



KING COUNTY

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

Signature Report

June 24, 2008

Ordinance 16147

Proposed No. 2008-0107.3

Sponsors Ferguson, Constantine, Phillips,
Dunn, Lambert, Hague and
Patterson

1 AN ORDINANCE requiring the use of green building and
2 sustainable development practices in all capital projects
3 that the county plans, designs, constructs, remodels,
4 renovates, and operates or to which the county lends or
5 grants funds enabling construction or executes long-term
6 leases or other legal financial instruments causing the
7 construction of capital projects, as long as certain financial
8 requirements are met; and adding new sections to K.C.C.
9 chapter 2.95.

10
11 BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

12 **SECTION 1. Findings:**

13 A. Green building and sustainable development practices support the broad goals
14 of King County, including, but not limited to, growth management, economic
15 development, historic preservation, fiscal responsibility, environmental protection, access
16 to public transportation, social equity, stewardship of resource lands, climate change
17 initiatives, efficient energy and other natural resource uses, preserving fish and wildlife

18 habitat, reducing and creating resources from wastes and protecting and improving
19 citizen health.

20 B. King County has shown leadership in establishing climate protection goals
21 and energy conservation goals through the completion of its climate and energy plans.
22 The built environment plays a significant role in greenhouse gas emissions and energy
23 consumption.

24 C. The incorporation of green and sustainable practices into the design,
25 construction and operation of capital improvement projects can reduce greenhouse gas
26 emissions, reduce pollution, reduce the use of natural resources, reduce energy and other
27 operating costs, enhance asset value, optimize performance, promote cultural
28 sustainability by preserving historic resources and create healthier and more appealing
29 environments for the visiting public and for King County employees.

30 D. Ordinance 15118, adopted in February 2005, established a green building
31 policy for all King County buildings, renovations and remodel projects. It requires that
32 projects seek the United States Green Building Council's ("USGBC") Leadership in
33 Energy and Environmental Design (LEED®) ("LEED") certification whenever possible.
34 Ordinance 15118 expires April 1, 2008. By continuing and building on the green
35 building policies set forth in the current ordinance, the county will further its
36 sustainability goals.

37 E. The LEED rating system is a nationally recognized system for rating the
38 performance of buildings and to guide project design. The LEED rating system
39 components include: sustainable site design; water efficiency; energy and atmosphere;
40 indoor environmental quality; materials and resources; and innovation in design. The

41 achievement of LEED performance targets reduces operating costs, enhances asset value,
42 optimizes building performance and creates healthier and more productive workplaces for
43 King County employees and visitors. Members of the USGBC representing all segments
44 of the building industry created the LEED program and continue to contribute to its
45 development.

46 F. Statistics show that green buildings that use the LEED rating system cost on
47 average zero to two percent more to build, but depending on the level of LEED
48 certification, may save as much as fifty dollars to seventy-five dollars per square foot
49 over a twenty-year period. For example, a one-hundred-thousand-square-foot building
50 may return a savings of between five million dollars to seven million five hundred
51 thousand dollars in operating costs over twenty years.

52 G. King County currently has fourteen buildings registered with the USGBC.
53 Three of these buildings have been completed and have received their LEED
54 certification. These buildings are the Kent Pullen Regional Communication &
55 Emergency Coordination Center, which is LEED Certified, King Street Center, which is
56 LEED-existing building operations (EB) Gold, and Power Distribution Headquarters,
57 which is LEED Certified.

58 H. King County has shown its commitment to incorporating green building and
59 sustainable development practices in capital improvement projects through a variety of
60 projects. The types of projects where LEED certification may apply include, but are not
61 limited to, office buildings, transfer stations, portions of wastewater treatment plants,
62 maintenance facilities, recreational facilities and medical facilities. The types of projects
63 where LEED certification may not be feasible because of the scope of the project or the

64 type of structure, but where sustainable development practices could apply include, but
65 are not limited to, bus passenger shelters, restroom facilities, pump stations, parking
66 garages, roads, sidewalks, bridges, flood control improvements, conveyance lines and
67 rehabilitation of designated landmarks or properties that are eligible for landmark
68 designation.

