TO:	DEVENS ENTERPRISE COMMISSION	DATE:	NOVEMBER 6, 2024
FROM:	HOWARD STEIN HUDSON	HSH PROJECT NO.:	23184.01
SUBJECT:	8 CHARLESTOWN STREET, YMC, INC		

Dear Neil Angus:

Howard Stein Hudson (HSH) has received and reviewed the comment letters from Nitsch Engineering (dated October 22), Arcadis (dated October 21), and the DEC (date October 23) in review of HSH's October 1st submission package for a proposed manufacturing expansion of YMC, Inc located at 8 Charlestown Street in Devens.

Overall project changes that have been made:

- Elimination of proposed parking spaces in the existing parking lot. The current parking lot and abutting shared parking lot has ample parking for current needs and future expansion. The dock in that area will also remain as is and will continue to be used for smaller deliveries.

- Reduction of pavement in the loading area. Turning movements for trucks to access the proposed three docks were revised and added to the plan set. The revision to the turning movements resulted in a reduction of pavement on the exterior sides of the paved area.

- The proposed infiltration basin has been divided into two smaller basins. The northern most basin captures and infiltrates the proposed addition's roof run-off and surrounding sheet overland flow, and the lower one to captures and treats the proposed run-off from the paved area that is directed to the two Rain Guardian structures adjacent to the proposed pavement.

- The existing infiltration basin will remain as-is, with on going maintenance being performed. The proposed catch basins that discharge to the existing basin will be routed through a CDS, hydrodynamic separator, for pretreatment prior to discharging to the infiltration basin.

- Revision of Landscaping Plan based on Landscape review letter.

Nitsch Comments and Responses

1. "974 Code of Massachusetts Regulations (CMR) 3.04(3)(a)1.e mandates that Landscape islands shall serve a functional purpose for stormwater infiltration and evapotranspiration, and should be used whenever possible to reduce runoff, increase groundwater recharge, and increase screening and shade with trees... We note that the existing parking lot is greater than 180 feet in length and does not include a pedestrian connection. However, it is our understanding that the majority of the existing non-conforming parking lot is outside of the Project Limit of Work. The Applicant should review and address this is requirements in relation to the new parking spaces added."

   HSH: All proposed work in the existing parking lot has been eliminated. The parking lot will remain as is. Sidewalks exist adjacent to the existing parking and provide pedestrian connection from the building to the sidewalks abutting the property.

2. "974 CMR 3.04(3)(a)1.h requires bicycle storage facilities for all developments. The Applicant should review and address this requirement."

   HSH: A bicycle rack has been added along the parking lot with proximity to the main entrance.

3. "974 CMR 3.04(3)(a)2.d requires parking spaces and striping shall be painted according to the Massachusetts Department of Transportation…"

   HSH: Proposed spaces have been eliminated and thus the need for parking space striping has been eliminated.

4. "974 CMR 3.04(3)(a)(2.f)(v) requires that Low Impact Development (LID) techniques shall be incorporated in accordance with 974 CMR 4.08 to the maximum extent feasible… Additionally, the Applicant should confirm if access to the existing loading dock must be maintained; if access to the existing loading dock does not need to be maintained, this paved area could be removed, restored, and replanted. The Applicant should review and address this requirement."

   HSH: The existing loading dock will remain. Bioretention basins were considered but due to the required depth of media, seperation to groundwater, volume needed, and needed pretreatment vegetated strips, the site did not provide the area or groundwater elevation needed. All proposed stormwater systems provide infiltration and groundwater recharge.

5. "974 CMR 3.04(3)(a)(4.d) requires that Commercial, Industrial and Multi-Family Residential driveway widths shall be no greater than 24 feet for a two-way driveway… We understand that the driveway must provide access for large vehicles, however per turning movements provided by the Applicant on Sheet C.10, we believe that there may be opportunities to reduce this width to be closer to compliance. The Applicant should review and address this requirement to the maximum extent practicable."

   HSH: Plans have been updated to show the turning movements for trucks to access each loading dock and leave the site. These turning movements are shown on Sheet 10. The full proposed width of the driveway is needed due to the limited width of Peggy Street.

6. "974 CMR 3.04(3)(a)(4.e) mandates that intersection sight distances… the Applicant should provide documentation to confirm compliance."

   HSH: The required sight distance for a posted speed limit of 30 mph, with the slope of Peggy Street, is 200 feet. The 200 feet sight distance has been added to Sheet 5, Layout and Material Plan, to show complaince.

7. "974 CMR 3.04(3)(a)(4.g) requires standard "STOP" at the intersection of driveways with streets and roads. We noted that STOP does not appear at the intersection of the driveway and Peggy Street. The Applicant should review and address this requirement."

   HSH: The word "STOP" has been added to the proposed stop bar and stop sign at the proposed driveway on Peggy Street and shown on Sheet 5.

8. "974 CMR 3.04(3)(a)(5)… The Applicant should provide a letter from the Devens Fire Chief to confirm compliance with this requirement."

   HSH: An email was received from Chief Kelly confirming acceptable access to the building and proposed addition, and is attached herein.

