

DATE: July 13, 2010

STAFF: Brian Janonis
Doug Swartz, Felix Lee

*Pre-taped staff presentation: available
at fcgov.com/clerk/agendas.php*

WORK SESSION ITEM FORT COLLINS CITY COUNCIL

SUBJECT FOR DISCUSSION

Update on the Fort Collins Green Building Program.

EXECUTIVE SUMMARY

The Green Building Program is intended as an integrated framework that transforms the Fort Collins building market through a balance of regulation and voluntary elements. The development process for the Green Building Program is working well, including a broad mix of stakeholders and collaboration among City departments whose work bears on green building.

Based on work to date, staff suggests that selected green building practices should be integrated with existing City regulations rather than packaged as a standalone Green Building Code. Staff suggests that a voluntary recognition program for market-leading projects be based upon existing green building rating systems, utilizing their third-party verification infrastructures. A number of ideas for green building incentives have been suggested by advisory committees. There are several that seem promising, at the conceptual level, for further investigation. Additional resources, including City resources, will be needed to accelerate green building in Fort Collins. The current project will roughly estimate resource needs.

GENERAL DIRECTION SOUGHT AND SPECIFIC QUESTIONS TO BE ANSWERED

1. Is the Green Building Program development process on the right track?
2. Will Council consider additional resources for implementation of mandatory green building practices?
3. Does Council support green building practices being integrated into existing City regulations rather than a standalone Green Building Code?
4. Would Council like another work session in early 2011 before formally considering the proposed Code package on First Reading on March 15, 2011?

BACKGROUND

History

The City Council identified advancing green building (GB) as a priority to support attainment of Climate Action Plan, Energy Policy and Water Conservation Plan goals. In 2010, an interdepartmental team led by Utilities is developing the framework and specific elements of the Green Building Program (GB Program).

The goal of an ongoing GB Program is to increasingly align Fort Collins' built environment with community goals of reduced carbon emissions, energy use and water use. The general approach is an integrated framework that transforms the Fort Collins building market through a balance of regulation and voluntary elements.

The GB Program will support the green building transition already occurring in the marketplace. It will lead to quality building projects that can demonstrate substantive, measurable results. As part of an integrated framework addressing the built environment, the GB Program should also dovetail with larger scale neighborhood- and urban-scale green initiatives. City processes related to green building should be relatively simple and easily navigated.

The GB Program was discussed by City Council at the January 12, 2010 Work Session (Attachment 1).

Progress

The process being used to develop the GB Program and the progress to date is documented in the attached quarterly reports (Attachments 2 and 3).

Status and Observations

Even with many steps remaining to complete development of the GB Program elements, much insight has been gathered through the process to date. Stakeholder involvement and ideas have been invaluable in this regard. The following information reflects staff's synthesis of key observations and the directions they suggest for an effective Fort Collins GB Program.

Process

The GB program development process seems to be working well. A broad mix of stakeholders is involved (Attachments 4, 5 and 6). The process provides a systematic way in which their diverse views are heard. The structured review of model codes is informing the development of all GB Program elements. Stakeholder input has been invaluable. There has also been good collaboration among City departments whose work affects green building.

A project web site provides information on the development process and is another means by which community members can provide input. There has been a variety of other community outreach activities which are listed in Attachment 7.

Green Building Codes

The two model GB Codes that are being reviewed as templates for use in Fort Collins are the National Green Building Standard (NGBS), which covers the residential sector, and the International Green Construction Code (IgCC), which covers the commercial sector. These two Codes are very different in structure compared with traditional codes and with one another. The NGBS, originally developed as a green building rating system, is a point system providing a very high level of flexibility. The IgCC, written in code language, couples a comprehensive mandatory core with a broad menu of electives.

Both model GB Codes are new. The NGBS, dated 2008, was released in 2009. To date, the only jurisdiction known to have adopted this Code has been Longmont, Colorado. Longmont adopted the NGBS in January 2010, as a replacement for an earlier, locally developed GB Code. The IgCC was first published in March 2010, as Public Version 1.0, by the International Code Council (ICC). As part of its regular model code-update process, ICC is soliciting public comments through multiple rounds and intends to publish the first full-fledged edition of the IgCC in 2012. This timeframe will synchronize the IgCC with its companion suite of model International Codes used by Fort Collins and most other U.S. jurisdictions. As of now, no jurisdictions have adopted IgCC as a mandatory code.

Both model GB Codes represent great intent. Widespread use of the green building practices embodied in the model GB Codes would reduce building-related environmental impacts and contribute to meeting City goals. That being said, in-depth review of the model GB Codes has identified several challenges associated with the adoption of these templates:

- The language leaves substantial room for interpretation by applicants and enforcers. This is true even for the NGBS, which has a companion "Commentary." Much work will be required to clarify the language so that requirements are unambiguous and consistently enforceable.
- The scope of these Codes is very broad. Major categories include site and lot development, resource efficiency, energy efficiency, water efficiency, indoor environmental quality, commissioning, operation, maintenance and building owner education. Within each of these categories, the documents address numerous GB practices.
- The resources required to document and verify compliance with many of the GB practices described in the model GB codes is potentially very large. This could represent a significant burden on applicants. It is unrealistic to expect that, with current staffing levels and expertise, the Building Department could enforce the full scope of the model codes. Third-party verification is an option to consider but could represent significant cost.

Staff's suggested direction for GB Code development is the following:

- Structure the residential and commercial codes similarly, to reduce confusion.
- Reduce the breadth of the Code by focusing on attributes most important to the community, creating a realistic scope for applicants and enforcers.

- Suggested focus areas are energy efficiency (delivering energy and carbon savings, year after year, for the life of the building), water efficiency (helping to meet community goals in a semi-arid climate) and performance (increasing the likelihood that components are installed in ways that deliver rated performance).
- Retain select GB practices that meet certain criteria. Potential criteria include:
 - “Low-hanging fruit:” GB practices that have already been adopted by much of the market and don’t represent a high cost for the owner or the City.
 - High-value:” GB practices that represent a high benefit versus cost in terms of reducing energy use, water use, carbon emissions; and/or the community places a high value on the result.
 - Potential lost opportunities: Aspects that generally won’t be changed over the life of the building due to expense.
 - Infrastructure exists or is getting close: Products are available through the supply chain; local contractors are skilled at implementing the GB practice.
- All selected GB practices should be mandatory (elective practices belong in the above-code, voluntary GB Program elements, described below).
- Mandatory GB practices should be integrated with existing City regulations rather than be packaged as a separate GB Code.
- The mandatory GB practice should be enforced by the City (alternative compliance approaches that use third-party verification may be included).
- The mandatory practice should represent a reasonable step-up in the market and should not present an obstacle to innovation. It will allow applicants and the City to gain positive experience with a subset of GB practices.

The suggestion to integrate mandatory GB practices with existing City regulations is based on several observations:

- GB practices should be progressively integrated with mainstream design and construction practices rather than viewed as add-ons.
- The City already has a strong package of existing codes and regulations, supporting GB practices, upon which to build.
- The current Plan Fort Collins project offers opportunities to consider GB enhancements, at the policy level, for potential future development and adoption in the Land Use Code.
- The proposed adoption of the 2009 International Codes provides a solid framework upon which to add enhancements to further strengthen green building.
- A standalone GB Code is likely to increase the complexity of development and building permit processes.

Voluntary Elements

Voluntary elements of the GB Program provide the means for the City to build on the code baseline and pull the market further and to a broader scope than the mandatory GB code practices. Staff anticipates opportunities to partner with others on these elements. Voluntary elements provide ways for the market to gain positive experience with “stretch” GB practices, and a starting point to build infrastructure. Performance of market-leading projects can be measured and evaluated. With maturity, it will make sense to periodically migrate additional GB practices to the mandatory code.

Three GB Program elements are designated as “voluntary, market-driven, and above-code:” education and training, recognition, and incentives. The project team has not yet focused on the development of any of these elements but the work to date suggests some general directions and ideas to pursue.

Education and training will be needed by a variety of audiences, to support GB Code requirements and voluntary practices. It is a logical area for partnering with existing organizations that are already active in this arena.

Staff believes that recognition programs will be best handled by relying on existing GB rating systems, such as the Leadership in Energy and Environmental Design (LEED) Green Building Rating System, ENERGY STAR New Homes, National Green Building Standard and Green Globes. The verification infrastructure has already been developed to support these systems (more mature for some than others). The City can consider which systems and levels within these systems are appropriate to recognize green building projects in the community. Third-party verification costs can be significant; to justify participation, builders and owners will have to see the market value of recognition and other benefits of green building.

Staff has encouraged the Technical Review Advisory Committee to suggest incentives it feels would be effective, while recognizing two constraints: the City’s very tight budget condition and little opportunity for fast-tracking development review or permit approvals (given the strides that have already been made in the speed of the City’s normal review process).

