

**Green Roof Review Task Force**  
**Meeting #1 – January 19, 2017 – 11:30-2:30**  
**200 W 14th Ave, 2nd Floor, Grand Mesa Room**

Meeting Objectives:

- Launch – Establish the Task Force – Purpose, Process, Protocols
  - Introductions – Begin to Get to Know One Another
  - Scope – Outcomes, Interests, Data Needs
- 

11:15 Gather, Pick up Lunch

11:30 Opening

- Welcome – Denver Staff and Elected Officials
- Introductions – Part 1 – Quick Bio So We Know Who Is in The Room
- Preliminary Matters – Facilitator – Agenda Preview and Ground Rules for This Meeting
  - o Respect
  - o Objectivity in Addition to Subjective Perspective
  - o Listening to Understand Rather than Prepare a Rebuttal

11:45 Introduction to the Green Roof Initiative

- Ballot Language – What Did the Voters Say ‘Yes’ To?
- Implementing the Vote – What Does the City Have to Do and When Do We Have to Do It?

12:00 What’s at Stake?

- Introductions – Part 2 – Longer Opportunity to Talk About Who is in the Room and What They Care About
  - o What’s Your Perspective?
  - o Who is Your Constituency?
  - o What’s at Stake for You and Those You Represent?

12:40 Quick Break – As you Think About This Question: How Will You Know the Difference Between an Idea and the Right Idea; What Criteria Might You Apply as You Evaluate Options?

12:45 Discussion – Criteria for Judging the Ideas Generated Here

- How Will You Know the Difference Between an Idea and the Right Idea; What Criteria Might You Apply as You Evaluate Options?
- Summary and Next Step
  - o Recap of the Discussion
  - o Next Step – To Use the Discussion to Generate Criteria for Evaluating Options/Ideas/Proposals

1:15 Data

- What Are the Technical Questions that The Task Force Will Have to Answer?
- What Data Might the Task Force Need?

1:45 Process

- Schedule and Milestones
- Roles and Responsibilities
- Protocols – What Does It Take to Build the Levels of Trust and Understanding that are Necessary to Make this Work?

2:20 Summary, Next Steps, Wrap-Up

2:30 Adjourn

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**I. Introduction to Green Roof Initiative**

- Regulations are 3-layer systems, charter, municipal code (allowable by the charter), rules and regulations
- Ordinances- adopted by city council
- Rules and regs- adopted by the implementing agency
- Unique situation- enacted by the voters
- Voters voted on ballot title, whole ordinance was not printed
- 16-page ordinance, adopt as-is, in 4-5 main sections
- New buildings and additions based on size - percentage of the group must provide green space
- Options for combination roof (green and solar)
- Existing buildings- 25,000 sqft that are doing a roof replacement, combo required
- Page 6- industrial- required to provide green roof coverage for new builds 25,000 sqft or additions to a building that is already 25,000 sqft or greater
- General permit for green roof is required
- Exemptions- projects before Jan 1, 2018, residential building less than 4 stories or 50 ft, residential means 60% of the total is residential (mixed-use buildings)
- Section 10 – minimum requirements for construction and maintenance
- Meets general Denver building code requirements
- Specifications for Green roof environments, plant selection, sloping etc.
- Page 12- allow for reductions the amount of space required – decision made by Denver Planning Board
- Fee-in-lieu \$25/sqft
- Technical advisory group- mayor appointed, 3 years – members will have expert knowledge, familiar with building code, include CPD, design sectors, construction, research, green roof industry
- Tech group- recommending body, provides review of technical issues, amendments, periodic review
- Planning board responsibilities- annual report on cost of construction, changes to fee-in-lieu, publish construction guidelines
- New rules and regulations – implement the ordinance – provide clarification without making changes in the underlying ordinance
- Exemptions and variances – exemption are circumstances in which the ordinance does not apply, variances are for circumstances in which the ordinance applies but particular circumstances warrant relief from a provision of the ordinance
- Exemptions do not trigger cash-in-lieu payments

**II. Stakeholder Perspectives – What’s at Stake?**

- Important that the ordinance does not impede development especially housing affordability

