

PROBABILISTIC STRUCTURE COST ESTIMATE

← INPUT

OUTPUT →

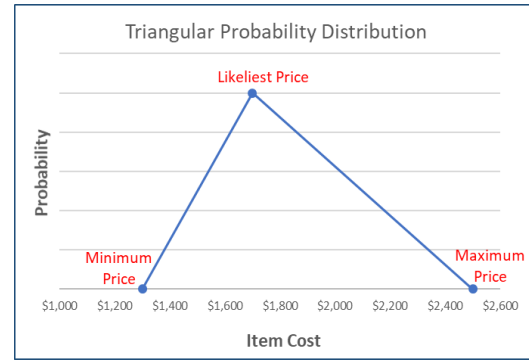
GENERAL PLAN ESTIMATE

X ADVANCE PLANNING ESTIMATE

Revised -January 9, 2020

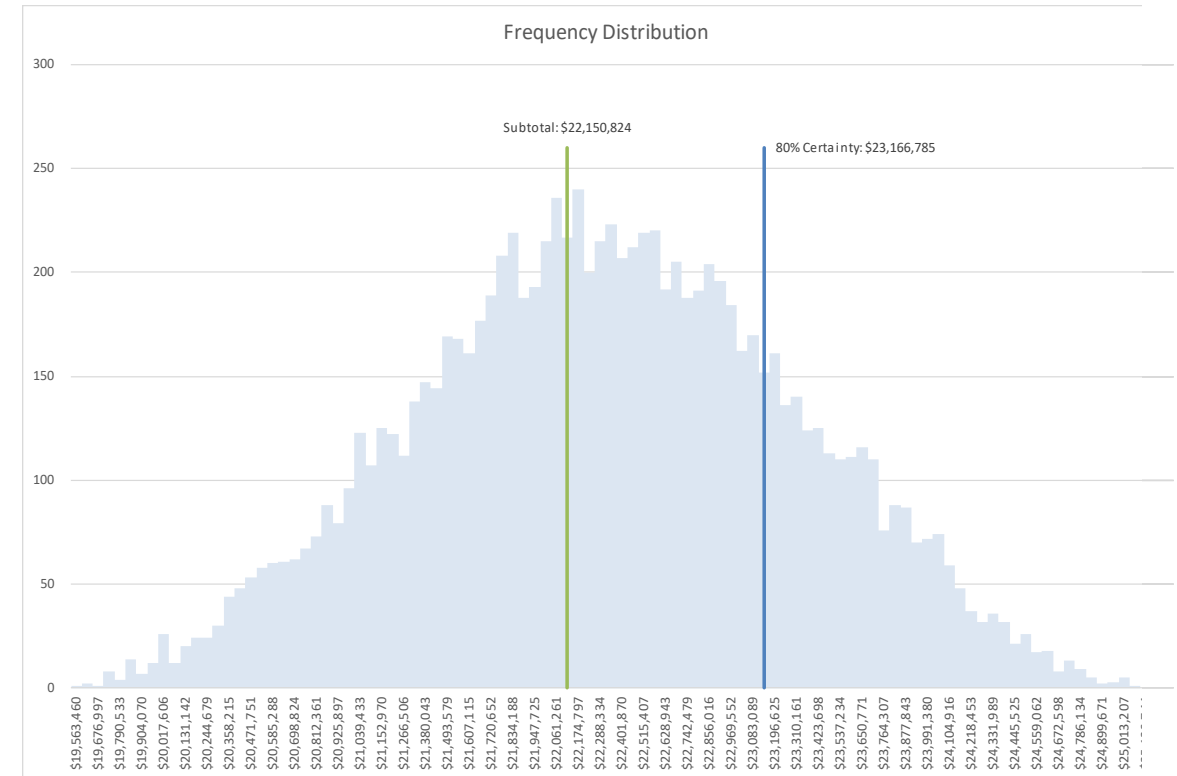
BRIDGE NAME: ALBION RIVER BRIDGE ALTERNATIVE 1C
BRIDGE NUMBER: 10-0306
TYPE: Open Spandrel Arch (R/C Box Girder)
EA: 01-40110
PROJECT ID: 01-0000-0154
ACCELERATED BRIDGE PROJECT: NO
DESIGN SECTION: 01
OF STRUCTURES IN PROJECT: 1
PRICES BY: Paul Mak
PRICES CHECKED BY: Don Reding
QUANTITIES BY: A. O'Hearn