69 I. King County develops, owns and operates a wide variety of facilities that
70 require ongoing operation and maintenance. Ensuring that these facilities are designed,
71 operated and maintained using green and sustainable practices have the goal of reducing
72 operating and maintenance costs, conserving energy, reducing greenhouse gas emissions
73 and improving indoor air quality.

74 J. As of May 2008, King County is facing potential general fund shortfalls as
75 much as \$21.7 million in 2008 and \$67.3 million in 2009 as reported by the office of
76 management and budget. These financial conditions necessitate careful consideration
77 and accounting of the costs of construction, operations and maintenance of all county
78 facilities.

79 NEW SECTION. SECTION 2. There is hereby added to K.C.C. chapter 2.95 a
80 new section to read as follows:

81 The definitions in this section apply throughout this chapter unless the context
82 clearly requires otherwise.

83 A. "Capital project" refers to a project with a scope that includes one or more of
84 the following elements: acquisition of a site or acquisition of an existing structure, or
85 both; program or site master planning; environmental analysis; design; construction;
86 major equipment acquisition; reconstruction; demolition; or major alteration of a capital

87 asset. A capital project shall include: a project program plan; scope; budget by task; and
88 schedule.

89 B. "County green building team" or "green building team" means a group that
90 includes representatives from county agencies with capital project or building
91 management staff including, but not limited to, the department of transportation, the
92 department of natural resources and parks, the department of executive services, the
93 department of development and environmental services, the department of public health
94 and the historic preservation program in the office of business relations and economic
95 development. The members represent staff with expertise in project management,
96 construction management, architecture, landscape architecture, environmental planning,
97 design, engineering, historic preservation and resource conservation, public health,
98 building energy systems, building management, budget analysis and other skills as
99 needed. The green building team provides assistance and helps to disseminate
100 information to project managers in all county agencies.

101 C. "Facility" means all or any portion of buildings, structures, infrastructure,
102 sites, complexes, equipment, utilities and conveyance lines.

103 D. "GreenTools program" means the support team located within the solid waste
104 division of the department of natural resources and parks that provides green building
105 technical assistance to county divisions, cities and the general public within King County.

106 E. "Integrated design process" means an approach to project design that seeks to
107 achieve high performance on a wide variety of well-defined environmental and social
108 goals while staying within budgetary and scheduling constraints. It relies on a
109 multidisciplinary and collaborative team whose members make decisions together based

110 on a shared vision and a holistic understanding of the project. It is an iterative process
111 that follows the design through the entire project life, from predesign through operation.

112 F. "Leadership in Energy and Environmental Design" or "LEED" means a
113 voluntary, consensus-based national standard for developing high-performance,
114 sustainable buildings. A LEED certification is available for: new construction and major
115 renovation projects, which is LEED-NC; existing building operations, which is LEED-
116 EB; commercial interior projects, which is LEED-CI; and core and shell projects, which
117 is LEED-CS. LEED certifications that are in the pilot phase now include LEED for
118 Homes and LEED for Neighborhood Development.

119 G. "LEED-eligible building" means a new construction project larger than five
120 thousand gross square feet of occupied or conditioned space as defined in the Washington
121 state energy code, which is chapter 51-11 WAC, or a major building remodel or
122 renovation project.

123 H. "Major remodel or renovation" means work that demolishes space down to the
124 shell structure and rebuilds it with new interior walls, ceilings, floor coverings and
125 systems, when the work affects more than twenty-five percent of a LEED-eligible
126 building's square footage and the affected space is at least five-thousand square feet or
127 larger.

128 I. "Minor remodel or renovation" means any type of remodel or renovation that
129 does not qualify as a major remodel or renovation.

130 J. "New construction" means a new building or structure.

131 K. "Present value" means the value on a given date of a future payment or series
132 of future payments, discounted to reflect the time value of money and other factors such

133 as investment risk.

