GRADY CONSULTING, L.L.C.
Civil Engineers ♦ Land Surveyors ♦ Landscape Architects

October 10, 2023

Scituate Planning Board
600 Chief Justice Cushing Highway
Scituate, MA 02066

RE: Response to TEC Peer Review
817 Country Way, Assessors Map 12 Lot 2-38-F
Applicant – Option C Properties, LLC

Dear Board Members:

On behalf of the applicant, we hereby submit 10 sets of revised plans and documents, and 1 stormwater report for the above referenced project. The plans have been revised in response to Peer Review comments from TEC dated July 11, 2023. TEC comments are in *italics*. Applicant responses are in **bold** type. Plan revisions and responses to comments are as follows:

General Comments:

General Comments

1. *The Architectural Plans were provided as two PDF files. The Plans reference buildings 1, 2, and 3. TEC believes that these references do not correspond with the Site Plan building numbering of 2, 3, and 4. The Architectural Plans should be revised with proper building labeling on each sheet.*
GC: The building numbers have been revised. The buildings were renumbered on the Civil plans to go from front to back.

TEC: No changes have been made to the building numbers on the civil plan set. No new architectural plans have been provided. The building numbers do not correspond between plan sets.

New architectural plans are being provided with this response. The building numbers have been coordinated.

2. *On Sheet 5 of the Site Plans, a callout to remove the retaining wall is shown, but the proposed conditions show that the wall is to remain. The Site Plans should be revised to clearly label the limits of wall removal, if at all.*
GC: The notes on sheet 5 to remove the wall have been removed as requested.

TEC: Comment partially addressed. The notes on sheet 5 have been removed. Callouts to "retain existing wall" and "remove wall" remain on Sheets 7, 10, 11, 21, 23, and 25, and proposed contours remain throughout the wall on the grading plan. Proposed changes to the wall remain unclear.

The callouts have been updated.

3. *Sheet 2 shows that 73 parking spaces are proposed, however only 70 spaces are shown on the Plan. The Plan should be revised to show 70 proposed spaces.*
   GC: The number of spaces indicated on sheet 2 has been revised to 70.

   TEC: The revised parking design and parking counts both reflect 68 spaces. Comment addressed.

   No response required

4. *The Applicant should confirm if a van accessible parking space should be provided for each of the 4 buildings. As currently drawn, the accessible parking for building 1 and 2 does not provide an adequate access aisle for van parking (minimum aisle width of 8-feet).*
   GC: The accessible aisle has been revised to 8 ft as requested. Building #1 is an existing building and is not an accessible building. The new proposed building will provide accessible opportunities within the development.

   TEC: The plans propose to convert the existing building into a 55+ building. Given the intended age demographic, it is especially important that the parking and building are accessible. The Applicant should consider if further building upgrades are warranted.

   Parking areas have been relocated and an accessible route is provided.

5. *The drive aisle, parking spaces, and paved walkway between building 1 and 2 is proposed at a slope of 9.23%. TEC does not find this to be an acceptable design slope for parking spaces. Slopes over 5% will lead to the doors of vehicles swinging open and hitting the car in the next parking space.*
   GC: The parking spaces have been revised to angled parking to help reduce the potential for door swing conflict.

   TEC: TEC does not support the design of parking (perpendicular or angled) on a 9.23% slope. It is TEC's opinion that a parking lot sloped at 9%+ is not functional or practical for its users.
   TEC continues to recommend a maximum parking slope of 5% for this new construction project.

   Parking areas have been relocated. Parking spaces now have a suitable slope.

6. *The Applicant should confirm that the proposed grading is fully in compliance with Architectural Access Board (AAB) regulations 521 CMR 20.00 and 521 CMR 22.00. Section 20.2 states that an accessible route shall be provided from accessible parking, accessible loading zones, and public streets or sidewalks to the accessible building entrance they serve. Section 22.3 states that walkways with a running slope greater than 5% shall comply with 521 CMR 24.00: Ramps.*
   GC: It is our opinion that the accessible routes only need to be from the accessible spaces to the individual's residence. There does not need to be accessible routes between the buildings as there are no common areas to be shared within any of the buildings. Each building has accessible access to an amenity space via an accessible route. Private residences are not accessible elements.

   TEC: TEC disagrees with this opinion. The development is considered a "multiple dwelling" with 3 or more dwelling units (521 CMR 5.00). Multiple dwellings are considered public buildings, even if privately owned/operated. 521 CMR 10.00 states that public use and common use spaces of multiple dwellings shall comply with 521 CMR. Public and common use spaces include walks, sidewalks, parking lots, etc.

Additionally, Town of Scituate's Zoning Bylaw Section 760.8(F)(2) Parking Design Standards states "Pedestrian access from parking lots must lead directly to a public sidewalk and to the primary building". TEC's interpretation of the local Bylaw is that the pedestrian access is meant to be accessible, meaning that the slope requirements should be provided at 5% or less running slope, or should comply with the requirements of a ramp under 521 CMR 24.00.

TEC does not support the design of the drive aisle, parking spaces, and paved walkway at 9.23%.

Accessible routes with suitable slopes are now provided.

7. *The Site Plans should be revised to show detailed grading at each accessible parking space and access aisle. Per AAB regulations, accessible parking spaces must be a maximum slope of 2% in all directions. As currently drawn, the accessible parking for Building 1 is proposed at a 9% cross slope.* Additional details can be provided at the next plan iteration when the architectural review is completed.
GC: Building #1 is an existing building and is not an accessible building. The new proposed building will provide accessible opportunities within the development.

TEC: Revised accessible parking spaces are graded to be AAB compliant and accessible spaces for Building 1 have been removed. TEC recommends providing accessible parking for Building 1 given the plans to convert the space to retirement/55+ units and to provide spot grades on all accessible parking spaces.

Accessible parking for building 1 is now being proposed.

8. *The Applicant should provide additional detail on the proposed ramp into building #2. It appears that some form of fall protection will be required at the back of walkway. Additionally, there appears to be a low point at the bottom of the ramp that would collect water.*
GC: Additional details can be provided at the next plan iteration when the architectural review is completed.

TEC: There is a 4' height difference between the top of the proposed accessible ramp at Building 2 and the walkway below. The site plans should call out a retaining wall in this location. The proposed rail along this ramp should be continued along the proposed retaining walls surrounding Building 2.

The grading around building 2 has been adjusted.

9. *On sheet 11 of the Site Plan, the Fire Truck Turning Analysis shows the truck backs into the guard rail to the south and partially drives over a parking stall. The turning analysis should be revised to avoid these conflicts. Additionally, the Applicant should confirm that they have coordinated with the Scituate Fire Department and the ladder truck shown on the plan matches the largest emergency vehicle in current operation.*
GC: We have revised the turning analysis to address the conflict with the fence and the end parking space has been removed.

TEC: The Applicant should confirm that they have coordinated with the Scituate Fire Department and the ladder truck shown on the plan matches the largest emergency vehicle in current operation.

On an email from the Fire Department Deputy Chief to the Town Planner dated 4/27/2023, it was confirmed that room for turning around is sufficient.

10. *The Utilities Plan shows a proposed electrical cabinet or transformer directly adjacent to an existing retaining wall. In TEC's experience, the electric utility provider will provide minimum clearance requirements around infrastructure.*
GC: Correct. The utility provider will make the final determination on the location of the electric utilities. They will not provide engineering details until the permitting is completed.

TEC: Comment resolved.
No response required

11. *The Site Plans should clearly label if the existing utility poles on the site will be retained, relocated, or removed. It appears that utility pole 954-1 includes overhead wire connections to building #1 and to the adjacent property at 809 Country Way. It is unclear if retaining utility pole 954-1 is feasible as existing grading will be altered by ~3 feet at this location.*
GC: The utility poles that are proposed to be removed have been labeled. The electric line crossing the road to the abutting property is currently 20 +/- feet above the driveway. The grade change in this area is approximately 2ft. The wire will be 18 +/- ft above final grade. This will provide sufficient clearance.

