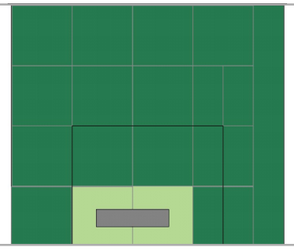
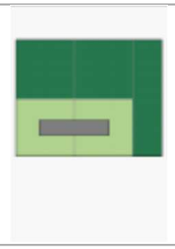
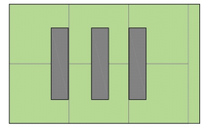
| THIS IS A DRAFT FOR DISCUSSION PURPOSES ONLY. THESE ARE APPROACHES, NOT SITE-SPECIFIC | **Multi-Family Conservation Cluster**<br>Minimum Density on Maximum Land | **Mid-Scale Development on Multiple Large Sites**<br>Maximum Density on Maximum Land | **Mid-Scale Development on Multiple 5-Acre Sites**<br>Maximum Density on Medium Land | **Large-Scale Development on One Site**<br>Maximum Density on Minimum Land |
|---|---|---|---|---|
| | 3 units/2 acres on 32 2-acre lots | 15 units/acre on 3 15+ acre lots each w/~13+ acres open | 15 units/acre on 3 5-acre lots each w/~3-acres open space | 15 units/acre on 1 6.33-acre Lot |
| | 32 3-unit developments | 1 31-unit + 2 32-unit developments | 1 31-unit + 2 32-unit developments | 95-unit development |
| **Water/WasteWater Required for Full Build:** | Private Septic and Private Well | Private Septic and Onsite Public Water Supply Wells | Private Septic and Piped Public Water OR WW Treatment Plant and Onsite Public Water Supply Wells | WW Treatment Plant and Onsite Public Water Supply Wells |
| **(Authority Having Jurisdiction) Septic:** | Board of Health (8 BR) | Board of Health (60 BR) | Board of Health (60 BR) | MA DEP (min 91 BR) |
| Nitrogen Loading: | 110 gal/BR/day for conventional 4 BR/acre system | 110 gal/BR/day for conventional 4 BR/acre system | 110 gal/BR/day for conventional 4 BR/acre system | NA |
| Leach Field: | 165 gal/BR/day design flow | 165 gal/BR/day design flow | 165 gal/BR/day design flow | |
| **Percentage of Town Area: (15.5 sq.mi = 9220 acres)** | 0.69% | 0.49% | 0.16% | 0.07% |
| **Typology Diagram:** |  |  |  |  |
| **Number of Parcels/Locations** | 32 (min 8 locations of (4) 2-ac parcels) | 3 | 3 | 1 |
| Acres Zoned | 64 | 45+ | 15 | ~6.33 |
| Acres Developed | 5.25 (8.2% of each lot) | 6.33 | 6.33 | 6.33 |
| Acres Open | 58.75 | 38.67 | 8.67 | nominal |
| Acres Protected | TBD, could be ~90% of each 2-acre lot | TBD, could be ~80% of each 15+ acre lot | TBD, could be ~60% of each 5 acre lot | None Likely |
| Development Density | 1.5 units/acre | 15 units/acre | 15 units/acre | 15 units/acre |
| Parcel Density | 1.5 units/acre | 2.13 units/acre | 6.4 units/acre | 15 units/acre |
| **Likelihood / Timeframe:** | | | | |
| Likelihood of Full Build | Possible (depending on economics for each lot) | High | Medium-Low (due to land constraints for septic) | High-Medium (is lot consolidation required?) |
| Likely Alternative to Full Build | No build | Conservation Cluster of x units likely lower value | ~10-unit, 20 BR development to comply with Title 5, sited on 2 acres | up to 20-unit, 20 BR development to comply with Title 5, sited on full ~6-ac parcel |
| Timeframe for Build-Out | Incremental over many years | Near-term | Medium-term but for smaller projects | All at once, could be near-term |
| **Considerations:** | | | | |
| Abutters | Most | Moderate | Limited | Fewest |
| Impact to Abutters | Lowest impact | Low-medium impact | Medium-high impact | Highest impact |
| Current Allowed Units on Parcel | 2: 1 SFH, 1 ADU | 14: 7 SFH, 7 ADU | 4: 2 SFH, 2 ADU | 6: 2 SFH, 2 ADU |
| Current Units on Parcel | 1 (in most cases) | Depends on sites chosen | Depends on sites chosen | Depends on site chosen |
| # of New Units Added | 64 | 95 (if on vacant or commercial land) | 95 (if on vacant or commercial land) | 95 (if on vacant or commercial land) |
| Development Density Increase | 1.5x | 15x | 15x | 15x |
| Parcel Density Increase | 1.5x | 2.14x | 7.5x | 15x |
| **Alignment with Housing Production Plan:** | | | | |
| Missing Middle | yes | yes | yes | yes |
| Affordable units | no | maybe, up to 10% of units | maybe, up to 10% of units | yes, up to 10% of units |
| Passive income potential | yes | no | no | no |
| **Alignment w/Master Plan:** | | | | |
| **1B** Protect Portions of Private land | yes | yes | maybe | no |
| **19A** Consider adopting alternative Open Space Residential Dev. or Cluster with smaller min. acreage | yes | yes | yes | no |