9. "974 CMR 3.04(3)(a)(10) requires that all proposed developments shall demonstrate they have made reasonable efforts to consider and, where feasible, include Transportation Demand Management (TDM) initiatives early on in the site design and layout process… As previously noted, we understand that the majority of the parking lot is outside of the Project Limit of Work, however the Applicant should review the opportunity to incorporate this requirement in the location of the new parking spaces."

   HSH: It is our opinion that this site meeting TDM initiatives, the site currently provides 53 spaces based on the current needs of the applicant, which is less then the maximum allowed. The applicant also owns the abutting property at 37 McArthur Ave, that has ample parking available for any additional spaces needed. Proposed changes to the existing parking lot have been eliminated. The site provides pedestrian connection and a bike rack to the site.

10. "974 CMR 3.04(3)(b) decrees that parking lots in the Viewshed Overlay District shall be located on the far side of the building from the viewshed sensitive receptor and/or along the sides of the building… The majority of the parking lot is an existing condition to remain, however, it is not in compliance with this regulation. We would recommend providing significant screening to meet the intent of this requirement. We defer to DEC to determine the level of acceptability."

    HSH: The existing parking lot will remain in its current condition. The project proposes a large amount of screening along Peggy Street to buffer the site.

11. "974 CMR 3.04(6)(a)(1.c) requires that principal building entries shall have an accessible pedestrian walkway connecting to pedestrian walkways within abutting Rights-of-Way or ways. It is unclear which entrance, if multiple, will be the principal entrance. Additionally, many of the walkways are existing to remain including connections to the new building addition. The Applicant should confirm compliance with this requirement."

    HSH: The main entrance to the facility is the door from the parking lot into the previously constructed office addition. There are walkways throught out the entire site that connect to the sidewalks on Charlestown St, Peggy St, and Jackson Road. There are sidewalks along the parking lot, and through the existing grass

area from Peggy Street to Charlestown St. The project proposes to keep all pedestrian connections on the site on Charlestown and Peggy Street.

12. "974 CMR 3.04(6)(a)(2.e) decrees that catch basins shall have curb inlet stones with transition stones when sloped granite edgestone or Cape Cod berm is used. The Applicant should confirm that they are using curb inlet stones with transition stones and clarify on the detail."

    HSH: A catch basin curb inlet detail has been added to Detail Sheet 4 of 5. A curb inlet has been called out in the grading and drainage plans as well.

13. "974 CMR 3.04(6)(a)(2.f) requires that Cape Cod Berm, where provided, shall be a Modified Bituminous Concrete Berm - Type A (1' width) as specified in Section 106.1.0 of the Construction Standards of the MHDSSHB. The Applicant should confirm that they are using a Type A and clarify on the detail."

    HSH: The detail of the cape cod berm has been updated to Type A – 1' width.

14. "974 CMR 3.04(6)(a)(4.a) requires that to the extent feasible, service areas, dumpsters, or open storage areas shall be located to the rear of buildings and placed on cement concrete pads. Given that the site has frontage on three sides, we believe that the Applicant has sufficiently addressed this requirement by providing screening with a fence. We defer to the DEC on the acceptable level of screening provided for the trash and recycling facilities."

    HSH: No response needed.

15. "974 CMR 3.04(6)(a)(4.d) requires that recycling storage and management details shall be provided. For facilities that generate food waste, details on the collection, storage and management of compostable materials shall be provided. The Applicant should confirm that food waste will not be generated at this site."

    HSH: No food waste will be generated on site.

16. "974 CMR 3.04(6)(a)(5) mandates that Loading docks shall be located to the sides and rear of buildings and shall not be located forward of the front facade of the building. Given that the site has frontage on three sides, the front entrance of the building should be clarified on the plans to confirm that the intent of this requirement has been met."

    HSH: The main entrance is the door from the parking lot into the previous office addition. The building itself does not have a designated "front façade" but the most visable façade is that from Jackson road. The location of the loading docks is based on space availabile on site for an addition with area for trucks to meaunver. Access off of Jackson Road did not comply with the distance between an intersection and driveway entrance and would not have provided as much screening to the loading area.

17. "Note 1 on Sheet C.2 states that the proposed addition is 11,130 SF, but Sheets C.5, C.7, and C.8 and the Supplemental Data Report indicates that the proposed addition is 11,325 SF. The Applicant should review and address for clarity."

    HSH: Note 1 has been updated.

18. "The Applicant should revise the Limit of Work to include the restriping of six (6) new parking stalls and be more clearly defined to confirm scope boundaries."

    HSH: This area of work has been eliminated.

19. "The Applicant should confirm if access to the existing loading dock area must be maintained. If access does not need to be maintained, the Applicant should consider removing, restoring, and replanting the paved area. Additionally, the Applicant should consider incorporating curbing, wheel stops, or other safety measures at the six (6) new parking stalls to prevent vehicles from rolling forward out of the designated parking zone."

    HSH: The existing loading dock will remain and the addition of 6 parking spaces has been eliminated.

20. "974 CMR 3.04(4)(a)(3) decrees that LID Stormwater Management design shall be incorporated into the Site Plan to allow for the full utilization of the property while maintaining the pre-development characteristics of the site as though it were a "green field" (volume, frequency, peak runoff rate) to the maximum extent feasible… The Applicant should address this requirement. All land cover within the Project Limit of Work should be modeled as a green field in the existing HydroCAD model when comparing pre- post- rates to address this requirement."

