# COMPENDIUM OF IDLING REGULATIONS

The information in this table is for reference purposes only and should not be relied upon for regulatory compliance. This information may contain errors and omissions and is subject to change. Actual state, county or city codes should be referenced for specific requirements. On-line users may access these codes by clicking on the individual regulations.

| State | Maximum Idling Time | Exemptions |
|---|---|---|
| **Arizona, Maricopa County** | **5 minutes**<br><br>**Fines:** $100 – 1st violation<br>$300 – 2nd+ violations | - Traffic or adverse weather conditions<br>- Emergency or law enforcement purposes<br>- Power takeoff involving cargo or work functions<br>- Conform to manufacturer's specifications<br>- Maintenance or diagnostics<br>- Hours-of-service compliance |
| *Maricopa County Ordinance P-21: Vehicle Idling Restriction* Maricopa County Air Quality Department www.maricopa.gov/aq | | |
| **California** | **5 minutes**<br><br>**Fines:** Minimum $300<br>Subsequent penalties can range from $1,000 to $10,000 | - Traffic conditions/controls<br>- Queuing beyond 100' of residential<br>- Adverse weather conditions or mechanical difficulties<br>- Vehicle inspections<br>- Service or repair<br>- Power takeoff involving cargo or work functions<br>- Prevent safety or health emergency<br>- Emergency vehicles<br>- Certified Clean Idle label |
| *Code of Regulations, Title 13, Div. 3, Art. 1, Ch. 10, §2485* California Air Resources Board www.arb.ca.gov | | |
| **California, City of Sacramento** | **5 minutes**<br>(prohibits refrigeration unit operation within 100' of residential or school unless loading/unloading)<br><br>**Fines:** Not <$100 nor >$25,000 per violation<br>*(Title 1, Ch. 1.28.010)* | - Traffic conditions/control<br>- Vehicle inspections<br>- Service or repair<br>- Conform to manufacturer's specifications<br>- Power takeoffs involving cargo or work functions<br>- Prevent safety or health emergency<br>- Hours-of-service compliance @ truck/rest stops<br>- To recharge hybrid electric vehicles<br>- Certified Clean Idle label |
| *Sacramento City Code, Title 8, Ch. 8.116* City of Sacramento www.cityofsacramento.org | | |
| **California, Placer County** | **5 minutes**<br>(prohibits refrigeration unit operation within 1000' of residential or school unless loading/unloading)<br><br>**Fines:** $50 Minimum | - Traffic conditions/control<br>- Traffic conditions<br>- Vehicle inspections<br>- Service or repair<br>- Conform to manufacturer's specifications<br>- Power takeoffs involving cargo or work functions<br>- Prevent safety or health emergency<br>- Hours-of-service compliance @ truck/rest stops<br>- To recharge hybrid electric vehicles<br>- Operate intermittent equipment<br>- Alternatively fueled vehicles<br>- Attainment areas<br>- Certified Clean Idle label |
| *Placer County Code, Article 10.14* Placer County Air Pollution Control District www.placer.ca.gov/Departments/Air | | |

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| **California, City of Auburn** | **5 minutes**<br>(prohibits refrigeration unit operation within 1000' of residential or school unless loading/unloading)<br><br>**Fines**: $50 Minimum | - Traffic conditions/control<br>- Vehicle safety inspection<br>- Service or repair<br>- Conform to manufacturer's specifications<br>- Power takeoffs involving cargo or work functions<br>- Prevent safety or health emergency<br>- Hours-of-service compliance @ truck/rest stop<br>- To recharge hybrid electric vehicles<br>- Operate intermittent equipment<br>- Alternatively fueled vehicles<br>- Attainment areas<br>- Certified Clean Idle label |
| *Auburn Municipal Code §71.75* City of Auburn, Code Enforcement www.auburn.ca.gov/415/Code-Enforcement | | |
| **Colorado, Aspen** | **5 minutes within any 60-minute period**<br><br>**Fines:** Not >$1,000<br>*(§1.04.080)* | - Safety reasons<br>- To achieve an engine temperature of 120° F and an air pressure of 100 lbs/square inch |
| *City of Aspen Municipal Code §13.08.110* City of Aspen www.cityofaspen.com/355/Idling-Vehicles | | |
| **Colorado, Denver** | **5 minutes in any 60-minute period**<br>(No limit if less than 20°F for previous 24-hour period or less than 10°F)<br><br>**Fines:** Not >$1,000<br>*(DMC §1-13)* | - Emergency vehicles<br>- Traffic conditions<br>- Being serviced<br>- Auxiliary equipment |
| *Denver Municipal Code §4-43* Denver Department of Environmental Health, Division of Environmental Quality http://www.denvergov.org/DEQ | | |
| **Colorado, Vail** | **20 minutes**<br>(No idling if left unattended when in Lionshead or commercial core, except for refrigeration vehicles)<br>**Fines**: Not >$1,000<br>*(VTC §1-4-1(A))* | -None |
| *Vail Town Code §5-1-7(G)(3)* Vail Police Department, Code Enforcement http://www.vailgov.com | | |
| **Connecticut** | **3 minutes**<br>(No limit: Less than 20°F)<br><br>**Fines:** Not >$5,000<br>*(RCSA Title 22a §174-12(c))* | - Traffic conditions or mechanical difficulties<br>- Ensure safety or health of driver/passengers<br>- Auxiliary equipment<br>- Conform to manufacturer's specifications<br>- Maintenance<br>- Queuing to access military installation |
| *R.C.S.A. 22a-174-18(b)(3)(C)* State of Connecticut, Department of Energy and Environmental Protection www.ct.gov/deep/site/default.asp | | |
| **Delaware** | **3 minutes**<br>(15 minutes if 32°F;<br>No limit if less than -10°F)<br><br>**Fines:** $50 - $500<br>*(Title 7, Ch. 60, §6005 & §6013)* | - Traffic conditions or mechanical difficulties<br>- Conform to manufacturer's specifications<br>- Repair<br>- Emergency vehicles<br>- Using auxiliary equipment/power takeoff<br>- Power during sleeping or resting beyond 25 miles of truck stop with available electrified equipment<br>- Vehicle safety inspections |
| *Regulation 1145 – Excess Idling of Heavy-Duty Vehicles* Delaware Division of Air Quality www.dnrec.delaware.gov/Air/Pages/MobileSourcesLinks | | |