TEC: TEC defers to the utility providers to confirm the feasibility of the proposed utility service.
No response required

12. *The Grading Plan should show the top and bottom elevation of the existing and proposed retaining walls at a minimum interval of every 25-feet. It is difficult for TEC to confirm the feasibility of the walls without have clear labeling.*
GC: The spot grades have been added to the plan as requested.

TEC: Top and bottom elevations have not been provided for the proposed retaining walls.
The spot grades have been added to the plan as requested.

13. *There are several proposed contours to the north of Building #1 that are unlabeled and do not appear to tie into the existing grade. The Site Plans should be revised to clearly label this area.*
GC: The contours to the North of Building #1 have been revised as requested.

TEC: Comment addressed.
No response required

14. *Additional existing topography should be added to the Plan at the rear of Building #3. It is unclear if the proposed grading at the rear of Building #3 has been adequately tied into the existing.*
GC: Additional existing spot grades have been added behind building #3. The plan proposes a retaining wall across the back of building #3.

TEC: The site plans should clearly indicate all proposed retaining walls.
Building 3 has been eliminated from the plan. The plan shows all proposed retaining walls.

15. *It appears that a Notice of Intent filing will be required as a new building is proposed within a 100- foot buffer zone to a wetland resource area.*
GC: A Notice of Intent has been filed with the Conservation Commission.

TEC: Comment addressed.
No response required

16. *The Applicant should confirm if the proposed septic design is being reviewed by the Scituate Board of Health. TEC is concerned with the layout of the sanitary components and leach fields which are near proposed buildings, retaining walls, and other utilities. Being a complex septic design with several buildings tying into the same leach fields, the Town may benefit from a peer review of the proposed septic system.*
GC: The applicant has submitted an application with the Scituate Board of Health.

TEC: Comment addressed.
No response required

17. *Sheet 1 of the Site Plans show a colored rendering of the proposed project. The proposed underground stormwater structures are shown in a red dashed color. The existing leach field for Building #1 is also shown in the red dashed color. This is misleading and likely a drafting error that should be corrected.*
GC: The red lines have removed from the rendering s requested.

TEC: Comment addressed.
No response required

Stormwater Comments

18. *TEC does not support the use of bends in newly proposed drainage lines. TEC recommends that all changes in direction of proposed drainage lines be provided through a drainage structure. The drainage structure allows for access, inspection, and long-term maintenance of the system.*
GC: The pipe bend has been removed as requested.

TEC: Proposed pipe bends remain at the Subsurface Drainage Area #1 outlet pipe.
Pipe bends have been removed.

19. *Sheet 10 of the Site Plans shows the detailed information for the drainage system and other proposed utilities. On Sheet 10, the proposed drainage piping is shown in several different styles, making it extremely difficult to understand. The Site Plan should be revised to consistently show the drainage piping for clarity.*
    a. *Several drain pipes are shown with a solid black outline – see piping between CB 10 and DMH 11*
    b. *Several drain pipes are shown with a dashed outline – see piping around foundation of Building #2*
    c. *Several drain pipes are shown as a single dashed line – see piping outlets from subsurface drainage areas #1 and #2*
    d. *The discharge pipe from subsurface drainage area #1 is shown with a single*

dashed line and "D" symbol (--D--).

GC: The drain pipes have been revised to the same line type as requested.

TEC: The majority of the drainage pipes are displayed as solid inner diameter outlines. Several drainage pipes remain single solid lines – see Subsurface Drainage Areas #2 and #4.

The drain pipes are shown with the same linetype

20. *Several proposed drainage pipes appear to be less than the industry standard minimum 0.5% slope. The Site Plan should be revised to provide pipe slopes equal to or greater than 0.5% pitch for proper functionality of the drainage system.*

GC: The hydro-CAD model demonstrates that the pipes provide adequate slope to drain the stormwater to the various elements. TR-16 which is the regulation for sewer pipe that convey solids requires a velocity of 2 fps to move solids through pipes allows .0019 slope in a 12" dia pipe and this varies with diameter. It is our opinion that proper pipe slopes have been provided.

TEC: TEC continues to advise maintaining standard industry minimum pipe slope throughout the design.

There is no industry standard that requires all pipes to be .05% or steeper. Minimum pipe slopes depend on the diameter of the pipe. We are proposing pipes at a slope that provide a velocity of 2 fps or greater which is an industry standard to move solids within a pipe. We have provided a table demonstrating the required slopes.

21. *The invert out of the proposed drainage manholes is designed at the same elevation as the invert in. Industry standard at manholes is to provide a minimum 0.1' elevation drop to the invert out of the structure.*

GC: 0.1' elevation drop has been provided as requested.

TEC: Comment not addressed. DMH 11 does not have a 0.1' elevation drop to the structure outlet.

An 0.1' elevation drop has been provided as requested.

22. *On Sheet 18 of the Site Plans, the outlet protection detail appears to have been copied from another project. It does not appear applicable to the 817 Country Way project and should be revised or deleted from the Plan.*

GC: The outlet protection detail has been revised to a generic detail.

TEC: The Applicant should specify if/where the water quality swale in the outlet protection detail is proposed.

The callout for water quality swale on the outlet protection detail on sheet 18 has been removed. There is no water quality swale proposed.

23. *Only the Post-Development HydroCAD calculations are included in the Stormwater Report. It is impossible for TEC to confirm that State and Local regulations are met without receipt of the Pre- Development Analysis.*

GC: The Pre-development analysis has been added to the stormwater report as requested.

TEC: Comment addressed.

No response required

24. *The Post-Development HydroCAD Routing Diagram shows subcatchments and ponds that are not shown within the post drainage map, Sheet 25 of the Site Plan. Applicant should revise the HydroCAD calculations that would represent the post drainage map.*
GC: Sheet 25 has been revised to correlate the hydro-CAD report and the site plan as requested.

TEC: Comment addressed.
No response required

25. *Per the Massachusetts Stormwater Handbook, a minimum of 1 test pit should be provided per 5,000 square feet of infiltration basin. Subsurface Drainage Areas (SDA) #1 and #2 exceed 5,000 square feet in area, and therefore a 2nd test pit is required within each basin.*
GC: SDA #1 is 1583 SF and SDA #2 is 1960 SF. Additional soils testing is not required.

TEC: TEC miscalculated the subsurface drainage areas due to incorrect graphic scales shown on several sheets. Test pit comment addressed. See comment 40 regarding graphic scales.
- *Sheet 10 incorrectly shown at 40 scale*
- *Sheet 11 incorrectly shown at 40 scale*

Graphic scales have been revised

26. *Per the Massachusetts Stormwater Handbook, infiltration basins should not be located within 100- feet of any private wells. The Applicant should confirm that there are no private wells located within 100-feet of the basins.*
GC: No known wells exist with 100 ft of the proposed systems.

TEC: Comment addressed.
No response required

27. *Per the Massachusetts Stormwater Handbook, infiltration basins should not be located within 10- feet downslope or 100-feet upslope of any building foundations including slab foundations without basements. As currently drawn, the infiltration basin is 12.4-feet upslope of Building #2.*
GC: The top of stone elevation is 36.86 and the finish slab elevation on building #3 is 39.0 and building #2 38.0. Both are above the top of stone. Additionally, SDA #1 has an overflow outlet at elev 35.0 which is 3 ft lower than the lower slab. The living area is protected from impacts from the stormwater system. For additional measure we have proposed a 40 mil poly barrier around SDA #1.

TEC: The Stormwater Handbook states that a minimum distance from any building foundation should be 10-feet downslope and 100-feet upslope. It appears that both buildings #2 and #3 would require some form of foundations below elevation 35.00 based on site grading.
There is no living space below the proposed slab, the wall is a frost wall.

28. *The Applicant should review and confirm that the peak elevation of stormwater within each pond does not exceed the top elevation of the basin. It appears that the detention tank and SDA #3 are overtopped in the 100-year storm event.*
GC: The 100-year flood elevation is now lower than the tank.

TEC: Comment addressed.

There is no flooding on Country Way or off site occurring during the 100-year storm event.

29. *All subsurface drainage systems should be equipped with at least two drainage manholes to provide permanent access for long-term maintenance and inspection of the system. Cultic does not require manholes for inspection manholes.*
GC: We have revised the detail on sh 21 to require 2 inspection ports per system.

