

Project Processes

- Basic Responsibilities specific to education capital projects:
 - For education capital needs, Board of Education identifies needs, prioritizes and submits to the county commission for funding (note- if budget is off can create time delays in process). After funding and before implementing a project, BOE could request a change if priorities shift.
 - County government figures out how to fund along with other county capital responsibilities. This can impact timeline, etc. There is some funding that has to be jointly pursued like lottery and occasionally schools can access grants independently, but schools aren't able to finance independently.
 - Example: Funding for last five years for HVAC projects (not repairs/maintenance) \$6.07 million from
 - Annual County HVAC Capital Funding: \$1,892,000 (does not include lottery match) *BOE identifies and prioritizes requests, county funds)
 - Lottery: 1,728,589 (\$630k county+ remainder lottery) *BOE initiates request, but BOC must agree
 - ESSER (one time ARPA funding directly to schools): \$2,445,156 *BOE decision
- Best Practice: (Currently being used)
 - Collaborate on assessing and prioritizing major capital needs (Axias Report)
 - Build major project planning and maintenance replacement items into a longer range financial picture (Using Axias Report to build five year capital plan that integrates into other county capital planning)
 - How to fund- financing methods, revenue streams, cash- stays with county government

Project Processes

General Public Project Process Steps

☐ Preliminary Scoping and Probable Cost

- ☐ Define work to be completed, Professional cost est, project budget, soil testing, survey ordered, timeline, financial planning

☐ RFQ Process and Contract with Professional (6 weeks) (*can also be CMAR stage*)

☐ Design (varies)- refines scope, cost and timeline

☐ Permitting- Erosion Control, Floodplain

☐ Bid (6 weeks min formal bid)

☐ Financing if requires loan/bond sale

☐ Award and Contract (1-2 weeks)

☐ Mobilize Contractor (2 week min)

☐ Construction (varies)

☐ Close out

☐ Preliminary Scoping and Probable Cost

- ☐ Define work to be completed, Professional cost est, project budget, soil testing, survey ordered, timeline, financial planning
- ☐ For renovations, involves assessment of condition, review of previous project design documents and estimating repair/replace.
- ☐ For new construction, involves estimating based on building type of construction on a per foot basis with some site cost estimations.
- ☐ Reference Preliminary Engineering Reports, Preliminary Architect Cost Assessment, Program Cost Estimate or Building Condition Facility Needs Report Cost Estimate
- ☐ Budget needed for financial planning includes:
 - ☐ Construction (usually single contract with subs)
 - ☐ Professional Services (architect/engineers,



HIGH COUNTRY
ENGINEERING

Item No.	Description	Unit	Quantity	Unit Price	Total Price
1	Mobilization	LS	1	\$57,000.00	\$57,000.00
2	Sewer Pump Station	LS	1	\$350,000.00	\$350,000.00
3	8-inch Gravity Sewer	LF	5,600	\$125.00	\$700,000.00
4	Manholes	EA	28	\$8,500.00	\$238,000.00
5	16-inch Steel Casing with 8" Gravity Carrier Pipe - Hannah Ford Rd	LF	60	\$550.00	\$33,000.00
6	4-inch Force Main incl. fittings	LF	4,150	\$60.00	\$249,000.00
7	4" HDD - Morgan Mill Creek Crossing	LF	200	\$250.00	\$50,000.00
8	12-inch Steel Casing with 4" Force Main Carrier Pipe - Lyons Mountain Rd & Hannah Ford Rd	LF	160	\$500.00	\$80,000.00
9	Combination Air/Vac Release Valve and Manhole	EA	2	\$10,000.00	\$20,000.00
10	Sewer Services	EA	12	\$1,500.00	\$18,000.00
11	Driveway Repair	EA	20	\$1,500.00	\$30,000.00
12	Select Fill and Misc. Stone	LS	1	\$45,000.00	\$45,000.00
13	Rock Excavation and Removal	LS	1	\$50,000.00	\$50,000.00
14	Erosion Control, Site Restoration	LS	1	\$40,000.00	\$40,000.00
Construction Total					\$1,960,000.00
Contingency (15%)					\$294,000.00
Surveying and Easement Plats					\$25,000.00
Legal (Easements)					\$10,000.00
Plans, Specifications, Permits, Contract Docs, Bidding, CO/CA					\$380,000.00
Recommended Project Budget:					\$2,669,000.00

