

Construction Management - Considerations for School Finance and Facilities

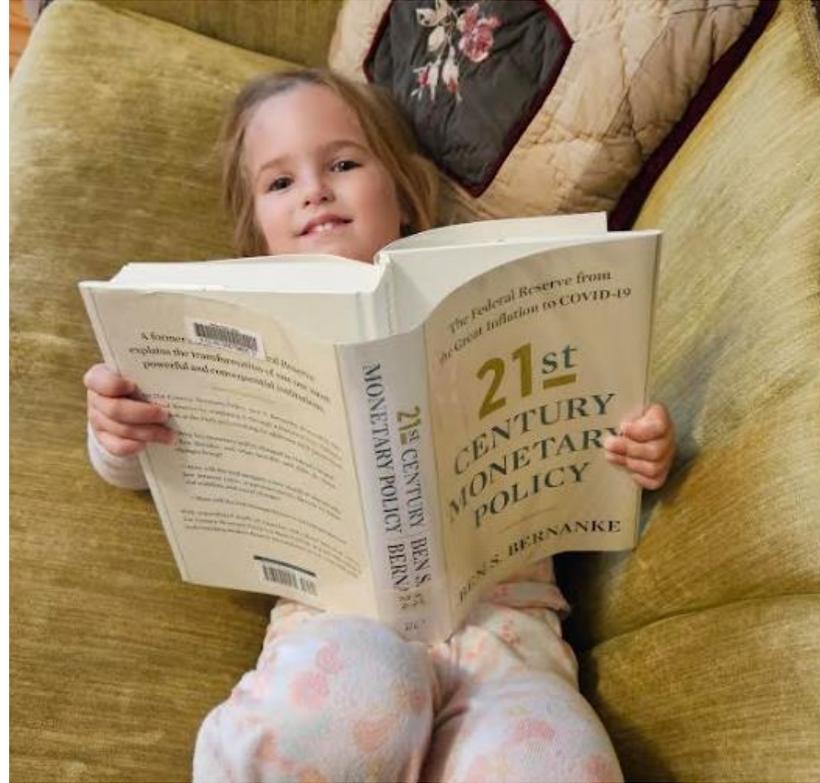


SASBO 2026



Our Speaker Today:

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WHY? TO PROVIDE OUR CHILDREN WITH THE BEST OPTIONS AVAILABLE! BRING VALUE TO FINANCE DEPARTMENT!

SCHOOL FINANCE AND CONSTRUCTION?

- CONTRACT & GENERAL CONDITIONS
- ALTERNATES & ALLOWANCES
- BONDING
- CHANGE ORDERS

The contract and change orders drive the accounting. However, this is not where I find the JOY! Keeping the total job cost in the “both-parties-win” zone is where I find the joy- without being adversarial.

THE CONTRACT!

REVIEW SOME KEY POINTS TO THE CONTRACT.

SEE EXAMPLE OF AIA CONTRACT.

Substantial Completion 1 of 2

ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 3.1 The date of commencement of the Work shall be:

(Check one of the following boxes.)

- The date of this Agreement.
- A date set forth in a notice to proceed issued by the Owner.
- Established as follows:
(Insert a date or a means to determine the date of commencement of the Work.)

Phase I Work: Date set forth in a notice to proceed issued by the Owner.

Phase II Work: May 30, 2022

If a date of commencement of the Work is not selected, then the date of commencement shall be the date of this Agreement.

§ 3.2 The Contract Time shall be measured in calendar days from the date of commencement of the Work.

§ 3.3 Substantial Completion

§ 3.3.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion of the entire Work:

(Check one of the following boxes and complete the necessary information.)

