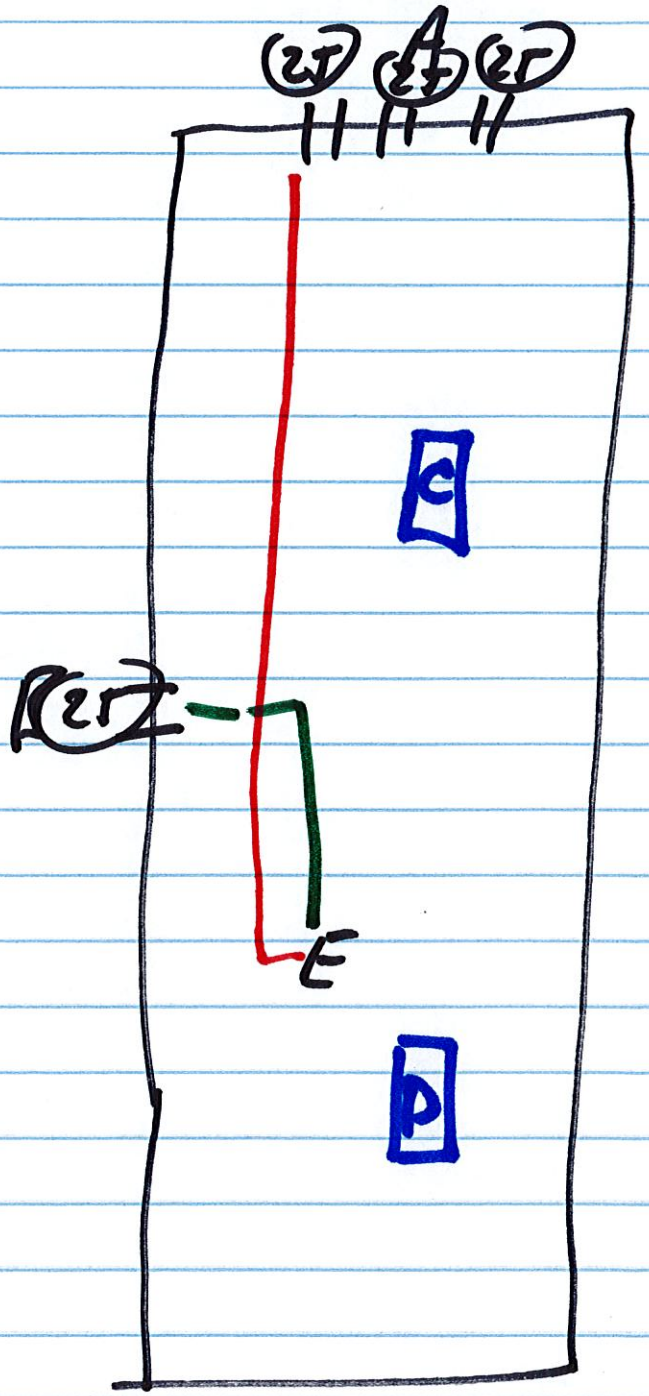
MEMO #4

- ROPE SITUATION



POTENTIAL SAVINGS:

- TRUCKING COST
- SPACE COST

COST COMPUTATION: 10-YEAR DISCOUNTED COSTS

$$\sum_{i=0}^{10} \left(\frac{1}{1+r}\right)^i C_i$$

C_0: UP-FRONT COST [NEW DOCKS]

r = INTEREST RATE (.06)

HERE $C_i = C_1$ FOR $i = 1 \ldots 10$

$$\sum_{i=1}^{10} \left(\frac{1}{1+r}\right)^i = \frac{1}{r}\left[1 - \frac{1}{(1+r)^{10}}\right]$$

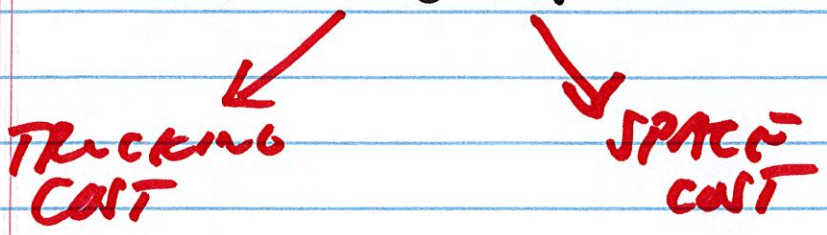
DISCRETE DECISIONS

- NEW DOCK(S)
- SOFTSIDE C/D

TWO WAYS TO HANDLE THIS:

1. BY HAND
2. "ONE SHOT" IN SOLVER WITH BINARY/INTEGER VARS.

IN WRITE-UP, WOULD BE NICE TO CONSIDER SENSITIVITY TO COST ASSUMPTIONS.



"UP TO 10 PAGES"

$\int$ MORE THAN ENOUGH...