**CITY OF BOULDER**
**ENVIRONMENTAL ADVISORY BOARD MEETING AGENDA**
**DATE:** October 5, 2016
**TIME:** 6 pm
**PLACE:** 1777 Broadway, West Conference Room

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1. **CALL TO ORDER**

2. **APPROVAL OF MINUTES**
   - **A.** The September 7, 2016 Environmental Advisory Board meeting minutes are scheduled for approval.

3. **PUBLIC PARTICIPATION**

4. **PUBLIC HEARING ITEMS**

5. **DISCUSSION ITEMS**

6. **OLD BUSINESS/UPDATES**
   - **A.** Climate Commitment Targets (KenCairn/Board – primary discussion)
     - **a.** Transportation Metrics
     - **b.** All Others
   - **B.** BVCP Discussion (Board – time dependent)
   - **C.** Planning Board Collaboration/Joint Board Meeting Planning (Board – time dependent)
     - **a.** PB Site Review Criteria & Annual Letter to Council
     - **b.** Incentivizing Developers
     - **c.** 2017 Joint Meeting Proposal

7. **MATTERS FROM THE ENVIRONMENTAL ADVISORY BOARD, CITY MANAGER AND CITY ATTORNEY**

8. **DEBRIEF MEETING/CALENDAR CHECK**

9. **ADJOURNMENT**

For more information call (303) 441-1931. Board packets are available after 4 pm Wednesday prior to the meeting, online at www.bouldercolorado.gov.

**CITY OF BOULDER ENVIRONMENTAL ADVISORY BOARD**
**MEETING GUIDELINES**

**CALL TO ORDER**
The board must have a quorum (three members present) before the meeting can be called to order.

**AGENDA**
The board may rearrange the order of the agenda or delete items for good cause. The board may not add items requiring public notice.

**PUBLIC PARTICIPATION**
The public is welcome to address the board (three minutes* maximum per speaker) during the Public Participation portion of the meeting regarding any item not scheduled for a public hearing. The only items scheduled for a public hearing are those listed under the category PUBLIC HEARING ITEMS on the agenda. Any exhibits introduced into the record at this time must be provided in quantities of eight to the Board Secretary for distribution to the board and admission into the record.

**DISCUSSION AND STUDY SESSION ITEMS**
Discussion and study session items do not require motions of approval or recommendation.

**PUBLIC HEARING ITEMS**
A Public Hearing item requires a motion and a vote. The general format for hearing of an action item is as follows:

**1. Presentations**

- Staff presentation (15 minutes maximum*) Any exhibits introduced into the record at this time must be provided in quantities of eight to the Board Secretary for distribution to the board and admission into the record.
- Environmental Advisory Board questioning of staff for information only.

**2. Public Hearing**

Each speaker will be allowed an oral presentation (three minutes maximum*). All speakers wishing to pool their time must be present, and time allotted will be determined by the Chair. Two minutes will be added to the pooled speaker for each such speaker's allotted time up to a maximum of 10 minutes total.

- Time remaining is presented by a green blinking light that means one minute remains, a yellow light means 30 seconds remain, and a red light and beep means time has expired.
- Speakers should introduce themselves, giving name and address. If officially representing a group please state that for the record as well.
- Speakers are requested not to repeat items addressed by previous speakers other than to express points of agreement or disagreement. Refrain from reading long documents, and summarize comments wherever possible. Long documents may be submitted and will become a part of the official record.
- Any exhibits introduced into the record at the hearing must be provided in quantities of eight to the Board Secretary for distribution to the board and admission into the record.
- Interested persons can send a letter to the Community Planning and Sustainability staff at 1739 Broadway, Boulder, CO 80302, two weeks before the Environmental Advisory Board meeting, to be included in the board packet. Correspondence received after this time will be distributed at the board meeting.

**3. Board Action**

Board motion. Motions may take any number of forms. Motions are generally used to approve (with or without conditions), deny, or continue agenda item to a later date (generally in order to obtain additional information).

- Board discussion. This is undertaken entirely by members of the board. Members of the public or city staff participate only if called upon by the Chair.
- Board action (the vote). An affirmative vote of at least three members of the board is required to pass a motion approving any action.

**MATTERS FROM THE ENVIRONMENTAL ADVISORYBOARD, CITY MANAGER, AND CITY ATTORNEY**
Any Environmental Advisory Board member, City Manager, or the City Attorney may introduce before the board matters which are not included in the formal agenda.

