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20 **13.84.010 PURPOSE**

21 A. The intent of this chapter is to consolidate and clarify the various lighting sections in this
22 title which previous to adoption of this chapter primarily addressed lighting regulations for
23 commercial zones within the City.
24

25 B. The regulations of this chapter are intended to set outdoor lighting standards in the City of
26 Holladay that enhance the community character and identity by mitigating adverse impacts
27 of misdirected and/or excessive outdoor lighting in residential and commercial areas by
28 promoting,

- 29 1. Lighting design and use continuity between adjacent and abutting land uses;
- 30 2. Energy conservation through efficient use of outdoor lighting
- 31 3. Safety and security for persons and property;
- 32 4. Flexibility in implementing lighting technologies as the industry provides.
- 33 5. Existing regulations established by The Illuminating Engineering Society (IES), the
34 ANSI accredited standards writing body for lighting definitions and recommended
35 practices.
36

37 **13.84.020 APPLICABILITY**

38 A. All land development described in this section shall provide an outdoor lighting plan in
39 accordance with site plan submittal provisions stated in chapter 13.03 and 13.08 of this
40 title.

- 41 1. New Development. All new primary and accessory buildings, structures, additions
42 to buildings or structures, or areas of new or expanded land uses, i.e. sport courts,
43 swimming pools or parking lots, shall comply with the requirements of this chapter.
- 44 2. Existing Development. Development in existence at the effective date of this
45 chapter shall be brought into compliance with these provisions if:
46 a. Redevelopment resulting in demolition or expansion is proposed
47 b. Installation of any new outdoor lighting which requires a building inspection
48 for compliance with ICC building or electrical codes

49 B. Routine maintenance of existing outdoor lighting.

- 50 1. Repairing any component of a light fixture, except the lamp, is permitted for all
51 existing outdoor lighting fixtures; and
- 52 2. Lamps shall be replaced in accordance with the provisions of this chapter;
53 provided, however, if no lamp exists which complies with this chapter, then the
54 fixture shall be replaced.

- 55 C. Exemptions. The provisions of this chapter do not apply to the following
56 1. Indoor lighting
57 2. Seasonal holiday lighting
58 3. Signs as regulated by Chapter 13.82 of this title
59 4. Temporary lighting, used for a period not to exceed ten (10) days for festivals,
60 celebrations, or other public special events or activities.
61 5. Temporary right of way construction repair lighting used for a period not to exceed
62 fifteen (15) days.
63 6. Traffic control, warning signals and devices
64 D. Administrative Relief. This section effectively regulates outdoor lighting, it is not the intent
65 of this section to limit creative lighting solutions. The community and economic
66 development director, upon written recommendation of the TRC, may grant relief from
67 these standards. Determination shall be based upon the following findings,
68 1. A complete Administrative Relief application shall be submitted on a form created
69 and maintained by the CED department
70 2. Viable, substitute alternatives are demonstrated to meet the intent of this chapter
71 and do not otherwise violate this chapter.
72 E. Certificate of Occupancy. All outdoor lighting required according to applicable provision of
73 this chapter shall be installed and inspected to compliance within one year of issuance of
74 Certificate of Occupancy.
75
76

77 13.84.030 DEFINITIONS

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79 **CORRELATED COLOR TEMPERATURE (CCT):** A measure of light source color appearance,
80 expressed in kelvins (K), ranging from one thousand degrees kelvin (1,000°K) to ten thousand
81 degrees kelvin (10,000°K). The following table provides examples to help in understanding the
82 approximation of these colors.
83

Temperature	Example
1,700°K	Match flame, low pressure sodium lamps.
1,850°K	Candle flame, sunset/sunrise
2,200°K	High Pressure Sodium lamps, (Standard Streetlight Color)
2,400°K - 2,700°K	Standard incandescent lamps
2,700°K - 3,000°K	"Soft white" or "warm white" LED lamps
4,000° K	Clear metal halide lamps, "Cool white" LED lamps
4,500° - 5,500°K	"Daylight" LED lamps
5,000° K	Direct sunlight
6,000° K	Cloudy Sky
10,000° K	Blue Sky

84
85 **CANDELA, CANDLEPOWER:** (abbreviated as **cp** or **CP**) is a unit of measurement for luminous
86 intensity. It expresses levels of light intensity relative to the light emitted by a candle of specific
87 size and constituents
88

89 **GLARE:** the sensation produced by luminance's within the visual field that are sufficiently greater
90 than the luminance to which the eyes are adapted, which causes nuisance due to, discomfort, or
91 loss in visual performance and visibility. The magnitude of the sensation of glare depends on such
92 factors as the size, position, and luminance of a source, the number of sources, and the
93 luminance to which the eyes are adapted."
94

