

Hill Country Residence

Location:
Southwest Austin

Project Type:
Residence

Year Installed:
2005

Green Roof Area:
1,125 sq. ft.



Photo courtesy of Kathy Zausky

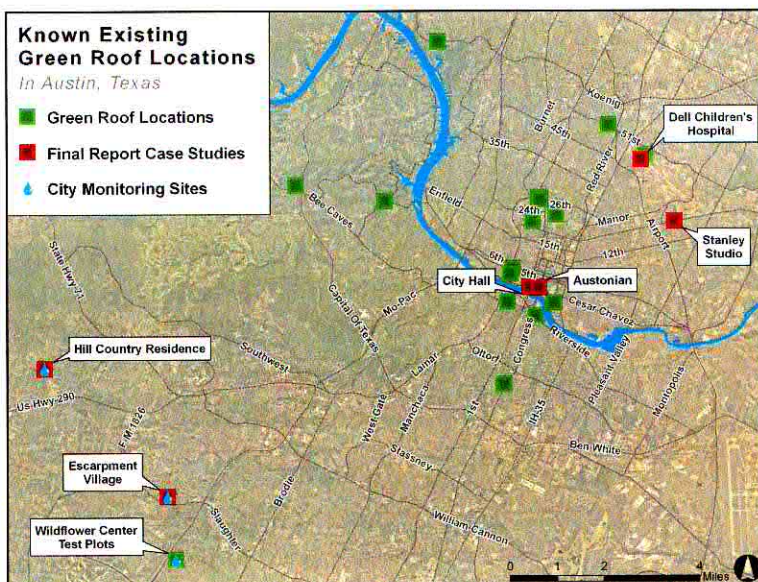


Case Studies

Green Roof Locations

Known Existing Green Roof Locations in Austin, Texas

- Green Roof Locations
- Final Report Case Studies
- City Monitoring Sites



Case Studies

Accomplishments

- Reviewed international green roof incentive and credit policies
- Established an Austin green roof database
- Documented existing City of Austin policies and incentives which encourage green roofs
- Analyzed potential policies that could be developed to encourage green roofs

Advisory Group Efforts

Accomplishments

- Advocated for green roofs as a Public Benefit Option on the Downtown Density Bonus Plan
- Supported the inclusion of green roof policy and benefit education on a City of Austin website
- Developed a proposal for green roof monitoring research
- Advocated for an increase in Austin Energy green roof rebates
- Developed Five-Year Policy Implementation Plan

Advisory Group Efforts

Accomplishments

- Initiated a framework for green roof design considerations
- Organized a public seminar on green roof water retention modeling
- Provided an outreach seminar to solicit public feedback
- Integrated principles from *Water Conservation 2020: Strategic Recommendations*
- Developed the reports to present to selected Boards and Commissions and the City Council

Advisory Group Efforts

Green Roof Policy Development

Phase 1: Introduction and Awareness

Phase 2: Community Engagement

Phase 3: Action Plan Development and Implementation

Phase 4: Technical Research

Phase 5: Program and Policy Development

Phase 6: Continuous Improvement

Key Findings
and Conclusions

Source – Green Roofs: A Resource Manual for Municipal Policy Makers

Incentives and Credits

- Zoning
- Energy Conservation, Air Quality, and Climate Protection
- Watershed Protection
- Financial Incentives

Key Findings
and Conclusions

Zoning - Existing

- Green roofs for Planned Unit Developments (PUDs)
- Green roofs for PUD Green Building
- Green roofs for creative/innovative environmental PUDs
- Green roofs as open space for multifamily and commercial projects
- Green roofs over subsurface parking garages
- Green roof parks

Incentives and Credits

Zoning – Potential Options

- Downtown Density Bonus
- Other density bonus options (e.g., North Burnet-Gateway)
- Increased building cover credit
- Green roofs on all new Central Business District buildings

Incentives and Credits

Energy Conservation, Air Quality, & Climate Protection

- Urban Heat Island & Air Quality mitigation
- Energy rebates
- Green roofs equivalent to cool roofs

Incentives and Credits

Watershed Protection

- Green roofs for flood control
- Water quality control research needed
- Existing green roof options for water quality
- Not ready to count green roofs as “pervious” cover
- Less runoff allowing smaller water quality controls
- Drainage fee reduction

Incentives and Credits

Financial Incentives

Portland

- 100% discount of site fee or 35% of total stormwater discharge fee

Chicago

- Up to \$5000 to residential and small commercial projects

Toronto

- Incentive of \$50 per square meter, up to a maximum of \$100,000

Incentives and Credits

Research and Monitoring



Photos courtesy of City of Austin Watershed Protection Department

Key Findings
and Conclusions

Design and Performance Considerations

- Size
- Soil Depth and Mulch
- Plant Cover and Variety
- Water Use
- Drainage
- Integrated Pest Management (IPM)
- Visibility and Access
- Maintenance Requirements

Key Findings
and Conclusions

Water Conservation and Green Roofs



Dell Children's Medical Center
Reclaimed Water for Irrigation



The Austonian
HVAC Condensation for Irrigation

Key Findings
and Conclusions

Green Roof Density Bonus



Shoal Creek Walk – At least 20,000 sq. ft. of green roof shall be provided

Key Findings
and Conclusions

Green Roofs on City Buildings



Photo courtesy of Ed Jager, American Hydrotech

Key Findings
and Conclusions

Outreach and Education

- City of Austin Urban Heat Island Mitigation Program will create a green roof educational campaign, including:
 - Website
 - Brochure
 - Presentations



Photo courtesy of City of Austin

Key Findings
and Conclusions

Five-Year Policy Implementation Plan

Short Term

- Multi-departmental issue
- Downtown density bonus
- Performance standards development
- Raise importance of green roof for PUDs
- Initiate building cover ordinance
- Support GR incorporation to City building projects
- Support of GR education/web work

Next Steps

Five-Year Policy Implementation Plan

Mid to Long Term

- Density bonuses for targeted areas
 - North Burnet/Gateway, Airport Blvd, East Riverside, TODs
- Continue financial support of watershed studies
- Explore financial incentives

Next Steps

Request for GRAG Extension



Next Steps

QUESTIONS



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