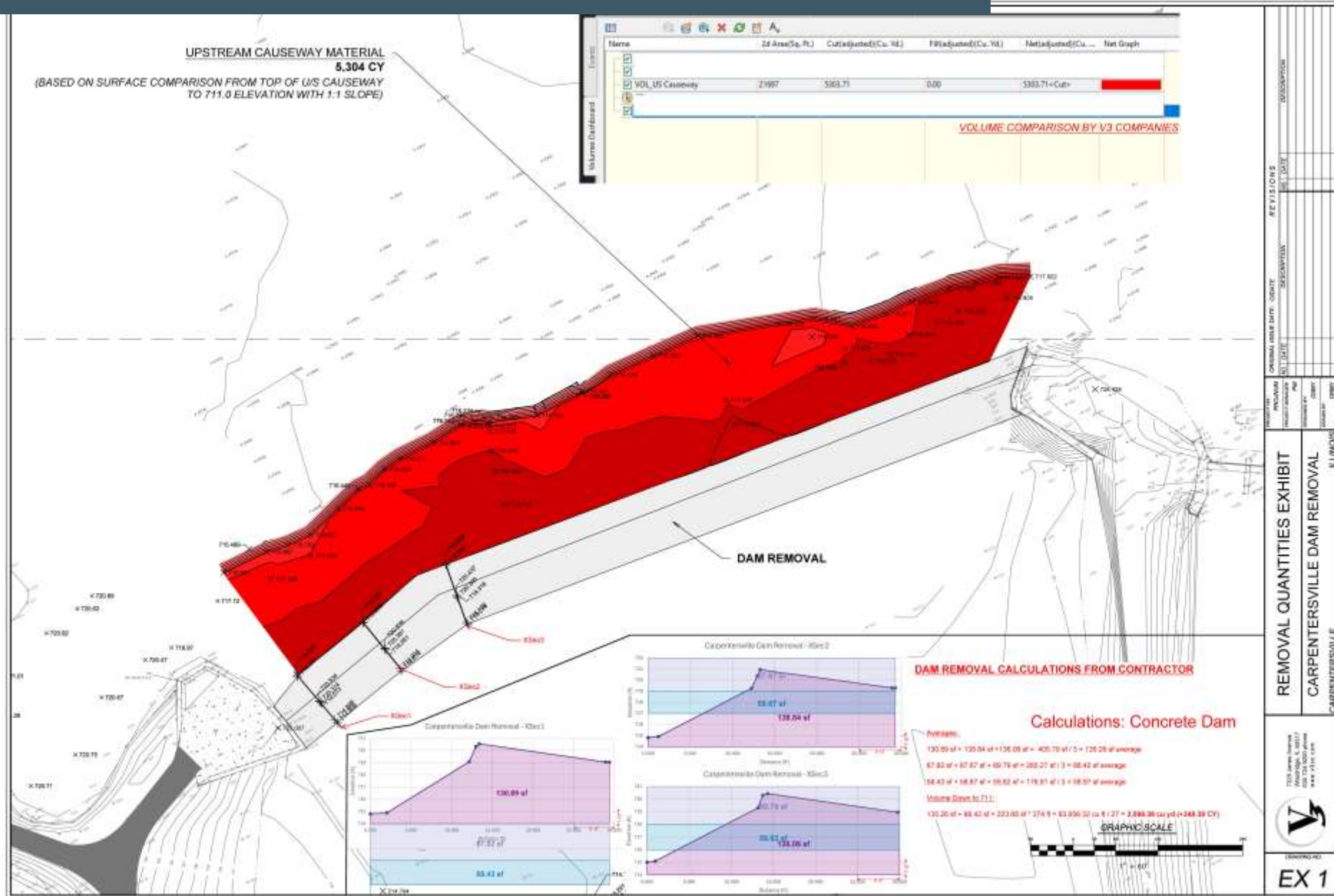
- First notch made

Week 1 (9/23-27)

- Top 2' of dam exposed
- Area behind notch not nicking as expected
- Causeway behind the dam is exposed
- Team begins to understand how the dam was constructed



CHANGING CONDITIONS



CHANGING CONDITIONS

U/S CAUSEWAY REMOVAL VOLUME

TOTAL REMOVAL = 382.6 SF x 374 LF = 5,300 CY

TIMBER REMOVAL: ASSUMES APPROXIMATELY 43.3 SF, 1FT WIDE, EVERY 10 FEET
 $43.3 \text{ SF} \times 374 \text{ LF} \times 1/10 = 60 \text{ CY}$
 ASSUME 0.54 TONS PER CY = $60 \text{ CY} \times 0.54 = 32.4 \text{ TONS}$

