

# Memorandum



CITY OF DALLAS

DATE February 29, 2008

TO Honorable Mayor and Members of the City Council

SUBJECT Citywide Green Building Program Briefing  
Council Meeting – March 5, 2008

Attached is the summary of program recommendations by the green building task force for the Citywide Green Building Program. The briefing will be presented to you at the March 5, 2008, Council meeting.

Please let me know if you have questions or need additional information.

  
Mary K. Subm  
City Manager

## Attachment

c: Honorable Mayor and Members of the City Council  
Thomas P. Perkins, Jr., City Attorney  
Deborah Watkins, City Secretary  
Craig Kinton, City Auditor  
Judge Jay Robinson, Judiciary  
Ryan S. Evans, First Assistant City Manager  
Ramón F. Míguez, P.E., Assistant City Manager  
Jill A. Jordan, P.E., Assistant City Manager  
A.C. González, Assistant City Manager  
David O. Brown, Interim Assistant City Manager  
David Cook, Chief Financial Officer  
Jeanne Chipperfield, Interim Director, Office of Financial Services  
Edward Scott, Interim Director, Office of Financial Services  
Chandra Marshall-Henson, Assistant to the City Manager – Council Office  
Rick Galcerán, P.E., Director, Public Works and Transportation

# CITYWIDE GREEN BUILDING PROGRAM

## Summary of Program Recommendations

Presented to the  
Dallas City Council

March 5, 2008



# Background and Overview

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- The City Council desires that all new construction in the City be built “green” and has asked staff to propose a program for making this happen by March 2008
- Green buildings help lower greenhouse gas emissions, improve air quality, conserve energy and water, reduce stormwater impacts, minimize waste, preserve natural resources, and enhance human health.
- This briefing presents the draft recommendations proposed by the Green Building Task Force (GBTF) for creating and implementing the citywide green building program

# Green Building Task Force



Established in **December of 2007**  
with members from the residential  
and commercial sectors:

- American Institute of Architects
- North Texas Homebuilder's Association
- Texas Real Estate Council
- QUOIN
- Hispanic Contractor's Association
- US Green Building Council - North Texas Chapter
- Dallas Independent School District
- Urban Forest Advisory Committee
- Other Industry & business leaders, and
- City Staff

**Developed recommendations for:**

- Components of the green building program
- Implementation steps
- Training and education programs for the building industry

# Green Building Task Force

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## Summary

The Task Force recommends a two-phase implementation strategy for the Green Building program requirements for all private developments in Dallas

Phase I, which will start in fiscal year 2009, focuses on energy efficiency and water conservation requirements for all residential and commercial developments

Phase II, which will start in fiscal year 2011, focuses on expanding the initiatives for new buildings into a comprehensive green building standard requirement

Within each Phase, the Task Force outlines a proposed implementation plan for each

# Green Building Task Force Members

The Green Building Task Force met between December 11, 2007 and February 29, 2008

- Ron Green, Facilitator, Texzon Utilities, Ltd.
- David Marquis
- Catherine Horsey, Sustainable Places
- Alan Hoffmann, Hoffman Homes
- Betsy del Monte, AIA (Dallas AIA), Beck Group
- David Paul Patton, AIA, DISD
- Neal Sleeper, Cityplace Co.
- Macey Davis, Texas Real Estate Council
- Annemarie Marek, Marek & Company
- Christian Osorio, Hispanic Contractors Assoc. n
- Barry Howard, Fairfield Residential
- Jack Baxley, QUOIN AGC
- Steve Burke, Hawkins Welwood Homes
- Paul Cauduro, Home Builders Association
- Amanda Popken
- Annie Trinh
- Britton Church, JLB Partners
- Christian Chernock, Cherntex Construction
- Cindy Stanley, USGBC North Texas
- Joseph Harberg, Current Energy
- Alan Wood, The Staubach Company
- Trelaine Mapp, The Warrior Group
- François deKock, Halff Associates
- Kelly Parker, Guaranteed Watt Savers (GWSSI)
- Ron Hastings, GWSSI
- Alex Guthrie, L.A. Guthrie General Contractors, Inc.
- Rosa Orenstein
- Patricia Gorman, Pegasus Texas Construction
- Phil Jimerson, DISD
- Paul Johnson
- Sam Latona, Turner Construction
- Richard Necaise, ICF International
- Shadwick Fuller, TEI Construction Engineering, Inc.
- Steve Miller, Texzon Utilities, Ltd.
- Ana Chouteau, Hall Financial
- Marc Sullivan, Icon Partners
- Lisa Alonzo, Azteca-Omega Construction