95 **LIGHT TRESSPASS:** The encroachment of excessive light, typically across a property line or into
96 a public or private right of way, causing annoyance, loss of privacy, or other nuisance
97
98

99 13.84.040 GENERAL STANDARDS

- 100 A. Type of lighting. Light sources shall be LED or other lighting technologies, current or
101 future, that have similar or better color temperature control (CCT) and energy efficiencies
- 102 B. Light Trespass. All light fixtures and their intended use, including security lighting, shall be
103 aimed to confine lighting to the area within the property boundaries. Exposed light sources
104 shall be shielded to prevent glare across property lines, or into a public or private street or
105 right of way. Refer to Figure 13.84.1
- 106 C. Fixtures. All outdoor lighting fixtures shall feature full cut-off hoods or shields installed and
107 aimed in such a way so that no direct light is emitted so as to not cause violation of
108 13.84.040.B of this section. Shielding may be accomplished by:; shielding; visors; louvers;
109 or other devices or methods. Fencing used as a shielding feature must be solid and
110 conform to all City of Holladay fencing ordinances. See examples of shielded wall lighting
111 in Figures 84-2 and 84-3.
- 112 D. Light Curfew: Recreational lighting used to illuminate sport and outside activity areas shall
113 be shut-off by 10:00 pm. Except at the conclusion of a permitted special event that is
114 underway.
- 115 E. Lighting of Flag Poles:
- 116 1. According and to accommodate for U.S. Code, stating:
117 *"It is the universal custom to display the flag only from sunrise to sunset on*
118 *buildings and flagstaves in the open. However, when a patriotic effect is desired, the*
119 *flag may be displayed twenty-four hours a day if properly illuminated during the*
120 *hours of darkness."*(U.S. Code Title 4.1.6(a))
- 121 a. The lighting of Federal or State flags shall be permitted provided that the
122 light is a narrow beam spotlight rather than a floodlight, carefully aimed and
123 shielded to avoid creating a source of glare
- 124 F. Streetlights:
- 125 1. Height.
- 126 a. Streetlights illuminating Major, Minor Collectors and Arterials shall not
127 exceed 40 feet (40') in height
- 128 b. Streetlights illuminating public and private Residential roads and lanes
129 shall not exceed twenty-five feet (25') in height
- 130 2. Color and Intensity
- 131 a. LED in the 4000 kelvin – 4500 kelvin range provides a balance of
132 brightness while maintaining the driver's attention
- 133 b. The maximum light intensity in the 90 ° angle direction, regardless of the
134 light source's light flux, must not exceed 1000 candela (candlepower)
- 135 3. Location
- 136 a. At intersections and crosswalks on major collector streets and arterials
137 unless within one hundred and twenty-five feet (125') of an adjacent
138 streetlight.
- 139 b. At intersections and crosswalks on minor collector or residential collector
140 streets unless within two hundred and fifty feet (250') of an adjacent
141 streetlight.
- 142 4. Exceptions
- 143 a. Upon review of conditions the City Engineer may make modifications based
144 upon the following
- 145 (1) Height and intensity can be installed at a location to provide
146 adequate safety and lighting efficiency for both pedestrian and
147 vehicular use.
- 148
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152 13.84.050 LIGHTING STANDARDS: R-1, R-2 Zones

153 The following regulations shall also apply to all properties in the single-family (R-1) and two-family
154 (duplex) (R-2) zones that are;

- 155 1. Constructed or proposed to be constructed after the enactment of this chapter, and
- 156 2. Abut or are adjacent to a residential use, and
- 157 3. Covered by Section 13.84.020.

158 A. All lighting provisions of this section shall not violate 13.84.040 of this chapter

159 B. All outdoor light fixtures shall; Provide a lamp in the Color spectrum, or Correlated Color
160 Temperature (CCT), at four thousand (4,000°K) or less, i.e., warmer temperature. Feature
161 a full cut-off design, in compliance with 13.84.040.C of this chapter, when the lamp within
162 the fixture radiates more than 300 lumens or equivalent wattage. Fixture Heights. The
163 maximum allowable heights of light fixtures shall be as follows. Height measured to the
164 lighting element above existing grade shall be,

- 165 a. 15 feet when mounted to a vertical wall or parapet
- 166 b. 15 feet for pole or standard mounted
- 167 c. 20 feet when mounted within a soffit or overhang
- 168 d. Fence mounted fixtures shall be at the maximum height of the city's fencing
169 regulations §13.14.120 and light shall be directed so as to comply with
170 §13.84.040(B)

171 C. Accent and architectural lighting: Light fixtures used to accent a structure's vertical surface
172 shall be designed and installed so as to not cause violation of 13.84.040.C of this chapter.