IN EST: 9/24/2020
OUT EST: 11/3/2020
DISTRICT: 01
CO: Men
RTE: 1
PM: 43.7
DEPTH: 5.5
LENGTH: 1020
WIDTH: 47
AREA: 47940
EST. NO.
COST INDEX: 737
DATE: 10/21/2020
DATE: 9/15/2020



The Assumption Curves, unless noted otherwise, are modeled with a triangular distribution with the "Minimum, Likeliest and Maximum values."

Table with 4 columns: ITEM PRICE RANGE, MINIMUM, LIKELIEST, MAXIMUM, AMOUNT. Lists 15 contract items with their respective price ranges and total amounts.



Main contract items table with columns: CONTRACT ITEMS, TYPE, UNIT, QUANTITY. Lists 30 items including excavation, concrete, steel, and piling.

Time Related Overhead, Mobilization and Contingency NOT INCLUDED

Percentiles: Forecast values table showing cost forecasts from 0% to 100%.

BASED ON THE ASSUMPTIONS USED TO CREATE THE MODEL. DES STRUCTURE OFFICE ENGINEER RECOMMENDS THAT THE PROGRAMMING LEVEL BUDGET FOR THIS PROJECT BE DESIGNATED AT THE 80% FORECAST VALUE.

Summary cost table: BRIDGE COST PER SQUARE FOOT (\$483), BRIDGE REMOVAL (\$2,365,100), ESTIMATED COST Subtotal + Bridge (\$25,538,000), TOTAL (\$39,017,000).