Substantial Completion 2 of 2

- Phase I Work: Not later than one hundred seventy-nine (179) calendar days from the date of commencement of the Phase I Work.
- Phase II Work: Not later than fifty-three (53) calendar days from the date of commencement of the Phase II Work.
- By the following date:

§ 3.3.2 Subject to adjustments of the Contract Time as provided in the Contract Documents, if portions of the Work are to be completed prior to Substantial Completion of the entire Work, the Contractor shall achieve Substantial Completion of such portions by the following dates:

Portion of Work	Substantial Completion Date
Phase I: All Work except Phase II Work	179 calendar days from date of commencement
Phase II: Alternates 04 and 05	July 22, 2022

§ 3.3.3 If the Contractor fails to achieve Substantial Completion as provided in this Section 3.3, liquidated damages, if any, shall be assessed as set forth in Section 4.5.

Substantial Completion- Final Thoughts

- Work with your architect and/or construction manager to define substantial completion that works for your school system.
 - Building can be occupied (some minor work can be performed safely while students/staff are attending).
 - Fire Marshal- generally will have control of this
 - Consider: Noise? Student Testing? Traffic Flow? Teacher room prep? Technology prep? Etc.

Liquidated Damages

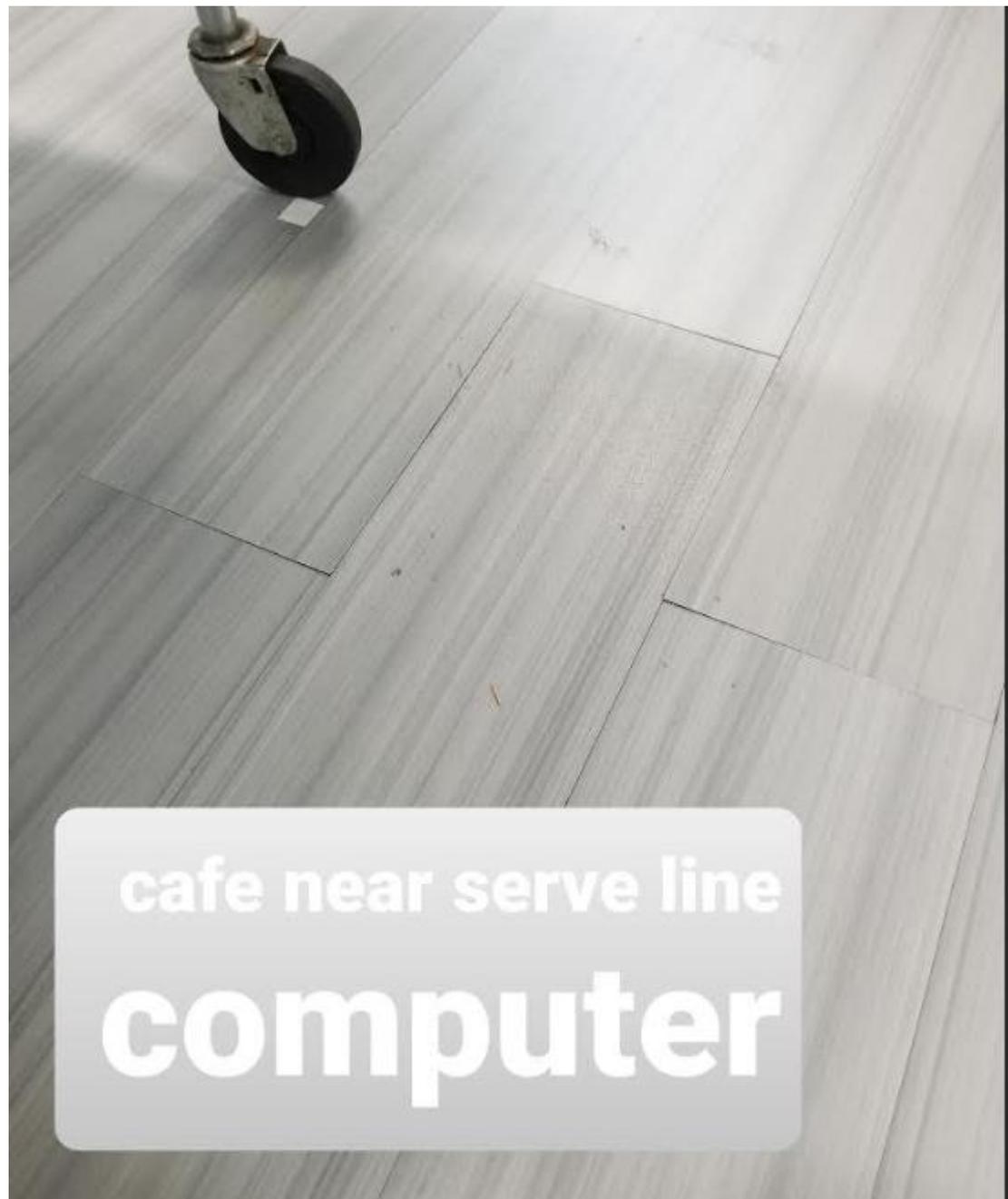
§ 4.5 Liquidated damages, if any:

(Insert terms and conditions for liquidated damages, if any.)

Liquidated Damages shall be in the amount of five hundred dollars (\$500.00) per day during the first 15 calendar days past the original Substantial Completion date and one thousand dollars (\$1,000.00) per day after the first 15 calendar days. Liquidated Damages will be assessed against the Contractor for each day the Work is not Substantially Complete starting the calendar day after the Substantial Completion date and continuing until the Work is Substantially Complete, subject to any extensions of Contract Time issued by the Architect and approved by the Owner in a Change Order.



cafe near double doors



cafe near serve line
computer

Substantial Completion- work with contractor- we all want the same outcome: occupy the building!

- The flooring issues pictured required complete removal of LVP and installation of new LVP.
 - This could not be completed in time for school to start.
 - We negotiated this to be done the following summer.
 - Free flooring for a year- win!
 - GC, Sub's, and School system were all in agreement- win!
 - We did not release the funds for this part of the project: cost +
 - » Think of the costs if we had to hire someone to demo and reinstall?
 - » Think of inflation cost at next summer?

Contract Sum & Alternates

ARTICLE 4 CONTRACT SUM

§ 4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be two million twelve thousand nine hundred dollars and no/cents (\$ 2,012,900.00), subject to additions and deductions as provided in the Contract Documents. The Contract Sum includes Alternates listed below in Article 4.2.1 and Allowances listed below in Article 4.3. If the Allowances, or any portion thereof are not used, the unused portion will be deducted from the Contract Sum listed above and will be credited back to the Owner at the end of the Project via a Change Order.

§ 4.2 Alternates

§ 4.2.1 Alternates, if any, included in the Contract Sum:

Item	Price
Alternate #02 – Preventative Maint. (3yr)	Add of \$5,000.00
Alternate #03 – Builders Risk Insurance	Add of \$400.00
Alternate #04 – Gym Floor and Wall	Add of \$93,500.00
Alternate #05 – Corridor & Cafeteria Flooring	Add of \$84,000.00

Contract Sum

- Think of buying a car...
- The Base Price is the car, cloth seats, and crank windows!
 - The alternates are what you want to consider; but are not sure you can afford- or **you consider relative to other responses**.
 - Leather Seats, Heated and Cooled seats, Electric Windows: all the upgrades!

Alternates everyone should have

- PM (preventative maintenance) and **Extended Warranty**
 - The Mechanical Contractor (HVAC) “owns” the units. If inferior equipment is installed or installed poorly, the future cost to the school system is ZERO dollars.
 - Example:
 - 3.5-4 ton RTU cost is around 5-7K (plus install and curbing and duct)
 - If the control panel fails in year 2, that could cost 1K to replace; which is 15-20% of the original cost of the unit.