    HSH: The area within the limit of work has been considered green field in the revised stormwater calculations, as well as the existing parking lot.

21. "974 CMR 3.04(4)(b) requires that Site-generated stormwater shall be managed on-site to meet green field requirements… Refer to Comments 4 and 20 above. The Applicant should review and address this requirement."

    HSH: **The green field requirement has been reflected in revised calculations and site generated stormwater is being managed on-site to the maximum extent feasible through three infiltration basins.**

22. "974 CMR 3.04(4)(b)(4) decrees that catch basins or other drainage features in loading/unloading and/or fueling areas shall be equipped with post-indicator valves (which are to remain in the closed position) on the outlets for containment in the event of any spills… There is no post indicator valve indicated on the Plans nor drainage infrastructure specific to the loading area. The Applicant should review and address this requirement."

    HSH: A post indivator valve has been added to the outlet of the CDS unit discharging into the existing basin. The proposed lower basin has inlet structures that are similar to curb breaks but provide TSS removal. There are no proposed pipes for this structure thus not allowing a post indicator valve.

23. "974 CMR 3.04(4)(c) requires that the applicant shall include a Stormwater Operations and Maintenance Plan in accordance with 974 CMR 4.08(7) as may be applicable. The Site Plan shall specify the construction and post-development Maintenance Schedule in detail on the Utility Plan. This will ensure that all parties understand and are aware that a Stormwater Operations and Maintenance Plan exists. The Applicant shall review and address the latter portion of this comment. Refer to Comment 44 below regarding accordance with 974 CMR 4.08(7)."

    HSH: Sheet C.19 has been added to the sheet set to address this requirement.

24. "974 CMR 4.08(1)(b) requires promoting decentralized stormwater management systems modeled after natural hydrologic features and infiltration practices that facilitate local groundwater recharge (LID techniques). The Applicant should implement LID wherever feasible."

HSH: Site generated stormwater is being captured, treated, and discharged through three separate infiltration basins located throughout the open spaces on site and occupy much of the open space to the west and south of the building improvements. We believe this requirement is being met.

25. "974 CMR 4.08(1)(c) requires promoting water conservation and efficiency through stormwater capture, treatment and reuse. The Applicant should review applicability of this requirement to the building water demand such as irrigation, toilet flushing, or industrial uses."

    HSH: No stormwater capture is provided on site. There is no existing or proposed irrigation on site.

26. "974 CMR 4.08(2)(d.ii) requires irrigation water shall be derived from detained treated stormwater (stormwater harvesting), or roof drainage to the maximum extent feasible. On-site cisterns may be installed to store water for irrigation. The Project does not appear to include irrigation, the Applicant should confirm for clarity."

    HSH: See response to comment 25 above.

27. "974 CMR 4.08(2)(d.iii) requires for all stormwater improvements, drainage calculations shall be prepared by the Applicant's Engineer in accordance with the Stormwater Management System (SMS) requirements… Calculations shall be made separately for each drainage facility, showing its location, the total upstream drainage area, the underlying soil types and the flow paths for the times of concentration, the design runoff, facility size, slope, and capacity and velocity of water through all the site drainage system. Refer to Comment 20 above. The Applicant should review and address this requirement."

    HSH: Calculations for each facility are provided within the HydroCAD model. See comment response 20.

28. "974 CMR 4.08(3)(a) requires biofiltration basins shall be the preferred method to reduce curbing, piping and structures and provide additional overland treatment and recharge… The Applicant should review and address these requirements. If access to the existing loading dock does not need to be maintained, the existing loading dock could be an appropriate location as the existing grading and lack of curb lends themselves to this scenario."

    HSH: Biofiltration basins were not feasible on site due to media depth and seperation to groundwater. The existing dock will remain, and proposed work in that area has been eliminated.

29. "974 CMR 4.08(3)(c) requires in addition to compliance with the SMS, the post-development peak rate of stormwater discharge off-site shall not be greater than the pre-development peak rate of stormwater discharge for the 2, 10, 25, 50 and 100-year storm events from any point of discharge on the site. In accordance with Section 2.d.iii. above, pre-development peak rate calculations shall reflect the "green field" site condition, regardless of any existing development or impervious coverage on the site at the time of application. The Applicant should include the 50-year storm in the HydroCAD analysis and Supplemental Data Report."

    HSH: See comment response 20. The 50-year storm has been added to the analysis and summarized in the supplemental data report.

30. "974 CMR 4.08(3)(f) requires banks of wet ponds, swales not within maintained landscaped areas (such as lawns or parking lots), and other channels shall be vegetated with native woody plant material within ten feet of the high water elevation and with herbaceous plant material at the edge of the pond at the high water elevation. Trees shall not be planted on fill embankments. The Applicant should review and address this requirement."

    HSH: The landscape plan has been revised.

31. "974 CMR 4.08(3)(g) requires shelves below the design water level (as described in the Stormwater Plan) shall be vegetated with hydrophytic native plant species at a density needed to establish full coverage by the next growing season. Plant plugs or pre-vegetated coir-mesh blankets or carpets are recommended materials. The Applicant should review and address this requirement."