Based on suggestions to date, these potential incentive areas seem most promising to further investigate:

- **Fee-related incentives.** When the adoption of a GB practice by a developer or builder reduces City infrastructure or service costs, fees associated with that project would be reduced. For example, reduce stormwater fees (development fees and/or monthly payments) when developers implement practices that reduce runoff. Even in cases where such fee incentives already exist, there may be the potential to increase the reward for desirable green practices. There is an educational opportunity for the City to promote these cost-savings to the building community.
- **Flexibility for innovative projects.** This is an idea that takes a big-picture view of what the City is trying to accomplish with green building. Stakeholders who have proposed projects in the City noted that they typically deal with front-line staff during the development review process. Stakeholders were generally quite complimentary about their interactions with staff but have observed that front-line staff have little latitude in applying City regulations. This has been a challenge for stakeholders who would like to do greener projects that incorporate less familiar design approaches or are trying to build on more difficult sites (such as infill sites). It was suggested that, if the City truly wants to see greener, more innovative projects succeed, flexibility/exceptions should be added to development regulations. It was also suggested that the applicant should initially be given the opportunity to make their case for such flexibility with top management, who could authorize such down the line.

- **Subsidies for third-party verification costs.** If applicants wish to receive recognition by the City based on meeting certain levels in existing GB rating systems, third-party verification costs can be substantial. If the City wishes to pull the market via this voluntary approach, a subsidy provided by the City would increase participation.
- **Tax-increment reimbursement.** When certain GB practices are implemented, some portion of the increased property tax for the higher-value building is returned to the owner in early years through a rebate or other mechanism; the proportion of the tax that is reimbursed would gradually scale down.
- **“Feebates.”** There may be opportunities to provide incentives for projects that meet certain criteria. The money to pay the incentives would be raised through fees on other projects that do not meet the criteria.

These are high-level ideas that will need further discussion and development if they appear feasible.

Existing Utilities incentives that support green building practices (Integrated Design Assistance Program, Electric Efficiency Program, Residential Sprinkler Equipment Rebates) could be further leveraged as well.

Integration

The GB practices reflected in the model GB Codes and rating systems are pieces of a larger puzzle. Staff has observed that applicants who focus on individual pieces of the puzzle can meet all requirements and still end up with a costly building that doesn't work very well. The best outcomes – greatest positive impacts at the lowest cost – typically occur when owners and designers take a truly integrated approach, starting with clear goals, carried through site and building design, construction and commissioning. There is no easy recipe for integration; it requires a talented team that is passionate about meeting project goals. These are the kinds of projects the City should make special efforts to help succeed.

Resources

Accelerating green building in Fort Collins will require additional resources. There will likely be higher front-end costs for owners and buyers who implement additional GB practices. More City resources will also be needed to complete development of, implement and evaluate GB Program elements. The current project will roughly estimate these resource needs.

Next Steps

Unless Council feedback at this work session directs otherwise, staff will proceed in the directions suggested in “Status and Observations” above. Based on experience to date and assuming no change in resources to support the project, staff anticipates the following timeline and milestones:

- Mandatory GB practices – building-related provisions
 - Complete model GB Code review process: mid-October 2010
 - Draft proposal (key components identified but Code language not yet developed): mid-November 2010.
 - Public outreach: late November 2010 through mid-January 2011
 - Revisions, Code language development, estimate of implementation resource needs and proposed implementation schedule: late February 2011.
 - Proposed Code package to Council for consideration on First Reading: March 15, 2011
- Mandatory GB practices – land-use-related provisions
 - Site and lot development general recommendations forwarded to Development Lead Team and Plan Fort Collins project team: July 1, 2010
 - Consideration of GB provisions related to the Land Use Code and other appropriate City regulations: after policies are determined by Plan Fort Collins process.
- Voluntary elements of GB Program (education and training, recognition program, incentives)
 - Concepts developed and initially screened for feasibility: November 15, 2010
 - Public outreach: late November 2010 through mid-January 2011
 - Further project definition and estimate of resource needs to complete development: late February 2011.
 - Report status to Council: March 15, 2011
- Optional: An additional work session in early 2011 to review draft proposals for mandatory GB practices, voluntary element progress and summary of feedback from public outreach.

ATTACHMENTS

1. City Council Work Session Summary – January 12, 2010 re: Green Building Program Update
2. Green Building Program Quarterly Report: First Quarter 2010
3. Green Building Program Quarterly Report: Second Quarter 2010
4. Green Building Program Advisory Committee Membership
5. Residential Technical Review Advisory Committee Membership
6. Commercial Technical Review Advisory Committee Membership
7. Community Engagement Log
8. PowerPoint presentation

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Memorandum

DT: January 15, 2010

TO: Mayor and City Councilmembers

TH: Darin Atteberry, City Manager
 Brian Janonis, Utilities Executive Director

FR: Patty Bigner, Utilities Customer and Employee Relations Manager
 Doug Swartz, Utilities Energy Services Engineer
 Felix Lee, Utilities Green Building Codes Project Manager

RE: Work Session Summary – January 12, 2010 re: Green Building Program Update

On January 12, 2010, City Council held a Work Session to discuss a proposed Green Building Program. All Council Members were present except Councilmember Poppaw. Staff members making presentations and answering questions were Brian Janonis, Doug Swartz, John Phelan, Felix Lee, (Utilities); and Mike Gebo (CDNS).

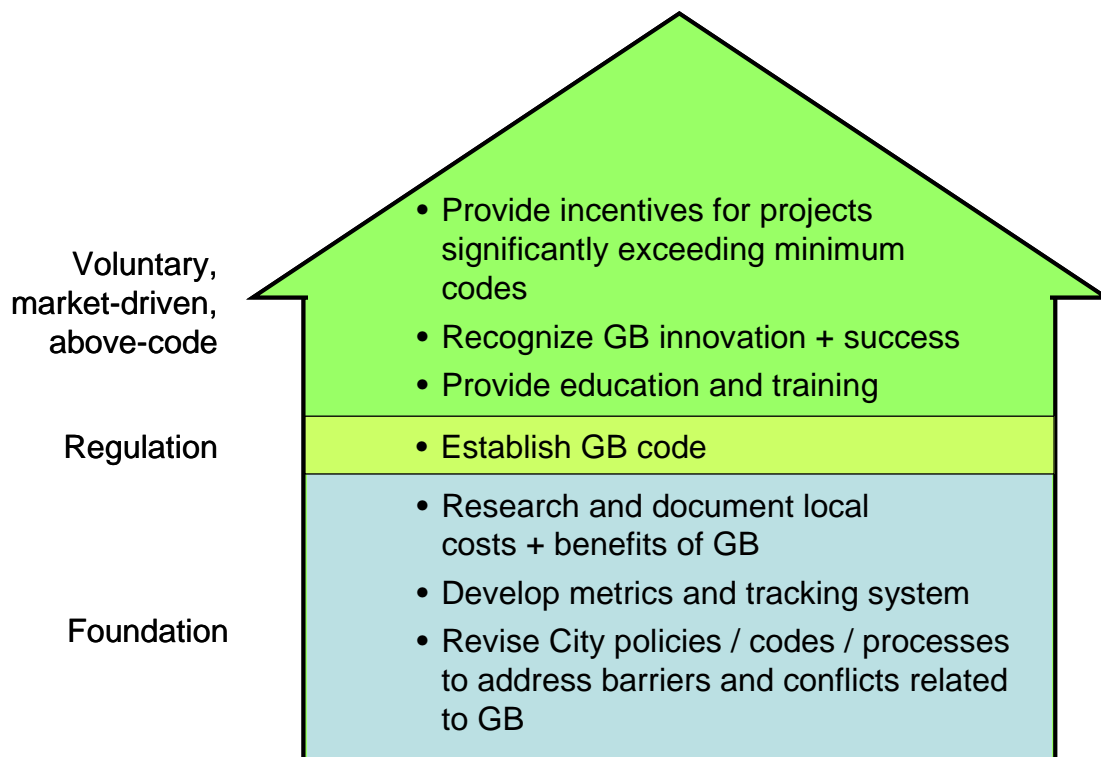
There was extensive discussion and many clarification questions regarding the Green Building Program. Each Council Member provided their individual perspective and feedback. Council generally is supportive of moving ahead with the proposed approach. The following issues were identified as important:

- **Integrated framework.** Council supports the market transformation design of the proposed plan, balancing voluntary, market-driven, above-code elements to “pull” the top end of the market while a green building code “pushes” the bottom end. They feel there is merit in the concept of using a single framework as the basis for both the regulatory and reward elements of the Green Building Program.
- **Interdepartmental coordination.** Council agrees that the integrated approach of the Green Building Program and the element addressing the removal of barriers from existing City codes / policies / processes will be a positive step in strengthening interdepartmental collaboration and consistent green building support across City work areas. The City Manager recognizes the need for top management to support these efforts.
- **Accountability.** Council supports the development of a substantive, results-oriented program with well-defined metrics that are tracked over time.
- **Economics.** Council requests staff provide information on costs and benefits when a green building code proposal is brought to Council, including initial, life-cycle, individual and public costs and benefits.