HVAC PM and Extended Warranty

- Work with your architect and mechanical engineer to add language to the bid documents for the Alternate- HVAC Extended Warranty and PM Plan:
 - Base Price: Year 1 warranty provided in base bid (parts and labor)
 - Alternate: Year 1-4 PM Plan and Year 2-5 Extended warranty plan (parts and labor). Two renewal periods with each renewal cost not to exceed 105% of the prior period. Period 1 (year 2-5); Renewal Period 2 (year 6-9); Renewal period 3 (year 10-14)

Consider the Alternate Costs for each proposal

Alternate #1	Alternate #2	Alternate #3
\$3,000.00	\$7,000.00	\$4,000.00
Alternate #4	Alternate #5	Alternate #6
\$77,000.00	\$77,000.00	(\$23,000.00)
Alternate #7	Alternate #8	Alternate #9
\$9,000.00	(\$1,000.00)	(\$13,000.00)
Alternate #1	Alternate #2	Alternate #3
\$2,000.00	\$7,000.00	\$7,000.00
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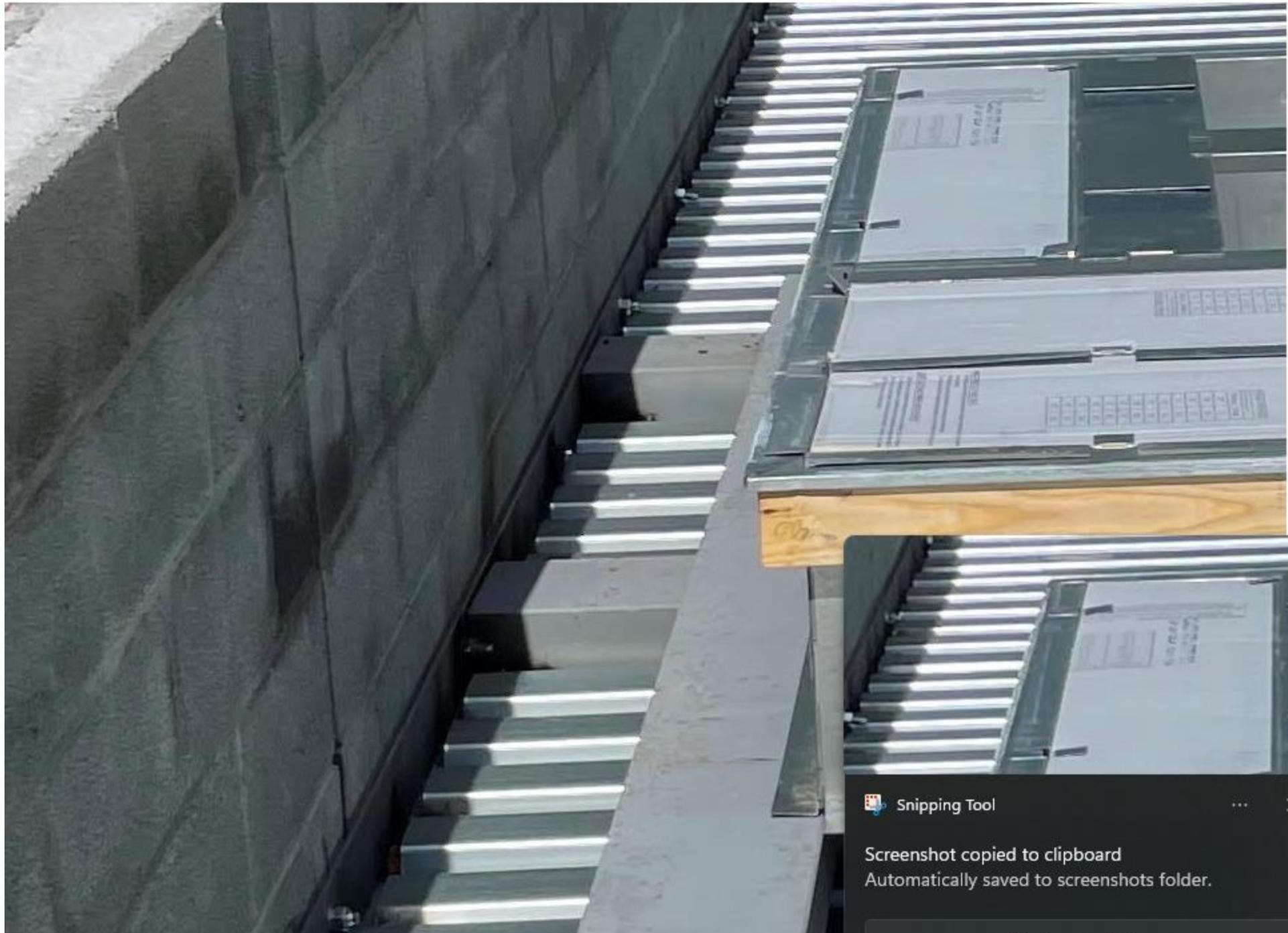
- 3 bids- alternate 1 is the Yr 1 PM plan and alternate 2 is Yr 2-4 PM and extended warranty.
- The 3rd respondent was significantly lower for both Alternates.
 - This tells me the contractor is confident in the products he is proposing b/c they will incur all costs for R&M + PM.
- Alternate 3 was builders risk insurance- \$400 was reasonable- I checked! 4K and 7K was not!