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| **Delaware, Newark**<br><br>**<Added>** | **5 consecutive minutes in any 60-minute period**<br>(15 consecutive minutes if <32°F; No limit if <-10°F)<br><br>**Fines**: Warning – 1st Offense: $100 – 2nd and subsequent offenses | - Traffic conditions<br>- Maintenance, service, repair, or diagnostics<br>- Emergency purposes<br>- Power work-related operations<br>- Power during sleeping or resting beyond 25 miles of truck stop with available electrified equipment<br>- Vehicle safety inspections<br>- Manufacturers' specifications |
| *Newark Code of Ordinances Article XXIX* City of Newark, DE newarkde.gov/686/Anti-Idling | | |
| **Delaware, Wilmington** | **3 minutes**<br><br>**Fines**: $35 - $110 | - Traffic conditions<br>- To perform work functions<br>- State or federal inspections<br>- While being repaired<br>- Connecting, detaching or exchanging trailers<br>- While using sleeper berth |
| *Wilmington Code of Ordinances §37.6* City of Wilmington, DE www.ci.wilmington.de.us | | |
| **District of Columbia** | **3 minutes**<br>(5 minutes if less than 32°F)<br>**Fines:** $500, doubles for each subsequent violation | - Power takeoff |
| *District of Columbia Municipal Regulations Title 20, §900* DC Dept. of Energy and Environment doee.dc.gov | | |
| **Georgia, City of Atlanta** | **15 minutes**<br>(25 minutes if less than 32°F)<br><br>**Fines:** $500 minimum | - To perform needed work<br>- Traffic conditions<br>- Natural gas or electric vehicles |
| *Code of Ordinances §150-97(c)* City of Atlanta, Office of Code Compliance www.atlantaga.gov | | |
| **Hawaii** | "No person shall cause, suffer, or allow any engine to be in operation while the motor vehicle is stationary at a loading zone, parking or servicing area, route terminal or other off street areas…"<br><br>**Fines:** Not <$25 nor >$2,500 per day *(106 HRS §342B-47)* | - Adjustment or repair<br>- Auxiliary equipment or power takeoff<br>- At start-up and cool down for more than 3 min. |
| *Hawaii Administrative Rules §11-60.1-34* Hawaii State Department of Health, Clean Air Branch http://health.hawaii.gov/cab/ | | |
| **Idaho, City of Ketchum** | **3 minutes in any 60-minute period**<br><br>**Fines**: $25 | - Traffic control / conditions<br>- Vehicle inspections<br>- Service or repair<br>- To perform work functions<br>- Prevent safety or health emergency<br>- Recharge hybrid batteries<br>- Operate equipment which runs intermittently<br>- Emergency vehicles |
| *Ketchum Code of Ordinances §8.09* Ketchum City Hall www.ketchumidaho.org | | |

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| **Illinois**<br><br>**Cities: Aux Sable, Goose Lake, Oswego**<br><br>**Counties: Cook, DuPage, Lake, Kane, McHenry, Will, Madison, St. Claire, Monroe** | **10 minutes within any 60-minute period**<br>(30 minutes within any 60 minute period: Waiting to weigh, load or unload freight;<br>No limit: Less than 32°F or greater than 80°F)<br><br>**Fines:** $90 – 1st conviction;<br>$150 – 2nd & subsequent convictions in 12 month period | - Less than 8,000 lbs. GVWR<br>- Traffic conditions/controls<br>- Prevent a safety or health emergency<br>- Emergency or law enforcement purposes<br>- Service or repair<br>- Government inspection<br>- Power takeoffs involving cargo or work functions<br>- Resting in a sleeper berth<br>- Mechanical difficulties<br>- Queuing<br>- Idle reduction technologies |
| *625 Illinois Combined Statute 5/11-1429* Illinois Environmental Protection Agency www2.illinois.gov/epa/ | | |
| **Illinois, Chicago** | **3 minutes in any 60-minute period**<br>(No limit if less than 32°F or greater than 80°F)<br><br>**Fines:** $250 | - Emergency vehicles<br>- Power auxiliary equipment<br>- Service or repair or government inspection<br>- Traffic conditions<br>- Idle reduction technologies<br>- Mechanical difficulties<br>- Exhaust filter regeneration |
| *Chicago Municipal Code §9-80-095* City of Chicago, Department of Transportation https://www.cityofchicago.org/city/en/depts/cdot/supp_info/doing_our_share_forcleanerairidlingreduction.html | | |
| **Illinois, Evanston** | **5 minutes in any 60-minute period**<br><br>**Fines**: $150 | - Traffic control / conditions<br>- Prevent safety or health emergency<br>- Emergency vehicles<br>- Mechanical difficulties<br>- To perform work functions<br>- Government inspections<br>- Service or repair |
| *Evanston City Code §10-4-18* Evanston Parking Services http://www.cityofevanston.org | | |
| **Kansas, Johnson and Wyandotte Counties** | **5 minutes in any 60-minute period**<br>(30 minutes while waiting to load or unload)<br><br>**Fines**: ≤$10,000 | - Traffic control / conditions<br>- Safety or health reasons<br>- State or federal inspections<br>- Mechanical difficulties<br>- Emergency vehicles<br>- Heat or A/C sleeper berth during rest periods<br>- Service or repair<br>- To perform work functions<br>- Auxiliary power units |
| *Kansas Air Quality Regulations §28-19-712* Kansas Bureau of Air www.kdheks.gov/bar/download/idle_rule.pdf | | |
| **Maine** | **5 minutes in any 60-minute period**<br>(15 min if 0° - 32°F; No limit if < 0°F)<br><br>**Fines:** $25 - $500 – 1st offense; $150 - $500 for each subsequent offense<br>*(MRSA §585-K(5))* | - Traffic conditions/controls<br>- Prevent safety or health emergency<br>- Emergency or law enforcement purposes<br>- Maintenance, servicing, repairing, or diagnostic<br>- State or federal inspections<br>- Power work-related operations<br>- Sleeper berth A/C or heat during rest or sleep periods<br>- A/C or heat while waiting to load/unload<br>- Mechanical difficulties if receipt of repair is submitted w/in 30 days |
| *Maine Revised Statute, 38-585* Maine Bureau of Motor Vehicles www.maine.gov/sos/bmv | | |

