



March 24, 2025

Ref: 13555.11

Mr. Wayne Chouinard, PE
Assistant Town Engineer
Belmont Department of Public Works
19 Moore Street, Homer Building
Belmont, MA 02478

Re: McLean Hospital Child and Adolescent Center (Zone 4)
Response to Comments – Stormwater and Site Engineering

Dear Mr. Chouinard:

McLean Hospital and the project team for the proposed Child and Adolescent Center project are in receipt of comments provided by your office dated March 13, 2025, regarding review of the proposed stormwater management system and general site design. The project team has compiled the following responses to address these comments. The comments received have been transcribed here in *italic* font, with the project team's responses following in standard type.

Section 03 – Landscape Design

Since the landscape design efforts were meant to incorporate outdoor spaces into the educational programming for the facility, please describe if there were considerations given to including the use of low impact development features within the courtyard area.

Response: Low impact development (LID) features were considered for the Project within the courtyard areas. LID features implemented include large planting areas and vegetated buffer strips, which enhance site permeability and reduce hardscape runoff. After discussions with campus staff, other LID features associated with standing water, such as rain gardens and bioswales, were deemed inadvisable due to safety and behavioral concerns of the proposed student population.

Section 10 – Erosion and Sedimentation Control

The DPW: Engineering Division respectfully requests a preliminary copy of the SWPPP to be provided for review. It is requested that the selected contractor be provided with a copy of Appendix A included with this review for consideration during the preparation of the final SWPPP.

Response: A copy of the Stormwater Pollution Prevention Plan (SWPPP) will be provided to the Engineering Division for review prior to submission of the Construction General Permit (CGP) Notice of Intent (NOI). A copy of Appendix A has been provided to the Contractor and will be reviewed for consideration during preparation of the SWPPP.



Layout and Materials Plan

1. *Indicate the planned storage locations for sand, salt, de-icing agents, etc.*
Response: Sanding and de-icing operation responsibilities for the campus have been transferred to a third-party vendor. No onsite storage of sand, salt, or de-icing agents will occur within Zone 4, except for small quantities stored within the buildings for localized spot treatments.
2. *Include additional notes to refer to Quick Reference Legend on Construction Plans for hardscape and paving materials in Notes section.*
Response: A note will be added to C201 referencing sheets LG101-LG106 for hardscape materials and pedestrian pavements. Bituminous concrete pavement for vehicular areas is identified on C201.
3. *If the path connecting from the crosswalk to the Zone 5 area located at the northwest corner of the Residential Building will remain in use, a curb ramp should be identified at the opposite side of the marked crosswalk.*
Response: Curb ramps and blended transition walkway callouts will be added to C201.
4. *Identify the curb opening at the accessible parking area of the parking lot adjacent to the Parking Structure.*
Response: A callout for the curb opening and blended transition walkway at the exterior accessible parking spaces will be added to C201.
5. *Consider the addition of detectable panels at the two passenger drop-off zones. This decision would be based on the classification of the area as an "approach drive" or an "internal circulation road".*
Response: While detectable panels are not required to be installed within private sites, these panels are proposed at all pedestrian walkway crossings of vehicular areas within the proposed project. Detectable panels at the drop-offs were considered during design; however, whereas the students using the drop-offs will be highly monitored at the facility, the use of detectable panels was not preferred.

Grading and Drainage Plan

6. *Include flared end section for discharge point from DMH 201.*
Response: The discharge from DMH201 will be through a headwall outlet within the adjacent retaining wall. In lieu of a flared end section, which is difficult to construct in a headwall condition, this area will be revised to include an energy dissipation bowl and a level spreader to reduce discharge velocities to the adjacent slope. These proposed revisions have been reviewed by the Trustees of Reservations and the Land Management Committee, which oversee the adjacent public space.

Utilities Plan

7. *Include note requiring contractor to coordinate with Belmont Department of Public Works and Fire Department to identify required Municipal Standards.*
Response: A note requiring the Contractor to coordinate with the Belmont DPW and Fire Department to identify required municipal standards will be added to C401.