173 1. Soffit lighting. Lighting mounted to the underside of soffits, overhangs or porches
174 shall be,

- 175 a. Installed at a height as described in 13.84.050.C of this chapter
- 176 b. A recessed, down-lit fixture

177 D. Security Lighting. Appropriate security lighting is allowed in compliance with provisions of
178 13.84.040.C and shall also feature

- 179 a. motion sensors set on a five (5) minute timer.
- 180 b. lighting shall not be triggered by activity off the property.

181 E. Sport Court Lighting. Private sport court lighting shall be installed and maintained
182 according to the following:

- 183 1. Comply with 13.84.040.C
- 184 2. Pole mounted fixtures shall not exceed fifteen feet (15') above the surface of the
185 court when measured from existing grade(s) to the lighting element.
- 186 3. Installed completely within a rear yard and setback off property lines a distance
187 equal to the height of the pole.
- 188 4. Use of the lights after ten o'clock (10:00) P.M is prohibited.
- 189 5. Lighting shall be aimed, directing light onto the sport court and away from abutting
190 properties.

191 F. Landscape Lighting. lighting designed to provide illumination of vegetation, pathways,
192 steps, and entrances to buildings shall be low voltage systems installed and maintained in
193 accordance with 13.84.040.C

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196 13.84.060 LIGHTING STANDARDS: OTHER ZONES

197 Regulations of this section shall apply to all zones not listed in 13.84.050 and that are;

- 198 1. Constructed or proposed to be constructed after the enactment of this chapter, and
- 199 2. Covered by Section 13.84.020.

200 A. Refer to §13.65 for lighting regulations in the Regional, Mixed/Use (R-M/U) zone

201 B. Refer to §13.71 for lighting regulations in the Holladay Village (HV) zone

202 C. Implementation of all lighting provisions set forth in this section shall not violate
203 §13.84.040 of this chapter

204 D. Security

- 205 1. Appropriate security lighting is allowed in compliance with the general provisions of
206 this chapter including shielding, direction, color, and measurement.
207 a. Security lighting is permitted within forty feet (40') of a building, in outside
208 display areas, or other areas requiring such lighting. Security lighting may
209 remain on after the close of business for security purposes, reduced to
210 defined illuminance levels

211 E. Parking lots

- 212 1. All lighting shall be shielded and even modified, if necessary, such that lighting
213 does not light trespass into adjacent properties or into the adjacent streets. A
214 properly shielded fixture would not have not visible glare spots until a person or
215 vehicle enters the property of the parking lot.
216 2. Appropriate location. Entrances, exits, and barriers should be emphasized.
217 3. Integrate with landscaping. All parking lot lighting should be integrated into
218 landscape areas wherever possible.
219 4. Height. Height of parking area light poles should be in proportion to the building
220 mass and height, and shall be no more than fifteen (25) feet above the parking lot
221 surface.
222 5. Setback. Light poles abutting residential use shall be set off the property line at a
223 distance that is equal to the height of the pole.
224 6. Maximum. A maximum of two (2) initial lumens per square foot of parking lot
225 surface
226 7. Spot or floodlighting of parking lots from a building or other structure is not
227 permitted.

228 F. Landscaping, Walkways

- 229 1. Walkways. The intent of walkway lights are to provide pools of light to help direct
230 pedestrians along the path, not to fully illuminate the path. Steps and path
231 intersections should be illuminated for safety.
232 a. The maximum average foot-candle permitted on the ground is an average
233 one (1) horizontal foot-candle or less.
234 (1) Two (2) types of lights may be selected:
235 . three and one half (3'6") foot bollards with louvers or
236 . ten (10) foot pole mounted down directed luminaires. Lights
237 must be shielded.
238 2. Landscaping. The lighting of vegetation and other landscape features shall comply
239 with the regulations established in this chapter.
240 3. Poles shall be black, dark gray, dark brown, dark green, or earth tone. The height
241 of the pole mounted light shall not exceed twenty-five feet (15') above grade. Any
242 fixtures located within any required setback or buffer area shall not exceed twelve
243 feet (12') above grade

244 G. Building

- 245 1. Light Source (Lamp): Only LED, incandescent, fluorescent, metal halide, or color
246 corrected high pressure sodium may be used. LED is the preferred light source.
247 The same type shall be used for the same or similar types of lighting on any one
248 site. No colors other than white or off white (light yellow tones in the kelvin scale of
249 5,000k or lower, i.e. warmer) may be used for any light source for the lighting of
250 structures. Noncolor corrected low pressure sodium and mercury vapor light
251 sources are prohibited.
252 2. Mounting: Fixtures shall be mounted in such a manner that the cone of light does
253 not cross any property line of the site. Wall mounted fixtures intended to illuminate
254 walkways or paths or parking lots shall not exceed thirteen feet (13') above the
255 pedestrian pathway. For purposes of these regulations, the mounting height of a
256 lighting fixture shall be defined as the vertical distance from the grade elevation of
257 the surface being illuminated to the bottom of the lighting fixture (i.e., luminaire).