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| **Maryland** | **5 minutes**<br><br>**Fines:** Not >$500<br>(MC § 27-101(b)) | - Traffic conditions or mechanical difficulties<br>- Heating, cooling or auxiliary equipment<br>- Conform to manufacturer's specifications<br>- Accomplish intended use |
| *Maryland Transportation Code §22-402(c)(3)* Maryland Department of the Environment www.mde.state.md.us | | |
| **Massachusetts** | **5 minutes**<br><br>**Fines:** Not >$100 – 1st<br>Not >$500 for each succeeding offense | - Being serviced<br>- Delivery for which power is needed & alternatives unavailable<br>- Associate power needed & alternatives unavailable |
| *General Laws of Massachusetts Ch. 90 Sec. 16A* Massachusetts Department of Environmental Protection www.mass.gov/eea/agencies/massdep | | |
| **Michigan, Ann Arbor** | **5 consecutive minutes in any 60-minute period or when unoccupied** (No limit if less than 32° F or greater than 85° F if no temperature-controlled area is accessible)<br><br>**Fines:** $100 minimum | - Traffic conditions/controls<br>- Prevent safety or health emergency<br>- Cab comfort while waiting for assistance<br>- Emergency purposes<br>- Power auxiliary work equipment<br>- A/C or heat during rest or sleep periods beyond 25 miles of truck stop electrification/shore power<br>- Maintenance, servicing, repairing, or diagnostic<br>- Conform to manufacturer's specifications |
| *Ann Arbor Code of Ordinances Title VI, Ch. 72* City of Ann Arbor www.a2gov.org | | |
| **Michigan, Detroit** | **5 consecutive minutes in any 60-minute period**<br><br>**Fines:** 1st = Warning; 2nd = $150 to operator and/or $500 to owner | - Traffic conditions<br>- Power auxiliary equipment<br>- Emergency vehicles<br>- Motionless for >2 hours & <25° F<br>- State inspections<br>- Hybrid vehicle recharging<br>- Electric, hydrogen or natural gas powered vehicles |
| *Detroit City Code §55-4-101* City of Detroit www.detroitmi.gov | | |
| **Minnesota, Minneapolis** | **5 minutes in any 60-minute period**<br><br>**Fines:** $700 maximum | - Traffic conditions/controls<br>- To prevent a safety or health emergency<br>- Emergency purposes<br>- Maintenance or diagnostics<br>- Vehicle inspection<br>- Power auxiliary equipment<br>- Occupied armored vehicles<br>- A/C or heat during sleep or rest period or waiting to load/unload<br>- Mechanical difficulties |
| *City of Minneapolis Code of Ordinances, Title 3, Ch. 58* Minneapolis Environmental Services - Air www.minneapolismn.gov/environment/air/ | | |
| **Minnesota, City of Owatonna** | **15 minutes each 5 hours in residential areas**<br><br>**Fines:** $1,000 maximum<br>*(Chapter XI, Section 1100:00)* | - None |
| *Owatonna City Code, Title XIII, Sec. 130.03* City of Owatonna www.ci.owatonna.mn.us | | |
| **Missouri, City of St. Louis** | **5 minutes in any 60-minute period** (10 minutes if < 32°F)<br><br>**Fines:** Up to $100 | - Emergency vehicles<br>- Power for auxiliary purposes<br>- Traffic or adverse weather conditions<br>- Repair or diagnostics<br>- Engaged in the delivery of goods |
| *St. Louis City Ordinance 68137* City of St. Louis *stlouis-mo.gov* | | |

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| **Missouri**<br><br>**Counties: Clay, Franklin, Jackson, Jefferson, Platte, St. Charles, St. Louis** | **5 minutes in any 60-minute period**<br>(30 minutes/hour when waiting to load/unload)<br><br>**Fines:** TBD | - Traffic conditions/controls<br>- Prevent safety/health emergency<br>- Emergency purposes<br>- Maintenance/repair<br>- State or federal inspections<br>- Power work-related operations<br>- During government-mandated rest periods<br>- Mechanical difficulties<br>- Auxiliary power units |
| *Missouri Code of State Regulations, Division 10, Chapters 2.385 and 5.385* Missouri Department of Natural Resources, Division of Environmental Quality www.dnr.mo.gov/env/apcp/index.html | | |
| **Nevada** | **15 minutes**<br><br>**Fines:** Not <$2,000<br>*(NAC445B.640)* | - Variance has been issued<br>- Emergency vehicles<br>- Repair or maintain other vehicles<br>- Traffic congestion<br>- Maintenance at repair facility<br>- Emission contained & treated per Commission<br>- To perform specific task |
| *NV Administrative Code Ch. 445B.576* Nevada Division of Environmental Protection; Bureau of Air Pollution Control www.ndep.nv.gov/bapc | | |
| **Nevada, Clark County**, (including Las Vegas) | **15 minutes**<br><br>**Fines:** Not >$10,000<br>*(CCAQR §09)* | - Variance has been issued<br>- Emergency vehicles<br>- Repair or maintain other vehicles<br>- Traffic congestion<br>- Emission contained & treated per Control Officer<br>- To perform a specific task<br>- Maintenance at repair facility |
| *Clark Co. Air Quality Regulations §45* Clark County Department of Air Quality and Environmental Management www.clarkcountynv.gov/airquality | | |
| **Nevada, Washoe County** (including Reno) | **15 minutes**<br><br>**Fines:** Not >$250 – 1st offense<br>Not <$250 nor >$500 – 2nd and subsequent offenses<br>*(WCDBHR §020.040(E))* | - Emergency vehicles<br>- Snow removal equipment<br>- Repair or maintain other vehicles<br>- Traveling on public right-of-way<br>- To perform specific task<br>- Maintenance at repair facility |
| *Washoe Co. District Board of Health Regs. §040.200* Washoe County District Health Department, Air Quality Management www.co.washoe.nv.us/health | | |
| **New Hampshire** | **5 minutes**<br>(15 minutes if 32°F to -10° F: No limit if less than -10°F)<br><br>**Fines**: TBD | - Traffic conditions<br>- Emergency vehicles<br>- Power takeoff or heat/cool passengers<br>- Maintenance or diagnostics<br>- Defrost windshield |
| *Air Resources Division Admin. Rules Env-A 1102.02* New Hampshire Department of Environmental Services, Air Resources Division www.des.state.nh.us | | |
| **New Jersey** | **3 minutes**<br>(15 minutes if stopped for 3 hrs. & less than 25° F)<br><br>**Fines:** $250 for first violation, $500 for second violation, $1000 for third and each subsequent violation. | - Traffic conditions<br>- Mechanical operations<br>- Waiting or being inspected<br>- Performing emergency services<br>- Being repaired or serviced<br>- Auxiliary power unit/generator set, bunk heaters, etc.<br>- Sleeper berth with 2007 or newer engine or diesel particulate filter |
| *New Jersey Administrative Code Title 7, Ch. 27-14.3* New Jersey Department of Environmental Protection, Bureau of Mobile Sources www.stopthesoot.org/sts-idle.htm | | |