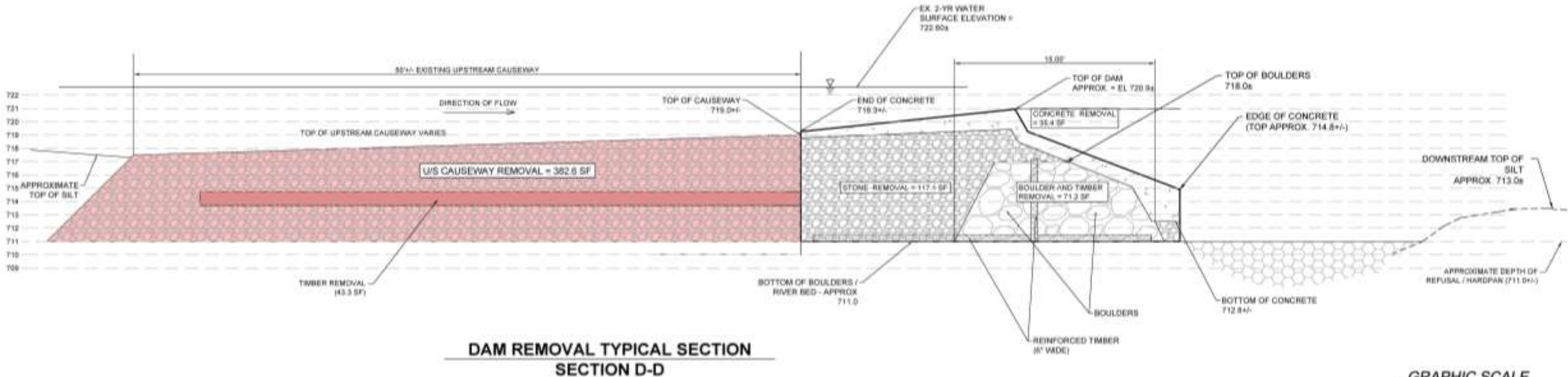
STONE REMOVAL: $5,300 \text{ CY} - 60 \text{ CY} = 5,240 \text{ CY}$
 ASSUME 1.65 TONS PER CY = $5,240 \text{ CY} \times 1.65 = 8,646 \text{ TONS}$

DAM REMOVAL VOLUME

TOTAL REMOVAL VOLUME = 223.7 SF x 374 LF = 3,099 CY

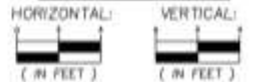
DAM DEMOLITION AND REMOVAL = 1,475 CY
 CONCRETE REMOVAL = 35.4 SF x 374 LF = 490 CY
 TIMBER REMOVAL
 = $6'' \times 6.15'$ TALL x 374 + $6'' \times 6'' \times 25'$ HORIZONTAL MEMBER (SPACED EVERY 5 FT - 75 TOTAL)
 = $42.6 \text{ CY} + 17.4 \text{ CY} = 60 \text{ CY}$
 BOULDER REMOVAL = 71.2 SF x 374 LF - TIMBER REMOVAL = 985 CY - 60 CY = 925 CY

BANK RUN MATERIAL (REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL)
 = 117.1 SF x 374 LF = 1,624 CY