| | | | | |
|---|---|---|---|---|
| **20B** Housing Diversity & Missing Middle Housing | yes | yes | yes | yes |
| **Considerations:** | | | | |
| Risk to Water Supply: | Lowest risk of water depletion, disperses water consumption | Low risk of water depletion | Medium-high risk of water depletion | Highest risk of water depletion (unless piped system), concentrates water consumption |
| Risk of Groundwater Contamination: | 8-bedroom septic most well-understood | harder to predict potential impacts | harder to predict potential impacts | harder to predict potential impacts |
| Environmental (water/wastewater): | Relies on private septic and well, which is condition all over town | site and permit specific | site and permit specific | site and permit specific |
| Ecological (surface water/habitat): | Limited new disturbance | More ecologically sensitive option than existing zoning | More ecologically sensitive option than existing zoning | Destruction of habitat from clear-cutting |
| Carbon: | Reuse of existing structures maintains embodied carbon & reduces use of new materials | Shared walls reduces carbon footprint / New construction increases carbon footprint, runoff from impervious surface | Shared walls reduces carbon footprint / New construction increases carbon footprint, runoff from impervious surface | Shared walls reduces carbon footprint / New construction increases carbon footprint, runoff from impervious surface |
| Traffic: | Least impact to traffic, disperses traffic | Moderate impact to traffic | Moderate impact to traffic | Greatest impact to traffic, concentrates traffic |
| Historic Resources: | Compatible with Carlisle's historic character, potential for reuse of historic structures, could be subject to design guidelines | Potential for reuse of historic structure (i.e., Assurance Tech) / could be subject to design guidelines | Similar scale to Benfield, could be subject to design guidelines | Amount of units/site incompatible with Carlisle's historic character / could be subject to design guidelines |
| Fiscal Impact (full analysis under development separately): | Gradual fiscal impact | | | "All at once" fiscal impact |
| Legal Questions: | | spot zoning? | spot zoning? | spot zoning? |
| **Priority Criteria for Siting:** | 1. Water & septic safety, sustainability<br>2. Minimize new disturbance in wetland areas<br>3. Land conservation & habitat preservation<br>4. Road capacity | 1. Water & septic safety, sustainability<br>2. Large sites that could otherwise be SFH subdivisions<br>3. Reuse of historic structures (i.e., Assurance Technology)<br>4. Land conservation & habitat preservation<br>5. Road capacity | 1. Water & septic safety, sustainability<br>2. Road capacity<br>3. Minimize new disturbance in wetland areas<br>4. Land conservation & habitat preservation | 1. Water & septic safety, sustainability<br>2. Road capacity |
| **Master Plan Site Considerations:** | | | | |
| **10A** Identify Opportunities to improve connectivity of trails/pathways | | | | |
| **15E** Incorporate Environmental Sustainability impacts into decision making | | | | |