TEC: Comment addressed.

No response required

30. *Per Cultec manufacturer specifications, a minimum of 12-inches of cover should be provided above the top of stone in unpaved settings. It does not appear that this cover requirement is met for SDA #4.*
GC: The grading has been modified to provide the cover requested.

TEC: The grading continues to reflect less than 1' of cover over SDA #2 and #4. The revised grade should be updated in the Cultec Recharger Data table.

Grades have been updated on the Cultec Recharger Data table.

31. *The Site Plans should include scaled drawings of the proposed outlet control structures associated with each SDA.*
GC: The outlet control is provided by pipe orifice/outlet. The pipe is simply cut into the side of the cultec. Additional notes and callouts have been added to the detail and table on sh 21.

TEC: Comment addressed.

No response required

32. *The test pits provided at each SDA show that either loamy sand or sandy loam material is present at the site. The Applicant has used an infiltration rate of 1.02 inches/hour for all SDAs corresponding to sandy loam soil. The stormwater analysis should reflect the actual infiltration rate at each SDA. Where loamy sand is present, an infiltration rate of 2.41 inches/hour should be utilized.*
GC: The NRCS soils mapping calls for C/D soils. It is or professional opinion that the drainage systems should be designed on the slower infiltration rate and that the 1.02 in/hr is appropriate for this site.

TEC: TEC finds it acceptable to use the more conservative infiltration rate, however, pretreatment should be provided in the case that actual infiltration rates exceed 2.41 inches/hour.

It is our professional opinion that the existing soils on site are not rapid infiltration and that 1.02 in/hr is the appropriate infiltration rate. A review of the soil logs indicates the presence of sandy loam in several areas.

33. *SDAs with an infiltration rate of 2.41 inches/hour will require additional pre-treatment prior to discharge to the system. Loamy sand soil qualifies as a "rapid infiltration rate" and therefore a minimum of 44% TSS removal is required for pretreatment.*

GC: The NRCS soils mapping calls for C/D soils. It is our professional opinion that the drainage systems should be designed on the slower infiltration rate and that the 1.02 in/hr is appropriate for this site.

TEC: Test pit data is a more accurate reflection of existing conditions. The drainage system should be designed to provide adequate pretreatment for rapid infiltration conditions.

It is our professional opinion that the existing soils on site are not rapid infiltration and that 1.02 in/hr is the appropriate infiltration rate. A review of the soil logs indicate the presence of sandy loam in several areas.

Zoning Review

34. *Section 750.5.A.1.b. states that more than one principal building is allowed on a development site if the building lot dimensional standards are met for each principal building individually under Section 750.6. Section 750.6 shows that the Front Yard Build-to-Zone (min/max) is 10-feet/30- feet for multi-family buildings. As currently drawn, buildings 2, 3, and 4 do not comply with the maximum front yard build-to-zone requirement.* Section 750.5(A)(1)(c) provides that "[a]ll principal buildings…must be located outside of any required front, side, or rear setbacks except as otherwise permitted in this section**."**

GC: Section 750.5(A)(1)(d), Build-To-Zones, states"[t]he area between the minimum front setback is the Primary Street Build-To-Zone (BTZ) which the front façade of the primary building facing the primary street shall be placed." The primary building here is the building facing Country Way, the primary street. This structure meets the BTZ requirement of being setback between 10 and 30 feet under Section 750.6. Buildings 2, 3, and 4 are all in compliance with 750.5(A)(1)(c) as they ae located outside of the required front, side, and rear setbacks.

TEC: Comment addressed.

No response required

35. *Per Section 750.6 Table 1.A, the minimum outdoor amenity space coverage is 20% for multifamily residential uses. The current calculation includes areas occupied by existing and proposed leach fields as well as components of the Building #1 septic tanks. TEC defers to the Planning Board to determine if these areas are appropriate for inclusion in the outdoor amenity space calculation.*

GC: These areas are appropriate for amenity space. It is extremely common for residences and commercial properties to utilize these areas as open lawn and amenity space.

TEC: In TEC's opinion, the leach fields should not be counted towards amenity space, however, TEC ultimately defers to the Planning Board to make a final determination.

No response required

36. *Per Section 750.8.A.4., all development sites must have a minimum of 50 feet of frontage on a public or publicly accessible street providing access to internal streets located within the Development Sites.*

GC: The lot contains 244.32 feet of frontage.

TEC: Comment addressed.

No response required

37. *TEC defers to the Building Department and the appointed Design Review Committee to determine if the maximum building height is in conformance with Section 750.5.A.2. of the Bylaw.*
GC: No response required.

No response required

38. *It appears that the street facing wall width of Building 1 is 128.2-feet, exceeding the maximum allowed width of 100-feet listed in Table 1.A.*
GC: The applicant is proposing to utilize an existing building. The use of the existing building will not alter the character of the neighborhood.

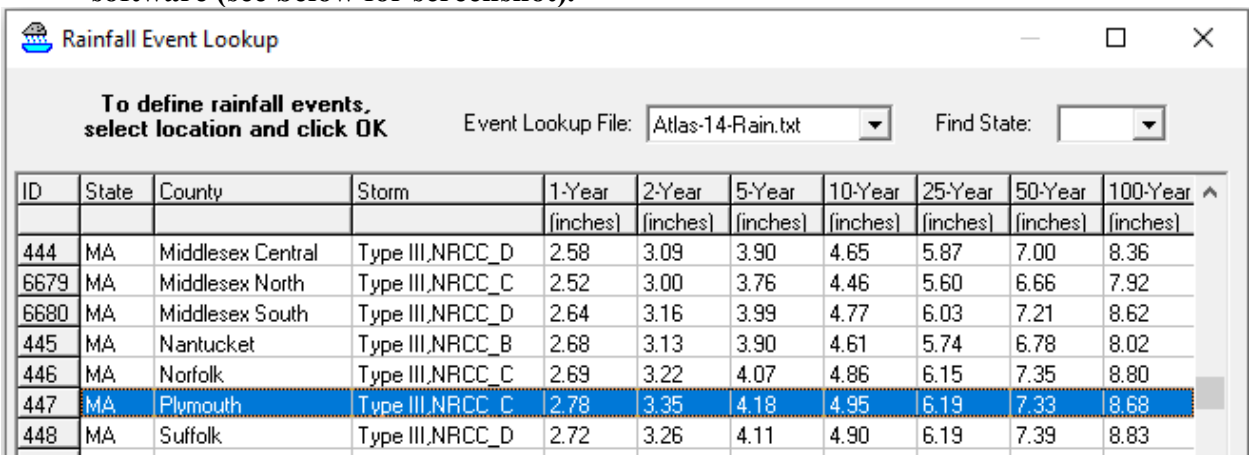
TEC: The Applicant should request a waiver from the Town of Scituate for the street facing wall maximum width.
A waiver has been requested and is shown on sheet 2.

39. *It appears that the parking space furthest south in front of Building #4 will not have adequate maneuvering space required in Section 760.3 of the Bylaw.*
GC: The parking space is serviced by an aisle of 20 ft. The user of this space may need to back out to the north instead of to the south. There is an additional 3 ft space adjacent to this space that will aid in the maneuvering.

TEC: The Applicant should provide a vehicle turning analysis entering and leaving the space to ensure that it is functional.
The parking space has been rotated to eliminate any possible conflicts.

40. *Graphic scales should be revised to 1"=20' on multiple sheets.*
Graphic scales have been revised

41. *The applicant does not denote the source for the rainfall depths used in the stormwater model and they differ significantly from the values found on NOAA's Atlas 14.*
The values used are from the NOAA Atlas 14 as listed in the HydroCAD software (see below for screenshot).