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| **New York** | **5 minutes**<br>(No limit if stopped for 2 hrs. & less than 25ºF)<br><br>**Fines:** $500 - $18,000 | - Traffic conditions<br>- Auxiliary power or maintenance<br>- Emergency vehicles<br>- Within mines or quarries<br>- State Inspections<br>- Recharging hybrid electric vehicles<br>- Farm vehicles<br>- Electric vehicles |
| *New York Code of Rules & Regulations Title 6, Ch. 3 Part 217-3.2* New York State Department of Environmental Conservation; Division of Air Resources www.dec.ny.gov/chemical/8585.html | | |
| **New York City** | **3 minutes**<br>(1-minute if adjacent to a public school)<br><br>**Fines:** $350 – 1st offense;<br>$545 – 2nd offense;<br>$740 – 3rd & subsequent | - Emergency vehicles<br>- Operate loading, unloading or processing device |
| *New York City Administrative Code Title 24-163* New York City Department of Environmental Protection www.nyc.gov/dep | | |
| **New York, Ithaca**<br>**<Added>** | **5 consecutive minutes**<br><br>**Fines**: ≤$250 | - Traffic conditions<br>- Auxiliary power or maintenance<br>- Emergency vehicles |
| *City of Ithaca §346-48*. City of Ithaca, www.cityofithaca.org | | |
| **New York, Village of Larchmont** | **3 minutes**<br><br>**Fines**: $50 | - Temperature of 40°F or less<br>- Emergency vehicles<br>- To perform work functions |
| *Village of Larchmont Code §273-35.1*. Village of Larchmont (914) 834-6230, villageoflarchmont.org | | |
| **New York, Town of Mamaroneck** | **5 minutes**<br><br>**Fines**: ≤$75 | - Traffic conditions<br>- Auxiliary power or maintenance<br>- Emergency vehicles<br>- State Inspections<br>- Recharging hybrid electric vehicles<br>- Farm vehicles<br>- Electric vehicles<br>- Performing federal, state or city business<br>- Temperature of 40°F or less |
| *Town of Mamaroneck Code §219-23*. Town of Mamaroneck (914) 777-7770 www.village.mamaroneck.ny.us | | |
| **New York, Village of Mamaroneck** | **3 minutes**<br><br>**Fines**: $25 - $45 | - Emergency vehicles<br>- Performing work functions |
| *Village of Mamaroneck Code §326-19*. Village of Mamaroneck (914) 381-7810 www.townofmamaroneck.org | | |

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| **New York, New Rochelle** | **5 minutes**<br><br>**Fines:** Not more than $50 and/or 15 days imprisonment – 1st offense; Not more than $100 and/or 45 days imprisonment – 2nd offense within 18 months; Not more than $250 and/or 90 days imprisonment – 3rd & subsequent offenses within 18 months *(CCNR §312-68)* | - Traffic conditions<br>- Comply with passenger comfort laws<br>- Auxiliary power or maintenance<br>- Emergency vehicles<br>- Within mines or quarries<br>- Parked for more than 2 hrs & less than 25° F<br>- State Inspections<br>- Recharging hybrid electric vehicles<br>- Farm vehicles<br>- Electric vehicles |
| *Code of the City of New Rochelle, Part II, Ch. 312, Art. II, §312-33* City of New Rochelle www.newrochelleny.com | | |
| **New York, Rockland County** | **3 consecutive minutes**<br><br>**Fines:** Not >$250 and/or 15 days imprisonment for 1st; not >$1,000 and/or 15 days imprisonment for 2nd & subsequent offenses | - Traffic conditions<br>- Comply with passenger comfort laws<br>- To perform work functions<br>- Maintenance<br>- Performing emergency services |
| *Laws of Rockland Co. Part II, Ch. 377* Rockland County Department of Health www.co.rockland.ny.us/health | | |
| **New York, City of Sarasota Springs** | **5 minutes**<br><br>**Fines**: ≤$250 | - Conditions beyond operator's control<br>- Comply with federal, state or local regulations<br>- Health of driver or passengers<br>- To perform work functions<br>- Emergency vehicles |
| *Sarasota Springs Code §225-28.1* Sarasota Springs www.sarasota-springs.org | | |
| **New York, County of Westchester** | **3 minutes**<br><br>**Fines**: $250 - $500 | - Traffic conditions<br>- To perform work functions<br>- Maintenance<br>- Recharge hybrid vehicle batteries<br>- Emergency vehicles |
| *County of Westchester Code §873.1317* County of Westchester (914) 995-2000 www.westchestergov.com | | |
| **Ohio, Cleveland** | **5 minutes in any 60-minute period** (10 minutes/hour at loading docks/areas or if <32°F or >85°F)<br><br>**Fines:** $150 | - Prevent safety or health emergency<br>- Traffic conditions/controls<br>- Emergency vehicles<br>- Service or repair<br>- Vehicle safety inspection<br>- Power auxiliary equipment<br>- Sleeping or resting in a sleeper berth<br>- Mechanical difficulties<br>- Idle reduction technologies |
| *Cleveland Traffic Code Ch. 431.44* City of Cleveland www.city.cleveland.oh.us | | |
| **Ohio, Maple Heights** | **5 minutes in any 60-minute period** (10 minutes/hour at loading docks/areas or if <32°F or >85°F)<br><br>**Fines:** $150 | - Prevent safety or health emergency<br>- Traffic conditions/controls<br>- Emergency vehicles<br>- Service or repair<br>- Vehicle safety inspection<br>- Power auxiliary equipment<br>- Sleeping or resting in a sleeper berth<br>- Mechanical difficulties<br>- Idle reduction technologies |
| *Maple Heights Traffic Code Ch. 432.42* City of Maple Heights www.citymapleheights.com | | |

