SUSTAINABLE DEVELOPMENT:
Incorporating Sustainability into Thornton's Development and Zoning Code

Spring 2022
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Problem

Our planet is warming. Climate change is real. Planners play a critical role. We must plan communities in ways that do not further exacerbate climate change and that protect residents from its impacts. Development and zoning codes are important tools planners can use to make cities more sustainable and resilient.

The City of Thornton's current code does not reflect or reinforce the vision and goals of the *2020 Comprehensive Plan*, Sustainability Action Agenda, and Energy Action Plan. The City will embark on an update to its code this year and wants to incorporate sustainability principles into the new development code and design standards.

Methodology

CURRENT CODE → **IMPORTANCE TO SUSTAINABILITY** → **CASE STUDIES & EXAMPLES** → **SUGGESTED CODE**

Existing Conditions

Analyze existing code

Identify code with potential for biggest sustainability impact

Why does it matter?

Research and explain the relationship between the code and sustainable development

Best Practices

Find case studies from similar communities

Identify best practices for sustainable code

Recommendations

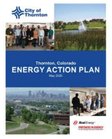
Identify a series of recommendations for Thornton to promote sustainability in its code update

Existing Plans

KEY TAKEAWAYS FROM THORNTON PLANS

COMMERCIAL	RESIDENTIAL
Provide quality services and amenities.	Create a mix of housing options for different lifestyles.
Support economic vitality.	Create neighborhood connections.
Provide more opportunities to live, work and play.	Create high-quality, walkable neighborhoods.
Grow smarter and greener.	Promote sustainable development practices.

Incorporate businesses that work in sustainability.	Promote energy efficiency and sustainable design.
Create more higher paying jobs.	Enhance safe transit, walking, and bike connections.
Establish TOD areas.	Increase open spaces and parks, promote active living.



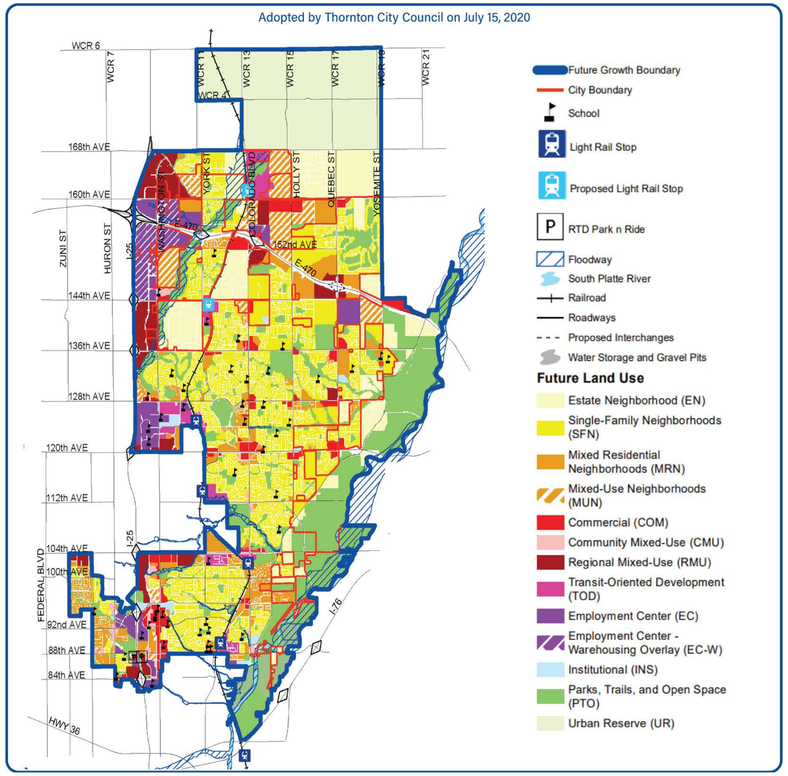
Upgrade lighting fixtures.	Reduce greenhouse gas emissions by 50% by 2030.
Reduce greenhouse gas emissions.	Promote smart, green, equitable development.
Increase energy efficiency in businesses.	Promote energy efficiency programs and education.

Thornton's Sustainability Framework

Source: Thornton Sustainability Action Agenda (2020)

Future Land Use Map - City of Thornton

Adopted by Thornton City Council on July 15, 2020



Source: Thornton Comprehensive Plan (2020)

Recommendations: Commercial

REQUIRE THE USE OF MODERN SUSTAINABILITY TECHNOLOGIES AND TECHNIQUES

Require the use of **low impact development** features as the local climate allows.

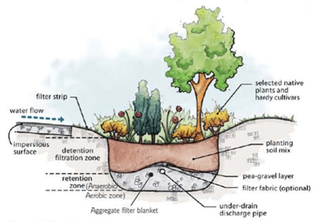
Increase the amount of **pedestrian-oriented circulation** on developments and connections to surrounding trails.

Allow **increased height maximums with each additional use** of a building.

Plan for a future of different vehicle usage by incoporating **electric vehicle charging stations** and site plans that accommodate **future building needs** by expanding into existing parking lots.

Limit the **proximity of auto-oriented businesses** like drive-throughs, car washes, and fueling stations.

Cross section of a low impact development



Source: Yakima County

Tigard OR: Commercial with room to expand footprint

Photo Credit: CenterCal LLC

Recommendations: Residential

CREATE A MENU-BASED SUSTAINABLE DESIGN MODEL

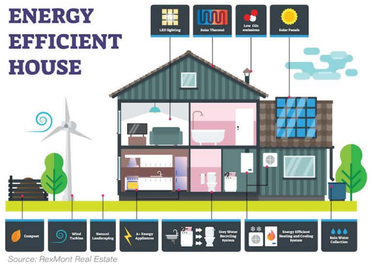
Define a series of detailed **sustainability standards** by category: water efficiency, energy efficiency, design, materials, connectivity, landscaping, parking, etc.

Develop a **point system** by defining point values for each standard and determining what is required vs. optional.

Create a **tiered-system** where new construction and remodels must adhere to a certain number of points based on the size and complexity of the project.

Provide **additional incentives and density bonuses** for new developments that comply with innovative or more costly sustainability standards.

High-ROI Home Improvements



Source: RexMont Real Estate

Sterling Ranch CO: Energy Efficient Homes

Photo Credit: Sterling Ranch, Colorado

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