**ADJOURNMENT**
The board's goal is that regular meetings adjourn by 8 p.m. Agenda items will not be commenced after 8 p.m. except by majority vote of board members present.

*The Chair may lengthen or shorten the time allotted as appropriate. If the allotted time is exceeded, the Chair may request that the speaker conclude his or her comments.

**CITY OF BOULDER, COLORADO**
**BOARDS AND COMMISSIONS MEETING SUMMARY**

**NAME OF BOARD/COMMISSION:** Environmental Advisory Board

**DATE OF MEETING:** September 7, 2016

**NAME/TELEPHONE OF PERSON PREPARING SUMMARY:** Sandy Briggs, 303-441-1931.

**NAMES OF MEMBERS, STAFF AND INVITED GUESTS PRESENT:**
**Environmental Advisory Board Members Present:** Tim Hillman (via phone), Morgan Lommele, Brad Queen, Karen Crofton and Christina Gosnell.
**Staff Members Present:** Kendra Tupper, Elizabeth Vasatka, Dave Thacker, Brett KenCairn and Sandy Briggs

**MEETING SUMMARY:**

- **Energy Codes**
  - The board inquired about local placement limitations, offsite renewable energy usage, subscription availability and potential exceptions as a result.
  - The board asked how RECs are being recognized and their place in the solar contribution as relates to the larger code update picture. Their importance in the net zero energy strategy was noted.
  - The board received clarification regarding the interplay among several of the rating indices.
  - **B. Queen** provided context for HERS and ERI/EUI measurements.
  - **K. Crofton** suggested clarifying the specific ways roofs are stated to be PV ready.
  - **B. Queen** expressed concern about the unintended consequence that people would try to "game" the system by adding a whole new house and calling it an addition. **D. Thacker** explained that the new codes would prevent much of this due to the new, more gradual scale and the requirements of Title 9 continuing to restrict potential loopholes.
  - The board asked several questions around the EV infrastructure requirements and proposed charging levels. Since it's not the city's role to choose what people decide to do with their own EV charging mechanism, this will be left up to the market.
  - While the board agreed with the EV charging station requirement, **K. Crofton** expressed concern that they can quickly become outdated and that infrastructure requirements should have the ability to keep up with technology. She suggested requiring only outlets so EV users can choose whatever charging station or option suits them at the time.
  - **B. Queen** suggested a carbon offset fund is potentially the single strongest policy decision to make next to municipalization.
  - It was suggested the definition of offsite renewable energy be flexible enough to encompass and include the crossing of property lines.
  - **B. Queen** inquired about long term strategy in the event municipalization does not happen and praised staff for writing a memo that was very clear.

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- **Climate Action Campaign**
  - The board requested information outlining the feasibility of achieving the new targets, how they were modeled out and discussed their aspirational nature.
  - It was asked how another target review would affect the citywide dashboard project.
  - **T. Hillman** suggested EAB members have a presence at the December 6 council presentation. He advocated the EAB remind council what maps and blueprints there are available for setting targets without getting in to city modeling too much.
  - **K. Crofton** asserted the goals should not be aspirational but specific in the metrics with clear, tangible steps.
  - **T. Hillman** suggested the targets be reviewed for economic viability.
  - **K. Crofton** suggested that creating a different presentation methodology to streamline the process could be useful within the confines of the EAB's structure.

**1. CALL TO ORDER**
Environmental Advisory Board Vice-Chair **M. Lommele** declared a quorum called the meeting to order at 6:03 pm.

**2. APPROVAL OF MINUTES**
On a motion by **K. Crofton**, seconded by **B. Queen**, the Environmental Advisory Board voted 5-0 to approve the August 3, 2016 meeting minutes as revised.

**3. PUBLIC PARTICIPATION**
None.

**4. PUBLIC HEARING ITEMS**

**A. Energy Codes (Tupper)**

Energy Services Manager, **K. Tupper**, requested the board's feedback regarding the proposed near-term updates and amendments to the city's energy codes. After the EAB presentation, Planning Board, Landmarks Board and Council presentations are also scheduled.

There are three parts to the proposal:

1. Restructure and update of residential energy codes (Green Building/Green Points);
2. A new prescriptive compliance path for new buildings; and
3. Miscellaneous updates (multifamily units, offsite renewable energy).