258 3. Architectural Feature Lighting: Architectural feature lighting including wall washer
259 spotlights are permitted.

260 H. Sports Facility, Outdoor recreation Lighting

- 261 1. All sports lighting shall be turned off within thirty (30) minutes of the completion of
262 the last game, practice, or event. In no case shall recreational lighting occur after
263 ten o'clock (10:00) P.M. except to conclude a specific sporting event that is
264 underway
- 265 2. All new sports lighting fixtures shall not exceed the minimum standard illumination
266 levels for sports lighting as established by by The Illuminating Engineering Society
267 (IES). All new sports lighting shall require site specific computer calculations and a
268 printout demonstrating that such lighting meets IES standards and does not
269 otherwise violate this chapter,
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271 13.84.070 PROHIBITED LIGHTING

272 A. The following lighting shall be prohibited

- 273 1. Unshielded lighting exceeding 300 lumens, for any purpose is prohibited.
274 2. Flashing, chasing, blinking, intermittent lights or other lights that move or give the
275 impression of movement, are prohibited.
276 a. Exceptions
277 (1) Holiday lighting
- 278 3. Laser lighting. All laser lighting is prohibited.
279 4. Searchlights. All searchlights are prohibited.
280 5. Exposed Neon and fluorescent tubes.
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283 13.84.080 SITE PLAN SUBMITTAL REQUIREMENTS

284 A. A site Lighting plan shall include the following:

- 285 1. Commercial and Multi-Family site plans: (3 or more units)
- 286 a. The location of all light fixtures, both proposed and any already existing on
287 the site.
- 288 b. A photometric plan, designed and stamped by a lighting professional,
289 illustrating lighting intensities at a minimum of two by two feet in spacing
290 and at five feet beyond the property line. The photometric plan shall be
291 submitted on a "maintained" basis at one-year after burn-in and state the
292 light loss factors used in the calculation.
- 293 c. A description of each light fixture, lamp, support and shield, both proposed
294 and existing. The description shall include, but is not limited to,
295 manufacturer's catalog cuts and illustrations; lighting fixture lamp types,
296 wattages and initial lumen outputs.
- 297 d. At the city's discretion, the city's public safety departments or providers may
298 review and provide feedback on lighting plans as part of the development
299 review process. This review shall be administered by the city's development
300 review committee (TRC).
- 301 2. Single-Family, Two-Family and Accessory Dwelling Unit site plans:
- 302 a. The location of all light fixtures, both proposed and any already existing on
303 the site
- 304 b. A description of each; light fixture, lamp, support and shield, both proposed
305 and existing. The description shall include, but is not limited to,
306 manufacturer's catalog details and illustrations which feature; lighting fixture
307 lamp types, wattages initial lumen outputs, motion or timer details and
308 shielding features/method.
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310 B. Alterations Allowed. Should any lamp or light fixture be altered after a permit has been
311 issued, a change request must be submitted to the TRC for approval, together with
312 adequate information to assure compliance with this chapter, which must be received prior
313 to alteration.

314
315 C. Certification of installation. For all commercial and multi-family projects, certification by a
316 certified lighting professional shall be provided to the Community and Economic
317 Development department verifying that the installed lighting conforms to the approved
318 plans. Certification shall be verified by the Building Official before any certificate of
319 occupancy or business license is issued.

- 320
321 13.84.090 REVIEW PROCEDURES
- 322 A. Single-Family Residential, Two-Family and Accessory Dwelling units. shall comply with
323 this chapter.
 - 324 B. Multi-Family Residential and Commercial. Lighting plans are required. All building plans,
325 commercial sign permit applications, conditional use permits, and subdivision applications
326 shall include a detailed lighting plan that shows evidence that the proposed lighting fixtures
327 and light sources comply with this chapter
 - 328 C. Evidence of Compliance with Codes. Commercial lighting plans shall include certification
329 by a licensed electrical engineer that the lighting fixtures proposed conform to the
330 requirements of this chapter, Building and Electrical Codes.