ID	State	County	Storm	1-Year (inches)	2-Year (inches)	5-Year (inches)	10-Year (inches)	25-Year (inches)	50-Year (inches)	100-Year (inches)
444	MA	Middlesex Central	Type III,NRCC_D	2.58	3.09	3.90	4.65	5.87	7.00	8.36
6679	MA	Middlesex North	Type III,NRCC_C	2.52	3.00	3.76	4.46	5.60	6.66	7.92
6680	MA	Middlesex South	Type III,NRCC_D	2.64	3.16	3.99	4.77	6.03	7.21	8.62
445	MA	Nantucket	Type III,NRCC_B	2.68	3.13	3.90	4.61	5.74	6.78	8.02
446	MA	Norfolk	Type III,NRCC_C	2.69	3.22	4.07	4.86	6.15	7.35	8.80
447	MA	Plymouth	Type III,NRCC_C	2.78	3.35	4.18	4.95	6.19	7.33	8.68
448	MA	Suffolk	Type III,NRCC_D	2.72	3.26	4.11	4.90	6.19	7.39	8.83

42. *As currently designed, there are several stormwater infiltration systems and leaching fields near proposed retaining walls. The retaining wall details show a 4" drain pipe that outlets at the end of the wall. It appears that the 4" drain pipe and the geosynthetic reinforcement would conflict with the proposed infiltration/leaching systems.*

    A poly barrier has been added to SDA#4 between the system and the retaining wall drain pipe. SDA#2 is proposed below the retaining wall drain and does not conflict. SDA#1 is proposed below the retaining wall drain and does not conflict.

43. *The following comments are regarding the HydroCAD design: a. The time of concentration and drainage area for subcatchment 9 is not consistent between sheet 25 and the post HydroCAD.*
    CB5, CB6, CB9, DMH7, DMH11, and CB13 rim and invert elevations are not consistent between the site plans and HydroCAD. The Applicant should review and revise all structure elevations in HydroCAD.

    Structure elevations have been revised.

44. *The Applicant should update invert data in the Cultec Recharger Data Table.*

    The Cultec Recharger Data Table has been updated.

45. *TEC recommends providing continuous pedestrian access from the street to all buildings. Additional paved walkway to Building 4 may be necessary.*

    Additional walkways have been added as requested

46. *Standard #3 recharge calculations should be revised using an infiltration rate and volume to recharge factor that reflects the presence of loamy sand.*

    It is our professional opinion that the existing soils on site are not rapid infiltration and that 1.02 in/hr is the appropriate infiltration rate. A review of the soil logs indicate the presence of sandy loam in several areas.

47. *The drawdown calculation and water quality volume calculation should be revised for SDA #4.*

    Drawdown and water quality calculations have been revised.

48. *The mounding recharge rates should be revised for SDA #1 and #4. Mounding analyses should be revised with updated infiltration rates in locations of loamy sand.*

    It is our professional opinion that the existing soils on site are not rapid infiltration and that 1.02 in/hr is the appropriate infiltration rate. A review of the soil logs indicate the presence of sandy loam in several areas.

49. *The project disturbance is greater than 1 acre. The MassDEP Stormwater Checklist should reflect NPDES CGP coverage and SWPPP status.*

    A SWPPP will be provided prior to construction.

50. *The Applicant should specify whether infiltration is proposed in the stone trench at the SDA #4 outlet, given that the trench is within 50' of leach field #1. A detail should be provided for the stone trench.*

The infiltration trench is for erosion control only and it is not an infiltration device. The outlet is lower than the adjacent septic system and will not interfere. A detail has been added to sheet 22.

51. *The Applicant should specify the proposed locations of conservation area signs.*

Conservation posts have been added to the erosion control plan (sh 23) as requested.

52. *The Applicant should consider revising the location of the proposed shade trees or provide a statement guaranteeing the current location of the root systems will not impact the subsurface drainage systems or soil absorption systems.*

Shade trees have been relocated as requested.

53. *The Applicant should provide an Illicit Discharge Compliance Statement signed by the Owner accompanied with a sketch displaying the locations of any stormwater structures on site.*

A sketch plan with a signed illicit discharge statement has been added to the stormwater report (rear pocket) as requested.

54. *Grading to the rear of Building #4 does not clearly indicate how the existing grade will tie into the proposed grade. TEC recommends including the area behind Building #4 in the Grading Plan (Sheet 7).*

The proposed grades tie into the existing grade via a retaining wall that surrounds building #3 (formerly bld#4).

If you have any questions, please do not hesitate to call.

Sincerely,

GRADY CONSULTING, L.L.C.

Kevin Grady, P.E.,
Principal

Cc: Option C Properties, LLC
Chris Bruce, Manager
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Dear Board Members:

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General Comments:

Traffic Engineering Comments

1. *The Traffic Impact Assessment (TIA) included the following intersections within the study area:*
   - *Country Way at the Proposed Site Driveway*
   - *Country Way at Henry Turner Bailey Road / Gannett Road*
   - *Route 3A at Henry Turner Bailey Road*

   Based on the scale of the planned redevelopment and the expected trip generation, TEC concurs with the Applicant's study area. No response required.

   No response required

2. *The Applicant's traffic volume counts, including Turning Movement Counts (TMCs) and Automatic Traffic Recorder (ATR) data, were conducted at the study area intersections in February 2023 when schools were in session. The recorded volumes were increased to account for a seasonal adjustment to attain average annual conditions. No response required.*

   No response required

3. *The February 2023 traffic data considers the currently underutilized MBTA Commuter Rail station and parking lots with the understanding that MBTA ridership is still recovering from the impacts of the COVID pandemic. Although this may suggest the use of a slightly higher ambient growth rate (higher that 1% per year) for traffic in the immediate vicinity of the site, it would only minimize the difference between the projected 2030 No-Build (future conditions without the project) and 2030 Build (future conditions including the project) scenarios. TEC does not believe this will have a material influence on the traffic engineering findings. No response required.*

   No response required

4. *The weekday morning and weekday evening peak commuter hours were studied to determine the project's overall effect on the roadway. TEC concurs that these selected time periods are appropriate as the peak hours of the residential developments typically overlap with the peak hours of the adjacent street system. No response required.*

   No response required

5. *The TIA presents motor vehicle crash data for each study area intersection. The crash data indicates the number, type, and severity of crashes at the study area intersections between 2016 and 2020 obtained from MassDOT crash portal. The TIA stated that that the intersection crash rates are lower than the MassDOT District 5 and Statewide averages and no notable safety trends were identified that require further investigation. TEC concurs with the crash analysis methodology and findings based on the compiled data. No response required.*

   No response required

6. *Site trip generation calculations for 55 residential dwelling units were generated based on the ITE Trip Generation Manual, 11th Edition, Land Use Code (LUC) 221 – Multifamily Housing (mid-rise) because the Applicant is proposing 4-story structures. TEC generally concurs with this methodology and selection of LUC 221 as the ITE Trip Generation Manual is an industry standard and the latest edition was utilized. The site plan currently depicts only 52 units. The total peak hour trips (the sum of all entering and exiting traffic) will equate to an average of one trip every three minutes. The traffic generated by the proposed project was reasonably distributed onto the adjacent roadway system based on the Journey-to-work data by the U.S. Census Bureau for persons living in the Town of Scituate and the current travel patterns for Country Way, which is consistent with industry standards for new projects. No response required.*

   No response required

7. *The Build traffic volumes were grown to 2030 to cover 7-year planning horizon from time of data collection (2023). TEC concurs with this methodology as 7-year planning horizon aligns with MassDOT Transportation Impact Assessment (TIA) Guidelines. No response required.*

   No response required

8. *TEC generally concurs with the results of the capacity and queue analysis provided as part of the TIA utilizing Highway Capacity Manual (HCM) 6th Edition methodology for the unsignalized intersections. The 2030 Build condition shows acceptable levels of service and maintains low delays in relation to the No-Build scenario. No response required.*

   No response required

9. *The TIA documented the 85th percentile travel speeds along Country Way, which are noted to be 37 MPH northbound and 35 MPH southbound. These travel speeds were measured by the ATR in February 2023. The measured speeds are higher than the posted speed limit of 30 MPH on Country Way. The sight distances reported in Table 9 of the*

TIA for the intersection of the intersection of Country Way and the proposed site driveway do not appear to be accurate. Although the TIA references the American Association of State Highway and Transportation Officials (AASHTO) guidelines, the traffic engineer's assessment does not use acceptable criteria for the vantage point of a vehicle seeking to enter Country Way from the proposed site driveway. VAI considered a vantage point only 9 feet away from the edge of Country Way, which is not an appropriate location. The current driveway geometry and the sight line obstructions created by the topography and retaining wall on the abutting property to the south (#809 Country Way) presents a significant and constant obstruction to sight lines and will likely create an unsafety access condition for the Applicant's project. TEC recommends that the Applicant adjust the site design and/or work with the abutting property owner to modify their site to provide sight lines that exceed AASHTO's minimum recommended criteria for 37 miles per hour, or preferably 40 miles per hour. This equates to a sight line requirement of at least 305 feet when measured from the middle of the approaching northbound lane on Country Way to a vantage point that is 14.5 feet behind the existing edge of Country Way at the Applicant's proposed driveway. This is a significant design issue that the Applicant should address before the Planning Board considers approval of the application.