134 L. "Retrocommissioning" is a detailed, systematic process for investigating an
135 existing building's operations and identifying ways to improve performance. The
136 primary focus is to identify operational improvements to obtain comfort and energy
137 savings.

138 M. "Sustainable development practices" means whole system approaches to the
139 design, construction and operation of buildings and infrastructure that help to mitigate the
140 negative environmental, economic, health and social impacts of construction, demolition,
141 operation and renovation while maximizing the facilities' positive fiscal, environmental
142 and functional contribution. Sustainable development practices recognize the
143 relationship between natural and built environments and seek to minimize the use of
144 energy, water and other natural resources while providing maximum benefits and
145 contribution to service levels to the system and the connecting infrastructures.

146 N. "Sustainable infrastructures" means those infrastructures and facilities that are
147 designed, constructed and operated to optimize fiscal, environmental and functional
148 performance for the lifecycle of the facility. Sustainable performance of infrastructure
149 shall be determined through an integrated assessment, one that accounts for fiscal,
150 environmental and functional costs and benefits, over the life of the facility.

151 SECTION 3. There is hereby added to K.C.C. chapter 2.95 a new section to read
152 as follows:

153 A. The intent of this policy is to ensure that the design, construction, maintenance
154 and operation of any King County-owned or financed capital project is consistent with
155 the latest green building and sustainable development practices.

156 B. This policy applies to all King County-owned or lease-to-own capital projects,
157 excluding projects that have already completed thirty percent of the design phase at the
158 time of ordinance adoption.

159 C. All capital projects to which this chapter applies shall utilize relevant LEED
160 criteria to implement sustainable development practices in planning, design, construction
161 and operation as set forth in this chapter.

162 D. All LEED-eligible new construction and major remodels and renovations shall
163 be registered through the United States Green Building Council and should plan for and
164 achieve a LEED Gold certification, as long as a Gold certification can be achieved with
165 no incremental cost impact to the current expense fund over the life of the asset and an
166 incremental cost impact of no more than two percent to other funds over the life of the
167 asset, as compared to a project that is not seeking a LEED rating. At or before the project
168 has reached thirty percent of the design phase, the project team shall conduct an analysis
169 that determines the incremental costs for achieving a LEED Gold rating as compared to a
170 building that is not seeking a LEED rating. The analysis shall include the up-front
171 incremental construction costs, the up-front costs of registration and certification and the
172 present value of operations and maintenance cost savings over the life of the asset. For
173 the purposes of this analysis, operations and maintenance cost savings shall be comprised
174 of projected costs the county will incur over the life of the asset. The costs included in
175 this analysis shall be quantifiable, documented and verifiable by third-party review upon
176 project completion and thereafter.

177 At thirty percent of the design phase, the project team shall also provide a
178 summary discussion of the LEED points that the project will achieve and the LEED

179 points that are technically infeasible for the project to obtain.

180 For projects achieving a LEED rating, the project team shall ensure that energy
181 efficiency is given the highest priority. Project teams shall submit a completed LEED
182 checklist, which documents which LEED points the project team expects to achieve, to
183 the green building team, initially at the schematic or thirty percent design phase of the
184 project and then at the completion of the project.

185 If it is determined that costs are too high to achieve a LEED Gold rating, or that
186 the project is unable to achieve that rating for technical reasons, projects shall achieve the
187 highest rating possible with no incremental cost impact to the current expense fund over
188 the life of the asset and an incremental cost impact of no more than two percent to other
189 funds over the life of the asset as compared to a project not achieving a LEED rating.

190 There may be extenuating circumstances for some LEED-eligible projects that make it
191 cost prohibitive to achieve any level of LEED certification. These projects must submit a
192 written summary to the director of the department managing the project for approval,
193 documenting the reasons why the project is not getting a LEED certification.