    HSH: The landscape plan has been revised.

32. "974 CMR 4.08(3)(h) requires recommended post-construction erosion control methods include geotextile and /or biodegradable erosion control fabrics staked or anchored to the slope, with loose weave to allow vegetative cover to be established. Vegetative cover shall consist of native woody plant species installed as live brush or nursery stock, or native grasses. The Applicant should add a stabilization detail to Sheet C.14 to address stabilization of steep slopes."

    HSH: The erosion control blanket detail has been added to Detail Sheet 1 of 5.

33. "974 CMR 4.08(3)(i) requires stormwater management systems shall be designed to meet an average annual pollutant removal equivalent to 90% of the average annual load of Total Suspended Solids (TSS) related to the total post-construction impervious area on the site AND 60% of the average annual load of Total Phosphorus (TP) related to the total post-construction area on the site. The Applicant should review and address this requirement. The 60% phosphorous removal is likely achieved the recharge volume being provided however documentation should be provided to confirm. Refer to Comment 47 below for specific comments on TSS removal."

    HSH: Based on 4.08(3)(i)(1) that "average annual polluntant removal requirement in…are achieved through one of the following methods…" Method b, was chosen to meet the requirement, which is to retain the volume of runoff equivalent to, or greater than, one inch multiplied by the total post construction impervious surface on the development site. By meeting that requirement we have achieved the average annual pollutant removal requirement. We have updated both calculations to show that site-wide we provide 81.7% TSS removal, including the existing stomrwater system in the parking lot. If just the new impervious is considered we provide 89.4% TSS removal.

34. "974 CMR 4.08(3)(j) requires to support compliance with the Municipal Separate Storm Sewer System (MS4) Permit, all Best Management Practices (BMPs) must be optimized for the removal of phosphorus. The justification and design of such BMPs must also include a methodology for assessing BMP performance. Pollutant removal shall be consistent with EPA Region 1's evaluation tool. Documentation on phosphorous removal should be provided."

    HSH: Phosphorus removal calculation has been added to the supplemental data report.

35. "974 CMR 4.08(4)(b) requires basins be located in naturally occurring low spots. Layout of the basins shall complement the natural topographic movement of the site [see 974 CMR 3.08(4) Figure D)]. The Applicant should review the location and depth of the basin to ensure the site is balanced and significant soil removal will not be required. Additionally, there appears to be multiple mounds added throughout the site. The Applicant should determine if the mounds are required to balance the site and further evaluate the locations. There appears to be LID opportunities, in particular on the southwest side of the building, where a basin would be more beneficial. The Applicant should also be mindful of directing water towards the building."

    HSH: The area that the proposed basins are in, on the south west side of the building, is generally flat, there is no natural contours to follow to create a "natural" shaped basin. We have divided the proposed basin into two smaller ones with more curves. The site cut/fill needed to be a net zero, or a fill site. After revision, we re-analyzed the cut/fill and was able to remove the mounds at the corner of Jackson Road and Charlestown St. The other mounded locations on site are needed for relocation of on-site soil.

36. "974 CMR 4.08(4)(d) requires an emergency outlet to accommodate storm flows in excess of the 100-year storm event. A minimum 1-foot freeboard distance shall be established between the 100-year flood elevation and the top of embankment. The Applicant has provided 1-foot of freeboard. The Applicant should consider the location of an emergency outlet and where water would overflow in the event of a severe event or basin failure."

    HSH: No emergency outlet has been provided, as it would need a piped connection into Jackson Road, and alternatively, if there was a failure in the upper pond, it would overflow into the lower pond. If the lower pond were to fail, the overflow would go into the driveway entrance at Peggy Street and either enter the catch basin on the other side of the driveway or the catch basin in Peggy Street. The existing infiltration basin will back up through the catch basins and flow dowstream towards Peggy Street, where an emergency overflow pipe would be connected. The ultimate system that the runoff would enter remains the same, but instead of direct piping, any stormwater overflow is directed to above ground structure collection.

37. "974 CMR 4.08(4)(f) requires that the Applicant locate the floor of all basins/infiltration structure/swales a minimum of four feet above the high groundwater elevation… The Applicant has provided just over 2 feet of separation between the bottom of the new basin and groundwater. The Applicant does provide a mounding analysis per Massachusetts Department of Environmental Protection (MassDEP) requirements. Nitsch defers to DEC on acceptance for this approach."

    HSH: An updated mounding has been provided within the Appemdix of the Supplemental Data Report.

38. "974 CMR 4.08(4)(g) requires that the Applicant conduct a falling head soil permeability test in retention/infiltration basins before the basin design in all basins and infiltration structures… The Plans and Report do not indicate permeability testing was performed. The test pits indicate loamy sand with gravel/cobbles using an infiltration rate of 2.41 in/hr. MassDEP Stormwater Handbook classifies loamy sand with a Rawls Rate of 2.41 in/hr. Nitsch defer to DEC for acceptance of this approach."

HSH: Defer to the DEC.

39. "974 CMR 4.08(4)(i) requires the Applicant to include fencing and/or screening of stormwater detention/retention basins if the DEC determines that safety or appearance require such measures. Nitsch defer to DEC on applicability of this requirement."