- **Points-based rating system.** There are varying perspectives among Council Members on pros and cons of a points-based rating system, such as the *National Green Building Standard™*, as the basis for a green building code. Some feel that the flexibility of such an approach, allowing different paths to a given performance level, is a benefit while others are concerned about the potential to “game” the system and evade important features. All Council Members support staff moving ahead with a points-based system, carefully considering these concerns.
- **Local code amendments.** Council Members discussed issues related to the potential number of amendments that may be necessary to reflect local conditions and community values. On further discussion, the consensus direction to staff is to proceed on code development, with local amendments based on documented need.
- **Existing buildings.** Council wants clarifications about how a green building code would apply to existing buildings.
- **Timeline.** Council supports the proposed timeline. They understand that the commercial/industrial (C/I) green building code development will lag the residential code, because the model C/I standards have not yet been published. Staff will work to bring a proposed C/I code to Council on the same schedule as a residential code proposal.
- **Community engagement.** Council directed that staff broadly engage the community in the development of the Green Building Program, reaching out well beyond the stakeholders who will be directly affected.

Next Steps

- Continue development of Green Building Program, with quarterly progress reports beginning March 31, 2010.
- Green Building Program update at Work Session on July 13, 2010.
- City Council consideration of the adoption of a green building code, first quarter 2011.





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MEMORANDUM

DATE: March 17, 2010

TO: Mayor and City Council Members

THRU: Darin Atteberry, City Manager

FROM: Brian Janonis, Utilities Executive Director
Patty Bigner, Utilities Customer and Employee Relations Manager

CC: Affordable Housing Board
Air Quality Advisory Board
Building Review Board
Commission on Disability
Electric Board
Natural Resources Advisory Board
Planning and Zoning Board
Water Board

RE: Green Building Program Quarterly Report

Purpose

The purpose of this First Quarter 2010 Report is to update City Council on progress related to the development of the Green Building Program (GBP), in accordance with the direction received at the January 12, 2010 City Council Work Session and the GBP elements (Figure 1).

Significant Events this Quarter

The following have been the focus for the 2010 GBP components during the first quarter:

- Developing work plans for the priority GBP elements: 1) Establish Green Building Code; 2) Research and Document Local Costs and Benefits; 3) Develop Metrics and Tracking System;
- Developing criteria and specific lists for three committees: 1) Residential Technical Review Advisory Committee (R-TRAC); 2) Commercial Technical Review Advisory Committee (C-TRAC); and 3) Green Building Program Advisory Committee (GBPAC);

Green Building Program Quarterly Report
March 17, 2010

- Coordinating staffing requirements, including: 1) GBP administrative support staff (Amada Sutton); 2) facilitation service provider for the three committees (Suzanne Derkin-Schindler); and 3) analytical consulting services (Brendle Group);
- Developing a consultant scope of work for the GBP element Research and Document Local Costs and Benefits;
- Staff planning meetings related to the GBP element Develop Metrics and Tracking System;
- Continued public outreach at green building community events;
- Networking with: 1) Colorado and nationwide administrators of green building programs; 2) senior staff with the International Code Council (ICC) regarding the residential and commercial GB standards; and 3) metro Denver and front range jurisdictional regional green building program effort—a Colorado Governor’s Energy Office (GEO) funded initiative; and
- Planning the April 2010 kickoff orientation meeting and ongoing committee (TRAC and GBPAC) meetings.

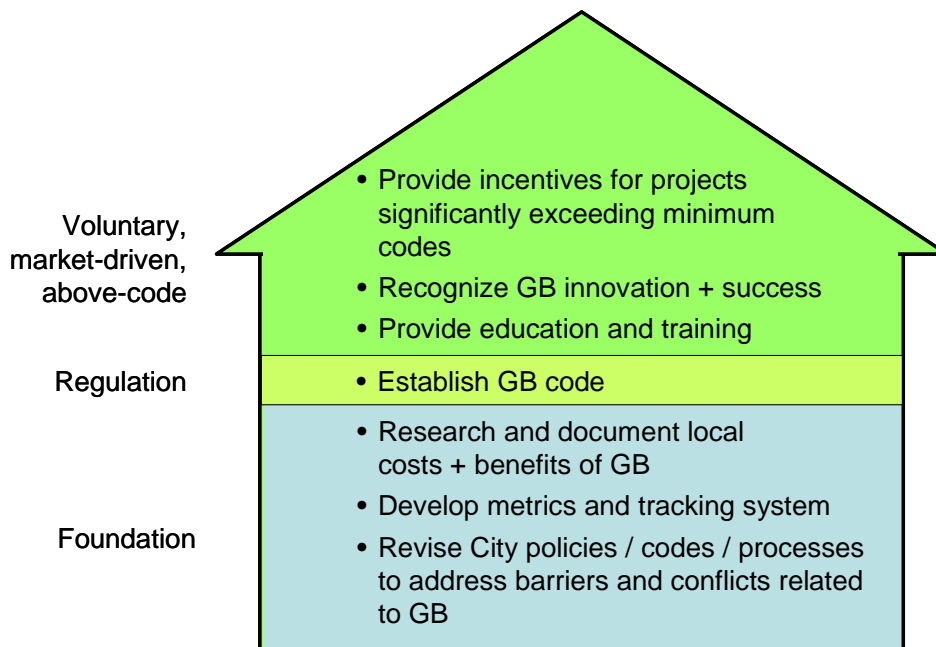


Figure 1: Green Building Program Elements

Green Building Program Quarterly Report
March 17, 2010

Project Cost through March 2010

The table below provides a summary of the project costs for the GBP development project.

Description	Current Quarter	Year to Date
Supplies (National GB Standard hard copies for committee members, LEED reference manuals)	\$1,960	\$1,960
GPB dedicated staff	\$21,500	\$21,500
Conference call with International Code Council senior staff/Colorado code officials	\$30	\$30
Total	\$23,490	\$23,490

The City's work plans for the Energy Efficiency and Conservation Block Grant (EECBG) were approved on March 12. The funding and related financial tracking will be in place during the week of March 22. This funding will cover GPB dedicated staff and other expenses related to the GB code process.

Process and Anticipated Schedule

This section describes the project process, along with the anticipated schedule (Figure 2).

Interdepartmental Coordination

This is an interdisciplinary project that requires participation and engagement from management and staff in several work areas, including: Utilities, Development Review, Advance Planning, Historic Preservation, Natural Resources, Transportation, Operations Services, Economic Development, and City Attorney staff.

The groundwork for collaboration and coordination was laid with a number of Energy Services Green Building Team (GBT) meetings in Fall 2009, including a Green Building Retreat at the end of November with representatives from the interdepartmental work groups. Since the retreat, we have called on several staff members from other departments to help develop the GBP framework and provide input as certain elements have begun to be defined.

Throughout the GBP process in 2010, we will continue to solicit assistance from staff members, whose jobs and expertise bear on portions of this work, to develop an internal seamless development review process, and, integrate the GBP with related city program and policies.

The GBT has a standing agenda item at the monthly City staff Development Lead Team meeting to provide regular updates and solicit assistance.

Green Building Program Quarterly Report
March 17, 2010

Community Engagement

The overriding criterion for community engagement is transparency of process. We plan to accomplish this with a multi-pronged approach:

- Public transparency. We will make program development information available to anyone who is interested, via the City web site, on a close-to-real-time basis. We will be setting up a system that electronically pushes information to interested stakeholders on a regular schedule, as well as an e-mail link that provides an easy way for citizens to comment.
- TRAC committees. We're recruiting two technical review advisory committees, composed of volunteers with diverse opinions and expertise in residential and commercial building industries, to make recommendations for adapting the two green building standards consistent with our community values. The recommendations will be presented to Council for their consideration. These committees will meet twice monthly for approximately six months and longer if needed, led by GBT staff with a professional facilitator.
- GBPAC committee. We're recruiting a high-level advisory committee that represents a broad diversity of City staff and community stakeholders who have an interest in green building practices and/or represent identified interests. We will keep them informed and ask for input about the direction of the evolving GBP as a whole. Education about green building practices will be part of the agenda. We will be meeting with this group four times throughout the year, or as necessary, led by GBT staff with a professional facilitator.
- Open houses. As work on all the GBP elements progresses, we will host public houses to report progress and solicit feedback.
- Boards and commissions. Interested boards and commissions, as copied on this report, will receive these quarterly reports. We will also make presentations regarding the emerging package to these and other interested boards and commissions.
- "Road show." In the fall, we will present the emerging package to interested community groups.
- Plan Fort Collins. We will coordinate GBP public outreach with Plan Fort Collins outreach.