194 E. All capital projects, where the scope of the project or type of structure limits
195 the ability to achieve LEED certification, shall incorporate cost-effective green building
196 and sustainable development practices based on relevant LEED criteria and other
197 applicable sustainable development goals and objectives. These projects shall use a
198 project scorecard that is to be developed by the green building team, along with
199 guidelines for using the scorecard. The project scorecard and guidelines will be
200 developed by the green building team in conjunction with divisions that have capital
201 project or building management staff and the GreenTools technical support team. The

202 project scorecard and related guidelines for non-LEED projects shall be developed by
203 January 1, 2009. Project teams shall submit a completed project scorecard to the green
204 building team, initially at the schematic or thirty percent design phase of the project and
205 then at the completion of the project. For small, related capital projects with construction
206 costs of less than seven hundred and fifty thousand dollars each that are implemented as
207 part of a program, the project scorecard and reporting requirements may be done for the
208 program rather than for each individual small project.

209 F. For those projects which only involve making either renewable energy
210 improvements or energy efficiency improvements, or both, at or before the project has
211 reached thirty percent of the design phase, the project team shall conduct an analysis that
212 determines the incremental costs of making such improvements. The costs to be included
213 in this analysis shall include the up-front incremental construction costs and the present
214 value of the operations and maintenance cost savings over the life of the asset. For the
215 purposes of this analysis, operations and maintenance cost savings shall be comprised of
216 projected costs the county will incur over the life of the asset. The costs included in this
217 analysis shall be quantifiable, documented and verifiable by third-party review upon
218 project completion and thereafter.

219 G. To help achieve a standard level of green building operations in existing
220 buildings, the green building team, in coordination with divisions that have capital project
221 or building management staff and the GreenTools technical support team, shall develop a
222 set of both mandatory and recommended green building operational guidelines for
223 divisions to incorporate into their facility operations procedures. The guidelines shall
224 provide direction on the use of green practices in minor remodels and renovations, water

225 and energy conservation, waste reduction and recycling expectations, green cleaning
226 standards and retrocommissioning to improve a facility's operating performance. The
227 guidelines shall be developed by January 1, 2009.

228 H. No later than January 31 of each year, all divisions responsible for capital
229 improvement projects or building management shall submit a report to the department of
230 natural resources and parks, detailing the green building and sustainable development
231 accomplishments for the previous year. The green building team shall develop a
232 reporting form for this purpose and issue it to all divisions responsible for capital
233 improvement projects or building management no later than January 1, 2009, to be used
234 for the 2009 reporting year. Information to be submitted shall include, but not be limited
235 to:

236 1. The total number of capital projects a division is responsible for; number of
237 LEED projects and other sustainable development projects, such as historic restoration
238 and adaptive reuse, and their status;

239 2. The additional costs associated with achieving LEED certification;

240 3. The total number of non-LEED projects that have completed a sustainable
241 development scorecard;

242 4. The green strategies employed;

243 5. The operations and maintenance costs for all completed projects
244 incorporating green building principles and practices and projects incorporating
245 renewable energy or energy efficiency components, as well as the operations and
246 maintenance costs that were projected before construction;

247 6. The reductions in greenhouse gas emissions;

- 248 7. The construction waste recycled; renewable resources used;
- 249 8. The green materials used; and
- 250 9. The fiscal performance of all projects incorporating green building principles
- 251 and practices including an accounting of all project costs and benefits that can be
- 252 quantified, documented and verified.

253 I. The department of natural resources and parks shall compile an annual progress

254 report of county projects using the information submitted by departments. Eleven copies

255 of the annual progress report shall be filed with the clerk of the council by May 1 of each

256 year, for distribution to all councilmembers.

257 J. The green building team shall coordinate and share information about the use

258 of sustainable development practices countywide and, with assistance from the

259 GreenTools program, develop tools and training for project managers to implement this

260 legislation. Its role includes:

- 261 1. Helping to assess regionally appropriate green building and sustainable
- 262 development practices;
- 263 2. Developing regionally appropriate building and infrastructure design
- 264 standards and guidelines;
- 265 3. Developing tools and procedures for assessing life-cycle fiscal,
- 266 environmental and functional costs and benefits;
- 267 4. Convening and facilitating sustainable development planning and charrette
- 268 workshops;
- 269 5. Evaluating performance of projects and facilities, including conducting post
- 270 occupancy surveys, energy and water use audits and evaluating benefits realized; and

271 6. Tracking and reporting progress on implementation of green building and
272 sustainable development practices.