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| **Ohio,**<br>**South Euclid** | **0 minutes**<br>(20 min./hr if loading/ unloading;<br>No limit if less than 32°F or greater than 85°F)<br><br>**Fines:**<br>$50 – 1st conviction<br>$150 – 2nd & subsequent conviction in 12-month period | - Traffic conditions/controls<br>- Prevent safety or health hazard<br>- Emergency vehicles<br>- Service or repair<br>- Vehicle safety inspection<br>- Power auxiliary equipment<br>- Sleeping or resting in a sleeper berth<br>- Mechanical difficulties<br>- Idle reduction technologies<br>- Queuing |
| *South Euclid Traffic Code Ch. 339.13* City of South Euclid www.cityofsoutheuclid.com | | |
| **Oregon** | **5 minutes in any 60-minute period**<br>(30 minutes while waiting to or during load/unload)<br><br>**Fines:** Not >$180 | - Idle reduction technology<br>- Cargo temperature control<br>- Traffic conditions/controls<br>- Mechanical difficulties<br>- Manufacturers specifications<br>- Safety regulations<br>- Emergency purposes<br>- Maintenance/repairs<br>- Exhaust filter regeneration<br>- State or federal inspections<br>- Power work-related functions<br>- For A/C or heat during rest/sleep periods or loading/unloading if <50° F or >75° F |
| *Oregon Revised Statutes 825.600* Oregon Department of Environmental Quality www.deq.state.or.us | | |
| **Pennsylvania** | **5 minutes in any 60-minute period**<br>(15 min/hr if weighing, or loading or unloading)<br><br>**Fines:** $150 - $300 per offense (plus civil penalties up to $1000) | - Traffic conditions<br>- Prevent safety or health emergencies<br>- Comply with manufacturer's specifications<br>- Emergency or law enforcement purposes<br>- Maintenance or repair<br>- Government or security inspections<br>- Power work-related operations<br>- Mechanical difficulties<br>- Certified Clean Idle label |
| Diesel-Powered Motor Vehicle Idling Act Department of Environmental Protection, Bureau of Air Quality www.dep.state.pa.us/dep/deputate/airwaste/aq | | |
| **Pennsylvania,**<br>**City of Philadelphia** | **2 minutes or 0 minutes for layovers**<br>(5 minutes if less than 32°F; 20 minutes if less than 20°F)<br><br>**Fines:** $300 | - None |
| *Air Management Reg. IX §3(A)* Philadelphia Department of Public Health, Air Management Services www.phila.gov/health//airmanagement | | |
| **Pennsylvania,**<br>**Alleghany County** | **5 minutes**<br>(20 min./hour if less than 40°F or more than 75°F)<br><br>**Fines:** Warning – 1st offense;<br>$100 – 2nd offense<br>$500 – 3rd & subsequent offenses | - Traffic conditions<br>- Queuing<br>- Cool down/warm up per manufacturer's recommendations<br>- Sleeping/resting in truck<br>- Safety inspections<br>- Ensure safe operation<br>- Emergency vehicles<br>- Power accessory or service equipment<br>- Repair or diagnostics |
| *Article XXI Air Pollution Control Regulations Part E(9) § 2105.92* Allegheny County Health Department, Air Pollution Control www.achd.net | | |

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| **Rhode Island** | **5 minutes in any 60-minute period** (15 min./hr between 0° and 32°F; No limit: < 0°F)<br><br>**Fines:** Not >$100 – 1st offense; Not >$500 for each succeeding offense *(APCR §45.6)* | - Traffic conditions<br>- Ensure health or safety of driver/passengers<br>- Power work-related operations<br>- Maintenance, servicing, repairing, or diagnostic purposes<br>- State or federal inspections<br>- Emergency or law enforcement purposes<br>- Auxiliary power unit/generator set |
| *Air Pollution Control Regulation No. 45* Department of Environmental Management, Office of Air Resources www.dem.ri.gov | | |
| **South Carolina** | **10 minutes in any 60-minute period**<br><br>**Fines:** $75 for each offense *(SCCL §56-35-40)* | - Traffic conditions<br>- Prevent safety or health emergency<br>- Emergency or law enforcement purposes<br>- Maintenance, servicing, repairing, or diagnostic purposes<br>- State or federal inspections<br>- Power work-related operations<br>- Sleeper berth a/c or heat during (a) rest or sleep periods; (b) <40°F or >80 °F; or (c) at rest areas, terminals, truck stops, or legal parking locations >500' from homes or schools<br>- While waiting to load/unload |
| *South Carolina Code of Laws 56-35-10* South Carolina Department of Health and Environmental Control www.scdhec.gov | | |
| **Texas**<br><br>**Cities: Arlington, Austin, Bastrop, Benbrook, Cedar Hill, Celina, Colleyville, Dallas, Duncanville, Elgin, Euless, Fort Worth, Georgetown, Granbury, Houston, Hurst, Hutto, Keene, Lake Worth, Lancaster, Little Elm, Lockhart, Luling, Mabank, McKinney, Mesquite, North Richland Hills, Pecan Hill, Richardson, Round Rock, Rowlett, San Antonio, San Marcos, University Park, Venus, Westlake**<br><br>**Counties: Bastrop, Bexar, Caldwell, Collin, Dallas, Hays, Kaufman, Tarrant, Travis, Williamson** | **5 minutes**<br><br>**Fines:** Varies by jurisdiction | - 14,000 lbs GVW or less<br>- Certified Clean Idle label<br>- Traffic conditions<br>- Emergency or law enforcement<br>- To perform needed work<br>- Maintenance or diagnostics<br>- Defrost windshield<br>- Owners of rented/leased vehicles<br>- Hours-of-Service compliance beyond 2 miles of an available external heat or a/c connection |
| *Texas Administrative Code Title 30 § 114.512.* Texas Commission on Environmental Quality www.tceq.texas.gov | | |