The traffic consultant is currently working on this response.

<u>*Site Plan & Benefit Improvement Plan*</u>

10. *The sight line triangles for the site driveway intersection with Country Way should be shown on the Site Plans along with a note to indicate: "Signs, landscaping and other features located within sight triangle areas shall be designed, installed, and maintained so as not to exceed 2.5- feet in height. Snow windrows located within sight triangle areas that exceed 36 inches in height or that would otherwise inhibit sight lines shall be promptly removed."*

    The note has been added to sheet 15.

11. *TEC recommends that a crosswalk and stop sign with a painted stop bar be provided at the end of the driveway consistent with the Manual on Uniform Traffic Control Devices (MUTCD) standards.*

    A crosswalk and stop sign with painted stop bar are being provided.

12. *The site plans should include sign details specifying a minimum mounting height of 7 feet to the bottom of the sign. This sheet should also include a crosswalk and stop line marking details. A note should be added to the site plans stating the following: "All signs and pavement markings to be installed within the Project site shall conform to the Manual on Uniform Traffic Control Devices (MUTCD) where applicable."*

    Details and note have been added to sheet 19.

13. *A portion of the rear drive aisle and the drive aisle for the 12-space parking lot to the south appear to be 20 feet or less in width. Access to the parking stalls in those areas will be very difficult. TEC recommends 24-foot-wide drive aisles for this site. The parking stalls are currently shown angled in the Applicant's June resubmission. If the parking stalls are not oriented at 90-degrees to the aisle, it will make departure movements from those stalls very challenging for the future residents on the site. See prior TEC comment #5 that relates*

to TEC's concerns about the cross-slope grading issues for parking along the northerly edge of the main driveway aisle.

The parking spaces have been reconfigured and relocated.

14. *A revised truck turning analysis should be provided for a large single-unit (SU) truck (representative of a package delivery truck) and a trash/refuse truck. The turning analysis should demonstrate that the subject vehicles can access and circulate within the project site and access the dumpster enclosure in an unimpeded manner without traversing curb lines and striped parking stalls.*

    The proposed SU truck turning analysis is provided with this response.

15. *The Applicant should consider identifying an area for visitor parking with accompanying signs in a location that is central to the four buildings.*

    The south parking lot will be designated as visitor parking.

16. *The Benefit Improvement Plan currently depicts a limited sidewalk improvement that does not provide a full connection to the site. The proposed 4-foot-wide sidewalk will not meet current standards for the Americans with Disabilities Act (ADA) or the Massachusetts Architectural Access Board (AAB) requirements. Considering the absence of pedestrian accommodations on Country Way in the vicinity of the project site and in front of #809 Country Way, and the likely desire for the project's future residents to walk to the MBTA station or the commercial district to the south, TEC recommends that the Town requires the Applicant to construct a minimum 5-foot wide cement concrete sidewalk with vertical granite curbing between the project site and the current sidewalk terminus that lies approximately 580 feet south of the site driveway. This multi-modal improvement will likely require coordination with one or more property owners that have frontage along Country Way due to potential temporary and permanent easements for the sidewalk, driveway transitions, or grading behind the sidewalk.*

    There's no longer a public benefit sidewalk proposed. The applicant is not looking for a special permit any further.

If you have any questions, please do not hesitate to call.

Sincerely,

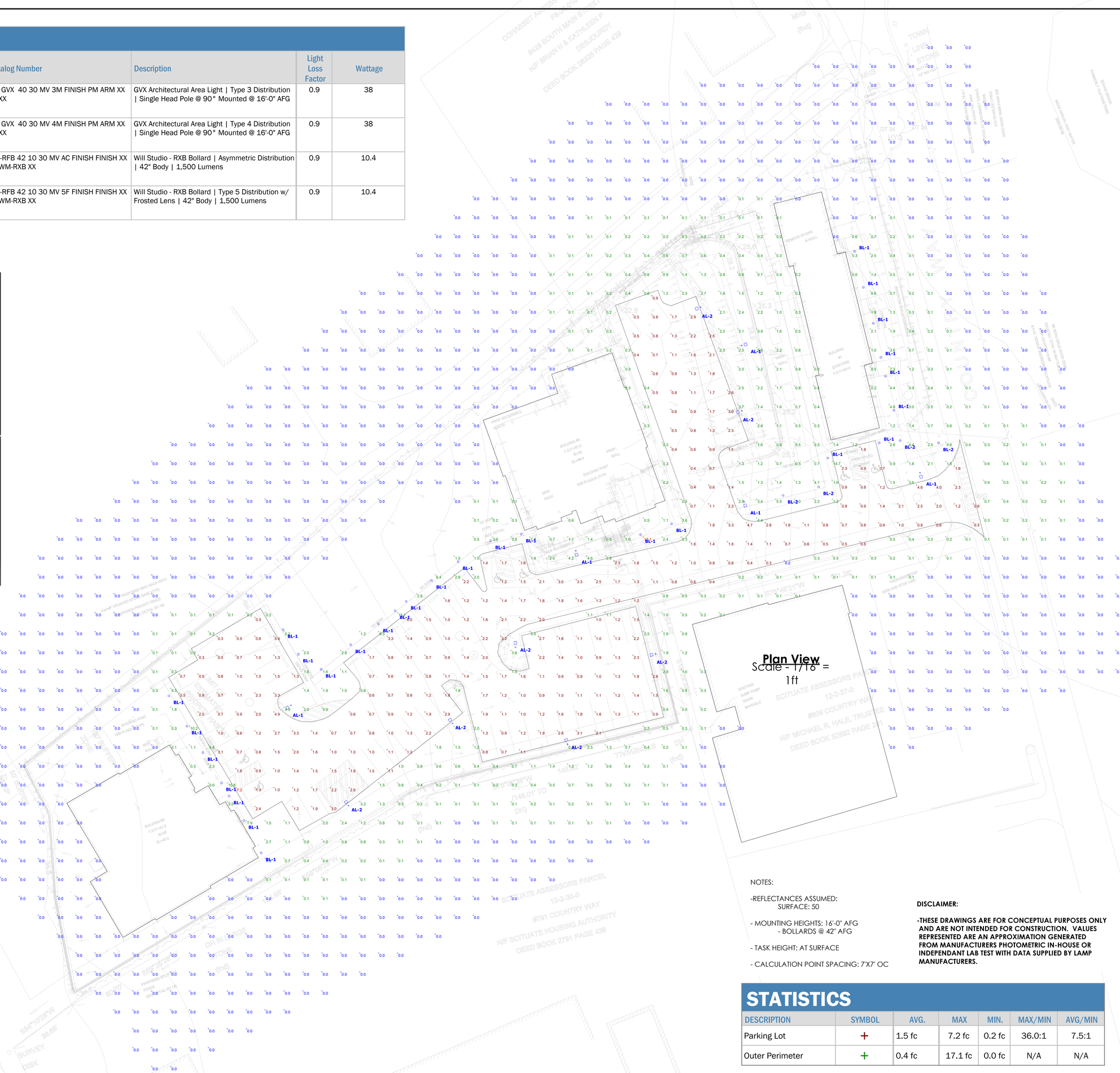
GRADY CONSULTING, L.L.C.

