ARTICLE 2: SITE PLANNING

Draft 1/23/2025

I. Cohesive Development

Individual developments must work together to form a complete Town Center that is consistent with the purpose and intent of this section. Developments ten (10) acres and greater shall demonstrate that the system of blocks, streets, open space, and development mix promote a complete Town Center.

A. Incremental development is permitted; however, developments with less than ten (10) acres should be master planned together to form complete neighborhoods whenever possible, and, at a minimum, the Site and Building Plan shall demonstrate interconnection with adjacent existing or future development.

B. Development on the west side of Taft Highway should be interconnected with a north/south street between the Anderson Pike/Taft Highway intersection on the south to Timesville Road and from Timesville Road to Taft Highway near the Anderson Pike/Fairmount Pike/Taft Highway intersection on the north in a manner consistent with the Town of Walden Plan and adopted Subdivision Regulations.

II. Grading

Proposed development shall be designed in a manner that is sensitive to and enhances the natural features of the immediate site and its surroundings. This section shall apply to all projects that require Design Review.

A. **Clearing:** Excessive clearing of existing, mature vegetation is discouraged.
    a. Specimen trees, particularly within groups of mature vegetation, should be preserved and incorporated into the design of the development to the maximum extent possible.
    b. All Specimen Trees within 10 feet of any proposed septic fields shall be preserved.
    c. Tree removal shall be prohibited on natural slopes of 25% or greater

Commented [AG1]: Will need to be consistent with tree ordinance when adopted.

d. Tree removal within required stream buffers shall be prohibited. See Hamilton County Water Quality manual for required stream buffers
e. Clearing allowances for specific building types shall be permitted as follows:
    i. Principal building – not to exceed 40’ beyond the perimeter of the building
    ii. Detached accessory building – not to exceed 20’ beyond the perimeter of the building
    iii. Buildings under 100 square feet – not to exceed 5’ beyond the perimeter of the building
f. It is recommended that “Fire Wise” construction standards as established by the National Forestry Division be the basis for perimeter buffer clearing techniques and shall consist of primarily underbrush clearing.

B. **Grading:** Mass grading of sites should be avoided. Proposed development should be designed in a manner that works with the topographic form of the site.
    a. If large expanses of significant topographic change exist, the type of proposed development in such areas should be appropriate to the landform to avoid grading that significantly alters the landscape.
    b. The natural, existing topography of a site shall be used in development and grading shall be minimized.

C. **Stabilization:** Finished slopes shall be stabilized by perennial vegetative cover. Slope face stabilization by use of rip-rap or hydraulically applied concrete is prohibited. Slope stabilization must meet the standards of the Tennessee Erosion Control Handbook.

III. Drainage and Stormwater Control

A. **Location:** Stormwater drainage and detention systems shall not be viewable from the public right-of-way, unless the facility is designed in such a way that it becomes an attractive landscaped feature or water feature, such as a rain garden, bio swale, perimeter drain or a combination of techniques to allow infiltration and absorption of water onsite by means of planting native trees, shrubs grasses and perennials.

B. **Review:** All development must be reviewed by the Hamilton County Department of Water Quality.
   a. Land disturbance greater than one (1) acre requires a General Construction permit from Hamilton County Department of Water Quality and Stormwater Management Plan.
   b. Land disturbance under one (1) acre that is part of a larger development plan must also be covered by a General Construction permit and Stormwater Management Plan approved by the Hamilton County Department of Water Quality.
   c. All development, regardless of size, must be reviewed by the staff of the Hamilton County Department of Water Quality prior to the issuing of a building permit. If this review results in substantial changes to the project design after approval by the Design Review Commission, the changes must be reviewed by the Design Review Commission. The types of changes requiring review by the Design Review Commission are outlined in the section titled “Changes to Approved Plans,” under Article 1, Section V.

C. **Design Standards:** Stormwater Control Measures must meet the standards of the Hamilton County Stormwater Manual, January 2025 edition, or subsequent revisions. Permanent Stormwater Control Measures must be designed to meet the following criteria:
   a. Stormwater Quality Treatment: SCMs must be designed to achieve 80% removal of total suspended solids (TSS) from the water quality volume (WQv)

b. Downstream Channel Protection: The runoff volume from the 1-year, 24-hour storm event must be detained for no less than 24-hours
c. Flood Control (Detention): Post-development peak discharges must be no greater than predevelopment peak discharges up to the 2, 10, 25, 50, and 100-year, 24-hour storm events.
    i. Rare exemptions from the flood control (detention) standard may only be approved with a waiver from Hamilton County Water Quality based on the downstream hydrologic assessment. Such exemptions do not waive the Stormwater Quality Treatment and Downstream Channel Protection requirements.