GBP Elements

As described above, staff has identified three GBP elements as the highest priority for initial development; 1) Establish Green Building Code; 2) Research and Document Local Costs and Benefits; and 3) Develop Metrics and Tracking System.

Work on these three elements will also provide much insight into City process barriers, education and training needs, and the basis for public recognition and incentives. The GBP will be developed as an integrated package.

Green Building-Construction Codes

Green Building Program Quarterly Report
March 17, 2010

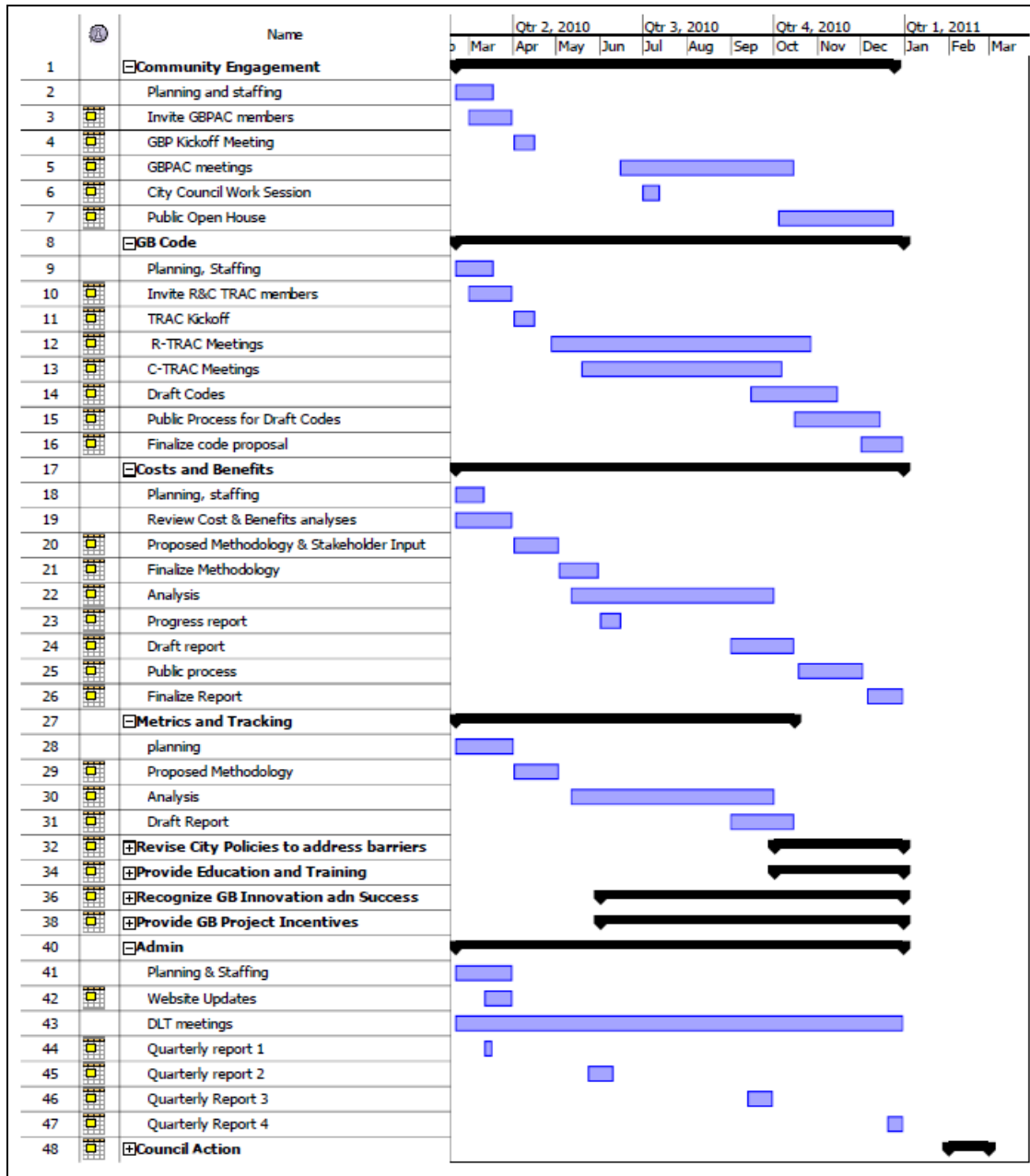
The GB code process will involve two TRACS—one each for the residential and commercial code—and a GBPAC (as noted above) to shape the code proposal for Council’s consideration. These committees will be led by GBT staff with a professional facilitator. Feedback from public outreach will also be incorporated. A consultant will provide analysis and data for this process. Various City staff will be involved at different parts of the process as it relates to their particular work and expertise.

The code review and development process will begin with an April 2010 kickoff event that includes both TRACs, the GBPAC and City management whose work areas touch on green building. At the kickoff event, an overview of the GBP, including the green building codes, will be presented, along with the process that will be followed in adapting the model codes.

Draft code packages are targeted for public input in November, allowing the code proposals to be finalized for Council consideration in early 2011.

Green Building Program Quarterly Report
March 17, 2010

Figure 2: Green Building Program Schedule, Tasks and Milestones





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MEMORANDUM

DATE: June 30, 2010

TO: Mayor and City Council Members

THRU: Darin Atteberry, City Manager

FROM: Brian Janonis, Utilities Executive Director
Patty Bigner, Utilities Customer and Employee Relations Manager

CC: Affordable Housing Board
Air Quality Advisory Board
Building Review Board
Commission on Disability
Electric Board
Economic Advisory Commission
Landmark Preservation Commission
Natural Resources Advisory Board
Planning and Zoning Board
Water Board

RE: Green Building Program Quarterly Report: Second Quarter 2010

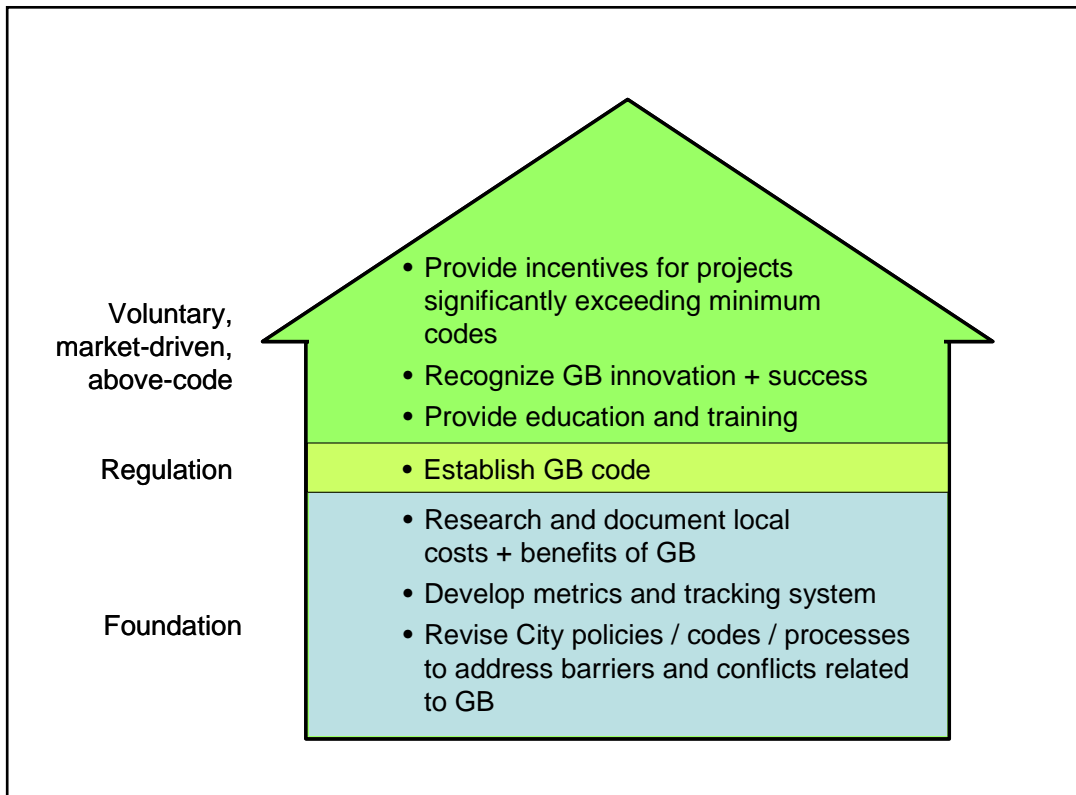
Purpose

The purpose of this report is to update City Council on progress related to the development of the Green Building Program (GB Program) during Second Quarter 2010.