## City Staff:

Zaida Basora, AIA, LEED AP, Task Force Lead  
Kathleen Davis, Assistant Director of Building Inspection  
Art Torres, Dallas Water Utilities  
David Session, Building Inspection  
Stefan Kesler, Equipment and Building Services  
Raúl Martínez, Assistant Director of Building Inspection  
Megna Tahre, Office of Environmental Quality  
David Treviño, Public Works and Transportation

# Envisioned Future

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**“Dallas is Carbon Neutral by 2030 and is the Greenest City in the US”**

## **Program Goal**

**To improve air quality, reduce water use and improve transportation and land use through green building strategies**

## **First Milestone**

**From the US Seattle Mayor’s Agreement, achieve a 7% reduction in greenhouse gas emissions from 1990 levels by 2012**

# Greenest City in the US

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- Means that best practice green building strategies are standard in all design and construction projects in Dallas.
- Existing building stock is systematically improved
- Dallas and the north Texas region enjoy good air quality and have met the 8-hour standard for ozone
- Dallas green building program serves as a model for other communities



# Carbon Neutral by 2030

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- Will require City to measure all energy usage

## Carbon Neutral by 2030 means:

- Reducing current **building** energy use in Dallas City limits by **50%**
    - Can be accomplished by new building design efficiency, and
    - Existing building systematic retrofit and improvement
  - Encouraging fuel switching and renewable fuels- **40%**
  - Sequestration, trading and (REC's) – **10%**
- Data collection will be critically important in the next few years

# Program Details

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# Phase I Requirements

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**Proposed for adoption March 26, 2008**  
**Effective Date: October 1, 2009**

Divided into:

- All New Residential Construction
- Existing Residential Buildings
- All New Commercial Construction
- Existing Commercial Buildings

# New Residential

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## Mandatory Measures Effective Oct. 1, 2009

- **15%** better than the 2006 International Energy Conservation Code (IECC) as shown by:
  - IC3 – Energy Systems Lab, Inc. certificate
  - HERS index of 85, or
  - Alternatively, to prove that the **15%** requirement has been met, builders can use the following standards for compliance:
    - ENERGY STAR
    - Green Built North Texas
    - LEED H ,or
    - Approved equivalent standard

# New Residential- Cont.

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- Water fixtures **20%** better than Energy Policy Act (EPAAct) 1992
- Cool roofs for slopes **2:12** or less
- Requires submittal of checklist from one of the following:
  - Green Point, Green Communities, Green Built North Texas, LEED H , or approved equivalent standard

# Existing Residential

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## Mandatory Measures Effective Oct. 1, 2009

- **Triggered** by permit process for any major renovation with energy or water related improvements, **must** meet mandatory check list of **“Green Measures”**
- Requires submittal of checklist from one of the following:
  - Green Point, Green Communities, Green Built North Texas, LEED H , or approved equivalent standard

# Green Measures

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## Energy

**Choose a minimum two:**

- Add radiant barrier
- Increase attic insulation to R-38
- Install HVAC system components with average efficiency greater than code
- Seal all existing ducts- leakage rate must meet ENERGY STAR

**or provide evidence that shows:**

- Proposed modification will result in a **30%** decrease in energy consumption

## Water

**Choose a minimum two:**

- Replace existing water fixtures to meet **20%** better than EPAAct 1992
- Include ET controller and zoning in irrigation system
- Install drip irrigation system with ET controller or change **25%** of existing spray system to drip
- On demand, electronic water pump

# New Commercial

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## Mandatory Measures Effective **Oct. 1, 2009**

- **For all commercial buildings:**
  - **15%** better than Energy Code (2006 IECC)
  - Water fixtures **20%** better than EPA Act 1992
  - Irrigation systems to be separately metered
  - Cool Roofs for slopes **2:12** or less
  - Outdoor Lighting restriction
- **Additionally, for buildings 50,000 sf and larger:**
  - **85%** LEED certified compliance or equivalent (must achieve at least 22 LEED points)



# New Commercial- Cont.

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- Compliance standards to prove that the **15%** better than code has been achieved:
  - Energy modeling:
    - Use IRS approved software, such as Trane Trace 700, Energy Plus, Carrier HAP, or equivalent
    - Equest or equivalent
    - COMcheck
  - or
  - Systems that may be considered:
    - ENERGY STAR
    - LEED NC, CS, or approved equivalent standard
- Require building owners to agree to utility companies releasing annual consumption data to City

# Existing Commercial Buildings

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## Mandatory Measures Effective **Oct. 1, 2009**

- Systematically improve during renovation/retrofit as **triggered** by:
  - Development Code for energy or water related improvements, or
  - Sale of building
- Requirements:
  - **15%** better than Energy Code (2006 IECC)
  - Water fixtures **20%** better than EPA Act 1992
  - Cool Roofs for slopes **2:12** or less
  - Outdoor Lighting restriction