Commented [AG2]: This exemption is sometimes needed to avoid two or more developments having peak runoff at the same time to the same stream, which would cause flooding issues.

D. **Design:** The selected Stormwater Control Measures (SCMs) will depend on the site conditions and geography. A variety of SCMs are available to meet the requirements of the Hamilton County Stormwater Manual, which are divided into four (4) tiers.
    a. Green stormwater infrastructure, in combination with stormwater harvest and reuse, shall be used to the maximum extent practical to treat stormwater and reduce runoff.
        i. Green stormwater infrastructure means engineered-as-natural ecosystems such as green roofs, porous pavement, swales and rain gardens that largely rely on using soil and vegetation to infiltrate, evapotranspirate, and/or harvest stormwater runoff and reduce flows to drainage collection systems.
    b. Large detention ponds are discouraged as the sole means of stormwater management unless such ponds can be designed in a naturalistic manner that complements the development and is part of a usable public space network.

E. Utilities

All utilities for new development or redevelopment in public or private right-of-way, shall be placed underground, except for extreme cases where underlying

rock or other barriers make this requirement unreasonable; or where certain appurtenances and accessories must be installed above ground for servicing. In such instances, above ground utility systems shall not be located between the building and the street.

F. Wastewater Treatment

Wastewater treatment shall meet the "Sanitary Wastewater Discharge Requirements" of the Walden Zoning Ordinance and shall be properly permitted by Hamiton County Ground Water Protection. Tennessee Department of Environment and Conservation and the Hamilton County Water & Wastewater Treatment Authority must approve all plans for decentralized systems. All proposed leach fields shall be included in the design plans.

Commented [AG3]: Design standards for decentralized systems require review and approval by TDEC. TDEC will not review plans for compliance with local government regulations. This is why these standards are typically set by local governments that own/operate their own sewer system or the utility district.

Walden could work with WWTA to improve their standards.

See TCA 68-221-102 (note that decentralized systems are considered a type of sewerage system).

We will not know the capacity of the soils for a decentralized system until soil mapping and testing is complete. A decentralized system may or may not be viable.

G. Open Space

A. Definitions

1. **Open Space** is intentionally undeveloped land not occupied by a structure or other impervious surface.
   i. Parking areas, driveways, buildings, required sidewalks along streets, public right-of-way, and individual private yards shall not be counted as open space.
   ii. Stormwater retention ponds may only count as open space if they are adequately landscaped with native species and amenities such as a path or bench are provided.
2. **Improved Open Space** means open space areas containing such amenities as: designed landscaping, architectural paving materials, passive or active recreational facilities, lawns,

Commented [AG4]: We need to determine of septic field areas will be considered open space. The leach fields for decentralized systems are typically grass fields that are fenced in and not open to the public. They require a lot of space. This will be a significant factor in the open space calculation and whether the Walden Town Center is developable.

parks, and/or trails made of pervious materials. Improved Open Space are open to the public and/or residents of the multi-family residential development.

3. **Natural Open Space** means areas that are largely undisturbed, retained in a natural state with no more than 10% of the area being subject to impacts, related to allowing for public access or use.
4. **Impervious surface area** means a surface which is compacted or covered with material that is resistant to infiltration by water. It is measured by the the number of square feet of horizontal surface covered by buildings, and other impervious surfaces.

B. Maximum Impervious Surface Coverage

1. **Planned developments with more than one lot**
   The impervious surface area shall not exceed 50% of the entire development.
2. **Single lot developments**
   The maximum impervious surface area shall not exceed 50% of the area of the lot. The Design Review Commission may grant an exception to allow greater lot coverage if the lot was originally included in a larger planned development previously approved by the DRC, and the proposed impervious area will not cause the development to exceed 50% of the impervious surface area.

C. Minimum Open Space Required

1. **Commercial or Mixed Use, 5 acres or larger**
   a. Minimum of ##% of the entire site shall be preserved as open space
   b. A minimum of ##% of the open space requirement (##% of the entire site) shall be incorporated into the developed areas as improved open space and neighborhood amenities.
   c. Greenways and trails within natural open space areas are encouraged and shall be counted towards the open space requirements.
2. **Commercial or Mixed Use under 5 acres:** Minimum of ##% of

Commented [AG5]: The land use plan has a goal of 50% open space for the entire Town Center area. The type of open space, and what counts as open space, is not specified.

the entire site shall be designed as open space.