273 K. Each division with capital project or building management staff shall
274 designate one or more green building team member or members. The team member is
275 expected to regularly attend meetings and actively participate in disseminating
276 sustainable development practices information back to the respective division. Green
277 building team members should also receive either specialized training or additional
278 training, or both, in green building design and should be encouraged to achieve the LEED
279 Accredited Professional designation, as appropriate.

280 L. County capital improvement project managers that are currently managing or
281 will manage projects that fit the criteria in subsections D. and E. of this section are
282 responsible for attending appropriate LEED and sustainable development training and
283 annual refresher courses. Trainings shall be coordinated by the green building team.

284 M. The GreenTools program shall provide technical support for the county green
285 building team and to cities and the general public in the county as appropriate, including,
286 but not limited to, training on LEED and other green building and sustainable
287 development technologies, research, project review, assisting with budget analysis and
288 convening groups to develop strategies and policies relating to green buildings and
289 sustainable infrastructures.

290 N. The preservation, restoration and adaptive reuse of existing buildings is an
291 important green building strategy because historic preservation is, in itself, sustainable
292 development. As part of the county green building strategy, the county shall preserve and
293 restore the historic landmarks and properties eligible for landmark designation that are

294 owned by the county, except in cases where a certificate of appropriateness is granted by
295 the King County landmarks commission. Projects involving designated landmarks or
296 properties that are eligible for landmark designation shall seek to maximize green
297 building strategies such as natural daylighting and passive ventilation. However, the
298 King County landmarks commission or other applicable regulatory body may waive
299 requirements of this section upon issuing findings that strict compliance with this chapter
300 would adversely affect the historic character of the resource in question, or that there are
301 no feasible alternatives for preservation.

302 SECTION 4. There is hereby added to K.C.C. chapter 2.95 a new section to read
303 as follows:

304 A. The department of natural resources and parks shall continue the green
305 building grant program established to provide incentives to the private sector, nonprofit
306 organizations and suburban cities to adopt green building and sustainable development
307 practices.

308 B. Grant funding shall be supported by the solid waste division, the water and
309 land resources division and the wastewater treatment division. Other county department
310 and divisions may also participate in the grant program. Grant funding shall be identified
311 annually, consistent with approved funding of each division's annual budget.

312 C. Grant funds shall be managed by the GreenTools program in cooperation with
313 the wastewater treatment and water and land resources divisions.

314 D. Green building grant funding may go to residential or commercial projects
315 that meet a discrete set of eligibility requirements, are in the service area of the division
316 providing the grant funding and are selected in a competitive award process. Grant

317 projects must provide educational opportunities to the public to increase the awareness
318 and benefits of green building and sustainable development in King County.

319 SECTION 4. This ordinance expires December 31, 2013.

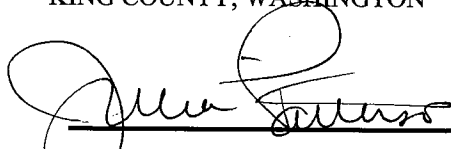
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Ordinance 16147 was introduced on 2/25/2008 and passed as amended by the Metropolitan King County Council on 6/23/2008, by the following vote:

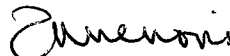
Yes: 9 - Ms. Patterson, Mr. Dunn, Mr. Constantine, Ms. Lambert, Mr. von Reichbauer, Mr. Ferguson, Mr. Gossett, Mr. Phillips and Ms. Hague
No: 0
Excused: 0

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON



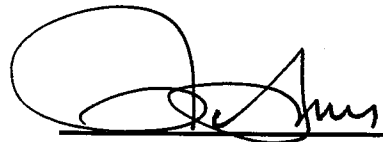
Julia Patterson, Chair

ATTEST:



Anne Noris, Clerk of the Council

APPROVED this 3 day of July, 2008.



Ron Sims, County Executive

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KING COUNTY COUNCIL CLERK

Attachments None