A little out of the finance box- encourage someone to do it...

- RTU with Curb and Structural Steal.



- Walk through the site 1x per week. If it does not make sense, take a picture and ask.
 - This RTU would be placed very close to a parapet wall.
 - Service?
 - The plans were followed; however, the plan was bad...
 - Architect paid for cost of relocating the RTU (before roofing, and unit placed).

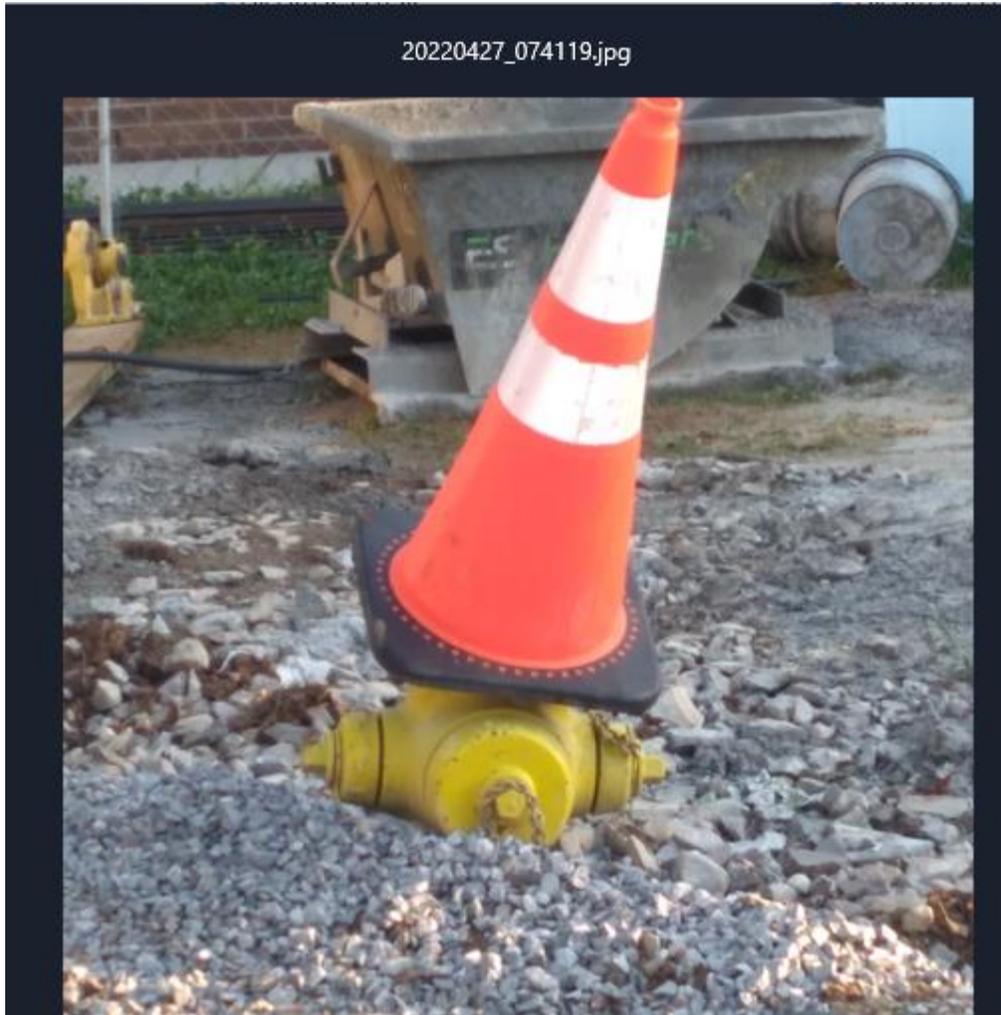


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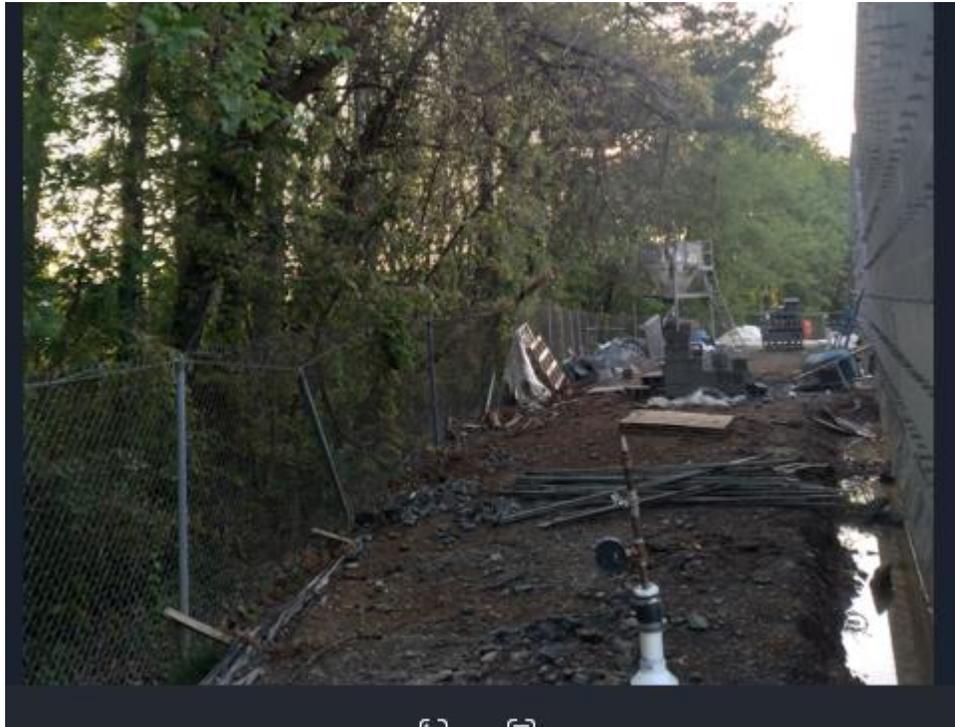
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Still outside of the finance box... but...