Kevin Grady, P.E.,
Principal

Cc: Option C Properties, LLC
Chris Bruce, Manager
P.O. Box 263, Weymouth MA 02190

SCHEDULE

Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Light Loss Factor	Wattage
	AL-1	5	WILL Lighting	WS GVX 40 30 MV 3M FINISH PM ARM XX XX XX	GVX Architectural Area Light | Type 3 Distribution | Single Head Pole @ 90° Mounted @ 16'-0" AFG	0.9	38
	AL-2	7	WILL Lighting	WS GVX 40 30 MV 4M FINISH PM ARM XX XX XX	GVX Architectural Area Light | Type 4 Distribution | Single Head Pole @ 90° Mounted @ 16'-0" AFG	0.9	38
	BL-1	28	WILL Lighting	WD-RFB 42 10 30 MV AC FINISH FINISH XX XX WM-RXB XX	Will Studio - RXB Bollard | Asymmetric Distribution | 42" Body | 1,500 Lumens	0.9	10.4
	BL-2	4	WILL Lighting	WD-RFB 42 10 30 MV 5F FINISH FINISH XX XX WM-RXB XX	Will Studio - RXB Bollard | Type 5 Distribution w/ Frosted Lens | 42" Body | 1,500 Lumens	0.9	10.4



STATISTICS

DESCRIPTION	SYMBOL	AVG.	MAX	MIN.	MAX/MIN	AVG/MIN
Parking Lot	+	1.5 fc	7.2 fc	0.2 fc	36.0:1	7.5:1
Outer Perimeter	+	0.4 fc	17.1 fc	0.0 fc	N/A	N/A

817 Country Way
Scituate MA
10-10-2023

Designer
RJL
Date
01/23/2023
Scale
Not to Scale
Drawing No.
Job No.

2 SECOND FLOOR
3/16" = 1'-0"

TOTAL BUILDING AREA
13,940 SQ. FT

10 RESIDENTIAL UNITS
2 ONE BEDROOM UNITS
6 TWO BEDROOM UNITS
2 THREE BEDROOM UNITS

1 FIRST FLOOR PLAN
3/16" = 1'-0"

AXIOM ARCHITECTS

AXIOM ARCHITECTS
2049 WASHINGTON STREET
HANOVER, MASSACHUSETTS 02339
(781)871-2101 (781)871-7509

NEW RESIDENTIAL BUILDING

817 COUNTRY WAY, SCITUATE MA

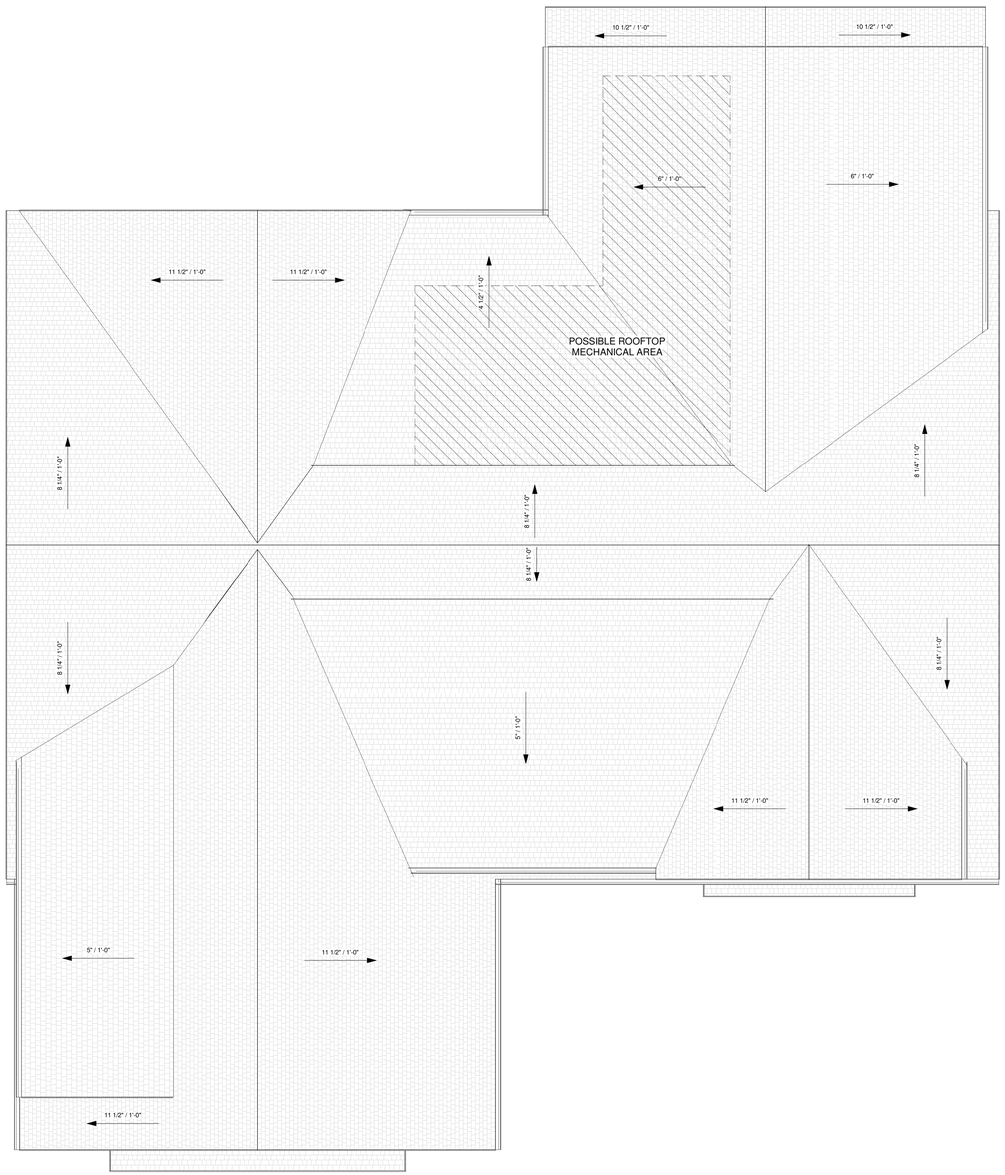
AXIOM

DESIGN SET
BUILDING 2

FLOOR PLANS

DATE: OCTOBER, 2023
SCALE: 3/16" = 1'-0"
FILE 2125

A101



A104 2

2 ROOF PLAN
3/16" = 1'-0"

1 3RD FLOOR
3/16" = 1'-0"

AXIOM ARCHITECTS

AXIOM ARCHITECTS
2048 WASHINGTON STREET
HANOVER, MASSACHUSETTS 02339
(781)871-2101 (781)871-7509

NEW RESIDENTIAL BUILDING

817 COUNTRY WAY, SCITUATE MA

AXIOM

DESIGN SET
BUILDING 2

FLOOR PLANS

DATE: OCTOBER, 2023
SCALE: 3/16" = 1'-0"
FILE 2125

A102

BUILDING HEIGHT REQUIREMENT REFERENCE

TOTAL BUILDING HEIGHT:

REQUIREMENT - MAXIMUM 4 STORY, **40' - 0"**

PROPOSED - 4 STORY, **32' - 11"** TO ROOF MIDPOINT

1 FRONT ELEVATION
3/16" = 1'-0"

4 EAST ELEVATION
3/16" = 1'-0"

AXIOM ARCHITECTS

AXIOM ARCHITECTS
2048 WASHINGTON STREET
HANOVER, MASSACHUSETTS 02339
(781)871-2101 (781)871-7509

NEW RESIDENTIAL BUILDING

817 COUNTRY WAY, SCITUATE MA

AXIOM

DESIGN SET
BUILDING 2

BUILDING ELEVATIONS

DATE: OCTOBER, 2023
SCALE: 3/16" = 1'-0"
FILE 2125

A103

1 REAR ELEVATION
3/16" = 1'-0"

2 WEST ELEVATION
3/16" = 1'-0"

AXIOM ARCHITECTS

AXIOM ARCHITECTS
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HANOVER, MASSACHUSETTS 02339
(781)871-2101 (781)871-7509