    HSH: Vegetated screening has been proposed around stormwater infiltration basins.

40. "974 CMR 4.08(6)(b) requires Closed Drainage Systems (CDS) and swales shall be designed to accommodate the 25-year storm event based on the Rational Method without surcharging… The minimum time of concentration shall be five minutes. The Applicant shall provide a closed drainage analysis to address this requirement."

    HSH: Pipe calculations have been completed using the rational method and provided in Appendix O in the Supplemental Data Report.

41. "974 CMR 4.08(6)(c) requires all drainage structures shall be constructed of pre-cast concrete. While the Catch Basin Detail appears to be pre-cast the Applicant should add a note to the detail to ensure this requirement is met."

    HSH: The catch basin detail has been updated. Title of detail is now "Precast Concrete Catch Basin".

42. "974 CMR 4.08(6)(e) requires details for all drainage structures shall be provided. It appears an Area Drain Detail was not provided. Additionally, the Applicant should review the requirement upon any updates to the Drainage Plan."

    HSH: An area drain detail has been added to Detail Sheet 5 of 5.

43. "974 CMR 4.08(6)(f) requires flow capacities shall be calculated, using two feet per second (fps) minimum velocity and 10 fps maximum velocity under a 2-to-25 year design storm event. The designer shall account for partial pipe flow capacities, if applicable to the design. The Applicant should review and address this requirement as part of the closed drainage analysis to be provided."

    HSH: Pipe calculations have been completed using the rational method and provided in Appendix O in the Supplemental Data Report.

    "974 CMR 4.08(1) requires an Operation and Maintenance Plan (O&M Plan) for stormwater management systems at the time of application for all projects. The O&M Plan shall be designed to ensure compliance with the Massachusetts Surface Water Quality Standards (314 CMR 4.00), the Stormwater Plan and the DEC annual stormwater reporting form requirements. The O&M Plan shall be shown on the site plan(s) and shall include at a minimum the following… The Applicant has provided an Operation and Maintenance Plan within the Supplemental Data Report. However, the Applicant should review and update the O&M Plan to provide the information requested per the DEC regulations above."

    HSH: All of the items above are included in the Operation and Maintenance plan included in the Supplemental Data Report. An Stormwater O&M Plan sheet has been added to the set to reiterate the notes above and identify all stormwater BMP's on site as Sheet 19.

44. "The pipe from CB-1 to FES is flowing backwards."

    HSH: Pipe has been revised.

45. "The Applicant should confirm the status of the existing basin to ensure that capacity is available, and the basin is functioning as designed. Nitsch Engineering recommends that the Applicant visit the existing basin during or after a rainstorm to verify that it can accommodate newly generated site flows."

    HSH: There has been no significant rain events in recent time to observe the basin. The applicant has submitted a letter stating their observations of the infiltration basin over the past years.

46. "Standard 4 requires stormwater management systems shall be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS)… Neither the TSS requirements for the MassDEP 80% removal (nor the MS4 90% removal, see Comment 33) are being met. The site has highly infiltrative soils using a rate of 2.41 in./hr. requiring 44% pretreatment prior to infiltration. Catch Basins 1 and 2 do not provide the required pretreatment. Additionally, in the existing basin the sediment forebay appears to be on the southeast side adjacent to the existing parking lot. Treatment Train 2 indicated in the Supplemental Data Report is incorrectly stated because the outlet is discharging on the northwest side of the basin, and not to the sediment forebay as currently stated. We understand that there are some portions of the existing drainage infrastructure connecting to the existing basin that are outside the Project scope and non-conforming, however, all newly developed areas and new drainage infrastructure within the Project Limit of work must comply."

    HSH: TSS calculations have been revised. A CDS unit has been added to the treatment train for CB-1 and CB-2. See comment response 33 regarding the MS4 requirements and overall TSS removal calculation revision.

47. "Standard 8 requires a plan to control construction-related impacts including erosion, sedimentation and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plan) shall be developed and implemented. Sheet C.4 should be further developed and indicate the location of the soil erosion measures indicated in the detail sheets such as inlet protection, construction fence, and protection of the existing basin. The Applicant should indicate maintenance/cleaning of the existing basin post-construction to ensure that it functions as originally designed."

    HSH: Erosion control has been revised around the existing basin. The maintenance for the existing basin is included in the Operation and Maintenance plan included in the Supplemental Data Report, and shown on the BMP Map. Proposed maintenance for the infiltrations basins include the existing basin and the two proposed basins.

48. "Standard 10 requires that all illicit discharges to the stormwater management system are prohibited. Comment closed upon receipt of signed Illicit Discharge Statement to DEC."

    HSH: A signed illicit discharge statement will be submitted to the DEC prior to construction.

Arcadis Comments and Responses

1. "3.04(6)(a)(3) – Lighting: Site Lighting plan shall indicate location of proposed/existing trees to demonstrate that there is no conflict between proposed lights and proposed/existing trees within the site. Please include proposed/existing trees on site lighting plan and audit for potential conflicts."

   HSH: Lighting has been turned on in the Landscape Plan and landscaping and existing trees to remain have been turned on in the lighting plan. No conflicts between landscaping and lighting are present.