She defined Net Zero Energy (NZE) and explained its importance in reaching Climate Commitment goals. Renewable Energy Credits (RECs) were also discussed, with an explanation regarding their role in making the energy codes economically feasible.

She stressed that Council is more concerned with driving installation of the most solar possible than who owns the RECs.

She described the acronyms and definitions of various national codes, indices and metrics. Energy Codes use ERI metrics. HERS is a trademarked designation of the same measurement.

She shared feedback collected after the joint meeting in April. It suggested the Green Points program allowed for varied interpretation depending on how square footage was measured and that the prescriptive approach on the commercial side is confusing and

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difficult to achieve in the field.
She also advised the board that the city has not adopted the International Green Conservation Code, but relies on custom amendments to the Design Standards to keep up with green building requirements.
For the long term, a 6-year cycle for major code adoption, with local evaluation and updates every three years, will be proposed. And the need to accelerate compliance of larger homes in order to adhere to the same 2031 net zero timeline as smaller homes was identified.
She explained how MFUs pose a particular challenge, especially those with mixed-use zoning. These buildings must comply with both commercial and residential requirements. And the size of each individual residential unit drives the Green Points requirements.
There are four near-term residential updates proposed:

1. Remove current point structure (Green Points) by prioritizing some items to be mandatory and eliminating the rest;
2. Make the NZE trajectory a more gradual progression for new construction;
3. Trigger requirements for additions according to size of the addition and finished house; and
4. Change the scope of requirements for the renovation to a percent of the project cost in relation to the assessed value of the property.

There are three proposed commercial updates:

1. Limit the requirements and overall use of the current prescriptive path;
2. Add mandatory solar-ready and appliance efficiency requirements; and
3. Require EV charging infrastructure.

She informed the board that townhomes and duplexes will be considered residential for the new requirements, and anything else will fall under the commercial energy code, including MFUs. And that offsite renewables will be allowed once onsite options are exhausted.
In response to questions, she reminded the board that council is not allowing any carbon offset funds to be created right now, although staff is paving the way with the county for this potential in the future.
She concluded with the goal to have these new 2018 codes adopted by 2019.
The board's comments are captured in the Meeting Summary.

## 5. DISCUSSION ITEMS

### A. Climate Action Campaign (KenCairn)

Senior Environmental Planner and EAB Staff Liaison, **B. KenCairn**, provided an update regarding the progress of the final draft of the Climate Commitment Document and requested individual board member assistance with certain focus areas requested by council. There were some changes in the targets made in May and it will be going back to council on December 6 for final adoption.
He provided an updated table outlining the old and new targets and asked what roles board members are willing to play regarding refinement of the following broad focus areas:

- Developing a quantitative mechanism that validates the emissions projections tools legitimately reflect the 80% by 2050 goal as achievable.
- Identifying and analyzing short-term, ambitious, measurable and achievable

targets to ensure tracking of the right things and ensuring we're counting something that is valuable, relevant and with the correct factors.

- Reaching out to people beyond the usual "cast of characters".

There is a model and users guide due Monday, and he requests help from **B. Queen** and **T. Hillman** to complete a thorough examination of the projection tool by mid-October. He also requests assistance from **T. Hillman** to highlight and underscore the economic arguments for why we need to take these actions, and articulate them in a clean and quantitative manner.

He requests **K. Crofton** be the key person in targets review, with full board participation and discussion, and that **C. Gosnell** review the electricity usage calculations outlined in the draft document.

There is need for more outreach to businesses, and **B. KenCairn** requests the entire board's help in this area, with **M. Lommele** in particular reviewing general outreach, community engagement strategies and how they're being summarized.

**B. KenCairn** will follow up with each board member individually and the board will meet for a Study Session before the October meeting. The discussion will conclude during the regular October meeting.

He further indicated that there is a quantitative emissions model being used, council wants to see explicit 2020 numbers and that the document will also include specific equity and just transition language.

The board's comments are captured in the Meeting Summary.

## 6. OLD BUSINESS/UPDATES

### A. Debrief BVCP Joint Meeting (Queen & Gosnell)

**B. Queen** and **C. Gosnell** attended the BVCP joint board meeting held August 29.

The public turnout was overwhelming, but staff was very responsive and the discussions were interesting and useful.