NEW RESIDENTIAL BUILDING

817 COUNTRY WAY, SCITUATE MA

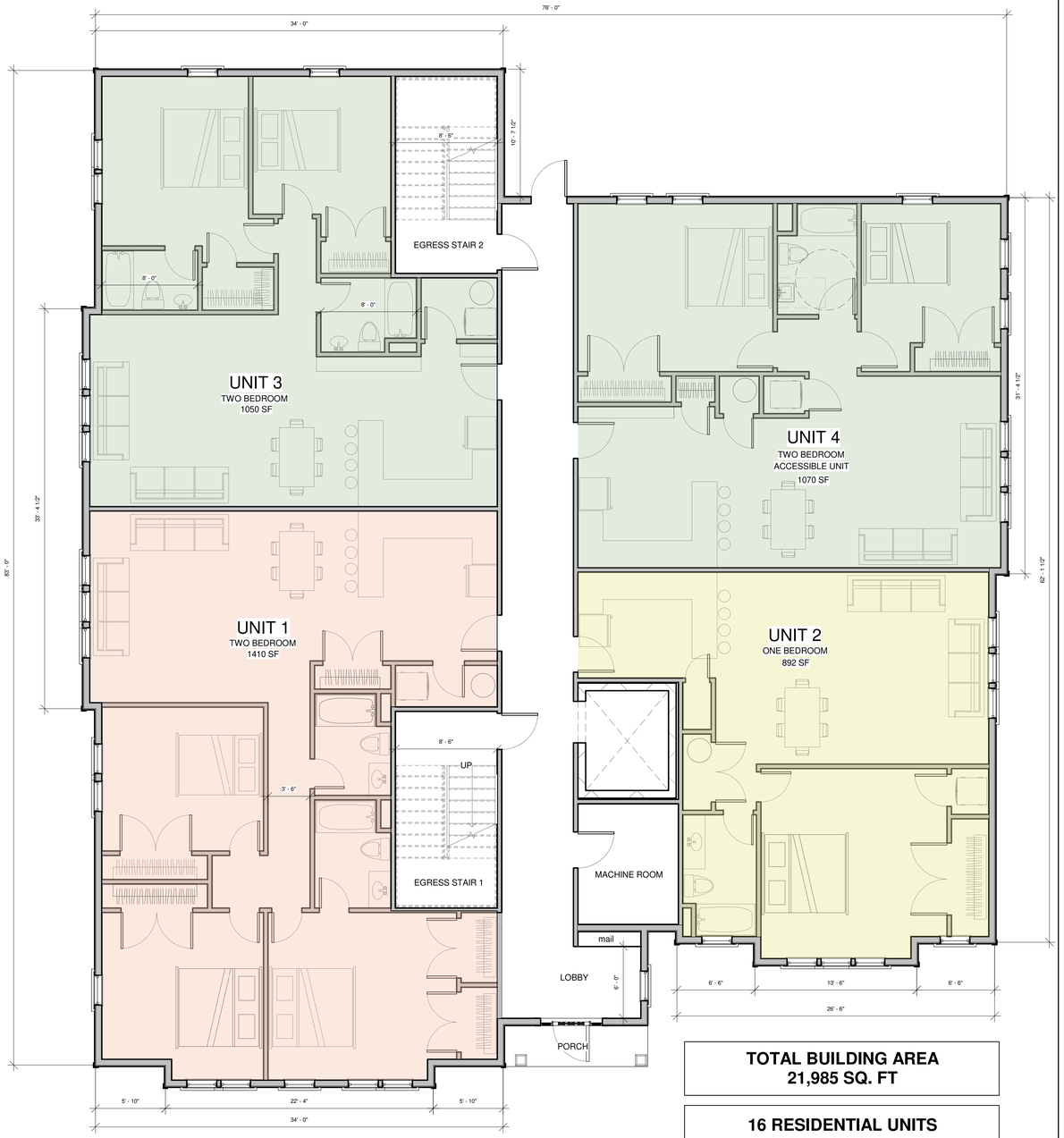
AXIOM

DESIGN SET
BUILDING 2

BUILDING ELEVATIONS

DATE: OCTOBER, 2023
SCALE: 3/16" = 1'-0"
FILE 2125

A104



1 BEDROOM UNIT
2 BEDROOM UNIT
3 BEDROOM UNIT

TOTAL BUILDING AREA
21,985 SQ. FT

16 RESIDENTIAL UNITS
1 ONE BEDROOM UNITS
11 TWO BEDROOM UNITS
4 THREE BEDROOM UNITS

2 SECOND FLOOR
3/16" = 1'-0"

1 FIRST FLOOR PLAN
3/16" = 1'-0"

AXIOM ARCHITECTS

AXIOM ARCHITECTS
2049 WASHINGTON STREET
HANOVER, MASSACHUSETTS 02339
(781)871-2101 (781)871-7509

COUNTRY WAY ESTATES

817 COUNTRY WAY, SCITUATE MA

AXIOM

DESIGN SET
BUILDING 3

FLOOR PLANS

DATE: OCTOBER, 2023
SCALE: 3/16" = 1'-0"
FILE 2125

A101

2 4TH FLOOR
3/16" = 1'-0"

1 3RD FLOOR
3/16" = 1'-0"