**DAM REMOVAL TYPICAL SECTION
SECTION D-D**

GRAPHIC SCALE



TIMELINE

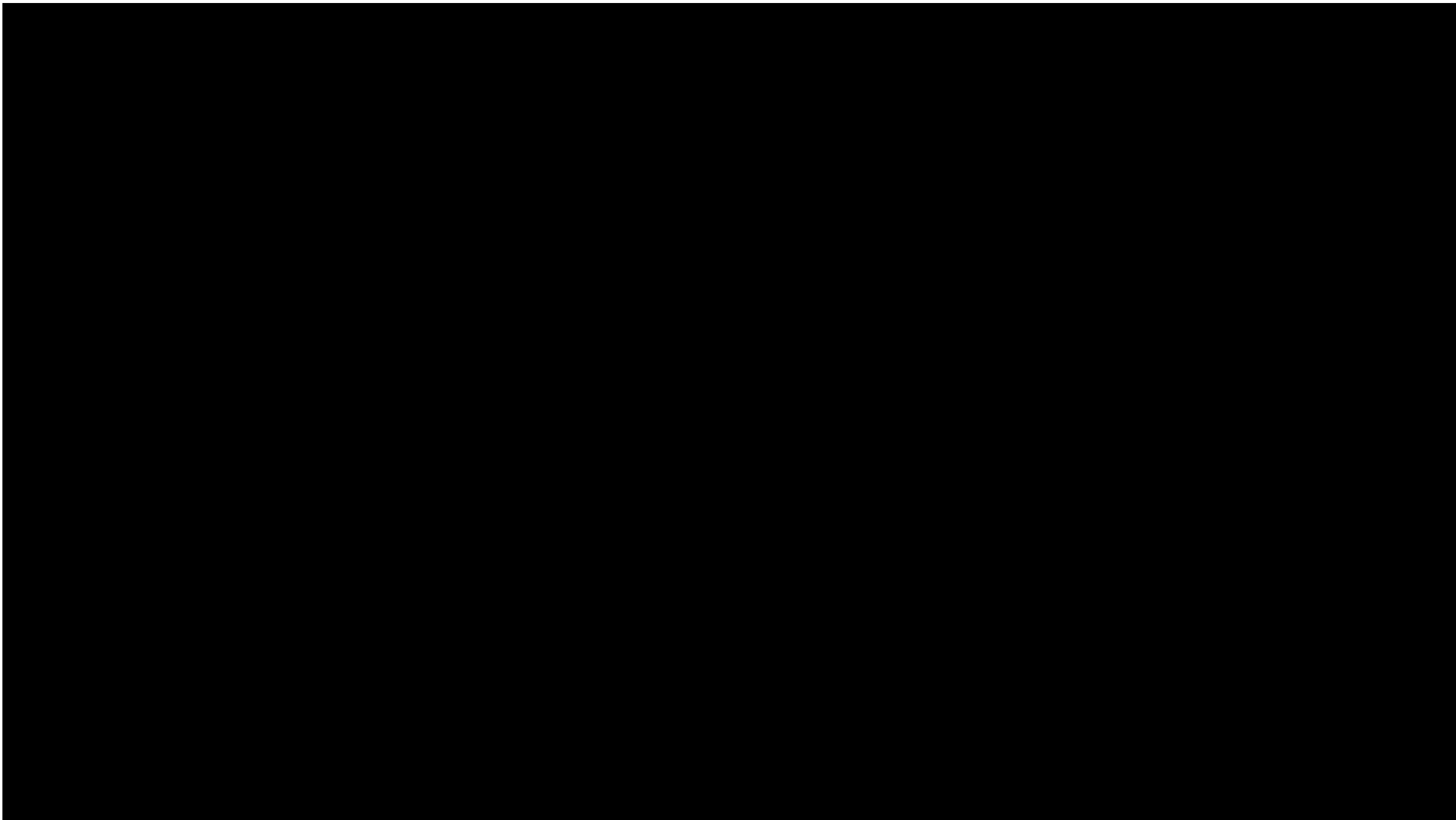
Week 2 (9/30-10/4)



TIMELINE

Week 2 – Friday 10/4







Week 3 (10/7-11)