- 331
332 13.84.100 APPROVAL PROCEDURES
- 333 A. Approval procedures for new commercial and multi-family developments shall be review
334 and approved by the planning commission in accordance with Chapter 13.08 and 13.10
 - 335 B. New residential site plans shall be reviewed in accordance with this title and shall be
336 approved by the Community and Economic Development Department Director

- 337
338 13.84.110 ADMINISTRATIVE RELIEF
- 339 A. It is important to note that the intent of this chapter is as stated in 13.84.010, and it is not
340 the intent of this section to limit creative lighting solutions. Creative approaches to lighting
341 are encouraged as viable alternatives to these standards and guidelines are proposed.
342 The CED Director may approved substituted alternatives if the alternatives are found to
343 meet the intent of this chapter and do not otherwise violate this chapter.

- 344
345 13.84.120 APPEAL PROCEDURE
- 346 A. The applicant, property owner or any person aggrieved by a final decision, determination,
347 or requirement imposed regarding this chapter may appeal according to the provisions set
348 forth in 13.09

- 349
350 13.84.130 ADMINISTRATION AND ENFORCEMENT
- 351 A. The provisions of this chapter shall only apply as effective from the date they were
352 adopted and not retroactively.
 - 353 B. Outdoor lighting that conformed with city of Holladay ordinances prior to the adoption of a
354 provision of this chapter shall be treated similarly to a legal nonconforming use that can be
355 maintained or replaced in like-for-like features but not expanded.
 - 356 C. Violations deemed public nuisances. Where applicable, enforcement of all the provisions
357 of this chapter is authorized by the community and economic development director.
358 Violations shall be enforced as public nuisances.
 - 359 D. Nothing in these regulations shall prevent filing an action for relief from light trespass or
360 glare as a nuisance, or from other relief under any laws which may currently exist.
- 361

- 362 E. Suspension, Revocation, or Modifications to the Lighting Plan. The community and
- 363 economic development director may suspend, revoke, or require modification of any
- 364 lighting plan that is found to be not in compliance with this chapter or that is causing
- 365 nuisance conditions.
- 366 F. Failure to enforce shall not legalize any violations of this provisions within this chapter.

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368 13.84.140 EFFECTIVE DATE

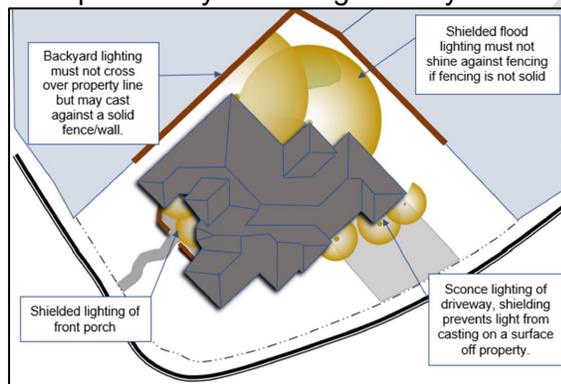
- 369 A. *To be determined (codification date)*

370
371 13.84.150 FIGURES

372
373 Figure 84.1

374 Preventing Light Trespass:

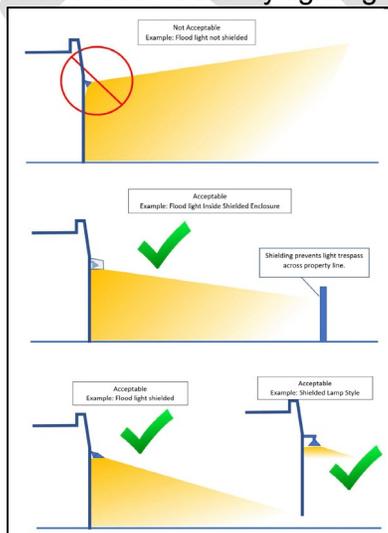
375 example site layout of single-family home



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Figure 84.2

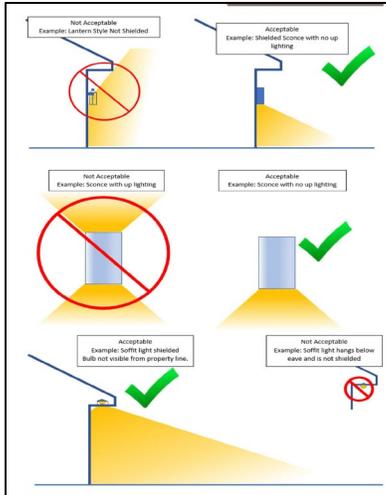
Area Flood / Security lighting - Acceptable and Non-Acceptable



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Figure 84.3

Examples of wall lighting - Acceptable and Non-Acceptable



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