Program Goal and Approach

The goal of an ongoing GB Program is to increasingly align Fort Collins' built environment with community goals of reduced carbon emissions, energy use and water use. The general approach is an integrated framework that transforms the Fort Collins building market through a balance of regulation and voluntary elements (Figure 1).

Figure 1: Green Building Program Elements



Significant Events this Quarter

- GB Program Kickoff Meeting - April 21, 2010. Attended by City staff and members of three advisory committees: the Green Building Program Advisory Committee (GBPAC), Residential Technical Review Advisory Committee (R-TRAC) and Commercial Technical Review Advisory Committee (C-TRAC);
- Green Building code review process began April 28 and is well underway, working closely with the R-TRAC, C-TRAC and staff subject-matter experts (SME) from other City departments;
- Benchmarking example projects;
- Costs and benefits analysis;
- Web site development; and
- Continued community engagement.

Progress

This section describes the project process and progress to date.

Process / Community Engagement

Work on this project is proceeding via collaboration among staff, community stakeholders, consultants and a facilitator.

- **Staff.** A Green Building Team, consisting of several Utilities Energy Services staff, leads the project. Staff members from other departments participate as SMEs. A monthly Development Lead Team meeting keeps management from a variety of departments informed on project progress and direction and helps coordinate this project with others such as the adoption of the 2009 International Codes (Building Department) and Plan Fort Collins (Advance Planning).
- **Community stakeholders.** Three standing committees (GBPAC, C-TRAC, R-TRAC) – described in the First Quarter 2010 report – have been formed to advise staff and serve as a sounding board as recommendations take shape. The TRAC teams meet approximately twice monthly with staff on the GB code review (described below). The GBPAC will meet three to four times in 2010; the second GBPAC meeting is scheduled for July 7.
- **Consultants.** The Brendle Group is taking the lead on the costs and benefits analysis, and is providing additional analytical support, including green building standards comparisons and benchmarking, for the GB code review. EnergyLogic has been contracted to do a small amount of additional benchmarking analysis.
- **Facilitator.** Susanne Durkin-Schindler facilitates the three standing committees, helping to increase the efficiency of stakeholder meetings while ensuring that all perspectives and ideas are heard.

In addition to the community involvement via the stakeholder committees, other community engagement activities this quarter have included:

- **Web site.** Information and opportunities to provide input are available via the project web pages (www.fcgov.com/utilities/gbp.php).
- **Public meetings.** All GB Program meetings are open to the public. These meetings are listed on the project web site and City calendar.
- **Outreach**
 - Community For Sustainable Energy, April 8: Staff provided an informal update on the plans for GB Program development.
 - Landmark Preservation Commission, May 26: Staff delivered a presentation on the GB Program work.
 - Water Board, June 17: Staff provided an update on the GB Program work.
 - 2009 International Code City Open House, June 17: Staff was available to answer questions on the GB Program and its relationship to the proposed adoption of 2009 model International Codes.
 - Plan Fort Collins Community Workshop, June 29 and 30: Staff talked with community members at an outreach table on the GB Program.

Green Building Code Review

A comprehensive review of two model green building codes – *National Green Building Standard*™ (NGBS, residential) and *International Green Construction Code*™ (IgCC, commercial) – is in progress. The review involves a detailed evaluation of each green building practice contained in the model codes to determine: 1) green building practice intent; 2) if the practice is already addressed in existing City/other regulations and procedures; 3) how well the current process is working; and, 4) qualitative triple bottom line benefits (people, money, and environment). This information provides the basis for recommendations on how to move forward with each model code provision or its intent. The review process begins with staff – the Energy Services Green Building Program staff and SMEs from other City departments – and continues with community input via the two TRACs. The review process is about one-third completed.

To support the code review, several buildings are being benchmarked against the model codes. This helps to ground the review process by ranking actual Fort Collins projects against the code standards, and evaluating costs and performance benefits of more aggressive code levels.

While structured around the green building code, this process also informs and helps staff make progress on all of the other GB Program elements.

Costs and Benefits Analysis

The Brendle Group is responsible for performing a green building costs and benefits analysis. To date, the consultant has developed the methodology and is beginning to collect data. A public meeting to discuss and gather feedback on the proposed methodology took place May 17.

Observations and Program Direction

Even with much work remaining to complete development of the GB Program elements, extensive insight has been gathered through the process to date. Stakeholder involvement has been invaluable in this regard. Staff is currently synthesizing key observations and the directions they suggest for an effective GB Program, for a City Council update at the July 13 Work Session.

Project Cost

The table below provides a summary of the project costs, for the current quarter and year-to-date, for the GB Program development project.

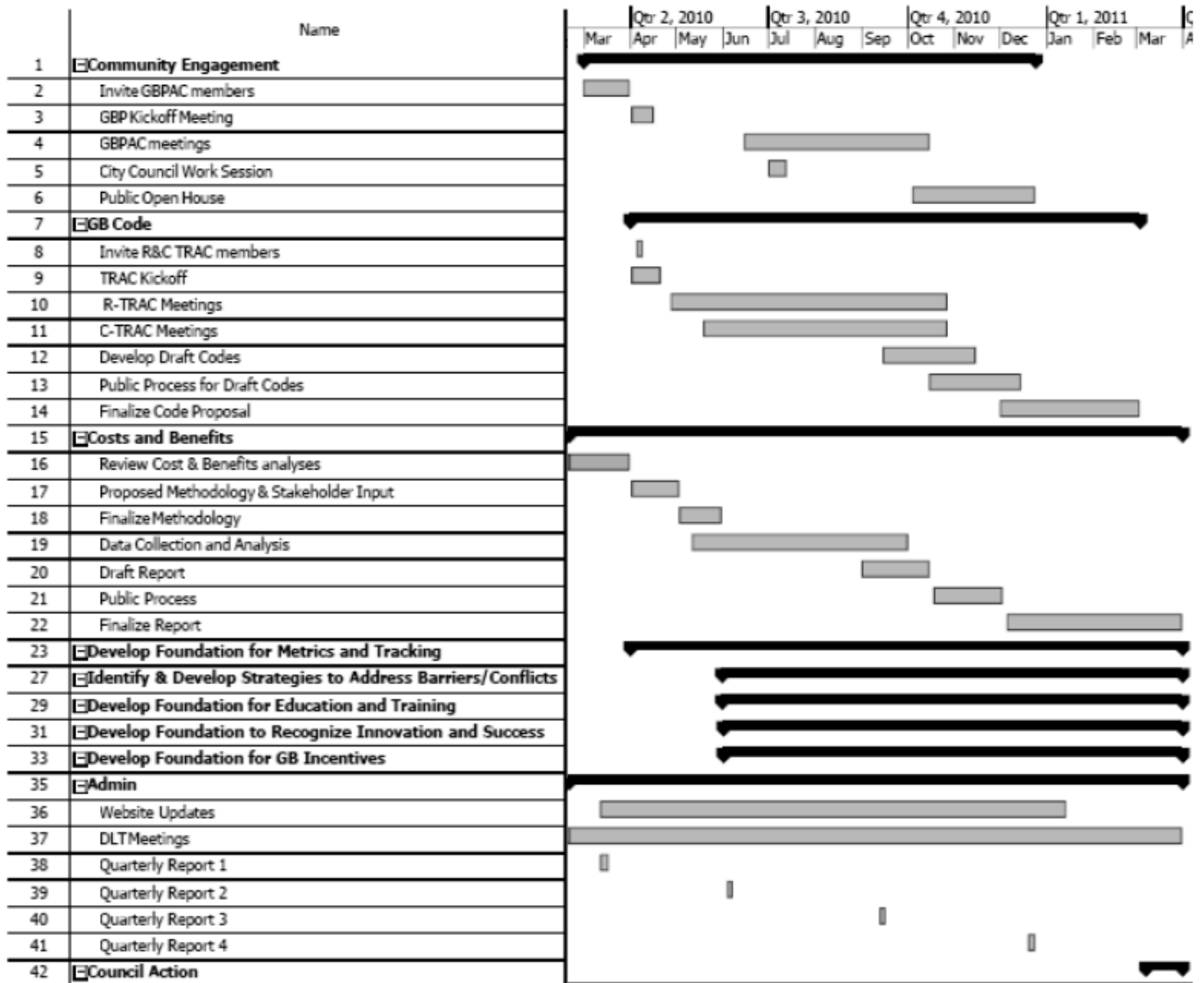
Description	Current Quarter	Year to Date
Materials (hard copies of green building code templates, reference manuals)	\$2,306	\$4,266
Meetings (kickoff meeting venue + refreshments, refreshments for TRAC meetings)	\$1,729	\$1,729
Education / networking (webinars, conference calls)	\$220	\$250
GPB dedicated staff *	32,666	54,166
Facilitator (contractual)**	\$4,118	\$4,118
Consultants (contractual)**	\$27,054	\$27,054
Total	68,093	91,583

* The City's Energy Efficiency and Conservation Block Grant covers the cost of GB Program dedicated staff.