| | | | | |
|---|---|---|---|---|
| **FISCAL IMPACT INPUTS** | **At this time (March 2025), the inputs are intended to guide an initial analysis, they are not final metrics endorsed by the Planning Board.** | | | |
| **Assumptions** | **HIGHEST BUILD-OUT SCENARIO** | **HIGHEST BUILD-OUT SCENARIO** | **HIGHEST BUILD-OUT SCENARIO** | **HIGHEST BUILD-OUT SCENARIO** |
| Septic | Scenario maxes out conventional septic | Scenario maxes out conventional septic | Scenario maxes out conventional septic | Wastewater Treatment Plant |
| Highest Build-Out Timeframe | All 32 developments built around same time | All 3 developments built around same time | All 3 developments built around same time | All 95 units in one development, built at one time |
| Total Units | 96 | 95 | 95 | 95 |
| Unit Size (avg) | 1,300 SF | 1,300 SF | 1,300 SF | 1,300 SF |
| BR per Unit (avg) | 2.67 | 1.89 | 1.89 | 2 |
| Total Bedrooms | 256 (max) | 180 (max) | 180 (max) | 190 |
| Unit/BR Mix | 32 2-BR, 64 3-BR (1 2-BR, 2 3-BR ea) | 10 1-BR, 85 2-BR* | 10 1-BR, 85 2-BR* | 95 2-BR* |
| Children per BR (avg) | 1.25** | .94** | .94** | 1** |
| Total Children | 320 | 170 | 170 | 190 |
| Anticipated Municipal Costs | | | | |
| Fire | | | | |
| Police | | | | |
| DPW | | | | |
| Schools | | | | |
| Net Existing Zoned Unit Cost | | | | |
| Total | | | | |
| Net Existing Built Unit Cost | | | | |
| Total | | | | |

| | | | | |
|---|---|---|---|---|
| Anticipated New Build Tax Revenue | | | | |
| Condos | | | | |
| Rental | | | | |
| Net Existing Zoned Unit Tax Revenue | | | | |
| Total | | | | |
| Net Existing Built Unit Tax Revenue | | | | |
| Total | | | | |
| Projected Costs - Revenue: | | | | |
| **Assumptions** | **MORE LIKELY BUILD-OUT SCENARIO** | **MORE LIKELY BUILD-OUT SCENARIO** | **MORE LIKELY BUILD-OUT SCENARIO** | **MORE LIKELY BUILD-OUT SCENARIO** |
| Septic | | | | Wastewater Treatment Plant |
| Timeframe for Build-Out | | | | All 95 units in one development, built at one time |
| Total Units | | | | |
| Unit Size (avg) | | | | |
| BR per Unit (avg) | | | | |
| Total Bedrooms | | | | |
| Unit/BR Mix | | | | |
| Children per BR (avg) | | | | |
| Total Children | | | | |
| Anticipated Municipal Costs | | | | |
| Fire | | | | |
| Police | | | | |
| DPW | | | | |
| Schools | | | | |
| Net Existing Zoned Unit Cost | | | | |
| Total | | | | |
| Net Existing Built Unit Cost | | | | |
| Total | | | | |
| Anticipated New Build Tax Revenue | | | | |
| Condos | | | | |
| Rental | | | | |
| Net Existing Zoned Unit Tax Revenue | | | | |
| Total | | | | |
| Net Existing Built Unit Tax Revenue | | | | |
| Total | | | | |
| Projected Costs - Revenue: | | | | |

**Notes**

*Assume as many units as possible have 2 bedrooms

**Assume every 2nd and 3rd bedroom has 2 kids ea

***Staff working to obtain local data from new developments of similar sizes in towns with good schools to inform a 'more likely build-out scenario' for each approach

**What does 100% Area Median Income mean in terms of incomes and monthly rents?**

2024 HUD Income & Rent Limits for Boston-Cambridge-Quincy, MA - NH HUD Metro Fair Market Rent Area

BOSTON AREA 2024 WFH w-fy2024 FMRs.pdf

4 person household, 100% AMI = $148,900

30% of income for housing = $44,670

Monthly rent = $3,722.50

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