2. "3.04(8)(c)5 – Landscape Treatment

   a. "Planting around proposed transformer is not consistently 6' height or higher and is not continuously evergreen, as required by the screening regulations. Proposed Inkberry and Viburnum are under 6' and the Viburnums are not evergreen. Please provide a variety of taller screening evergreen shrubs, 6' min. ht. to form a continuous solid screen of diverse evergreen planting."

      HSH: Plantings have been modified to provide 6' high evergreen buffer around the proposed transformer.

   b. "Please confirm the necessity of 12 bollards surrounding the proposed transformer. As this transformer is currently sited within a planted area, away from vehicular traffic, there is typically no requirement for bollards."

      HSH: **The bollards have been eliminated.**

3. "3.04(8)(c)(6) – Landscape treatment: To comply with regulations regarding naturalistic planting, please shift planting from a linear layout to one that is informal, yet contiguous with adjacent planted areas. This will achieve a more cohesive layout from the upper planting bed down to the detention basin planting. Infill area between shrub planting and building/walkway with shrubs and/or groundcover for ease of maintenance in this tight area,

per the zoning regulation regarding maintenance. See markup below, showing suggested layout in red, and additional suggested planted area in green."

HSH: Plantings have been added in this area to provide more informal, yet contiguous layout with the adjacent planting areas.

4. "3.04(8)(c)(8) – Landscape treatment: Plant material located within 20' of any road shall be tolerant of de-icing salts. The following proposed plants along Peggy Street are within 20' of the road and are considered low or moderately salt tolerant. Please choose an alternative from List II: Salt Tolerant Plants:

    a. Red Maple, suggested substitution: Blanck Tupelo

    b. White Pine, suggested substitution: Pitch Pine

    c. Red Oak, suggested substitution: Black Tupelo

    d. American Holly, suggested substitution: Sweet Pepper"

    HSH: All plants withing 20' of the road have been adjusted to comply with the DEC list II: salt tolerant plantings.

5. "3.04(8)(c)(11) – Landscape treatment: Disturbed areas intended for natural re-growth shall be, at minimum, graded, loamed and seeded with a native new England wildflower and/or conservation seed mix. Please provide information on proposed ground treatment (seed mix(es), mulch seeded lawn, etc), and show/identify seeded extents on landscape plans."

    HSH: Seed mixes and ground plane surfaces have been specified for all disturbed areas

6. "3.04(8)(f)(3) – Groundplane Treatment: To comply with erosion control requirements on steep slopes, provide a continuous underplanting of groundcover, such as Blue Rug Juniper, for immediate slope stabilization between and around all shrubs out to the edges of the planting bed. See area of concern below:"

    HSH: See response above.

7. "Please show proposed fence and gate layout around proposed concrete pad for trash and recycling."

HSH: Fence and gate layout around the proposed trash and recycling area is shown on the detail, Detail Sheet 2 of 5.

8. "Given the amount of proposed impervious surface added to the site, would a green roof on the building addition be considered as a mitigation strategy?"

   HSH: A green roof for the addition was considered and ultimately not chosen for fiscal reasons.

9. "3.04(8)(h)(2) – Landscape Treatment in Parking Area"

   HSH: Project scope no longer includes the existing parking area. Area will remain as-is.

10. 3.04(8)(i)(5) – Viewshed Overlay District

    a. "The site viewshed analysis plan illustrates the project's visibility from both Prospect Hill and the Fruitland's Museum. Please propose a vegetative screening strategy at the south corner and adjacent sides of the building, see highlight area below:"

    b. "On the elevation profile to Fruitland's Museum, the high point screening the project site from the museum is small, single point that would not be present in all possible cross sections between the Museum and the project site, thus exposing the project site to the museum."

HSH: Both viewshed analysis show that the proposed addition will not be any higher than the existing building that is in front of the addition across Peggy Street. The viewshed will thus not be changed from its existing state. The perspectives also do not take into account trees and other buildings that are taller than YMC, as it falls under the maximum allowed building height in the zone. There is already landscaping and vegetation in the corner of the building highlighted, and the existing parking lot is outside of the scope of work. A vast number of screening vegetation is being proposed along Peggy in the area that is within the project scope and the viewshed.

11. "3.08 – Appendix B, Figure D: Detention/Retention Pond Layout: Please refer to the figure below in the design of the proposed detention basin on site, to achieve a basin layout which is naturalistic and complementary of natural topography."

HSH: The natural topography of the area of the proposed basin is flat with no natural curves. The proposed basin has been split into two basins and added more curves to create a look of natural topography.

12. "Landscape details: Please provide details for the following: seeded lawn, tree planting on slope, shrub planting on slope, multi-stem tree planting, evergreen tree planting."

    HSH: Requested details have been provided on Detail Sheet 5 of 5.

13. "3.04(8)(n)(2) – Maintenance: Does the existing and/or proposed building have exterior hose bibs and/or in ground quick coupler for watering? In order to ensure proper establishment of new plantings, they will have to be watered regularly on a schedule during the first two years after planting."

    HSH: The landscape contractor shall be responsible for water all plant materials during the establishment period.