Engineer Information:
High Country Engineering, PC
81 Central Avenue
Asheville, NC 28801
T: 828.230.4511
NC Firm No.: C-3347
Contact: Jay Johnston, PE



																					
Item No.	Condition	Recommendation	Project Category	Delivery Method	Location	Priority of Work	Phase of Work	Risk Score	BIM Category	Existing Condition	Proposed Condition	Quantity	Unit of Measure	Unit Cost	2024	2025	2026	2027	2028	2029	
														Year	1	2	3	4	5	6	
4	The AHUs serving the majority of the building are recessed in the ceiling and reportedly difficult to properly maintain. Most units are a 350's vintage and are at the end of their recommended useful life. Based on the location of the units in the central hallway ceilings and age of the equipment, we recommend budgeting for the replacement of the AHUs and a needed ductwork. The maintenance staff has found greater success installing new AHUs into new mechanical closets, instead of working around crowded plenum spaces in central hallways.	Replace air handling units and associated ductwork.	IE	CR	A	3	3	4	14	Medium	20	2	16	EA	\$45,000		\$720,000				
5	The building management system (BMS) is built on the Niagara framework with Johnson Controls Metasys control hardware installed in 2009. The BMS gives a broad overview of the property with select items controlled via the web-based interface. The system is limited but remains operational. Resources and supplies for older BMS versions are difficult to obtain. Upgrades include hardware replacements and software advancements, and upgrades from premises. It is recommended to upgrade the BMS and HVAC control systems in conjunction with the AHU replacements.	Upgrade BMS system.	IE	CR	A	3	4	4	15	Medium	15	2	53,000	SF	\$3.25		\$172,250				
Physical Itemized			C	D	E	F	G	H	I	J	K										
		Transferrable County Project Coordination																			
		Project Title: Rosman Area Renovations																			
		Project Notes: Rosman High/Middle School, Rosman Elementary School and TC Henderson roof replacements.																			

Room	Item/Scope	Total Cost
Rosman Elementary	Down existing roof and paint with a suitable metal paint.	\$ 18,500
Rosman Elementary	Fully strip off and replace the modified bitumen roof with a TPO membrane.	\$ 740,000
Rosman Middle & High	Replace modified bitumen roof with new TPO roof at the High School.	\$ 710,000
Rosman Middle & High	Replace modified bitumen with new TPO roof at the Middle School.	\$ 284,000
Rosman Middle & High	Replace modified bitumen with new TPO roof at the GED Gym.	\$ 228,000
TC Henderson Elementary	Replace modified bitumen roof and replace with TPO roof covering.	\$ 21,200
Rosman Elementary	Replace heating hot water boiler.	\$ 247,200
Rosman Elementary	Replace air handling units and associated ductwork.	\$ 720,000
Rosman Elementary	Upgrade EMS system.	\$ 172,250
Rosman Elementary	Upgrade 104 voltage GFI electrical panels.	\$ 434,000
Rosman Middle & High	Replace air-cooled chiller outside the Cafeteria.	\$ 482,000
Rosman Middle & High	Install/replace boiler #5 along with associated pumps, valves, and accessories.	\$ 184,800
Rosman Middle & High	Prevent replacement of air handling units.	\$ 600,000
Rosman Middle & High	Prevent replacement of air handling units.	\$ 1,120,000
Rosman Middle & High	Advances to complete a detailed interior air quality study and proposed pleaderbiller check for repair works recommended.	\$ 750,000
Rosman Middle & High	Upgrade EMS system.	\$ 387,393
Rosman Middle & High	Upgrade antiquated electrical panels throughout the building.	\$ 216,000
TC Henderson Elementary	Replace 3-ton McNabb and 2-ton split systems.	\$ 82,500
TC Henderson Elementary	Replace 3-ton RCH split system.	\$ 16,750
TC Henderson Elementary	Replace 4-ton McNabb split system.	\$ 225,000
TC Henderson Elementary	Replace 4-ton McNabb split system.	\$ 108,000
TC Henderson Elementary	Upgrade 104-volt control system.	\$ 91,000
Rosman Middle & High	Replace boiler #1 and #2 along with 400-volt pumps, valves, and accessories.	\$ 451,000
TC Henderson Elementary	Replace heating hot water boiler.	\$ 118,470
TC Henderson Elementary	Advances for air needed roof system replacement.	\$ 15,000
Rosman Elementary	Replace exterior radiant panels.	\$ 14,000
Rosman Elementary	Replace perimeter window radiant panels.	\$ 18,500
Rosman Elementary	Prepares materials to canopy walkway structure and repairs.	\$ 57,600
Rosman Middle & High	Provisional pleaderbiller check for structural repair works at the Gym & Auditorium.	\$ 165,000
Rosman Middle & High	Replace failed glazing units.	\$ 110,000
Rosman Middle & High	Replace elastomeric radiant joints across building sections.	\$ 63,000
Rosman Middle & High	Check and reset the GFI's; identify allowance for repairs to the GFI's due to potential moisture damage.	\$ 87,850
Rosman Middle & High	Complete exterior repairs. Cyclics only.	\$ 75,000
Rosman Middle & High	Complete exterior repairs. Cyclics only.	\$ 30,000
TC Henderson Elementary	Recoat of exterior cement concrete including Portland cement slawing, gutters, downspouts, bleeds, and curbsides.	\$ 80,000
TC Henderson Elementary	Repairs call made to perimeter of windows and doors.	\$ 10,000
Rosman Elementary	Recoat of all exterior masonry per Physical Security Association.	\$ 106,200
Rosman Middle & High	Concrete masonry per Physical Security Association.	\$ 251,740
TC Henderson Elementary	Concrete masonry per Physical Security Association.	\$ 84,000