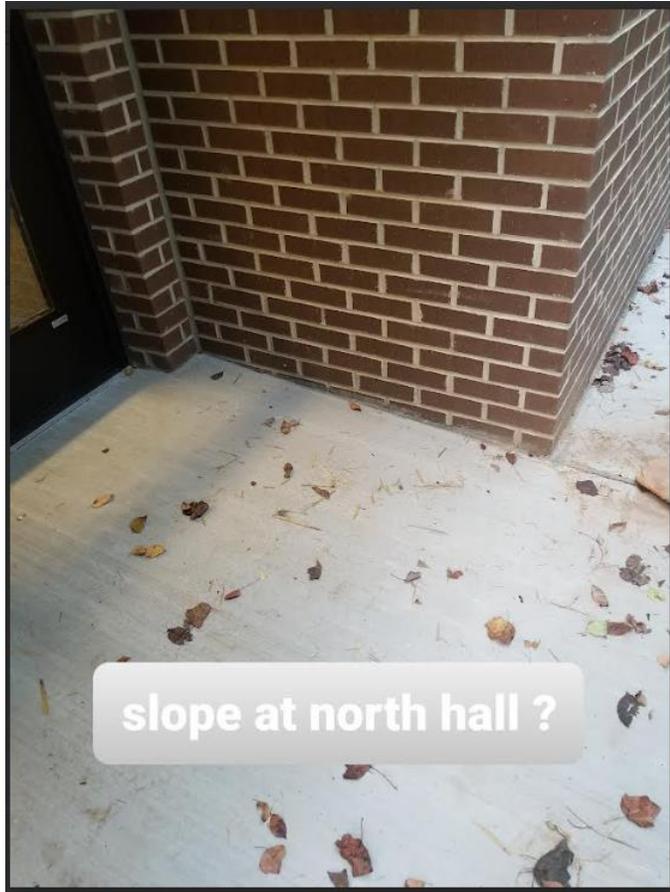
- This pre-existing hydrant, had a slight tilt to the right???
- It was hit by equipment (I asked around).
- No damage below grade; however, it is on record if something were to develop

Who pays for this... leading to another issue...



- The fence was damaged due to equipment hitting it
- The contractor did not use erosion control to prevent dirt and debris from accumulating at the bottom of the fence.
- The civil engineer miscalculated the slope- which would lead to a required railing to be installed.

Way outside the Finance Box... my JOY!



- This exterior exit did not “feel” right as I walked from the inside to the outside...
 - I looked down, the slope from the threshold to the sidewalk started at the landing.
 - The landing from the exterior doors is supposed to be flat
 - The GC and Concrete sub, as well as civil and architect missed it... who caught it- FINANCE!
 - The landing and much of the sidewalk had to be demolished and installed properly.

Allowances!

- Allowances are used to ID a cost for the unknowns: ie. Poor soil conditions, rock (breaking and removal), etc.
 - Most of the unknowns are below ground
 - When the footers are in, and the pad is pored... most of your unknowns are GONE!
 - Any change orders at this point need to be reviewed closely
 - All change orders should be reviewed closely by someone who is going to ask the tough questions! Why? Is this normally an engineering issue? Is this due to human error? Etc.

Include Allowances in the base bid... start with the end to show you why...

- The Bid Package asks the proposers to submit a cost for breaking up and removing mass rock (hammer time) and removing unsuitable soils and replacing with suitable material or soils. Other allowances may be more/less relevant based on your conditions.
 - The GC proposal says: Hey, if we encounter mass rock, we will charge \$300 per cubic yard to break it up and remove it.
- So, if they hit rock, then out comes the calculator (generally a Geotech company will certify the quantities)
 - The GC could be the low bid but have the highest allowance unit cost; b/c the GC is not incentivized to get this unit cost down!

Incentivize the GC to get the unit cost DOWN!

- Work with your architect and Geotechnical Engineers to estimate a type and quantity of allowances you might encounter:
 - Rock, 1,000 cubic yards is reasonable for your project
 - The bid package would stipulate that the unit cost x 1,000 cubic yards will be included in the base bid. If no rock is encountered, then this amount is deducted from the base bid (or prorated portion). If more than 1,000 cubic yards is encountered, then the unit rate will apply and a change order requested.

Example of the Allowance working for YOU!