DEC Comments and Responses

1. "Inverts shown for proposed sewer lines on the Utility Plan result in sewer structures that are 3' deep or less, with less than 3' cover over the sewer pipes. This is no good. These proposed inverts may be driven by the invert in Devens existing SMH 165 on Peggy Street that is shown on the existing conditions plan, which I believe is not correct. As shown on the screenshot of a section of that that plan below, the invert for the existing sewer pipe in that SMH is shown as 329.55, which means SMH 165 is only about 3' deep, which is not correct. SMH 165 is actually about 7.5' deep. See the attached plans for corroborating information. The design engineer should have their surveyor check their calculations, or inspect the SMH if necessary, to confirm inverts."

   HSH: Based on the plan provided and the likely hood of abandoned lines, the contractor proposes to CCTV the sewer manhole on the north side of the intersection of Jackson Road and Peggy Street. Based on the survey and the plans provided there is an 8" sewer within Peggy Street and Jackson Road from that manhole that may provide an adequate sewer line to tie into on either side of the property. Plan has been updated to note further investigation must be done, and

elevations will be determined based on available tie in locations prior to construction.

2. A note on the Utility Plan on what is shown as an existing 8" sewer stub on Peggy Street reads: "service to be replaced by tunneling if possible, to be determined by contractor and Devens". As shown on the plans attached to this email, that 8" sewer stub, if it still exists, is abandoned. Our staff tried to jet that line from SMH 165 toward the 8 Charlestown Street site and only got 15' before we started to pull back dirt. The project proponent and their contractor will need to do more leg work to determine if this old abandoned line can be used. At a minimum, the contractor should be directed by the design engineer to try to locate the abandoned SMH shown on the plans attached to this email near the northern edge of the Peggy Street roadway to see if that SMH and the abandoned pipe under Peggy Street still exist and if they might be a possible connection point for the proposed sewer from 8 Charlestown Street. The design engineer should explain what they mean by "tunneling under the roadway if possible." Exactly how would this be accomplished?"

   HSH: See response above. Connection type and method will be determined based on location and depth of sewer main.

3. "The proposed industrial wastewater line is only 2" in diameter. This seems small. Should this be at least 4" in diameter?"

   HSH: Line has been revised to be a 4" service. We would like to note that this line will connect to a floor drain in the manufacturing area and will see very little water.

4. "Utility Note #2 on the Notes Sheet C.2 indicates that the proposed water connection shall not be made on a live water main and that the water main should be shut off prior to the water tap. If a tapping sleeve and valve are to be installed as implied by the tapping sleeve and valve detail on Detail Sheet 4 of 4, then the water main to be connected to would not need to be shut down to make the tap."

   HSH: The note on Sheet C.2 has been updated to read that the water main does not need to be shut off, but in the event that they need to, the contractor must coordinate with neighboring buildings.

5. "A callout should be placed on the Utility Plan where the proposed fire suppression water line connects to the existing Devens water main near Jackson Road to indicate that an 8" x

6" tapping sleeve and 6" gate valve is proposed there. The note on the utility plan indicates the final size of the fire suppression water line is to be coordinated with MEP drawings, so the size of the proposed line may change. But, adding the suggested callout would at least provide some additional information to the contractor."

HSH: Callouts have been added to the utility plan.

6. "Please add the following sentence to the notes on Sheet C.2: *All soil disturbance and management shall comply with the Devens Soil Management Policy. No soil shall leave the site without the written permission of MassDevelopment and the DEC."*

   HSH: Note has been added to Sheet C.2, Site Notes #10.

7. Ensure you follow up with MassDevelopment Real Estate on the Design Review Approval ASAP.

   HSH: MassDevelopment Real Estate Design Review checklist has been submitted to them under separate cover.

8. We need a brief narrative on what the "Industrial use" actually is, not just it is an allowed industrial use. Please have the company provide a brief explanation of their current manufacturing process so that the commission can confirm the proposed expansion is still an allowed use. For your reference, permitted uses are listed in our bylaws at: https://www.devensec.com/development/EXHIBIT_D.pdf and https://www.devensec.com/bylaws/bylaws06.html#sectiona

   HSH: A narrative has been included here-in.

9. 3c. Please include all updated tables from Appendix 1 of the DOC (Zoning Conformance, Dimensional Requirements, Parking and Traffic, and Building Area and Use) on the site plans.

   HSH: The tables have been updated in the Supplemental Data Report, on the Plans and within Appendix 1 of the application.

10. Provide detail for dumpster fence screening. Must be visually obstructive (vinyl chain link fence alone is not sufficient).

HSH: Detail on plans calls out for 6' stockade or vinyl fence. Plans do not reference a chain link option. Either wooden stockade or vinyl would both create a non-visual barrier.

11. Still appears to be some areas where pavement can be slightly reduced in the loading dock areas.

    HSH: Pavement area in the loading dock has been reduced to the maximum extent possible while still allowing for truck maneuvering and cab access for drivers.

12. Please include the FIRM panel # in the notes on the cover sheet.

    HSH: FIRM Panel has been added to the general notes on the cover sheet.