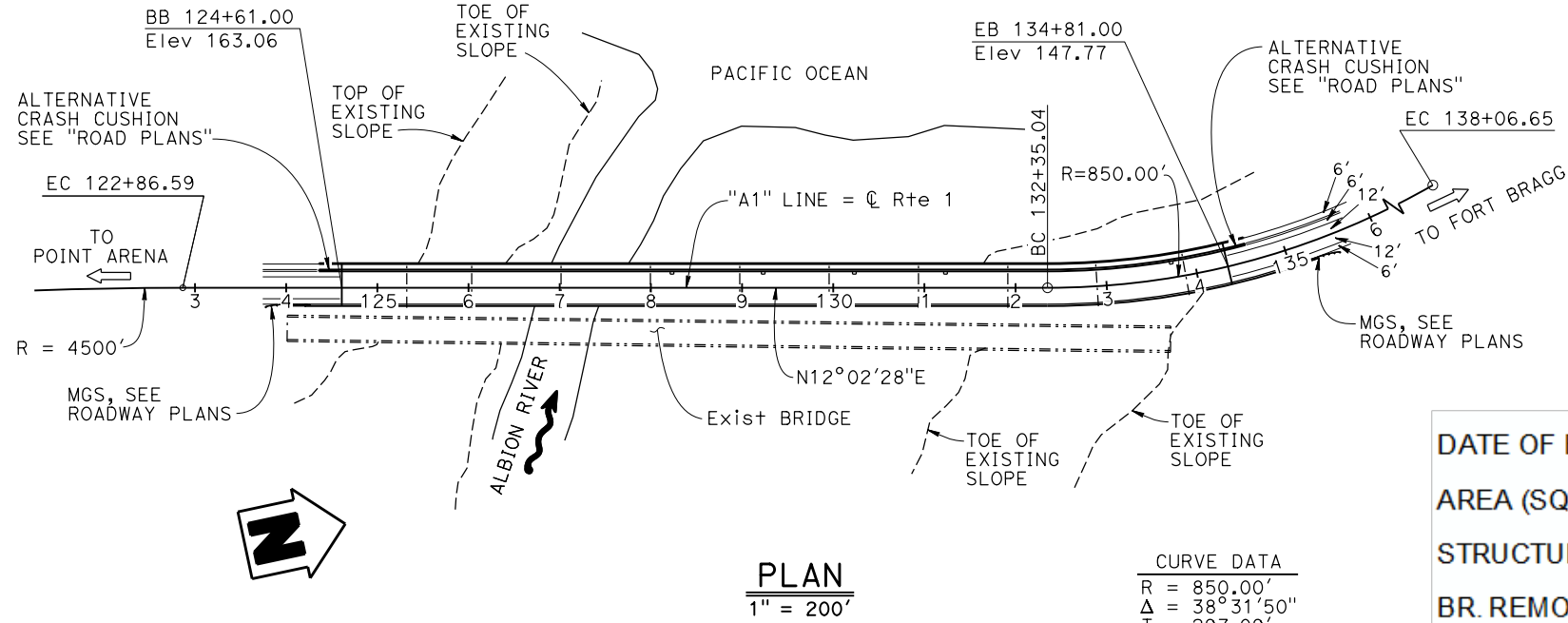
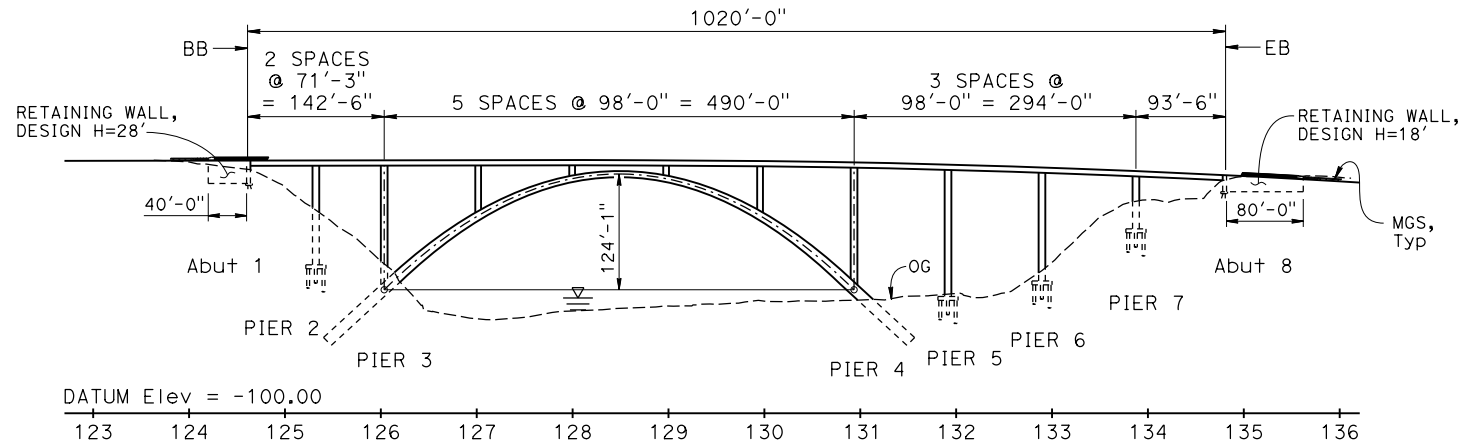
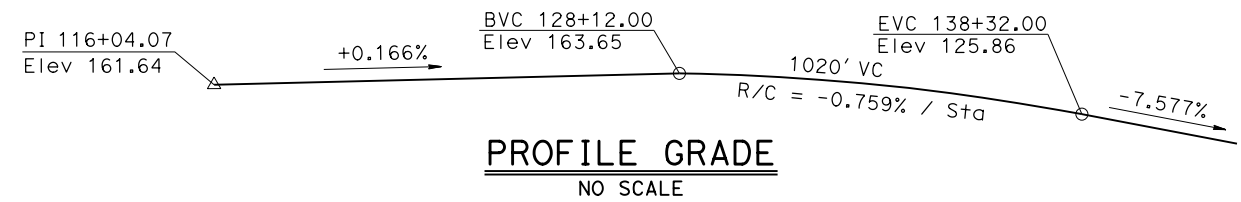
DOES NOT INCLUDE time related overhead (TRO), mobilization and contingency

INCLUDES mobilization: 10%, structure TRO: 10% and continge25%

Comments section: Bridge removal price includes hazardous waste disposal of treated timber.

Empty table with 4 columns: TYPE, UNIT, QUANTITY.