# Existing Commercial Buildings- Cont.

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## Compliance standards

- Energy modeling:
  - Use IRS approved software, such as Trane Trace 700, Energy Plus, Carrier HAP, or equivalent
  - Equest or equivalent
  - COMcheck

or
- Systems that may be considered:
  - ENERGY STAR
  - LEED NC, CS, or approved equivalent standard

# Phase II Program Targets

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Proposed for adoption **March 26, 2008**

Effective Date: **October 1, 2011**

Divided into:

- All New Residential Construction
- All New Commercial Construction

# Phase II New Construction

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- **Residential**

- Adopt Green Built North Texas or equivalent standard effective **Oct. 1, 2011**
- Phase out incandescent by **2012**
- Certification provided by RESNET certified Rater, Building Inspection or building owner

- **Commercial**

- Adopt LEED NC or CS or equivalent standard effective **Oct. 1, 2011**
  - A minimum of **3** credits from LEED Energy and Atmosphere
- Phase out incandescent by **2012**
- Certification provided by Building Inspection or building owner

# Program Implementation

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# Implementation Strategy

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- **Greening** of City Staff
- Establish “Green Office” in FY08/09 in OEQ
  - Add two trained green building professionals- 2 FTEs
- Establish green building plan review teams in Building Inspection
  - Two trained professionals in FY09/10 and two in FY10/11 from existing staff

# Program Implementation

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- Provide Tool Information-
  - EPA water sense
  - HERS index
  - LEED
  - Greenbuilt North Texas
- Develop a point system/checklist and review process for adopted standard
- Create a reference guide for the new program
  - Available technical resources
  - Step by step information to comply
  - FAQ...
  - Contact information



# Program Implementation

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- Ongoing measurement and verification
  - Use robust data and metrics
  - Easy to measure, report and track progress
- Integrate with existing management system
  - EMS - ISO 14001 Environmental management system
- Process of continuous improvement
  - Drive cultural change toward sustainability
  - Achieve Vision “Dallas Greenest City in the US”

# Training and Awareness

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- Use of local USGBC chapter and partners to train
  - City Staff “Green Office” and Building Inspection
    - In turn train industry and public
    - Industry groups
  - Public
- Ongoing taskforce groups
  - Monitoring program & continuous improvement

# Communication: Public Awareness

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- Existing communication channels
  - Websites, radio, TV, print media
- Industry partners
  - TREC, QUOIN, NAHB, Rotary Clubs, HOAs
  - Chambers, AIA, USGBC, EPA
- Public venues
  - State Fair
    - Build a “Green Home” in partnership with AIA, Habitat, Oncor, EPA DSSI

# Other Task Force Recommendations

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- Task Force recommended **incentives** to encourage the use of green building strategies and the use of full systems
- Programs recommended would sunset at start of Phase II

# Other Task Force Recommendations- Cont.

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## Existing Programs

- Federal tax credits for residential solar and fuel cell systems
  - 30% of total cost of system up to \$2,000 for solar-electric systems and solar water-heating systems
  - \$500 per 0.5 kW for fuel cells I
- Oncor incentives
  - Focus on existing buildings
  - Focus on low-income and small business
- EPA Dallas Sustainable Skylines (DSSI)
  - Research and development of new standards and strategies

# Other Task Force Recommendations- Cont.

## Task Force Suggested Programs

- Establish Energy Efficiency “TIF”
  - Property tax relief based on value of energy and water efficiency measures **beyond** code for New Construction
- Incentive fund for existing or new residential buildings:
  - Use of onsite or building integrated renewable resources
    - Solar hot water limit up to \$2000 per home
    - PV - \$3.00 /watt up to \$4000 limit per home
  - HVAC up to \$1000 per home for higher than 14 SEER
- Additional funding for existing residential:
  - \$2.00 / sf to improve efficiency to meet HERS rating of 50 plus mandatory “Green Check list” and below
  - Building envelope: Attic insulation, radiant barrier, windows, doors, sealing, insulation
  - High performance water fixtures

# Other Task Force Recommendations- Cont.

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## Potential funding for incentive programs includes:

- Partnering with private organizations
  - Incentives/rebates provided by private organizations
  - Create programs
  - Provide examples/remodel/upgrade homes free
- Donations, Grants, other

# Other Task Force Recommendations- Cont.

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## Task Force Suggested Tax Abatements

- Applicable to all New Construction
  - Fast track building permits for registered LEED projects or equivalent system
  - Tax abatement for LEED Silver or better certified building
- Applicable to all existing construction
  - Tax abatement for LEED EB Silver or better certified building



# Summary

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- The adoption of the proposed green building program will put Dallas at the forefront of leading cities in green building strategies
- On the March 26, 2008 meeting the Dallas City Council will be asked to consider the task force recommendations