3. **Multi-Family Residential:** Minimum of ##% of the entire site shall be designed as open space.
4. **Phased Developments:** Percentage space shall be calculated based on all phases combined. In other words, preserved open space in earlier phases will still count towards the open space requirement in later phases.
5. **Incentive for grass paving or pervious parking surfaces:** 25% of any parking surface that utilizes a grass paving system or pervious parking systems may count towards the minimum required improved open space requirement. A grass paving system shall be defined as interlocking concrete blocks or synthetic fibrous grids with open areas filled with grass which are laid on a prepared base of sand or crushed stone. A pervious parking surface should allow for infiltration of rainwater, providing for a significant reduction in runoff.

Commented [AG6]: Typically set higher than commercial because less parking is required and open space is important to provided for dwelling units.

Commented [AG7]: This could make a mixed use development more viable while reducing the impact of the parking lot and still providing adequate parking. The Planning Commission had a split opinion.

D. **Ownership and Maintenance**. Open spaces shall be owned and maintained as permanent open space by a homeowner's association, property owners' association, private or non-profit ownership with conservation easement, or public ownership when dedicated to and accepted by the Town of Walden or another appropriate public agency.

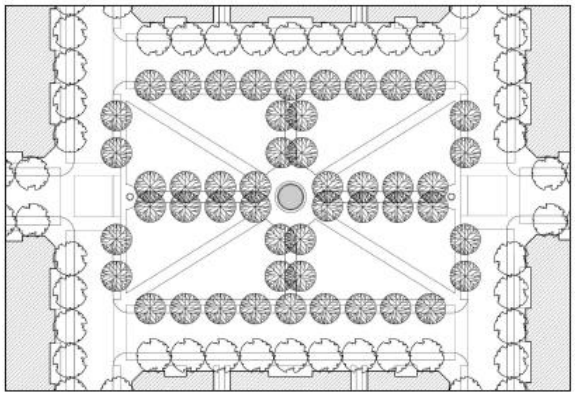
E. Open Space Standards

1. **Location.** Where location is not dictated by site geography, open space shall be allocated in a location that is readily accessible and useable by residents and users of the development.
   - Where possible, a portion of the open space should provide focal points for the development. These open spaces should be designed to serve as central gathering points for residents within the development and the Walden community.
   - Natural open space is encouraged to serve as a buffer between the development and adjacent properties in a manner to allow for larger tracts of contiguous open space
2. **Preservation of Sensitive Natural Features.** To the maximum extent practicable, sensitive environmental features of a site shall be protected.

a. Steep slopes shall follow the requirements regarding steep slopes and escarpments within the Walden Zoning Ordinance.
b. Perennial streams, wetlands, and their riparian corridors shall be incorporated into site plans and site designs as major amenities, with trails, seating, and appropriate supplemental vegetation. Buildings, parking areas, and other structures should be set back from such features a sufficient distance to ensure their continued quality and natural functions. Setback requirements must follow TDEC guidelines.
c. The developer and property owner shall be responsible for the erection and maintenance of barriers necessary to protect any existing or installed vegetation from damage both during and after construction.

2. **Open Space Types.** Standards for the types of open spaces permitted are established according to type on the following pages.

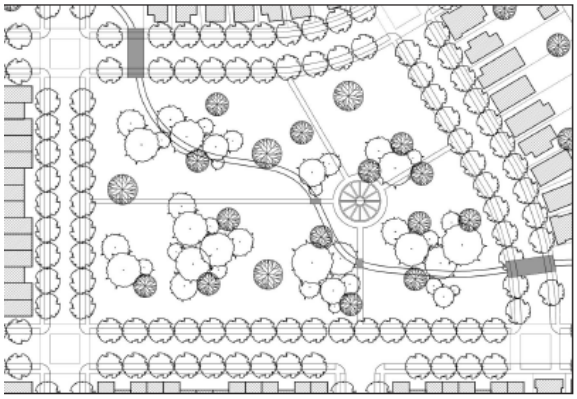
SQUARE



A Square is a formal open space that is composed of landscaped areas and is fronted on all sides by buildings that should contain commercial uses on the ground floor. The Town of Walden Plan envisions a square as a central focal point for the community.