Dist	COUNTY	ROUTE	POST MILE
01	Men	1	43.74

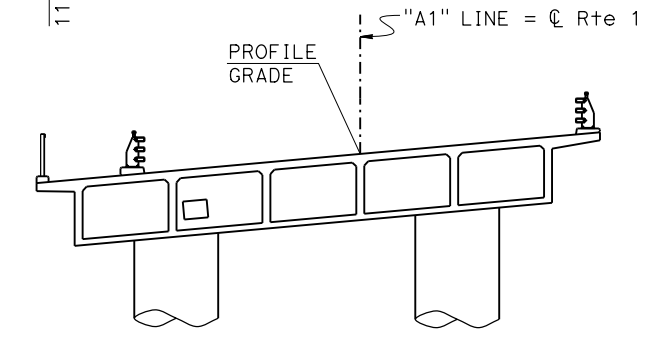
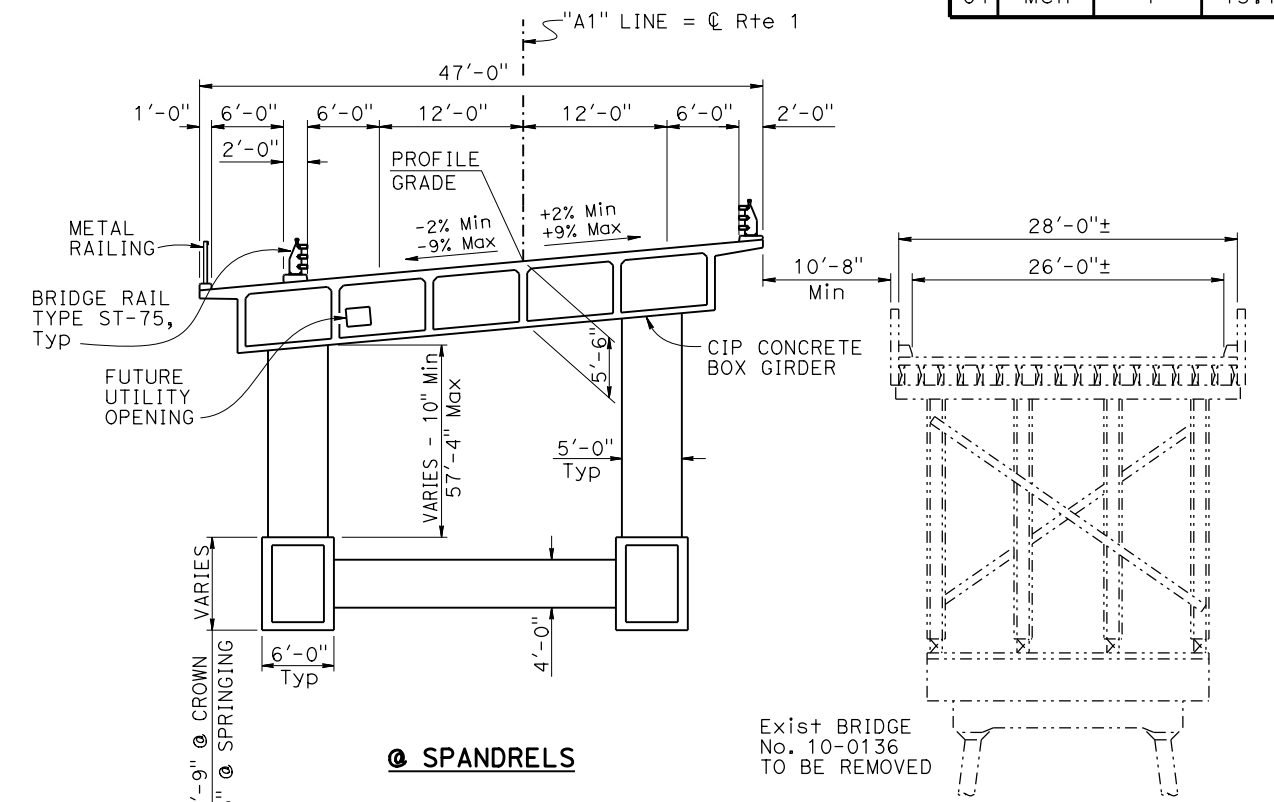


- NOTES:
- 24"Ø CIDH Piles, 60 ft (45 ton) assumed @ Abutments
36"Ø CISS Piles, 100 ft (200 ton) assumed @ Piers
 - Rock voids and fracture density assumed to be low enough that ground water can be controlled at the arch mined shaft foundations.
 - Traveled way deck drainage carried through Pier 5 & Abutment 8. Sidewalk drainage utilizes scuppers and drop-through Drains

LEGEND:
 - - - - Existing Structure
 • Indicates Deck Drain Type D-3 (traveled way drainage system)

CURVE DATA

R = 850.00'
Δ = 38° 31' 50"
T = 297.09'
L = 571.61'



NOTE: For details not shown, see "@ SPANDRELS".