- The City's 2020 sustainability goals – not making enough headway; the initiative was an effort to tackle many in one ordinance – create food, improve energy efficiency, improve stormwater; taking Energize Denver beyond just benchmarking
- Ensure that ordinance delivers environmental benefits and avoids potential harmful consequences
- Find a way to make the implementation more acceptable to business community – bring them along
- Address climate change
- Concerned for existing buildings and their ability to meet their cash flow needs; many don't have capital improvement funds and replacing a roof is costly
- Ensure that the ordinance is not detrimental to the future of investment in the city investment
- Find ways to meet the intent and produce the environmental benefits of the ordinance without negatively impacting investment and development
- Address the impact on affordable housing
- Find incentives that can improve implementation
- Respect the fact of the vote
- Protect sales tax and preserve retail uses – keeping them open and operating
- Solutions that we can quantify – costs and benefits – and that produce a positive benefit/cost
- Energy efficiency solutions that have the lowest life cycle costs
- Solutions that are rooted in how building are built and how development decision are made
- Important to understand potential unintended consequences and find solutions that prevent them
- Find ways to make the best use of solar technology
- Understand the environmental benefits and tradeoffs of different ideas
- Consider the special needs of low income housing
- Examine impacts on building design
- Understand program costs
- Find efficiency, best practices and those strategies that building owners will want to implement
- Learn from the long history of what has worked in other places to make green roofs successful, including learning from the experience of early concern and opposition that has evaporated in other places once we educate owners and developer and policy makers about how to make the ordinance work
- Find solutions that fit our climate and circumstance (drought-tolerant plants, the best soils for this region, the realities of water law in Colorado)
- Find the best role for the Planning Board
- Make implementation as easy as it can be
- Find ways to be flexible – to allow different paths to the same goal
- Achieve the best for the City in sustainability, heat island, energy efficiency and water consumption
- Learn from the cities that have successfully implemented a similar ordinance
- Find what will move our city into the future successfully
- Think expansively for options and ideas
- Prepare for our climate future – more severe hail storms and storm events, the need for local food productions and a worsening heat island
- Give developers the tools to meet what the voters voted for in a cost effective, win-win way
- Housing affordability has to be factored into the solutions
- Consider both costs and benefits (including Xcel rebates) as well as who bears the costs
- Creativity – particularly for buildings that will struggle to comply

### **III. Criteria – How to Evaluate Options, Ideas and Possible Changes to the Ordinance**

- Solutions solve problem of unintended consequences
- Honors the vote; strategies that will replace the ordinance must effectively accomplish what the voters approved

- Strategies should be proven
- Ideas put forward should have the highest benefit/cost ratio and low lifecycle costs
- Ideas should improve level of support across community and stakeholders
- Should not contradict existing City goals
- Brings business community along with it and makes the most of their experience and expertise
- Improves on our current circumstances – moves us in the direction of sustainability
- Practical – as if we were spending our own money
- A sound investment for the City and for those who are investing in our city
- Allows for options, a menu of choices
- Use performance-based solutions
- Keeps Denver from being a place that investors avoid
- Protects the interests of the taxpayer
- Rooted in research
- Rooted in real-world applications and experience of building owners who have done the upgrades
- Long-term benefits and costs
- Mindful that as of Jan 1<sup>st</sup> the ordinance is the status quo and that we work from there

#### **IV. Data Requests and Answers the Task Force is Looking For**

- Stantec will lead data gathering and help the task force to analyze options and ideas
- Look at what Chicago has done
- How does the ordinance impact low-income housing?
- Water law implications
- Energy savings from a vegetated roof in Denver, taking into account the R-30 insulation already required in the Denver code
- Benefits/costs/implications of all green, all solar, a combination, energy efficiency
- Roofing overview – What do most buildings have? What is being installed now?
- Heat island differences in different parts of the City
- Maps of buildings that fall within the ordinance; how many buildings are subject to exemption, subject to ordinance
- Toronto information – what they did, how their ordinance has evolved, difficulties they experienced, if, and if so, how the ordinance impacted economic growth, housing affordability
- Same for San Francisco and Seattle
- Do a side by side comparison of our ordinance with Toronto, Seattle, San Francisco and Chicago
- Return on investment for different options and ideas
- Implications for building design
- What developers are doing to avoid being covered by the ordinance
- Specific implications for our climate
- Roof 101
- PACE program – funding
- Information about what the voters intended
- Incentives that other cities have provided
- Implications for solar access requirements
- Water consumption implications
  
- Cost difference between green roof that is intended for food production and one that is not
- How well white roofs work and what they cost in comparison to green
- Energy use and energy efficiency options
- Comparison of different roof systems – costs and energy efficiency benefits – to find those that have the highest energy efficiency benefit at the lowest cost
- Experience of those who have made capital upgrades to their building – roof projects and energy efficiency projects

- Implications for increasing particulates and risks to air quality
- Water quality implications – if fertilizers, herbicides or pesticides are used on the roof
- How to calculate area and how Denver keeps building records
- Implications for fire department
- Risks to air intakes and indoor air quality
- Existing buildings and the impact on structural reinforcement to support the weight of 4-to-6-inch-deep soil trays
- Potential negative impacts on cooling towers on roofs
- **Please continue to think about data needs – this goes for observers as well**

**V. Process – Protocol Changes**

Mission

The draft states that we will honor the intent of the voters. Can we know what the voter’s intent is? How can we move forward without honoring the motive of everyone who voted? The ordinance was not analyzed in the blue book. We may not be able to ascertain the intent

**The group agreed to change the mission and the first operating principle from “honor the voters’ intent” to “honor the vote”**

The task force did not make any other changes to the operating agreement

**VI. Next Meetings**

All meetings will take place at 200 W 14th Ave, 2nd Floor, Grand Mesa Room

Feb. 7	Wednesday	9:00 – 12:00	Presentations – Data
Feb. 14	Wednesday	11:00 – 2:00	Generating Ideas, Proposals, Options Presentations – Data
March 1	Thursday	12:30 – 3:30	Generating Ideas, Proposals, Options
March 21	Wednesday	9:00 – 12:00	Evaluating Options and Proposals
April 6	Friday	10:00 – 1:00	Evaluating Options and Proposals
May 2	Wednesday	9:00 – 12:00	Consensus-Building – Final Recommendation
May 23	Wednesday	9:00 – 12:00	Additional Meeting – If Necessary