With the Climate Commitment work now on the table, it is necessary to prioritize it over the BVCP conversation for the near-term. If any members would like to take on the BVCP analysis individually in the meantime, they are encouraged to do so.

Which sections of the BVCP to review and the greater level of quantitative vigor of this version was discussed. It was also noted that since it's being written and reviewed in sections, there is still time to comment as a board later.

## 7. MATTERS FROM THE ENVIRONMENTAL ADVISORY BOARD, CITY MANAGER AND CITY ATTORNEY

**K. Crofton** will poll the board for a meeting time between now and the next regular meeting so members can interact specifically on the Climate Commitment targets discussion. **S. Briggs** will ensure the meeting is publicly noticed once a date is selected.

## 8. DEBRIEF MEETING/CALENDAR CHECK

All members will be available for the October 5 meeting.

## 9. ADJOURNMENT

The Environmental Advisory Board adjourned at 8:09 pm.

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Approved:

_____

Chair Date

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# EAB - CLIMATE COMMITMENT TARGETS STUDY SESSION

Monday September 27,2016 3pm to 4pm

MEETING GOAL: The goal of this meeting is to supply feedback for the targets in the climate commitment. We will NOT be discussing the numerical values of the targets in this particular meeting but rather what should be measured, how it will be measured and who has ownership of the measurement.

END DELIVERABLE: A simple list of targets

NOTES: It will be important to distinguish that there may be high level Dashboard targets that would be published broadly, which would be different from Key Performance Indicators that the City would use to measure actual progress. We can discuss both.

MATERIALS: The following page is a summarized snapshot of the DRAFT climate commitment, so that we do not have to spend time flipping pages. Note that the high level targets are "Emissions Reductions" and then the individual targets align to a number or percentage of something without any notes on the assumed emission reduction achieved per unit. Again in this meeting we will not be discussing individual numbers but this is important to note when considering methodology.

INSTRUCTIONS: Please come with some ideas, so we can maximize the time discussing them.

## Emissions Reduction Targets[2]

| | TARGET AREA | 2020 | 2030 | 2050 |
|---|---|---|---|---|
| ENERGY | Buildings | 6% | 15% | 20% |
| | Mobility | 3% | 8% | 16% |
| | Energy Source | 10% | 19% | 43% |
| RESOURCES | Waste | 1% | 1.5% | 2% |
| | Water | Methodologies for evaluating emission reduction impacts and targets under development | | |
| | Food | | | |
| ECOSYSTEMS | Urban | | | |
| | Wildland | | | |
| | Agricultural | | | |
| | TOTAL | 25% | 60% | 80% |

**BUILDINGS**

Residential Electricity Savings
Residential NG Savings
Commercial Electricity Savings
Commercial NG Savings
Commercial EUI (Decrease?)
# of Net Zero Buildings
# of Energy Star Buildings

**MOBILITY**

Passenger Miles/Resident/Day
SOV Mode Share Residents ALL trips
SOV Mode Share NON-Residents WORK trips
Transit Mode share Residents ALL trips
Bicycle Mode share Residents ALL trips
EV and AV - % owned
SOV trips per week Residents ALL trips
SOV trips per week, NON-resident work trips

**ENERGY SOURCE**

Contribution to overall emissions reduction
% of Electricity from Renewable Electricity
% of Local Electricity Generation
Natural Gas reduction (in what sense, electricity production???)
Petroleum Reduction (in what sense, gas for cars (personal or city owned)???)

After discussion on September 26th, 2016 from 3pm to 4pm the EAB developed the following comments:

GENERAL

1. There needs to be a distinction amongst Key Performance Indicators (KPIs), Dashboard Metrics, and Co-Benefit Factors (including economic).

2. The calculation of any of these values needs to be documented to ensure there is not a double count, for example, if a building is receiving electricity from its own rooftop solar, its actual demand should NOT be reduced by that solar supply. It is important that actual consumption is captured in some metric.

3. Tactics should be described as those that the City is driving because the City has a high influencing ability (i.e. muncipilization, building codes) and those that would require Community Participation because it is the community that holds the ability to execute those tactics (i.e Natural Gas reduction, EV personal car adoption).

4. Tactics should also have their certainty indicated, (i.e. error bar), so that it is clear the projected impact of each tactic and the additional work need to ensure it is successful.