** Billing estimates were used for consulting services rendered in June. Actual invoices will be received and paid in July; any differences will be reflected in third quarter report.

Green Building Program Quarterly Report, June 30, 2010

Project Schedule, Tasks and Milestones



Green Building Program Advisory Committee Members

Organization/Company	Representative
American Institute of Architects/Colorado North	Fred Roberts
Appraisal Institute/Colorado Chapter	Marge Moore
Community for Sustainable Energy	Andrew Michler
CSU-Institute for the Built Environment	Brian Dunbar
Fort Collins Board of Realtors	Todd Gilchrist
Fort Collins Chamber of Commerce	Ann Hutchinson
Fort Collins Housing Authority	Mike Salza
Fort Collins Sustainability Group	Andrew Michler
International Facilities Management Association	Matt Horner
Northern CO Commercial Assoc. of Realtors	Peter Kast/ Joshua Guernsey
Northern Colorado Assoc. of Home Builders	Bob Peterson
Northern Colorado Renewable Energy Society	John Fassler
Poudre School District	Mike Spearnak
Rocky Mountain Sustainable Living Association	Kellie Falbo
Sierra Club/Poudre Canyon Group	Shane C Miller
USGBC-Northern CO branch	Bill Hofmann
Individuals	
Everitt Companies	David Everitt
Sage2	Bill Franzen
Involved citizen	Mark Wanger
Boards and Commissions	
Affordable Housing Board	Mike Sollenberger
Air Quality Advisory Board	Rich Fisher
Building Review Board	Alan Cram
Commission on Disability	Mike Devereaux
Economic Advisory Commission	Stu MacMillan
Electric Board	John Graham
Landmark Preservation Commission	Bud Frick
Natural Resources Advisory Board	Glen Colton
Planning & Zoning Board	Andy Smith
Water Board	Phil Phelan

City Management	
Neighborhood & Building Services	Steve Dush
Economic Development	Mike Freeman
City Manager's Office	Helen Migchelbrink
Natural Resources	John Stokes
Fort Collins Utilities	Patty Bigner
Fort Collins Utilities - Light & Power	Steve Catanach
Fort Collins Utilities - Water	Jon Haukaas
Fort Collins Utilities - Water	Kevin Gertig
Advance Planning	Joe Frank
Operations Services	Ken Mannon
Neighborhood and Building Services	Mike Gebo

Residential Technical Review Advisory Committee Membership

Member	Company	Expertise
Jeff Schneider	Armstead Construction	Builder / new + remodel
Gil Paben	Aspen Construction	Builder / new + remodel, radon mitigation contractor
Rob Sabin	Aspen Homes of Colorado	Builder / production homes
Alex Blackmer	The Atmosphere Conservancy	Energy efficiency + renewable energy, custom builder
Chadrick Martinez	Care Housing, Inc.	Affordable housing developer and owner
Dana McBride	Dana McBride Custom Homes	Architect and builder / custom homes
Michelle Jacobs	Fort Collins Board of Realtors	Real estate
Bob Hand / John Sailer	Habitat for Humanity	Affordable housing builder
Gordon Winner	HighCraft Builders	Remodel contractor
Laura Barrett / Mark Benjamin	Institute for the Built Environment	Green building education and consulting (students)
Larry Buckendorf	J&J Construction of Northern Colorado	Developer and builder / production homes
Michael Bello	Larkspur Homes, LLC	Builder and project manager
Rob Ross	Merten Design Studio	Project architect
Neil Kaufman	National Center for Craftsmanship	Deconstruction and training
Dennis Sovick	Sovick Design Builders	Designer and builder / custom homes + remodel
Lara Williams	The Green Team Real Estate	Real estate
James Mitchell	The Group Real Estate	Real estate
Linda Ripley	Vaught-Frye-Ripley Design	Master planning + landscape architecture
Terence Hoaglund	Vignette Studio	Developer / landscape architect / designer / builder

Commercial Technical Review Advisory Committee Membership

Member	Company	Expertise
Brad Massey	Aller Lingle Massey Architects PC	Architect
Steve Steinbicker	Architecture West	Architect
Corey Rhodes	Beaudin-Ganze Consulting Engineers	Mechanical Engineer
Rick Coen	Bella Energy	Solar
Gino Campana	Bellisimo Inc.	Construction Management
Angela Milewski	BHA Design	Landscape Design/LEED
Josh Guernsey/ Peter Kast	Brinkman Partners	Real Estate
Doug Dohn	Dohn Construction	Construction Management
Greg Fisher	Fisher Architecture	Architect
Josie Plaut	Institute for the Built Environment	LEED/Green Building
Ema Rankin	Milender White Construction	Construction Management
Jeff Giles	Nolte & Associates	
Pete Hall	PSD	Green Building/ Operations
Sandy Willison	Starwood Construction Mgmt	Construction Management
Matt Horner	Trane	HVAC Systems & Controls/Facility Management

Building Officials*

Jurisdiction	Representative
Larimer County	Tom Garton
Safe Built	Russ Weber
City of Loveland	Tom Hawkinson
City of Longmont	Chris Allison
City of Fort Collins	Russell Hovland

* Building Officials are invited to attend both TRAC meetings.

Community Engagement Log

Date	Staff	Stakeholder(s)	Event / Setting / Venue	Notes
9/28/2009	Green Building (GB) Team, Patty Bigner, Jeff Scheick	Ann Hutchison, FC Chamber of Commerce and Michelle Jacobs, FC Board of Realtors	City Hall	Met, at request of Michelle and Ann, to discuss general ideas about ramping green building efforts back up.
9/30/2009	GB Team, Robin Pierce	Water Board (WB)	700 Wood Street	At WB's request sent cover memo with copy of 9/30/09 Green Building Program (GBP) update memo to Council via City Manager's Office.
12/2/2009	Felix Lee, Doug Swartz	Electric Board	City Hall / regular meeting	Heads-up about evolving GBP plans including code development.
12/16/2009	Felix Lee, Gary Schroeder,	Natural Resources Advisory Board	215 North Mason /regular meeting	Heads-up about evolving GBP plans including code development. Concern expressed about process taking too long and will the National Green Building Standard (NGBS) be watered down.
12/17/2009	Felix Lee, Doug Swartz	Building Review Board	City Hall / regular meeting	Heads-up about evolving GBP plans including code development. Concerns about how the NGBS would impact the limited buildable lots and interface with the International Energy Construction Code (IECC) as a mandated code.
12/4/2009	Felix Lee, Gary Schroeder	Planning and Zoning Board	281 North College / work session	Heads-up about evolving GBP plans including code development. Concerns about costs to certify projects as with LEED.
1/7/2010	Felix Lee, Gary Schroeder	Affordable Housing Board	281 North College / regular meeting	Heads-up about evolving GBP plans including code development. Some serious concerns about adding small % cost increase will exclude many buyers in our market. One member very concerned builders had not yet been included in discussions. Staff reassured that the industry will be well-represented at the table when the public dialogue begins.

12/21/2009	Felix Lee, John Phelan	Air Quality Advisory Board	215 North Mason /regular meeting	Heads-up about evolving GBP plans including code element. Board members concerned about the national Association of Home Builders (NAHB) as the primary development organization created excessively low performance standards.
1/12/2020	GB Team, Patty Bigner, Brian Janonis	City Council + citizens (via Ch 14 and City web site)	City hall / Work session	GBP development plan presented, feedback gathered. See Work Session Summary.
1/14/2010	Felix Lee, Gary Schroeder	Commission on Disability	City Hall / regular meeting	Heads-up about evolving GBP plans including opportunity for possible code amendment that awards incentive points for "Universal Design" features in homes.
1/15/2010	Doug Swartz, Felix Lee, John Phelan	FC Chamber of Commerce Legislative Affairs Committee	FC Chamber of Commerce	Invited by Ann Hutchison. Presented GBP plans that had just been given the green light by Council. Lots of questions and comments, some cautionary, some supportive.
1/26/2010	Felix Lee, Doug Swartz	I-Code Review Committee	281 North College / regular meeting	Invited by Mike Gebo. Presented GBP plans with additional focus on how the GB code element will proceed. Lots of questions and comments.
2/5/2010	Doug Swartz, Felix Lee, Gary Schroeder	Patti Mason, Director of Advocacy, USGBC/Colorado	700 Wood Street	Met, at request of Patti, to discuss GBP plans and potential roles for USGBC
2/10/2010	Doug Swartz	Citizens (including via Ch 14 and City web site)	Sustainability Plus program, Residential Environmental Program Series, Drake Centre	GBP plans briefly mentioned by one of the panelists, Doug Swartz available to answer questions.
2/24/2010	Doug Swartz	Green Drinks participants	Green Drinks monthly gathering, InSitu building	Brief presentation on GBP plans.
4/8/2010	Doug Swartz, Ken Waido	Community for Sustainable Energy (CFORSE)	CFORSE invitation to visit at their office	Ken Waido received original invite to talk about Plan Fort Collins; he asked Doug to join him to address the Green Building Program. Few questions specifically on GBP.