## GREEN ROOF REVIEW Operating Protocol - January 19, 2018

### MISSION

On the November 7<sup>th</sup> ballot Denver voters passed the Green Roof Initiative, a new requirement that any new building, or roof replacement on an existing building, over 25,000 square feet shall include a green roof or a combination of a green roof and solar. The Denver Department of Public Health and Environment (DDPHE) has formed a Green Roofs Review Task Force of stakeholders to develop recommended modifications, clarifications, and improvements to the initiative through a collaborative, consensus-based process that honors the vote.

### Principles

- ✓ Honor the Vote
- ✓ No Predetermined Outcome
- ✓ Rational, Objective Analysis
- ✓ Deliberation Must be Positive and Future-Directed
- ✓ Deliberation Must Seek to Meet the Essential Interests of All Stakeholders including those Not Present

### Chatham House Rule - <https://www.chathamhouse.org>

Chatham House, the Royal Institute of International Affairs, is an independent policy institute based in London. The Chatham House Rule reads as follows: “When a meeting, or part thereof, is held under the Chatham House Rule, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed.”

### Task Force Meetings and Projected Timeline

The task force will meet for the first time on January 19. The first meeting will accomplish these things:

- Give the members the opportunity to meet one another and begin building working relationships
- Clarify the charge to the task force
- Clarify purpose and process
- Establish the deadline and schedule
- Identify early data needs
- Give the members the opportunity to identify the needs/aspirations/concerns of all stakeholders

Meetings two, three and four will focus on data and on beginning to generate ideas, options, possibilities and policy responses that advance their purpose and respond to the needs of all stakeholders.

Meetings five, six and seven will allow the participants to discuss possibilities, refine options, eliminate what isn't workable and move toward agreements-in-principle and then to a consensus conclusion. Amid these meetings, they will begin to explore promising ideas with constituents, trusted advisors, other stakeholders and the wider public.

Meetings five, six and seven will allow the task force participants to move toward a shared recommendation to the City, building consensus and resolving any remaining differences.

### Decision-Making

The task force will make its recommendations by consensus. A consensus decision is built from a rigorous, thoughtful exploration of the goal. A consensus recommendation should come from careful deliberation that attempts to integrate the needs of all parts of the community and that elevates the quality of the outcome. It is the best the group can do given its differences. In the end, it is the solution that all participants can live with. It is the solution that policymakers can implement and that the task force will accept.

### Division of Labor

The task force members will:

- Communicate inside the task force meetings forthrightly and thoughtfully
- Listen carefully to the perspectives of other task force members
- Work to find solutions that advance one's own interests and those of all other task force members
- Bring their creativity to the deliberation, seeking to solve problems and find solutions
- When the time comes, work to help any organization or stakeholder group they are a member of to support the task force proposals and, ultimately, its recommendation

The Denver staff will:

- Participate as full task force members
- Support the task force deliberation by
  - o Collecting and disseminating information
  - o Offering the City's perspective and affirming the primary objective while not prejudging solutions or preventing promising options from receiving full and fair consideration
  - o Providing the resources necessary for the task force to accomplish its objectives
  - o Testing options with policy makers and bringing any questions or concerns into the deliberation
  - o Advancing the task force consensus recommendations and supporting its conclusion

The facilitator will:

- Develop draft agendas for task force review
- Conduct the meetings impartially
- Work with task force members to refine the process and keep it on track
- Challenge the participants to reach beyond their assumptions and to work toward a solution that meets the needs of every stakeholder
- Work with participants between meetings to address barriers to consensus
- Produce meeting summaries and draft consensus language on behalf of the task force and submit these to the task force for their review

The Task Force Advisors will:

- Provide data in the early weeks of the task force effort
- Provide advice to the task force on specific questions and help answer data requests

The technical consultant will:

- Share information with the task force
- Answer technical requests from the task force
- Assist the task force to evaluate proposals, options and draft recommendations

### Observers and Participant Support

The meetings will be open to the public; as a result, interested individuals are welcome to observe the meetings. Because the meetings will be working sessions, the agenda will offer only

limited opportunities for the observers to participate. Task force members may wish to include others from their organizations or from among their constituents to serve as technical experts, to offer an expanded view of a particular topic; each task force member is free to call on any of these observers to offer important information or add to that member’s perspective. This should not detract from the discussion among the task force members. Observers are expected to honor the group’s operating protocols - this includes not attributing statements to the task force members.

**Communication**

Each participant is free to speak for him or herself outside of the meetings; the task force members agree to do so in ways that support the group’s work and that enhances trust. No one will characterize the statements or the viewpoints of other task force members (see Chatham House Rule). No member will speak for the whole group unless the group develops a consensus statement and designates a spokesperson.

**Schedule and Milestones**

Date	Time	Milestone
Friday Jan. 19	11:30 - 2:30	Introductions - Process - Protocols - Data Needs - Stakeholder Interests
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