✓	✓	✓	✓		✓				Base Bid
									\$1,937,000.00
Unit Prices / Allowances									
	#1	#2	#3	#4	#5	#6			
	\$37.00	\$47.00	\$58.00	\$30.00	\$600.00	N/A			
	\$37,000.00	\$23,500.00	\$5,800.00	\$30,000.00	\$27,000.00	\$50,000.00			
✓	✓	✓	✓		✓				Base Bid
									\$2,100,000.00
Unit Prices / Allowances									
	#1	#2	#3	#4	#5	#6			
	\$30.00	\$115.00	\$300.00	\$35.00	\$600.00	N/A			
	\$30,000.00	\$57,500.00	\$30,000.00	\$35,000.00	\$27,000.00	\$50,000.00			
✓	✓	✓	✓		✓				Base Bid
									\$1,830,000.00
Unit Prices / Allowances									
	#1	#2	#3	#4	#5	#6			
	\$35.00	\$95.00	\$125.00	\$19.00	\$600.00	N/A			
	\$35,000.00	\$47,500.00	\$12,500.00	\$19,000.00	\$28,500.00	\$50,000.00			

- Allowance #3 is breaking up mass rock and replacing with suitable material.
 - GC #1 did not understand- cost too low \$58
 - GC #2 had a \$300 dollar unit cost
 - GC #3 had a \$125 dollar unit cost
- So, GC # 2 had 30K in the base bid for rock and GC # 3 had 12.5K in the base bid for rock.
- This forces the GC to keep the unit cost low, or the GC won't get the job (b/c the base bid is too high).

Retainage

§ 5.1.7 Retainage

§ 5.1.7.1 For each progress payment made prior to Substantial Completion of the Work, the Owner may withhold the following amount, as retainage, from the payment otherwise due:

(Insert a percentage or amount to be withheld as retainage from each Application for Payment. The amount of retainage may be limited by governing law.)

Five percent (5.00%)

§ 5.1.7.1.1 The following items are not subject to retainage:

(Insert any items not subject to the withholding of retainage, such as general conditions, insurance, etc.)

N/A

§ 5.1.7.1.2 In compliance with Section 66-34-103 of the Tennessee Code Annotated, the Owner shall cease withholding retainage under Section 5.1.7 when the retainage withheld equals five percent (5.00%) of the Contract Sum.

§ 5.1.7.1.3 Retainage withheld by the Owner shall be held in a separate, interest bearing, escrow account, at a bank selected by the Owner, pursuant to Section 66-34-104 of the Tennessee Code Annotated.

Bonding

- Discuss with your architect and construction manager
- Some bonds are required by state law
 - Bid Bond: award the project and the GC backs off- cost to re-bid or use next in line proposal.
 - Performance Bond: GC is on the job and “walks off” or goes out of business. Cost to finish the job
 - Payment Bond: If the GC does not pay suppliers or sub-contractors. Cost to pay them off and keep your property free of liens.
 - Self Bonding: If state allows, GC has assets (cash) to pledge in-lieu of purchasing a bond
- All the bonds cost money and that cost is ultimately paid by you. More financially secure the GC, the lower the cost or can self-bond

Builders Risk insurance

Alternate #1	Alternate #2	Alternate #3
\$3,000.00	\$7,000.00	\$4,000.00
Alternate #4	Alternate #5	Alternate #6
\$77,000.00	\$77,000.00	(\$23,000.00)
Alternate #7	Alternate #8	Alternate #9
\$9,000.00	(\$1,000.00)	(\$13,000.00)
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Alternate #7	Alternate #8	Alternate #9
\$21,000.00	(\$1,000.00)	\$11,000.00

- Alternate #3 is Builders risk insurance.
 - GC #1 at 4,000
 - GC #2 at 7,000
 - GC #3 at \$400
- Call your insurance carrier and ask how much they would charge the school for this policy.
 - If the GC can do it for less, accept the alternate
 - If the GC charges more, decline the alternate and buy it yourself
- It is worth a phone call to save \$3,600-6,600 dollars.

Change Orders

- Change orders are:
- +/- \$ to the contract price (base +/- alternates elected at contract issuance.)
- Allowances built into the contract price should be a change order when you know they will not be used.
 - When the excavation is complete and no rock was encountered: b/f the draw request is presented, a change order should be approved to remove the allowance from the contract price and the excavation/foundation costs that you are being invoiced for.
 - If not, then make sure it comes well b/f the next draw request.