Subtotal: \$ 9,569,893

Escalations and Markups	Design Contingency (10%)	\$ 956,989
	General Conditions, Profit, Insurance, Bond (26%)	\$ 2,488,172
	Total with Markups	\$13,070,694
	Construction Contingency (10%)	\$ 1,307,069
	Estimated Construction Cost	\$14,316,560
	Design (8%)	\$ 1,145,325
	Permitting Fees (2%)	\$ 286,331
	Total Cost	\$15,748,216
	Escalation (10%)	\$ 950,000
	Total with Escalation Cost	\$16,698,216

Project Processes

- Managing Project Budgets

- Contracts determine the work to be performed, under what terms and cost. Contracts (includes purchase orders) have to be signed by the chief executive AND preaudited by the finance director- this assures that the adopted project budget is available, or approved, with funds that will cover that contract. (*modified accrual accounting in NC local Government*)
- Project budgets authorize contingency to allow project management staff the ability to approve change order needs without holding up a project (slower project= cost increase)
- For a typical design- bid project, the contractor must perform the work to the design specs for the cost provided and remains responsible for any mistakes on their end.
- If the designer makes an error that costs, there are errors and omissions insurance required under the state and tied to the professional seal to be carried by architects and engineers (ex- didn't design for the soils on site when there was a soil test report)
- **If a project ends up having a cost come up that exceeds the project budget, staff cannot authorize work without getting the project budget amended by the governing board.** This is why there is the pre-audit requirement as a control to prevent contracts to be committed without funds available to complete the project.
- Project budgets sometimes get modified after going to bid, but a contingency approval of 5-10% is standard so that project management staff can keep a project moving.
- Project managers are responsible for monitoring for quality control, holding contractors to the contract they signed and making sure that work is progressing. Finance staff process invoices, review paperwork for compliance and make sure that the budget is approved to cover contracts before they are signed (this prevents overcommitment of funds)

Project Processes

- Current Timeline for Step One Investments Projects (renovations)
 - The first scope and the EC Wing have proceeded under emergency statutes
 - The CMAR will provide pricing for the scope of work and schematic designs prepared by the architect
 - The architect is designing to current code and materials, but keeping with the closest cost efficient replacement. This is different from new construction because it has to consider existing systems that need to integrate into the current work.
 - The CMAR will finalize a Guaranteed Maximum Price (GMP) that pairs with a timeline for conducting the work. The CMAR will be factoring in subcontractor availability, lead time ordering and how to be most efficient to complete work and keep costs down while still completing the scope of work. This will include some contingency that will return to the owner if it goes unused.
 - Once the architect and CMAR are able to review the pricing and refine, it will be ready to go to the subcommittee to review any recommended scope changes.
 - Any changes that change the budget totals will have to go back to the governing boards to approve. Funds can't just move from project scope to project scope without approval.
 - Expecting to have a subcommittee meeting in January or February.
 - Establishing the GMP will give a clearer path on timeline to expect work to progress and design drawings will be moving forward quickly.
- This is just an overview, so please let me know if you'd like to meet with me to do a deeper dive! Jaime.laughter@transylvaniacounty.org