8. *Consider adjusting location of electric and telephone structures such that manhole and access covers are not located within sidewalks, or are specified as ADA compliant.*

Response: Manhole structure locations will be coordinated with the landscape architecture for preferred locations during development of Construction Documents. Where structure rims remain within sidewalks or other pedestrian routes, accessible covers will be specified.

9. *Provide layout and details for the oil/gas separator unit required in the Parking Structure.*

Response: The location of the oil/gas separators associated with the garage interior floor drains (to sanitary sewer) will be at SMH 310. A call-out will be added to C401. The oil/gas separator for the garage roof discharge (to stormwater) will be added to C401 upstream of DMH 104. Whereas oil/gas separators fall within the scope of the plumbing code, these structures will be carried on the Project's plumbing drawings. To aid this comment response, a detail for the proposed oil/gas separator units meeting the requirements of the MA Plumbing Code has been included here as an attachment to this letter.

10. *Include location and layout of foundations drains for proposed structures.*

Response: No foundation drains are proposed for the Project. All proposed buildings will be slab-on-grade construction without basements. The underdrain detail on C603 will be removed for clarity.

11. *For hydrant proposed nearest to eastern most corner of Parking Structure (see Sheet LG106):*

- a. *Use care in placement near electric line. Recommend minimum separation distance of 5 feet.*

Response: The noted electric ductbank is an abandoned line that used to feed parking lot lighting to a former building. No known conflict remains in this area.

- b. *Recommend placement of Tee connection at main a minimum of 5 feet from bend.*

Response: The hydrant location will be revised accordingly to provide a minimum of 5 feet from the record location of the water line bend.

Erosion Control Plan

12. *Include label for Siltsack Sediment trap at CB 211.*

Response: The Erosion Control Plan shows existing conditions for site preparation purposes, and as such, indicates existing catch basins to receive silt sacks prior to commencement of site activities. The Erosion Control Plan also includes a note that all proposed stormwater inlets (including CB211) shall receive silt sacks to protect the stormwater management system from siltation during construction operations.

13. *Include requirement for wash down facilities for Gravel and Construction Entrance/Exit if deemed necessary.*

Response: A requirement to include wash down facilities in a controlled area near the construction exit will be added to C501.



Site Details

14. *Include note on Site Details; Sheet C601 to refer Construction Schedule and Notes; Sheet LG100 or in applicable details located on plan.*

Response: A note referring to the Construction Schedule and Notes on LG100 will be added to C601.

15. *Include detail for Area Drain with Sump on Sheet C603.*

Response: A detail for an Area Drain with Sump will be added to C603.

Construction Schedule and Notes

16. *Provide additional information detailing thickness requirements for Concrete Paving Types 1 and 2.*

Response: Concrete paving for walkways will be 6 inches thick in vehicular areas and 4 inches thick in pedestrian spaces. The landscape architecture plans will reference the civil drawings for thicknesses of sidewalk pavements.

17. *Coordinate information in Construction Schedule Table to reference applicable details provided on Site Detail Plan; Sheet LG301.*

Response: Refer to detail column on the construction schedule table on LG100.

Construction Plan

18. *Coordinate the granite curb requirements on Construction Plan; Sheet LG103 to conform to the sloped granite edging denoted on the Layout and Materials Plan for the parking lot adjacent to the Parking Structure and provide a suitable transition detail.*

Response: Curbing clarifications will be made to LG103 and a detail for the transition between vertical and sloped granite edging will be added to the Site Details plans.

19. *Include/revise construction callout labels and limits for curb ramp locations to utilize CP-02 for 6" thick concrete at all curb ramp locations and to refer to Site Details; Sheet C601 and Construction Details; Sheet LG301.*

Response: The landscape architecture plans will refer to the civil plans for location and details for curb ramps and details.

Construction Details

20. *Revise detail, notes and identifier labels for Detail 08 on Construction Details; Sheet LG302.*

Response: Detail 08 on LG302 will be revised with corrected notes and identifier labels.



Stormwater Report

Appendix A: Standard 1 Computations

21. *Include Outlet FES 1 in the Outfall Riprap Sizing and Velocity Calculations.*

Response: FES 1 will be installed within a reconstructed stone slope and discharged to an existing, defined drainage channel. As a replacement of an existing stormwater outlet at this location, the Project proposes to mitigate the potential for downstream impacts and/or scour by matching existing conditions runoff rates at this location. Stone protection will be added to the channel bottom as allowable to dissipate velocities and stabilize areas disturbed for pipe installation. The width of the stone will be defined by the existing channel. FES 1 has not been included in the calculations for outfall riprap sizing as this will be finalized in the field during construction based on existing, adjacent slope conditions.

