

To: Public Works Commission
From: Robert Conry, Assistant Superintendent, Finance and Operations
Cc: Dr. Laurie Hunter, Superintendent of Schools
Subj: CCHS Amenities Building – Sewer Connection Access Request

Date: November 26, 2025

Dear Members of the Public Works Commission,

I am writing to you in regards to the proposed Amenities Building adjacent to Memorial Field at Concord-Carlisle High School. I have included some information that was previously provided, as it has been some time since this was last reviewed. New information is also included that was gathered this Fall.

Public Purpose and Benefit of Proposed Amenities Building

The district has engaged Gale Associates to provide design engineering services on this project. The building code requires permanent restrooms within a 300' travel distance from stadium seating. Currently the CCHS Memorial Field is not in compliance with code. The primary purpose of the proposed amenities building is to provide the code required permanent restrooms at CCHS Memorial Field based on the seating capacity of the grandstand. The restrooms will also provide accessible ADA/MA Architectural Access Board compliant restrooms and a small space for pre-packaged concession items. Currently, there are only portable restrooms on site, which do not meet the state plumbing code requirements, and are also challenging for those with ADA needs to access. Providing ADA-compliant restrooms is not just a legal obligation but also will make Memorial Field and its events more accessible, welcoming, and inclusive for all attendees. Various options were considered; the selected option is expected to have a useful life of fifty years, and will be the most durable and cost effective option over the long term. CCHS is a member of the Dual County League for interscholastic athletics, and all other schools either have ADA accessible restroom facilities on site, or in the process of constructing such a facility.

Volume flow calculation

The district has consulted with the Board of Health Director, and the flow figures have not been modified. District administration sought to obtain volume information for a similar facility at Westford Academy, however, Westford has to date been unable to provide usage data that is specifically attributable to their amenities building. That may

have served as a guide for the usage attributable to an amenities building, with scale adjustments due to the different size of the CCHS and Westford facilities. What we can share is that the flow estimates are based on full stadium capacity, and do not factor in any reductions for actual attendance on site at Memorial Field and the surrounding areas which is dramatically less than the full stadium capacity of 1,812. The flow estimate provided by the Board of Health was based on 1,812 stadium seats, with an assumption of three gallons of usage per seat, resulting in a total of 5,436 gallons per day. It also assumes full capacity every day. As a comparison, CCHS's average daily usage the past couple years is 3,646 gallons per day. The latter figure is realized with approximately 1,300 students and staff attending CCHS on 180 school days, with lesser usage on non-school days. District Administration is confident that the average daily flow will be significantly less than 1,000 gallons per day, as attendance at most athletic events on campus is limited, aside from Kicks for Cancer. And there are many days where it is just practices and not games being held.

CCHS Permitted Usage vs. Actual Usage

District administration pulled data from two years of meter bills for CCHS to obtain water/sewer usage data for the high school. District administration also contacted Water & Sewer Superintendent, Darin LaFalam, who provided five years of data. The prior three years of data were consistent with the two years of data shown on this report. In addition, the Water & Sewer Department provided the permitted usage levels for water/sewer that were approved when CCHS obtained its permit for the new CCHS.

As you will see from the data and analysis below, CCHS average daily usage is approximately 12% of its permitted usage, well below the established permitted threshold.

Concord-Carlisle Regional High School			Convert cubic feet to gallons	
Account 5029002			Cubic ft	gallons
			1	7.48052
Month	Cubic Ft	Gallons		
July 2023	3,328	24,895		
Aug 2023	15,000	112,208		
Sept 2023	16,856	126,092		
Oct 2023	17,718	132,540		
Nov 2023	12,569	94,023		
Dec 2023	12,556	93,925		
Jan 2024	13,798	103,216		
Feb 2024	11,756	87,941		
March 2024	16,967	126,922		
April 2024	12,184	91,143		
May 2024	15,964	119,419		
June 2024	5,942	44,449		
FY24 Total	154,638	1,156,773		
July 2024	1,224	9,156		
Aug 2024	14,840	111,011		
Sept 2024	25,711	192,332		
Oct 2024	21,341	159,642		
Nov - Dec 2024	28,291	211,631	meter changed, combined in one bill	
Jan 2025	14,420	107,869		
Feb 2025	10,886	81,433		
March 2025	17,546	131,253		
April 2025	15,013	112,305		
May 2025	19,765	147,852		
June 2025	8,881	66,434		
FY25 Total	177,918	1,330,919	Annual volume (gallons)	
		3,646	Average daily volume (gallons)	
Permitted capacity	(provided from Water Dept / DPW - from the permit)			
Gallons per day			29,420	
Gallons per year			10,738,300	
Excess capacity				
Average daily gallons			25,774	
Usage as a % of Capacity			12%	

Steps taken to Mitigate and Minimize Water/Sewer Usage

Various measures have been taken to minimize water and sewer usage.

- The building was designed to be seasonal, and will not operate during the Winter months.
- The concession space will not have any built in appliances that would utilize water, and will only sell pre-packaged items.
- The building was designed with the minimum required number of bathrooms per plumbing code, which was a significant reduction from the standards in place two years ago.

Composting toilet system considerations

While some have talked with excitement about the possibility of compostable toilets, there are costs, risks, and drawbacks associated with these systems. It is critical for everyone to understand these issues to put the consideration of composting toilets into context, in particular, for this particular space.

In my professional opinion, as someone responsible for the district's facilities, the use of composting toilets at this busy location would present unnecessary risks that could be easily avoided with a conventional sewer connection. Composting toilets is not a sound option for this location. The consultants have provided similar feedback. Composting toilets are better suited to remote, low use locations.

The following are some of the significant risks and drawbacks — many of which are magnified in a high-traffic, public school setting adjacent to busy athletic fields:

Maintenance and management burden (and cost): Composting toilets require ongoing attention — adding bulking material (sawdust/peat/wood chips), monitoring the composting process (moisture, aeration), periodically emptying or replacing compost, ensuring proper ventilation, etc.

Odor / insect / nuisance risk: If the system is not consistently maintained over the long term, odors and insect/ventilation issues can emerge.

User acceptance / behavioral issues: Public users (students, visitors) may find a non-standard toilet experience unfamiliar, which could lead to misuse, complaints, hygiene issues. Some systems require different user behavior (e.g., covering with wood chips) or signage/explanation

High traffic capacity concerns: Many composting systems are designed for lower-use environments (cabins, parks, remote facilities). A high-volume public restroom may overwhelm composting capacity or complicate servicing/regulation of throughput.

Space, design, and cost tradeoffs: Composting units sometimes require larger or more complex dedicated composting chambers, access for service, ventilation fans, external space, and may cost more upfront (or cost more to maintain) than expected.

Pathogen / health risk: If composting does not achieve proper temperatures or is not maintained properly, there is risk of incomplete pathogen destruction.

Service logistics: For a public facility, you will need a reliable schedule for emptying, composting, perhaps hauling, staff training, signage, monitoring — far more operational demands than a standard flush system.

Winter/climate issues: If the facility is in cold temperatures, it may slow down composting processes or require heated chambers or insulation to maintain proper function. Many composting systems are optimized for moderate climates or smaller scale.

Design related questions

Gale Associates will be present at the Public Works Commission Board Meeting and will be prepared to answer any questions related to the design of the amenities building. If there are specific questions or concerns, please let us know and we will share them with Gale Associates in advance of the meeting.

In closing, we are requesting authorization from the Public Works Commission for the amenities building to connect to the town water/sewer system. Thank you for your time and consideration.