5. Dashboard tactics should be as minimal as possible to relay where the progress is occurring, for example it is not necessary to show both savings in Commercial Electricity and an average EUI. If both need to be tracked for KPIs they can be, but should not be reported in the dashboard.

SPECIFIC ON ECONOMICS

- Include a pure economic metric in each. Motivation driven by two assumptions:
    - Public will relate more to $ values
    - This may help ongoing efforts to help the community get behind “investments” that could be made to help the community reach its goals
    - Similarly, this could help reframe our goals to one of stimulating certain economic sectors (renewable energy, clean energy, etc.) and not supporting others (fossil fuels, not local, etc.)
- Buildings
    - $ value from energy savings (gas and/or electric)… not just the magnitude of energy savings (kWh or therms)
    - Economic activity stimulated from the energy efficiency retrofit and/or RE install projects
        - Goal: Increase economic activity in “green building” by either XX% or by $YY in future years
    - Total $ spent on building energy
- Energy Source
    - % of building energy spend by renewable versus fossil (could also include an element of local or not)
        - Goal: Increase the % of renewable amount over time
        - Goal: Increase the total $ amount supporting RE and/or local energy
- Mobility
    - Total $ spent on transportation fuels
    - Total $ spent on transportation fuels per capita

Buildings

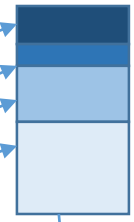
Transportation

Energy Source

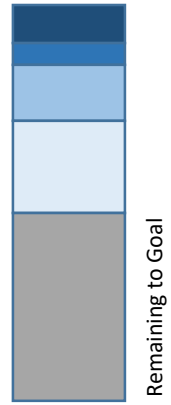
These help staff to manage tactical projects to specific goals

KPIs

1. Res Elec X CO2 factor
2. Res NG X CO2 factor
3. Com Elec X CO2 factor
4. Com NG X CO2 factor



Overall Goal




High level goals that help stakeholders understand progress

DASHBOARD

Goal1

Goal2

Goal3

Helps the community understand the total benefits from the projects

CO-BENEFITS

| | | | |
|---|---|---|---|
| Co-Benefit 1 | X | X | |
| Co-Benefit 2 | X | | X |
| Co-Benefit 3 | | X | X |
| Co-Benefit 4 | | | X |

# 2016 Environmental Advisory Board Staff Calendar

**January 6 Meeting**

| Public Hearings | Staff |
|---|---|
| | |
| | |

| Discussion Items | Staff |
|---|---|
| Energy Future Update: Municipalization | Jonathan Koehn |
| Climate Commitment Community Engagement Process | Brett KenCairn |

Materials due by **noon on Wed, Dec 30**, emailed to EAB by 4 pm.
PPTs for meeting due to Sandy Briggs **by 4 pm Wed, Jan 6.**

**February 3 – Retreat**

**March 9 Meeting**

| Public Hearings | Staff |
|---|---|
| | |
| | |

| Discussion Items/Matters for the Board | Staff |
|---|---|
| Sustainability Dashboard Memo | |
| Black Bear Protection Ordinance Update Memo | |
| Discussion of April's Open House Outline & Expectations of Board Members as Hosts | |

Materials due by **noon on Wed, March 2**, emailed to EAB by 4 pm.
PPTs for meeting due to Sandy Briggs **by 4 pm Wed, March 9.**

**April 6 Meeting**

| Public Hearings | Staff |
|---|---|
| Sustainability Dashboard Memo | Elyse Hottel |
| | |

| Discussion Items/Matters for the Board | Staff |
|---|---|
| Black Bear Protection Ordinance Update | Valerie Matheson |
| Finalize Joint Board Open House Agenda and Facilitation Strategy | Board |

Materials due by **noon on Wed, March 30**, emailed to EAB by 4 pm.
PPTs for meeting due to Sandy Briggs **by 4 pm Wed, April 6.**

**April 27 – Joint Board Open House – Details TBD**

**May 4 Meeting**

| Public Hearings | Staff |
|---|---|
| Draft Resilient Strategic Plan | Casey Earp |
| | |

| Discussion Items/Matters for the Board | Staff/Board Member |
|---|---|
| Fourmile Canyon Creek CEAP Draft Document | All |

| | |
|---|---|
| Flood & Greenways Capital Improvement Program | All |
| Portland/Eugene Trip Report Back | Brad Queen |
| Joint Board Open House Debrief | All |