Letter from Chief Kelly

Kristen LaBrie

From: Kelly, Tim <TKelly@Massdevelopment.com>
Sent: Wednesday, October 30, 2024 2:53 PM
To: Kristen LaBrie
Subject: RE: 8 Charlestown, Devens, YMC, Inc

Based on the review of the Layout Plan, we agree the entire building, existing and expansion, has three sides of access for the fire department. Three sides of access is the minimum requirement at Devens in new construction. We find this acceptable for this construction project.

Chief Timothy Kelly (he,him)
Devens Fire Department
Devens: A MassDevelopment Community
182 Jackson Road, Devens MA 01434
Direct: 978.772.4600
tkelly@massdevelopment.com
DevensCommunity.com

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From: Kristen LaBrie <KLaBrie@hshassoc.com>
Sent: Wednesday, October 30, 2024 11:05 AM
To: Kelly, Tim <TKelly@Massdevelopment.com>
Subject: RE: 8 Charlestown, Devens, YMC, Inc

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Attached is the Layout and Material plan from the submission.

Thank you very much,

Kristen

From: Kelly, Tim <TKelly@Massdevelopment.com>
Sent: Wednesday, October 30, 2024 10:43 AM
To: Kristen LaBrie <KLaBrie@hshassoc.com>
Subject: Re: 8 Charlestown, Devens, YMC, Inc

Can you send me a quick drawing that shows the access so I can reference the drawing in the letter. Thank you

Chief Timothy Kelly

Devens Fire Department
Devens: A MassDevelopment Community
182 Jackson Road, Devens, MA 01434
Direct: 978.772.4600
Mobile: 978.501.2220
tkelly@massdevelopment.com
DevensCommunity.com

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From: Kristen LaBrie <KLaBrie@hshassoc.com>
Sent: Wednesday, October 30, 2024 10:35:21 AM
To: Kelly, Tim <TKelly@Massdevelopment.com>
Subject: 8 Charlestown, Devens, YMC, Inc

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Good Morning,

During the pre-submission call for the proposed addition for this project, we discussed fire access and there was no concern, as the property has street access on three sides and the parking lot on the fourth side with through access. The peer review engineer has asked for a letter from you stating that there is adequate access for fire equipment for the site.

Thank you,

Kristen LaBrie, EIT
E.I.T. - Civil
HOWARD STEIN HUDSON
Engineers + Planners
Delivering Solutions for Over 35 Years
BOSTON BRIDGEWATER CHELMSFORD WORCESTER
direct: **508.500.7164, ext 364** office: **617.482.7080**
www.hshassoc.com Facebook LinkedIn Instagram Twitter

Letter regarding YMC use

YMC America: Current Manufacturing Process at Devens Facility

YMC America focuses on the development and production of advanced liquid chromatography systems designed for the pharmaceutical and biopharmaceutical sectors. Our on-site operations include:

1. **Design and Engineering**: Our engineering team develops custom chromatography systems tailored to various scales, including single- and multi-column configurations that meet specific client requirements.
2. **In-House Fabrication**: We conduct advanced in-house fabrication of system components, enabling strict quality control and customization to meet precise client specifications. Key activities include:
    - **Precision Machining**: Using advanced CNC machines, we manufacture critical components like column housings, valve bodies, and pump heads to exact specifications.
    - **Welding and Joining**: Specialized techniques, such as TIG and MIG welding, are employed to assemble stainless steel frames and piping systems for the systems' structure.
    - **Sheet Metal Fabrication**: Cutting, bending, and forming of sheet metal create enclosures, panels, and brackets essential for system functionality.
    - **Surface Treatment and Finishing**: Polishing and passivation enhance the corrosion resistance and appearance of components.
    - **Quality Control and Inspection**: Rigorous inspections with precision instruments ensure all components meet stringent quality standards.
3. **Assembly and Integration**: Fabricated components are assembled into complete systems, incorporating advanced automation and control technologies to ensure efficient and reliable operation. The assembly process includes:
    - **Component Assembly**: Technicians assemble fabricated parts, such as column housings, valves, and pump heads, ensuring precise alignment and secure connections.
    - **Automation Integration**: Sensors, actuators, and control systems are installed to enable accurate and efficient system operation.
    - **Control Panel Fabrication**: Custom control panels are built to offer intuitive interfaces for seamless monitoring and parameter adjustments.
    - **System Calibration**: Calibration procedures are conducted to fine-tune components for optimal performance.
    - **Functional Testing**: Systems undergo functional testing to validate performance, reliability, and regulatory compliance.
4. **Testing and Validation**: Each system undergoes rigorous testing to verify performance and compliance with industry standards, meeting the stringent requirements of pharmaceutical manufacturing. Key activities include:
    - **System Suitability Testing (SST)**: Parameters such as resolution, peak shape, and sensitivity are assessed to ensure the system meets specific application criteria.
    - **Analytical Method Validation**: Accuracy, precision, specificity, detection limits, and robustness are evaluated to confirm consistent, reliable results.

- **Performance Qualification (PQ)**: Comprehensive tests verify that the system performs effectively under real-world conditions.
- **Documentation and Reporting**: Detailed records are maintained to ensure transparency, regulatory compliance, and support for continuous improvement.

The proposed building expansion is intended to enhance these existing operations.