TYPICAL SECTION
 1/16" = 1'-0"

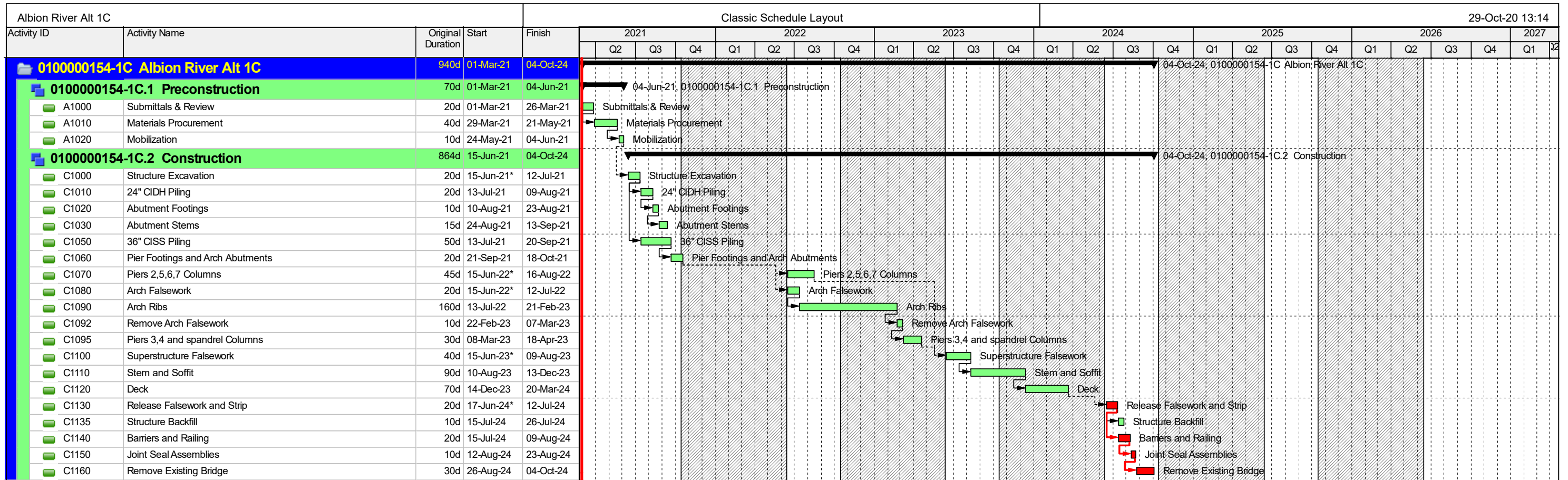
DATE OF ESTIMATE	11/03/20
AREA (SQFT)	47,940
STRUCTURE SUBTOTAL	\$23,173,340
BR. REMOVAL SUBTOTAL	\$2,365,050
TOTAL COST	\$25,538,390

Total includes 10% TRO, 10% mobilization and 25% contingency

DESIGNED BY D. Sessions/K. Harper	DATE 08-17-20
DRAWN BY G. Dickerson	DATE 09-16-20
CHECKED BY	DATE
APPROVED	DATE

STRUCTURE DESIGN
DESIGN BRANCH
1

ALTERNATIVE 1C	
PLANNING STUDY	
ALBION RIVER Br (REPLACE)	
UNIT: 3576	BRIDGE No.: 10-0306
PROJECT EA: 01-40110	PROJECT No. & PHASE: 0100005140



Assumptions:

- No in-water work from 10/15 to 6/15
- Falsework can remain within river over the winter
- Multiple crews, multiple drill rigs used
- Actual construction days: 590

█ Actual Level of Effort
 █ Remaining Work
 ◆ Milestone
█ Actual Work
 █ Critical Remaining Work
 ▼ summary