Materials due by **noon on Wed, April 27**, emailed to EAB by 4 pm.
PPTs for meeting due to Sandy Briggs **by 4 pm Wed, May 4.**

**June 1 Meeting**

| **Public Hearings** | **Staff** |
|---|---|
| | |
| | |

| **Discussion Items/Updates/Matters for the Board** | **Staff** |
|---|---|
| BVCP Update | Lesli Ellis |
| UZWO Update/6400 Arapahoe Development Update | Kara Mertz |
| Continued Joint Board Open House Discussion | All |

Materials due by **noon on Wed, May 25**, emailed to EAB by 4 pm.
PPTs for meeting due to Sandy Briggs **by 4 pm Wed, June 1.**

**July 6 Meeting**

| **Public Hearings** | **Staff** |
|---|---|
| | |
| | |

| **Discussion Items/Updates/Matters for the Board** | **Staff** |
|---|---|
| Community Engagement Strategies | Amanda Nagl |
| Report Back on Planning Board Collaboration | Brad Queen & Christina Gosnell |
| Determine When/How to Establish Regular Annual Joint Board Meeting and Other Next Steps | All |
| Boulder's Soundscape Problems | All |
| | |

Materials due by **noon on Wed, June 29**, emailed to EAB by 4 pm.
PPTs for meeting due to Sandy Briggs **by 4 pm Wed, July 6.**

**August 3 Meeting**

| **Public Hearings** | **Staff** |
|---|---|
| | |
| | |

| **Discussion Items/Updates/Matters for the Board** | **Staff** |
|---|---|
| City Council B & C Subcommittee Member Visit | Jan Burton |
| "Planning Board 101" | Leonard May |
| Report Back on Planning Board Attendance | Brad Queen & Christina Gosnell |
| Continue Joint Board Meeting Logistics Planning | All |

Materials due by **noon on Wed, July 27**, emailed to EAB by 4 pm.
PPTs for meeting due to Sandy Briggs **by 4 pm Wed, Aug 3.**

| September 7 Meeting | |
|---|---|
| **Public Hearings** | **Staff** |
| Energy Codes | Kendra Tupper |
| | |

| **Discussion Items/Updates/Matters for the Board** | **Staff** |
|---|---|
| Climate Action Campaign | Brett KenCairn |
| Debrief BVCP Joint Meeting | Board |

Materials due by **noon on Wed, Aug 31**, emailed to EAB by 4 pm.
PPTs for meeting due to Sandy Briggs **by 4 pm Wed, Sept 7.**

| October 5 Meeting | |
|---|---|
| **Public Hearings** | **Staff** |
| | |
| | |

| **Discussion Items/Updates/Matters for the Board** | **Staff** |
|---|---|
| Climate Commitment Targets | KenCairn/Board – primary discussion |
| BVCP Discussion | Board – time dependent |
| PB Site Review Criteria and Annual Letter to Council | Board – time dependent |
| Incentivizing Developers | Board – time dependent |
| Joint Board Meeting Proposal | Board – time dependent |

Materials due by **noon on Wed, Sept 28**, emailed to EAB by 4 pm.
PPTs for meeting due to Sandy Briggs **by 4 pm Wed, Oct 5.**

| November 2 Meeting | |
|---|---|
| **Public Hearings** | **Staff** |
| Climate Commitment Targets | KenCairn/Board – final vote |
| | |

| **Discussion Items/Updates/Matters for the Board** | **Staff** |
|---|---|
| 6400 Arapahoe Development – Formulate Analysis | Kara Mertz - tentative |
| BVCP Discussion | Board |
| PB Site Review Criteria and Annual Letter to Council | Board |
| Incentivizing Developers | Board |
| Joint Board Meeting Proposal | Board |

Materials due by **noon on Wed, Oct 26**, emailed to EAB by 4 pm.
PPTs for meeting due to Sandy Briggs **by 4 pm Wed, Nov 2.**

| December 7 Meeting | |
|---|---|
| **Public Hearings** | **Staff** |
| | |
| | |

| **Discussion Items/Updates/Matters for the Board** | **Staff** |
|---|---|
| | |
| | |

Materials due by **noon on Wed, Nov 30**, emailed to EAB by 4 pm.
PPTs for meeting due to Sandy Briggs **by 4 pm Wed, Dec 7.**