Updated: January 2019

ATRI American Transportation Research Institute

# COMPENDIUM OF IDLING REGULATIONS

| | | |
|---|---|---|
| **Utah, Logan**<br><br>**<Added>** | **2 minutes**<br>(No limit if <0° F)<br><br>**Fines:** Warning: 1st – 3rd offenses; $40 - subsequent offenses | - Emergency vehicles |
| Logan City Code §10.52.270(b) Logan City Conservation Programs, www.loganutah.org | | |
| **Utah, Park City** | **1 minutes**<br><br>**Fines:** Warnings – 1st – 3rd offenses; $40 – subsequent offenses | - Traffic conditions<br>- Emergency situations<br>- Power auxiliary equipment including refrigeration units<br>- Repair or inspection<br>- Health or safety<br>- Manufacturers' specifications |
| *Park City Municipal Code 9-10* Park City, Environmental Sustainability www.parkcity.org | | |
| **Utah, Salt Lake City** | **2 minutes**<br><br>**Fines:** Warning – 1st – 3rd offenses; $135 – subsequent offenses | - Traffic controls<br>- Heating or cooling if <32°F or >90°F for health or safety reasons<br>- Clear windshields<br>- Emergency vehicles<br>- Vehicle inspection<br>- Maintenance or diagnostics<br>- Manufacturers' specifications<br>- Power auxiliary equipment<br>- Recharge hybrid vehicles<br>- Housing service animals |
| *Salt Lake City Code §12.58* Salt Lake City, "Idle Free" www.slc.gov/sustainability | | |
| **Utah, Salt Lake County** | **2 minutes**<br><br>**Fines:** Warnings – 1st – 3rd offenses; ≤$1,000 – subsequent offenses | - Traffic conditions<br>- Power refrigeration unit<br>- Repair or diagnostics<br>- Power auxiliary equipment<br>- Manufacturers' specifications<br>- Emergency vehicles |
| Salt Lake County Health Department Regulation #22 4.1.1 Salt Lake County Health Department, Air Quality slco.org/health/air-quality | | |
| **Utah, Sandy City**<br><br>**<New>** | **1 minute**<br><br>**Fines:** Warning – 1st – 3rd offenses; ≤$750 – subsequent offenses | - Traffic controls<br>- Power auxiliary equipment including refrigeration units<br>- Manufacturers' specifications<br>- For health or safety reasons<br>- Clear windshields<br>- Maintenance, diagnostics or inspection<br>- Emergency vehicles |
| *Sandy City Traffic Code §164* Sandy City, sandy.utah.gov | | |
| **Utah, Summit County**<br><br>**<Added>** | **1 minutes**<br><br>**Fines:** Warning – 1st – 3rd offenses; $60 – subsequent offenses | - Traffic controls<br>- Power auxiliary equipment including refrigeration units<br>- Manufacturers' specifications<br>- For health or safety reasons<br>- Clear windshields<br>- Maintenance, diagnostics or inspection<br>- Emergency vehicles |
| *Summit County Code §6-4-1* Summit County, Utah summitcounty.org | | |

ATRI American Transportation Research Institute

# COMPENDIUM OF IDLING REGULATIONS

| | | |
|---|---|---|
| **Vermont** | **5 minutes in any 60-minute period**<br><br>**Fines:** $10 – 1st violation;<br>$50 – 2nd violation;<br>$100 – 3rd & subsequent violations | - Public safety or emergency purposes<br>- Traffic conditions or control<br>- Health or safety of occupant<br>- Operate safety equipment<br>- Power work-related operations<br>- Air-conditioning or heating a sleeper berth in model year 2017 or older vehicle<br>- Maintenance or diagnostics<br>- State or federal inspections<br>- Idle reduction technologies |
| *Vermont Statute, Title 23, Sec. 1110* Vermont Department of Environmental Conservation dec.vermont.gov | | |
| **Vermont, City of Burlington** | **3 minutes**<br><br>**Fines**: ≤$10,000 | - Refrigeration units<br>- Repairs<br>- To perform work functions<br>- Health or safety of driver or passengers |
| *Burlington Code of Ordinances §20-55(e)* Burlington Department of the Environment www.burlingtonvt.gov | | |
| **Virginia** | **10 minutes for diesel vehicles (3 minutes for all other vehicles) in commercial or residential urban areas**<br>**Fines:** Not >$25,000<br>*(CV 10.1-1316)* | - Auxiliary power |
| *Virginia Administrative Code, Title 9, 5-40-5670(B)* Virginia Dept. of Environmental Quality www.deq.virginia.gov/ | | |
| **West Virginia** | **15 minutes in any 60-minute period**<br><br>**Fines:** $150 - $300 | - Traffic conditions/controls<br>- Prevent safety or health emergency or in accordance w/ safety regulations<br>- Emergency vehicles<br>- Maintenance, service or repair<br>- Federal or state inspections<br>- Power auxiliary equipment<br>- Security inspections<br>- Mechanical difficulties<br>- Sleeping or resting in a sleeper berth if <40° or >75 ° F & legally parked<br>- Sampling, weighing, loading or unloading<br>- Waiting for a police escort for a permitted load<br>- Certified Clean Idle label<br>- Powered by clean diesel technology or biodiesel fuels |
| *West Virginia Code Ch. 17C - 13A*. West Virginia State Police Headquarters http://www.statepolice.wv.gov | | |
| **Wisconsin, Madison**<br><br>**<New>** | **5 consecutive minutes**<br>(No limit if <20° F or >90° F)<br><br>**Fines:** $25 - $200 | - Prevent safety or health emergency<br>- Testing, service, repair or diagnostic<br>- Power auxiliary equipment including refrigeration units<br>- Traffic conditions/controls |
| *Madison City Ordinance §12.1291* City of Madison, WI www.cityofmadison.com | | |

**MILLCREEK, UTAH**
**ORDINANCE NO. 19-57**

**AN ORDINANCE AMENDING SECTION 19.04.448 OF THE MILLCREEK CODE OF ORDINANCES, AND REPEALING CHAPTER 19.73 OF THE MILLCREEK CODE OF ORDINANCES, ENTITLED "TOWN CENTER OVERLAY ZONE" AND REENACTING A NEW CHAPTER 19.73, ENTITLED "CITY CENTER OVERLAY ZONE"**

**WHEREAS,** the Millcreek Council ("Council") met in regular session on December 16, 2019 to consider among other things, amending section 19.04.448 and repealing Chapter 19.73 of the Millcreek Code of Ordinance, entitled "Town Center Overlay Zone" and reenacting a new Chapter 19.73, entitled "City Center Overlay Zone"; and

**WHEREAS,** Utah Code Ann. § 10-9a-503 provides in part that the Council may amend any regulations of a zoning district; and

**WHEREAS,** Millcreek ("City") has adopted a comprehensive zoning ordinance ("Zoning Ordinance"); and

**WHEREAS,** the City has adopted a City Center Master Plan ("Plan); and

**WHEREAS,** City staff, City consultants, and other persons have recommended that the Council revise the Zoning Ordinance to adopt a City Center Overlay Zone in a manner that fulfills the intent of the Plan; and

**WHEREAS,** Utah Code Ann. § 10-9a-502 provides planning commission shall provide notice as required by Subsection 10-9a-205(1)(a) and, if applicable, Subsection 10-9a-205(4) and hold a public hearing on the proposed land use ordinances; and