4/28/2010	GB Team	TRAC meetings begin	Most at Streets Facility	Begin series of focused meetings on GB code review and development with R-TRAC and C-TRAC, each meeting approximately 2x/month thru October 2010.
5/7/2010	Lisa Kokes	Media + public		News release regarding the Costs & Benefits meeting held on 5/17/2010 and upcoming TRAC meetings.
5/17/2010	GB Team + Brendle Group	Costs + Benefits Analysis	Fort Collins Utilities / public meeting	Proposed methodology and survey tool presented; feedback solicited
5/26/2010	John Phelan	Landmark Preservation Commission		Update on Green Building Program
6/17/2010	Felix Lee, Doug Swartz	Water Board	700 Wood Street	Update on Green Building Program
6/17/2010	Felix Lee	Public	I-Code Open House /215 Community Room	Staff available to answer questions on the GBP
6/29 & 6/30	Amanda Sutton, Felix Lee	Public	Plan Fort Collins Open House/ Drake Centre	Staffed table with information on the Green Building Program.
7/1/2010	Felix Lee	Affordable Housing Board	281 North College	Update on Green Building Program
7/7/2010	GB Team	GB Program Advisory Committee Meeting	Planned	Update on Green Building Program and Costs and Benefits.

Green Building Program

City Council Work Session
July 13, 2010



Purpose of Work Session

- Provide update on Green Building Program development progress
- Receive City Council feedback and direction



Guidance Sought

- Is the Green Building Program development process on the right track?
- Will Council consider additional resources for implementation of mandatory green building practices?
- Does Council support green building practices being integrated into existing City regulations rather than as a standalone Green Building Code?
- Would Council like another work session in early 2011 before formally considering the proposed Code package on First Reading on March 15, 2011?

3



Presentation

- Background
- Progress
- Status and Observations
- Next Steps + Timeline

4



Background

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GB Program Goal

The goal of an ongoing Green Building Program is to increasingly align Fort Collins' built environment with community goals of reduced carbon emissions, reduced energy use and reduced water use.

(Other benefits, too)

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Green Building Program

Voluntary,
market-driven,
above-code

- Provide incentives for projects significantly exceeding minimum codes
- Recognize GB innovation + success
- Provide education and training

Regulation

- Establish GB code

Foundation

- Research and document local costs + benefits of GB
- Develop metrics and tracking system
- Revise City policies / codes / processes to address barriers + conflicts related to GB

7

GB Program Guiding Principles

- Support GB transition actively underway in the marketplace.
- Support quality building projects that can demonstrate substantive, measurable results.
- Support the development of City processes that are relatively simple and easily navigated.

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GB Program Guiding Principles

- Dovetail elements addressing individual buildings and lots with neighborhood- and urban-scale green elements.



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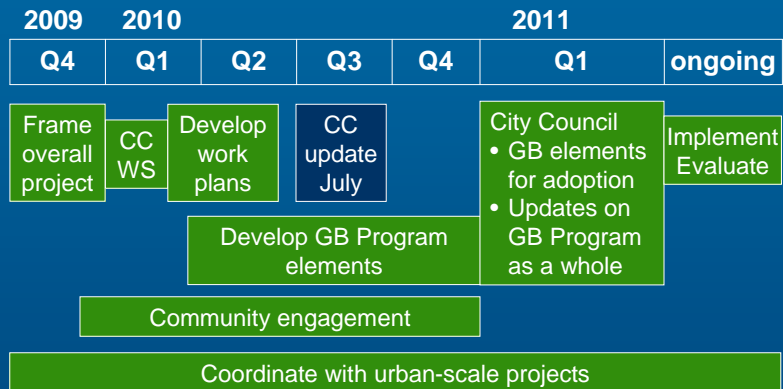
Advancing GB in Fort Collins

- Community engagement
- Strong interdepartmental collaboration
- Sustained City commitment + resources
- Focus on substance + accountability

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Milestones and Timeline



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Progress

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Process / Community Engagement

Process goals

- Broad range of stakeholders
- All views heard
- Transparent
- Effective

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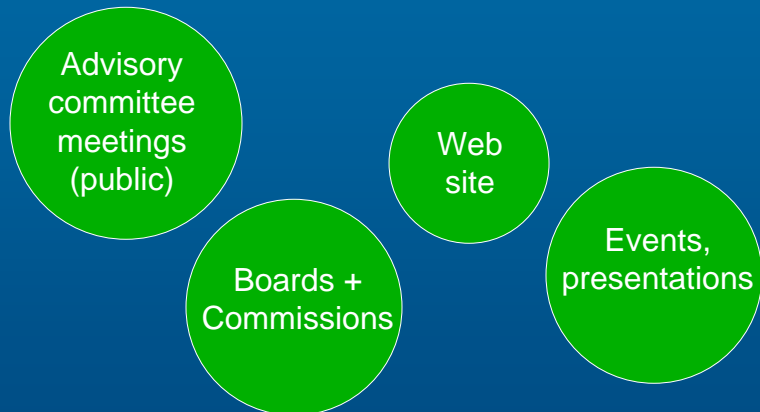
Players + Roles



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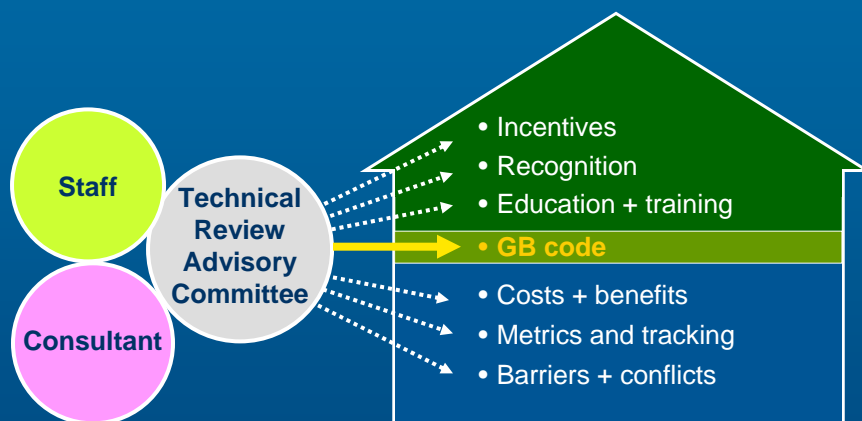
Community Engagement



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GB Code Review

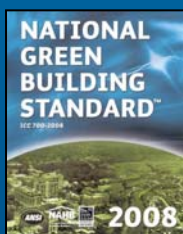


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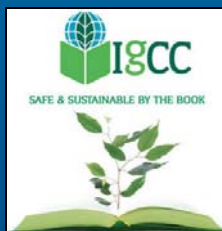


GB Code Review

Residential



Commercial



International Green
Construction Code



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City of
Fort Collins

GB Code Review



Green Building Categories Addressed

Site + Lot Development
Resource Efficiency
Energy Efficiency
Water Efficiency
Indoor Environmental Quality
Commissioning, Operations + Maintenance, Owner Education



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City of
Fort Collins

GB Code Review

Structured review process – every GB practice

- What is intent?
- Is language clear?
- Already addressed in existing regulations?
 - Where?
 - How well is it working?
- What are qualitative Triple Bottom Line benefits?
- Recommendation

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GB Code Review

Pass 1: Core staff

Pass 2: + Subject matter experts

**Pass 3: + Technical Review
Advisory Committee**

Approximately one-third complete

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GB Code Review

Benchmarking

- Rank actual projects on model codes
- Evaluate benefits + costs to reach higher levels
- Assess practical issues

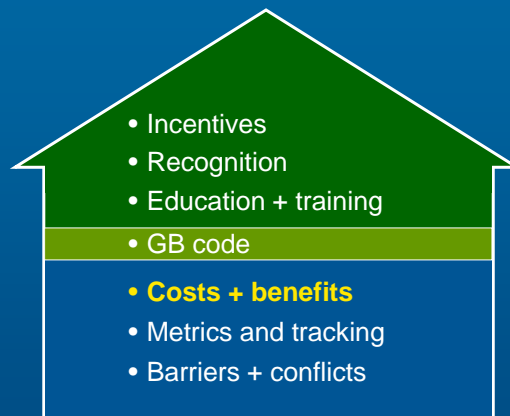
Green Category	Builder 1 Remodel	Builder 2 Affordable	Builder 3 Small Production	Builder 4 Large Green Custom
Resource Efficiency				
Energy Efficiency				
Water Efficiency				
Indoor Environmental Quality				
Operation				
TOTAL POINTS				
PERFORMANCE LEVEL				