Operations and Maintenance Plan

22. *Include sidewalks, walkways and the additional parking areas located within the parking garage to also require pavement sweeping.*

Response: These areas will be added to the Pavement Sweeping section of the O&M Plan.

23. *Include Siltsack Sediment Trap in the E.3 Construction Practices Maintenance/ Evaluation Checklist and other pertinent locations within the report.*

Response: Siltsack Sediment Traps will be added to the Construction Practices and associated construction-period BMP checklist in the O&M Plan. All Siltsacks will be temporary for use during construction. No Siltsacks are proposed in the final site condition.

24. *Include Area Drains in the E.4 and E.6 check-lists and other pertinent locations within the report.*

Response: Maintenance of area drains will be added to the O&M Plan.

25. *Denote storage locations for sand, salt, de-icing agents etc. in E.5 Maintenance Checklists and Device Locations Map.*

Response: Sanding and de-icing operation responsibilities for the campus have been transferred to a third-party vendor. No onsite storage of sand, salt, or de-icing agents will occur within Zone 4, except for small quantities stored within the buildings for localized spot treatments.

26. *Include Siltsack Sediment Trap.*

Response: Siltsack Sediment Traps will be added to the Construction Practices and associated construction-period BMP checklist in the O&M Plan. All Siltsacks will be temporary for use during construction. No Siltsacks are proposed in the final site condition.



Thank you for your time associated with this review. The McLean Hospital project team looks forward to continuing to work with the Town of Belmont to advance this project. Should you have any questions or require further information in support of these responses, please let us know.

Sincerely,

VHB



Justin Mosca, PE
Sr. Project Manager

encl.

GASOLINE AND SAND SEPARATOR

GENERAL CONSTRUCTION NOTES

BASIN TO BE LOCATED OUTSIDE OF BUILDING WHERE POSSIBLE. COVER TO HAVE A CENTER HOLE.

A TIGHT COVER MUST BE USED IF BASIN IS LOCATED INSIDE OF BUILDING.

OPENING SHALL BE NOT LESS THAT 24" DIA.

THE CATCH BASIN SHALL BE SO LOCATED AND CONSTRUCTED THAT SURFACE WATER SHALL BE EXCLUDED.

INLET PIPE SHALL BE AT LEAST FOUR INCHES ABOVE NORMAL WATER LINE.

WHERE SUBJECT TO FROST OR CRUSHING CONDITIONS, OUTLET SHALL BE AT LEAST THREE FEET BELOW SURFACE.