AXIOM ARCHITECTS

AXIOM ARCHITECTS
2048 WASHINGTON STREET
HANOVER, MASSACHUSETTS 02339
(781)871-2101 (781)871-7509

COUNTRY WAY ESTATES

817 COUNTRY WAY, SCITUATE MA

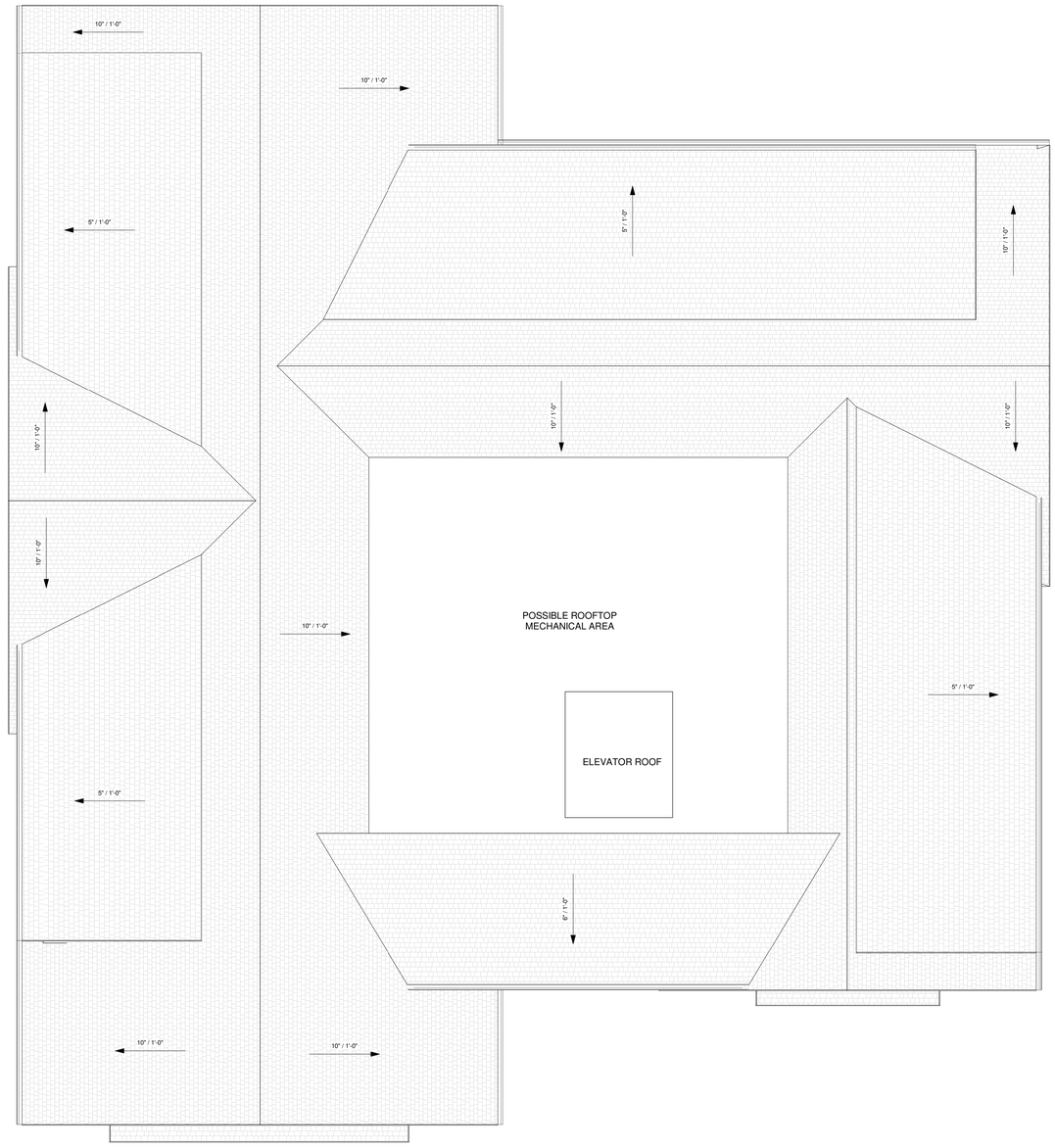
AXIOM

DESIGN SET
BUILDING 3

FLOOR PLANS

DATE: OCTOBER, 2023
SCALE: 3/16" = 1'-0"
FILE 2125

A102



1 ROOF PLAN
3/16" = 1'-0"

AXIOM ARCHITECTS

AXIOM ARCHITECTS
2048 WASHINGTON STREET
HANOVER, MASSACHUSETTS 02339
(781)871-2101 (781)871-7509

COUNTRY WAY ESTATES

817 COUNTRY WAY, SCITUATE MA

AXIOM

DESIGN SET
BUILDING 3

ROOF PLAN

DATE: OCTOBER, 2023
SCALE: 3/16" = 1'-0"
FILE 2125

A103

BUILDING HEIGHT REQUIREMENT REFERENCE

TOTAL BUILDING HEIGHT:

REQUIREMENT - MAXIMUM 4 STORY, **40' - 0"**

PROPOSED - 4 STORY, **38' - 4"** TO ROOF MIDPOINT

1 FRONT ELEVATION
3/16" = 1'-0"

4 EAST ELEVATION
3/16" = 1'-0"

AXIOM ARCHITECTS

AXIOM ARCHITECTS
2048 WASHINGTON STREET
HANOVER, MASSACHUSETTS 02339
(781)871-2101 (781)871-7509

COUNTRY WAY ESTATES

817 COUNTRY WAY, SCITUATE MA

AXIOM

DESIGN SET
BUILDING 3

BUILDING ELEVATIONS

DATE: OCTOBER, 2023
SCALE: 3/16" = 1'-0"
FILE 2125

A104

1 REAR ELEVATION
3/16" = 1'-0"

2 WEST ELEVATION
3/16" = 1'-0"

AXIOM ARCHITECTS

AXIOM ARCHITECTS
2048 WASHINGTON STREET
HANOVER, MASSACHUSETTS 02339
(781)871-2101 (781)871-7509

COUNTRY WAY ESTATES

817 COUNTRY WAY, SCITUATE MA

AXIOM

DESIGN SET
BUILDING 3

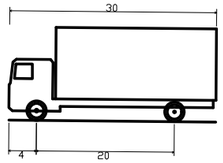
BUILDING ELEVATIONS

DATE: OCTOBER, 2023
SCALE: 3/16" = 1'-0"
FILE 2125

A105

DRAIN PIPE ANALYSIS

OUT FROM	IN TO	INV OUT	INV IN	DIA	LENGTH	SLOPE	VELOCITY (fps)
DMH11	SSD3	19.40	19.30	12	42	0.002	2.2
CB10	DMH 11	19.50	19.40	12	30	0.003	2.6
CB13	DMH 11	19.90	19.80	12	12	0.008	4.2
CB1	DMH2	33.90	33.80	12	29	0.003	2.7
CB5	DMH2	34.00	33.80	12	35	0.006	3.4
CB4	DMH2	33.90	33.80	12	10	0.010	4.5
DMH2	SSD1	36.70	36.60	12	30	0.003	2.6
CB6	DMH7	36.90	36.80	12	16	0.006	3.6
CB 9	DMH7	36.90	36.80	12	16	0.006	3.6
DMH7	SSD2	36.70	36.60	12	30	0.003	2.6
SSD1	DP3	35.00	19.00	2	267	0.060	3.4
SSD2	DP1	38.70	35.60	6	23	0.135	10.5
SSD3	DP3	19.40	18.40	10	14	0.071	10.8
SSD4	DP1	37.00	34.80	4	10	0.220	10.3
SSD4	DP2	36.50	36.00	4	60	0.008	2.0
SSD5	DP3	31.00	19.00	2	175	0.069	3.6
SSD6	DP1	20.00	19.00	4	100	0.010	2.2



SU-30 - Single Unit Truck

Overall Length	30.000ft
Overall Width	8.000ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.367ft
Track Width	8.000ft
Lock-to-lock time	5.00s
Max Steering Angle (Virtual)	31.80°

COHASSET ASSESSORS PARCEL F8-36-015
#429 SOUTH MAIN STREET
N/F BRIAN N & KATHLEEN P DESJOURDY
DEED BOOK 28328 PAGE 429

COHASSET ASSESSORS PARCEL F8-36-014
#431 SOUTH MAIN STREET
N/F JOHN AND JULIE P. DEWAAL
DEED BOOK 12606 PAGE 37

N51°16'37"E 192.05'

PROP. WALL

PROPOSED RAMP

PROP ACCESSIBLE ROUTE

38.46'

N47°24'51"E

BIKE RACK

N53°09'26"E 107.56'

PROP ACCESSIBLE ROUTE

PROP. WALL

55.00'

N47°59'56"E

PROPOSED PRIVACY FENCE (SEE DETAIL SH 18)

COHASSET SCITUATE

N51°42'45"E 252.73'

BUILDING #2
T.O.F.=37.0
SLAB EL=36.0

BUILDING POST W/# PLAQUE (TYP)

HC SIGN (TYP) (SEE DETAIL SH 19)

PROP. RAIL

PROP ACCESSIBLE ROUTE

PROP. STEPS

RETAIN EXISTING WALL

REMOVE WALL SECTION

BUILDING #1
(EXISTING)
T.O.F.=24.4

PROP PAVED WALKWAY

PROPOSED STONE RETAINING WALL

4" ø ROOF DRAIN & SUMP

RD

DT 34

DT 24

CBASIN

MHD (NYD)

PCC 5+93.58

6+00

HYD

WG

EHH

UP 954

HC SIGN

PROP DIRECTORY SIGN

PROP PAVED WALKWAY

244.32' S14°13'39"E

COUNTRY WAY

5+00

4+00

3+00

BUILDING POST W/# PLAQUE (TYP)

HC SIGN

PROP PAVED WALKWAY

PROP ACCESSIBLE ROUTE

HC SIGN

HC SIGN

TREE LINE

BUILDING #3
T.O.F.=41.3
SLAB EL=40.3

PROPOSED GUARDRAIL

VISITOR PARKING SIGN

PROP. WALL

S75°46'21"W 171.26'

S15°29'39"E 64.40'

PROPOSED STOP SIGN AND STOP LINE

PROPOSED 6 FT WIDE PAINTED CROSSWALK

EXISTING SUMP PUMP DRAIN MANHOLE

STONEWALL

S76°02'36"W 145.62'
(146.01' TO DH)

DH (fnd)

DH (fnd)

134.98' S59°06'28"W

80.70' S59°25'28"W

DH IN LARGE STONE (fnd)

PROPOSED BIKE RACK WITH 4'x4'x6" CRUSHED STONE BASE (TYP)

SCITUATE ASSESSORS PARCEL 12-2-30-0
#791 COUNTRY WAY
N/F SCITUATE HOUSING AUTHORITY
DEED BOOK 2791 PAGE 436

SCITUATE ASSESSORS PARCEL 12-2-37-0
#809 COUNTRY WAY
N/F MICHAEL R. HALE, TRUSTEE
DEED BOOK 52892 PAGE 291

NOTES:
1. SIGHT DISTANCES SHOWN HEREON ARE BASED UPON THE AASHTO TRAFFIC CODE, 6TH EDITION, PER