Min. Size: 5,000 sf
Max. Size: 40,000 sf
Zone: TC-MU

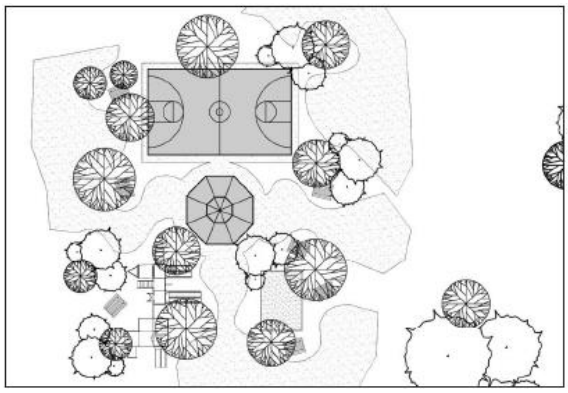
GREEN



A Green is a medium-sized formal or informal open space for unstructured recreation with residential buildings fronting all sides. Greens are composed of paved or unpaved walks; grassy areas; and shade trees.

Min. Size: 10,000 sf
Max. Size: 5 ac.
Zones: TC-MU, TC-R

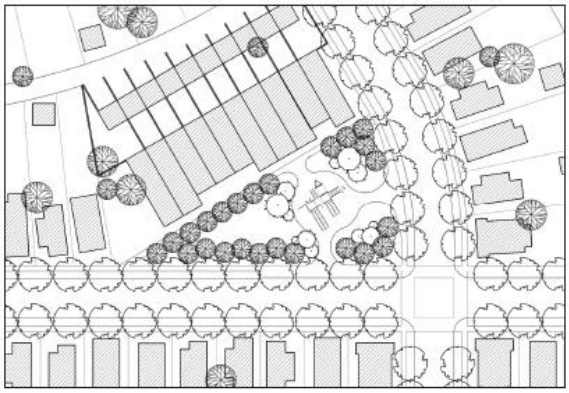
PLAYGROUND



A playground is a formal or informal open space that accommodates recreational equipment for children. Playgrounds may be included within Greens and should contain an open shelter; paved areas for court games; and space for spontaneous play. Ideally, playgrounds should be located within one quarter mile of dwelling units.

Min. Size: none
Max. Size: none
Sub-districts: TC-MU, TC-R

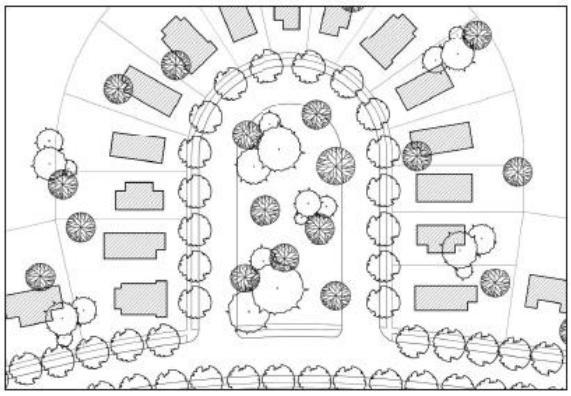
POCKET PARK



A Pocket Park is a formal or informal open space formed by the remaining space between streets, blocks, and buildings.

Min. Size: none
Max. Size: 1/2 block in length
Zones: TC-MU, TC-R

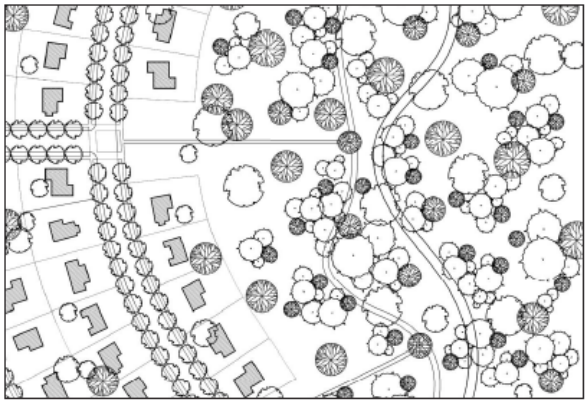
CLOSE



A Close is a dead-end street with open space in the center of the turnaround area. A Close is an acceptable alternative to a cul-de-sac when natural features require a dead-end street.

Min. Size: 100 ft. diameter
Max. Size: 1/2 ac.
Sub-districts: Both

GREENWAY/TRAIL



Greenway/Trail

A trail for recreation purposes along the edges of neighborhoods or natural areas such as rivers. Greenways are part of the open space network and provide a rural transportation network for pedestrians and cyclists.

Min. Size: none
Max. Size: none
Zones: TC-MU, TC-R