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Costs + Benefits Analysis

- Research and document local costs + benefits of GB
- Inform GB Program development + decision-making
- Generate ideas for balancing benefits + costs



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Costs + Benefits Analysis

- National studies reviewed
- Methodology established
- Pilot test of methodology underway

Caution: Data scarce

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Status + Observations

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Process

Process is working well

- Broad mix of stakeholders
- Diverse opinions
- Systematic way for views to be heard
- Good collaboration among City departments

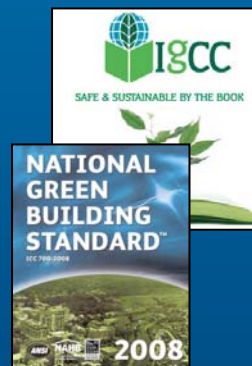
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Green Building Code

Model GB codes

- Represent great intent
- Different structures
- New – very limited track record



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Green Building Code

Model GB codes

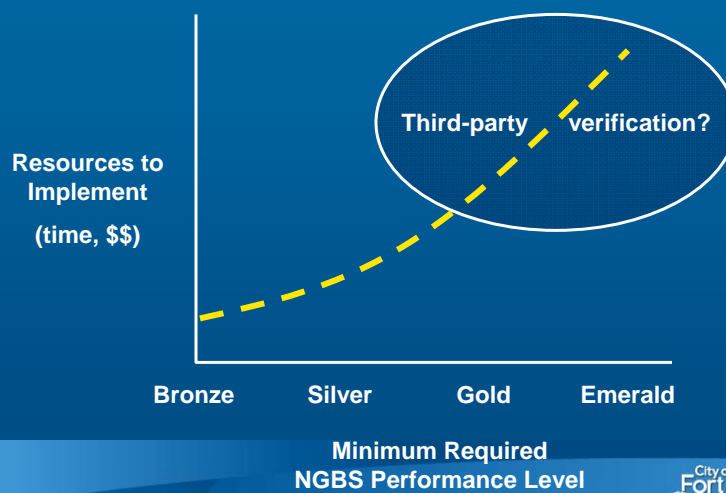
- Room for interpretation
- Much clarification needed
- Scope very broad
- Resources to document + verify compliance potentially large



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City of
Fort Collins

Green Building Code



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City of
Fort Collins

Green Building Code

Suggested direction

- Similar residential + commercial code structures
- Realistic scope for applicants + enforcers
- Focus areas
 - Energy efficiency
 - Water efficiency
 - Performance

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Green Building Code

Suggested direction

- Retain selected GB practices from model codes
 - “Low-hanging fruit”
 - “High-value”
 - Potential lost opportunities
 - Infrastructure exists or getting close
 - Enforceable by City staff

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Green Building Code

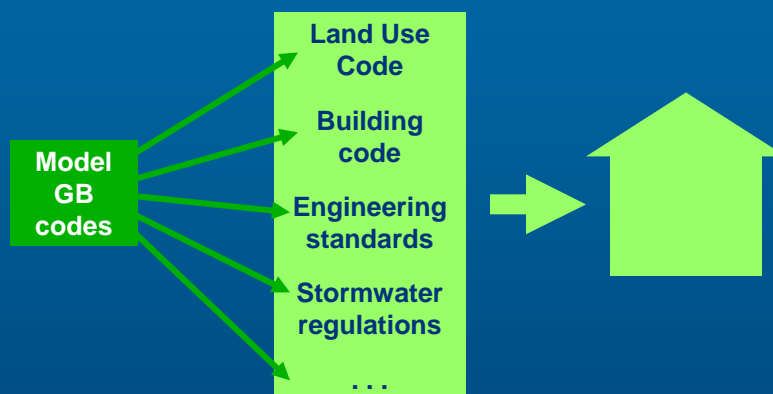
Suggested direction

- All selected GB practices mandatory
- Integrate mandatory GB practices with existing regulations rather than standalone GB code

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Green Building Code

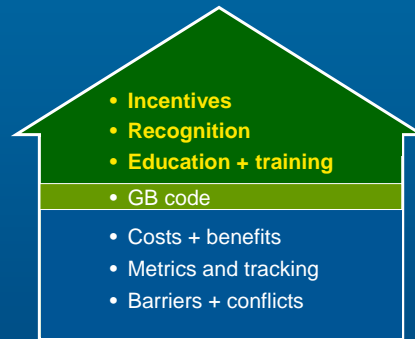


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Voluntary Elements

- Broader + further than code core GB practices
- Gain experience
- Build infrastructure
- Track performance
- With maturity, additional GB practices migrate from voluntary to mandatory



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City of
Fort Collins

Voluntary Elements: Recognition

Suggested direction

- Utilize existing rating systems / infrastructure
- Determine recognition level(s) City will support



Note: third-party verification costs

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City of
Fort Collins

Voluntary Elements: Incentives

Constraints

- City budget
- Fast-tracking

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Voluntary Elements: Incentives

Early ideas - all need study + development

- City fee reductions
- Flexibility in development regulations
- Subsidize third-party verification costs
- Tax increment reimbursements
- "Feebates"

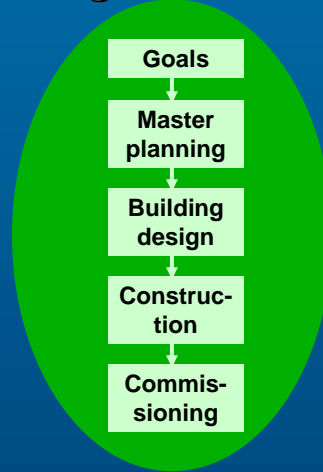
+ Leverage Utilities incentives

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Voluntary Elements: Integration

- Greater positive impacts at lower cost
- No easy recipe
- Not driven by code
- Flexibility in City requirements will facilitate innovation

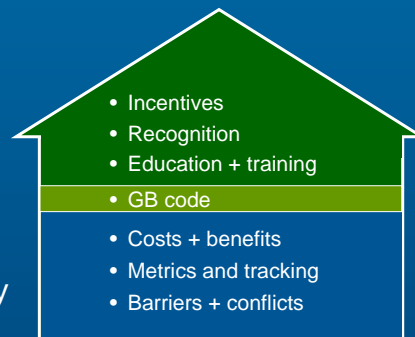


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Resources

- Moving GB faster in Fort Collins → resources
- Resources from owners
- Resources from City
 - Full development of all GB Program elements
 - Implementation
 - Evaluation
- Current project will roughly estimate resource needs

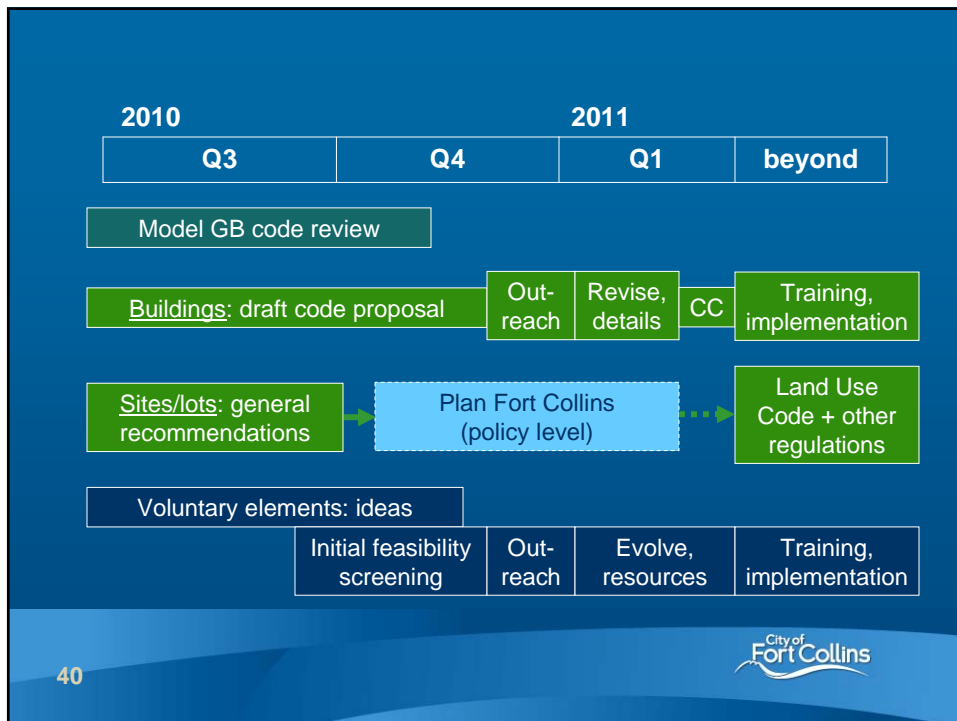


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Next Steps Timeline

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