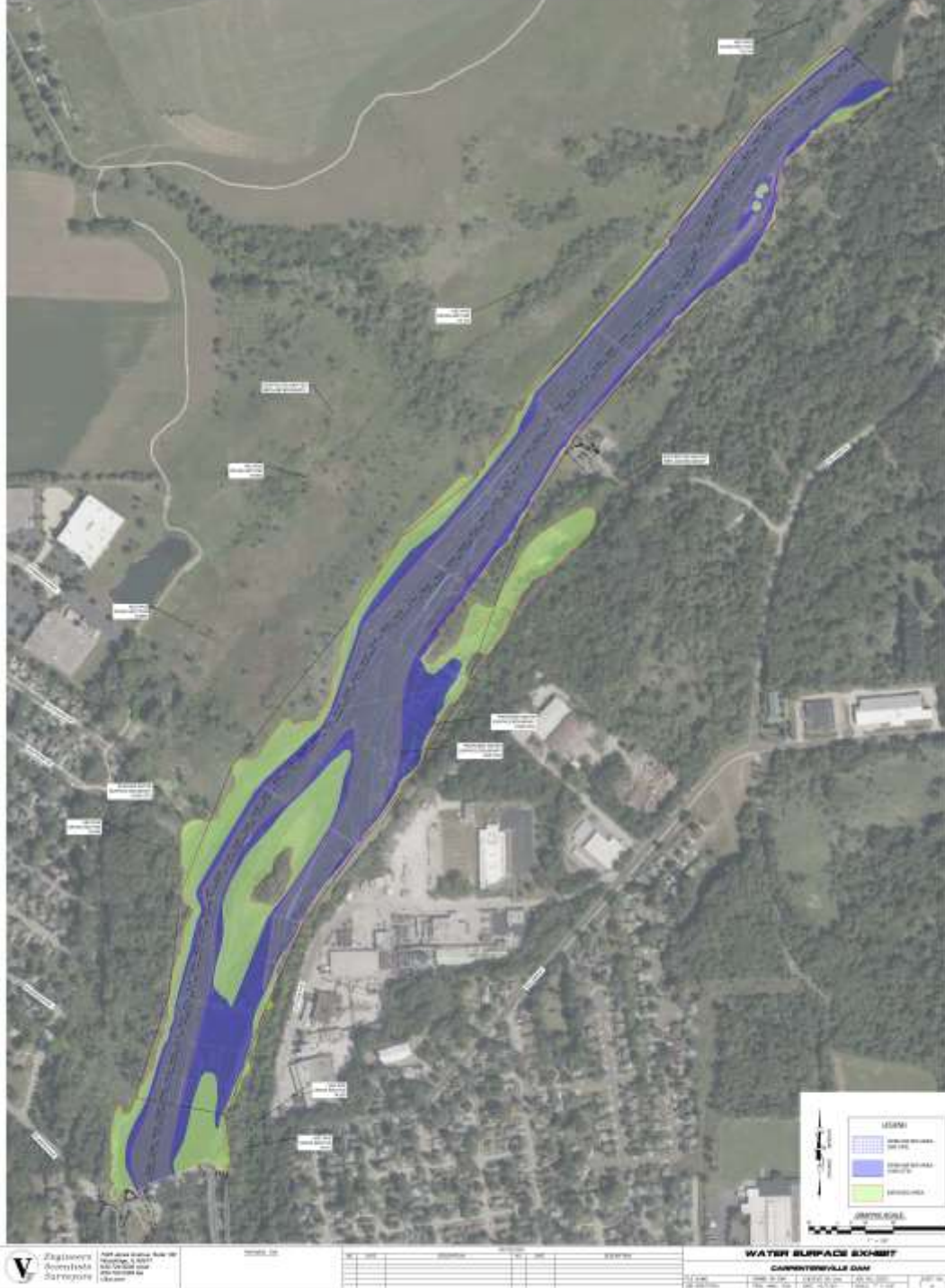
- Concrete is almost gone
- More Shoreline
- Mussels exposed
- Begin removal of causeway
- What to do with all the boulders?



Week 4 (10/14-18)

Week 5 (10/21-25)

- Moving along
- More shoreline as the drought continues
- Community Clean-up events
- Contract negotiations & change orders




Projected Water Surface Exhibit

- Channel appears to be stronger east of the island
- Green area: Water levels before dam removal – New Shoreline
- Light Blue: Open water @ 500 CFS
- Dark Blue: Open water @ 1,000 CFS



Week 6 (10/28-11/1)

- Almost Gone
- November 1, begin Chain O'Lakes winter drawdown
- Never know what you'll find



WATER EBBS, FUN FLOWS,
WHO KNOWS WHAT
TREASURE WILL BE
EXPOSED

SHORELINE CLEANUP

Join **Friends of the Fox River** and the **Forest Preserve District of Kane County** for 2 opportunities to help with shoreline cleanup. End of season low water levels have exposed a plethora of debris. One's trash is another's treasure - you never know what you might find!

-  Be prepared for muddy conditions
-  Bring your gloves and available cleanup tools

 **Thursday 10.24.24**
and
Saturday 10.26.24
11am - 2pm

 **Fox River Shores**
Forest Preserve
N. Williams Rd, Carpentersville



Scan for more info on our Facebook page





THANK YOU

- Illinois Department of Natural Resources
- Army Corp of Engineers
- Kane DuPage Soil and Water Conservation District
- Kane County Department of Environmental & Water Resources
- V3 Engineering Consultants
- RES Environmental

- Friends of the Fox River and all the Volunteers that have worked so hard to make this project a success