**WHEREAS,** on September 3, 2019, the required hearing notice was published; and

**WHEREAS,** on September 18, 2019, the proposed amendment was submitted to the planning commission for its recommendation; and

**WHEREAS,** on September 18, 2019, the planning commission held the required public hearing with respect to amending various sections of Title 19 of the Millcreek Code of Ordinances; and

**WHEREAS,** at the November 25, 2019 planning commission meeting the Millcreek Planning Commission recommended amending various sections of Title 19 of the Millcreek Code of Ordinances; and

**WHEREAS,** the Millcreek Code of Ordinances, provides among other things, that before finally adopting any amendment to the land use ordinances, the Council shall consider the

application during a public meeting which has been properly noticed in compliance with the provisions of Title 52, Chapter 4, of the Open and Public Meetings Act; and

**WHEREAS,** on December 11, 2019, the Council caused the required notice to be given; and

**WHEREAS**, on December 16, 2019, at a public meeting the Council considered amending various sections of Title 19 of the Millcreek Code of Ordinances; and

**NOW THEREFORE**, **BE IT ORDAINED** by the Council that Chapter 19.73 of the Millcreek Code, entitled "Town Center Overlay Zone" is hereby repealed.

**BE IT FURTHER ORDAINED** by the Council that a new Chapter 19.73 of the Millcreek Code, entitled "City Center Overlay Zone" is hereby adopted in the form attached hereto and that the official zoning map showing the change enacted hereby be filed as provided in Section 19.06.020 of the Millcreek Code of Ordinances.

**BE IT FURTHER ORDAINED** by the Council that Section 19.04.448 of the Millcreek Code be amended in the form attached hereto (designated by interlineating the words to be deleted and underlining the words to be added):

This Ordinance, assigned Ordinance No. 19-57, shall take effect as soon as it shall be published or posted as required by law, deposited, and recorded in the office of the City Recorder, and accepted as required herein.

**PASSED AND APPROVED** this 16th day of December 2019.

**MILLCREEK COUNCIL**

By: _____
**Jeff Silvestrini,** Mayor

**ATTEST:**

_____
**Elyse Greiner,** City Recorder

| Roll Call Vote: | | |
|---|---|---|
| Silvestrini | Yes | No |
| Marchant | Yes | No |
| Jackson | Yes | No |
| Catten | Yes | No |
| Uipi | Yes | No |

CERTIFICATE OF POSTING

I, the duly appointed recorder for Millcreek, hereby certify that:

ORDINANCE 19-57: AN ORDINANCE AMENDING SECTION 19.04.448 OF THE MILLCREEK CODE OF ORDINANCES, AND REPEALING CHAPTER 19.73 OF THE MILLCREEK CODE OF ORDINANCES, ENTITLED “TOWN CENTER OVERLAY ZONE” AND REENACTING A NEW CHAPTER 19.73, ENTITLED “CITY CENTER OVERLAY ZONE”
was passed and adopted the ____ day of _____2019 and certifies that copies of the foregoing Ordinance 19-57 were posted in the following locations within the municipality this ____ day of _____, 2019.

1. Millcreek City Office, 3330 S. 1300 E., Millcreek, UT 84106
2. Millcreek Community Center, 2266 E. Evergreen Ave., Millcreek, UT 84109
3. Calvin S. Smith Library, 810 E. 3300 S., Millcreek, UT 84106

_____
Elyse Greiner, City Recorder

**Chapter 19.04.448 is hereby amended as follows:**

"Commercial recreation" means one or more recreational ~~facilities~~ activities or uses, either indoor or outdoor, operated as a business and open to the general public for a fee~~, such as golf driving ranges and baseball batting ranges~~. "Commercial recreation" does not include the following indoor or outdoor recreational, gaming or amusement uses: firearm ranges; target shooting of all kinds; paintball; motorized activities of all kinds, irrespective of power source; mechanical, video, electronic or computerized recreational or amusement arcades. "Commercial recreation" does not preclude the issuance of temporary and seasonal licenses or licenses for large scale events of state, national, or international importance/recognition as defined by MKC Title 5.

**Chapter 19.73 is hereby adopted as follows:**

**Chapter 19.73 – City Center Overlay Zone (CCOZ)**

**19.73.010 – Purpose and Intent**

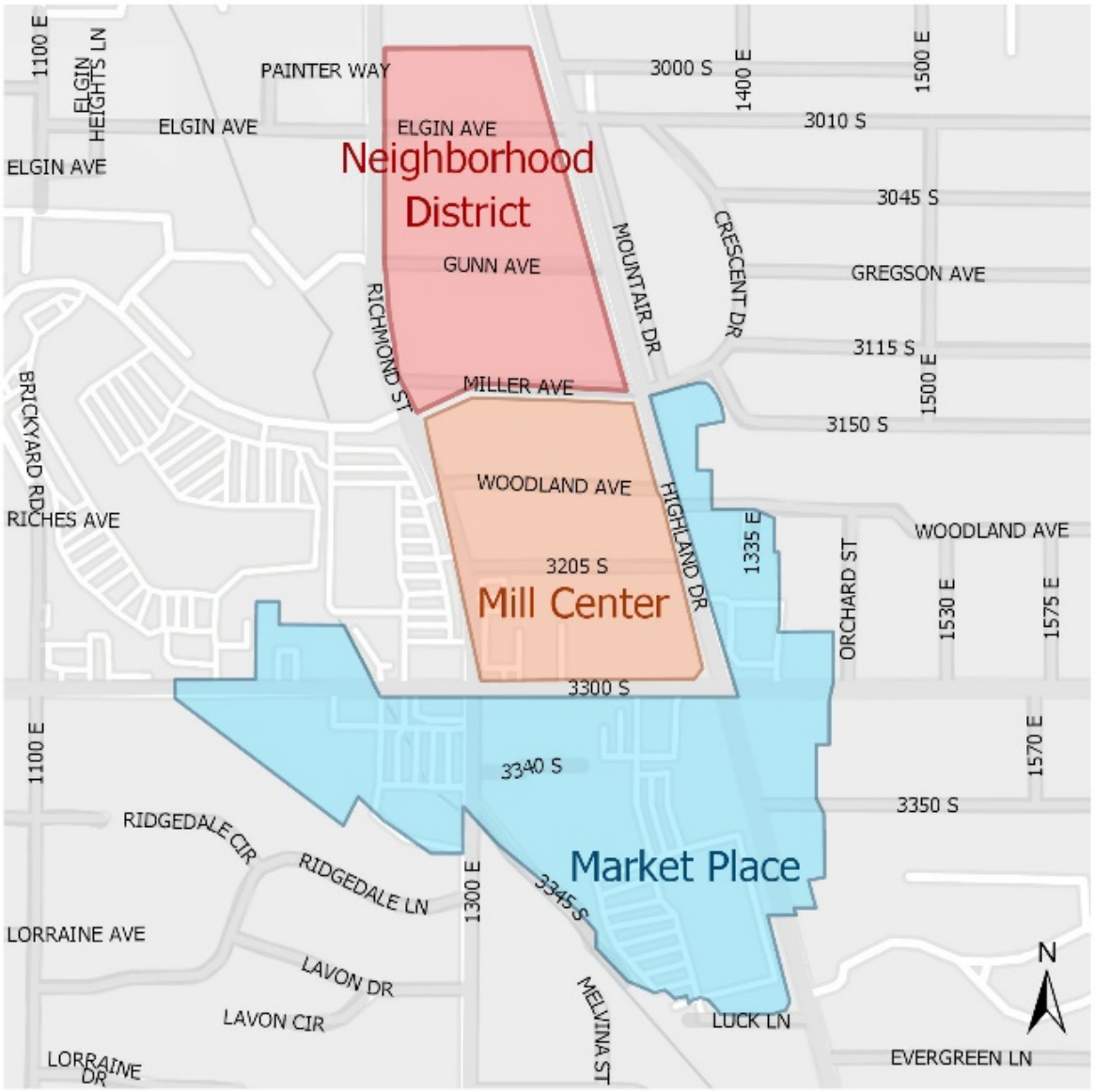
The purpose of the City Center Overlay Zone (CCOZ) is to supplement and modify the standards of the existing commercial and multifamily zones to promote the creation of a walkable mixed-use city center for Millcreek, and to implement the goals and objectives of the *Millcreek City Center Master Plan*. The City Center is located approximately between Highland Drive and 1300 East, and 3000 South and along 3300 South and as particularly set forth on the Map 1 below and the official Millcreek Zoning Map. The CCOZ is intended to facilitate development that promotes quality growth, fosters harmonious development and outstanding design, increases property values, and creates new retail, residential, and other commercial opportunities**.**