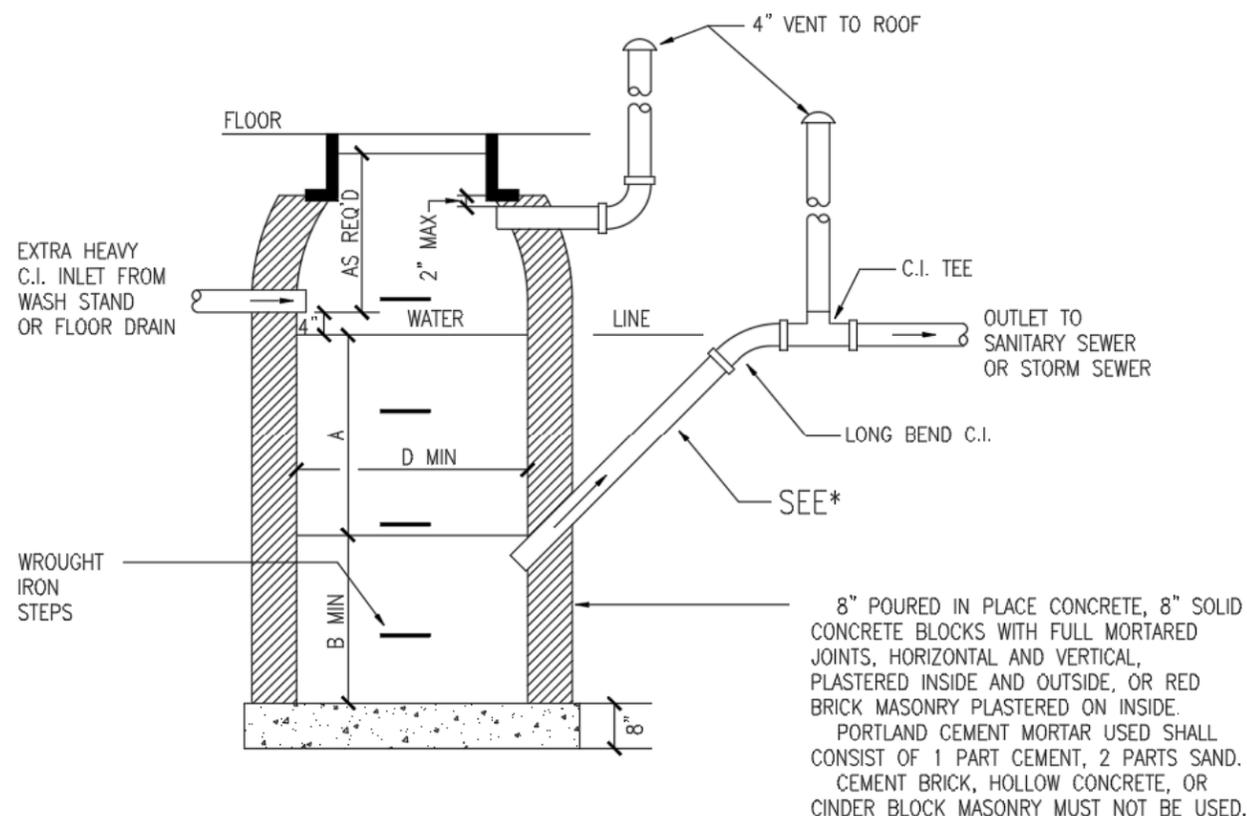
THE NEW CATCH BASIN MUST BE FILLED WITH CLEAN WATER BEFORE USING, AND AFTER BEING EMPTIED FOR PERIODIC CLEANING.

ALL OIL AND GASOLINE MUST BE REMOVED BEFORE CLEANING OUT BASIN, AND MUST NOT BE DISCHARGED INTO THE SEWER THROUGH OTHER FIXTURES.

SPECIFICATIONS FOR COVERING SPECIAL CASES OR CONDITIONS, SHALL BE APPROVED BY THE LOCAL AUTHORITIES AND THE AUTHORITIES OF THE COMMONWEALTH OF MASSACHUSETTS.

WROUGHT IRON STEPS SHALL BE SPACED ABOUT 18" APART.

BOTH VENTS SHALL BE EXTENDED INDEPENDENTLY 18" ABOVE THE ROOF, OR AS APPROVED BY THE LOCAL AUTHORITIES, AND THE AUTHORITIES OF THE COMMONWEALTH OF MASSACHUSETTS.



INLET	D	A	B
4"	3'-6"	3'-0"	2'-6"
5"	3'-6"	3'-0"	4'-0"
	4'-0"	3'-6"	3'-0"
	4'-6"	3'-0"	2'-6"
6"	4'-0"	5'-0"	4'-6"
	4'-6"	4'-0"	3'-6"
	5'-0"	3'-6"	3'-0"
8"	5'-0"	4'-0"	5'-0"
	6'-0"	4'-0"	3'-6"
	6'-6"	3'-6"	3'-0"

NOTE :
FOR INLETS LARGER THAT 8"
THE DESIGN AND DIMENSIONS WILL BE
DETERMINED FOR EACH PARTICULAR CASE.

- * (a) Hubless C.I. soil pipe and fittings with approved couplings.
(b) Service weights soil pipe with approved resilient gaskets or lead okum joints.
(c) Extra heavy soil pipe with approved resilient gaskets or lead and okum joints.

Job Title Mclean Child and Adolescent Campus Garage	
Job # 302198-00	
Reference	Sheet # SKP-01
Made by DGC	Date 2025-03-21

ARUP
www.arup.com