Education Capital Project Updates

Date: 12/15/2025

Project	Project Status	Updates from Subcommittee Items	Timeline	Budget Notes
Storage Tank Project	Rosman Area Schools underground storage tanks will be replaced next summer. RHS underground tank was delayed due to insurance and will be done in summer with other tanks. S&ME will pick up additional mobilization costs for refueling and any extra work related to temporary tank.		TCH, RES, RMS/RHS will be done in summer of 2026	In Budget
BHS Scope #1	Punch list items remaining.		Project team coordinating closely with school staff as the final work is scheduled so that final punch list items are completed. A ribbon cutting date was held December 9th. County Staff working on hand over document for school staff to show work completed for documentation purposes. Practices able to resume 12/11. Mats able to be on floor 12/15.	Completion slightly under budget.
BHS Scope #2	Schematic design complete and CMAR preliminary pricing under review / EC Wing Emergency Roof Replacement interior work underway.	8/27 - Selected Blum as CMAR	CMAR Preliminary pricing under review with schematic drawings. Roof deck pull samples to be reviewed in coming week. Pricing for scope reduction based on Grant award notice as well / EC Wing estimated substantial completion now is 1/5. Appalachain to get complete ASAP to allow occupancy after Christmas break. HVAC option chosen for EC Wing Space which best fits current needs and staying in like-kind - Support work continues - Old CWS/CWR and HWS/HWR pipe coming out / Ceilings for classrooms to start Week of 12/22 and flooring to follow that activity.	In Budget
Rosman Area Scope	CMAR pricing under review. including additional geotechnical recommendations not in the original scope at RES and RHS/RMS retaining wall.	8/27 - Selected Blum as CMAR	CMAR Preliminary pricing estimate under review with schematics. CMAR is pricing structural engineer fix recommendations at RES	In Budget
Brevard Area Scope	CMAR pricing under review.	8/27 - Selected Blum as CMAR	CMAR Preliminary pricing estimate under review with schematics	In Budget
RHS Retaining Wall	Civil Engineer Evaluation Complete and provided to CMAR for pricing.	6/23 - TCS requested to be managed by project manager	CMAR pricing with main scope to determine next steps on moving scope/budget to Rosman Area Project. CMAR suggested moving Retaining Wall into larger Rosman Area Scope 12/12 meeting.	May need budget and scope revision
BHS Softball Lighting	Bid awarded	10/20 - TCS requested Management by County	Moving forward with contract after 4 responsive bids. Target to be done by end of February before Softball season	In Budget

Monthly Capital Update

Let's



To Whom It May Concern,

Carlisle Construction Materials would like to clarify the intended use and performance characteristics of our **TPO Contour Rib** accessory installed with Carlisle's Sure-Weld® TPO roofing systems.

The **TPO Contour Rib** is **designed solely for aesthetic enhancement** and is intended to provide the visual appearance of a standing-seam metal roof. The Contour Rib does **not** provide structural reinforcement, uplift resistance, or weatherproofing, and it should not be considered a substitute for metal panel systems or other structural roofing components.

Key points regarding product intent:

- The Contour Rib is a **decorative accessory** used to simulate standing-seam profiles.
- It does **not contribute to the roof system's waterproofing performance**.
- It is **not intended to resist wind uplift, structural loading, or foot traffic**.
- All waterproofing and system performance remain functions of the underlying TPO membrane roofing system.

We provide this clarification to ensure that expectations regarding appearance and performance are aligned with the product's intended purpose.

If you have any additional questions regarding the TPO Contour Rib or other Carlisle products, please feel free to contact us. We are happy to assist.

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Monthly Capital Update

Let's