**19.73.020 Applicability and Use of the CCOZ**

Any new development, exterior remodeling covering more than 50% of the building, or building expansions exceeding 15% of the gross square footage of the existing building, shall conform to the CCOZ. Conformity shall not be required for maintenance, exterior painting, or interior remodeling of a building. New signs or sign replacements shall also comply with the CCOZ.

The CCOZ area is composed of three districts – the Neighborhood, the Mill Center, and the Market Place**.** The CCOZ covers the area shown in the map below:

**Map 1 – City Center Overlay Zone Boundaries**




**19.73.030 CCOZ Application Process**

**A.** Preapplication conference meeting with representatives from the City is required.

**B.** Application – an application and associated fees shall be submitted and reviewed by staff for completeness. An incomplete application, that does not address the required CCOZ and other City ordinance required information, as determined by staff, will be returned to the applicant and not be processed until all information required by the City ordinances is provided. The City will provide a list of application requirements. The initial application will generally consist of concept plans with the following minimum requirements:

1. The applicant's name, address, telephone number, email address, and interest in the property.

2. The property owner's name, address, email address, and telephone number, if different than the applicant, and the property owner's signed consent to the filing of the application.

3. A property survey, property boundaries, right-of-way center lines, utility access, topographical information indicating original ground surface as defined by MKC 19.04.095, and recorded easements. The survey shall also include the street address and legal description of the subject property.

4. The current zoning classification, zoning district boundaries, and present use of the subject property.

5. A conceptual site plan or plans, drawn to scale, including sketches of the types of buildings proposed, floor plans, elevations of proposed buildings, materials, landscaping, parks, plazas, pedestrian pathways, parking, low impact design stormwater techniques to be applied to the site, known fault lines and recommended setbacks, oblique sketches of the project to show any view related issues (Valley and Mountains), and conceptual street cross sections using the requirements of sections 19.73.040 and 19.73.050 of this chapter.

6. A written explanation of the project that describes the thematic elements of the project, the placemaking concepts, one or more signature features, commercial and mixed-use designs (if applicable), potential tenants, its' relationship to the goals for the City Center and other details that will provide reasons that the development will create a long term benefit to the City and proposed techniques to mitigate any anticipated detrimental effects.

7. A preliminary traffic study that defines potential traffic generation, the integration of the new development with the adjacent street corridors, traffic capacity/level of service issues on adjacent roads and intersections and suggests mitigation solutions for anticipated traffic congestion problems. The traffic study may also address parking demands, if the applicant believes that the standards found in the Parking Chapter are inappropriate. Applicants shall follow the requirements of MKC Section 19.80.040 to create a parking study. Traffic and parking studies shall be commissioned by the City and paid for by the applicant.

8. Provide letters from all utility companies providing service to the project site describing their ability to serve the project.

9. A site-specific geologic hazard study and report, if required by MKC 19.75.

10. A summary table showing floor area by use, required parking by use, materials percentages, percentages of doors and windows, residential amenities if required, and open space requirements.

11. Other information the City may deem necessary, as described on the application form, for proper review and analysis of an application and its potential detrimental effects.

**C.** Application processing and review – Upon payment of required fees, the initial application, composed of the concept plan information as described above and the conceptual development agreement, if required by the city, shall be reviewed by staff and discussed with the applicant in an internal pre-development review meeting. Subsequent to that meeting, changes may be made to the submittal documents, if needed. Staff will assess the application for the project's compliance with the regulations of this chapter and determine if any potential detrimental effects require mitigation to include the following list of potential issues and standards, that may need to be addressed and mitigated:

1. Decreased street service levels and/or traffic patterns including the need for street modifications such as dedicated turn lanes, traffic control devices, safety, street widening, curb, gutter and sidewalks, location of ingress/egress, lot surfacing and design of off-street parking and circulation, loading docks, as well as compliance with off-street parking standards.

2. Negative impacts on the adequacy of utility systems, service delivery, and capacities, including the need for such items as relocating, upgrading, providing additional capacity, or preserving existing systems.

3. Negative impacts on connectivity and safety for pedestrians and bicyclists.

4. Detrimental effects by the use due to its nature, including noise that exceeds sound levels normally found in residential areas, environmental impacts, dust, fumes, smoke, odor, noise, vibrations; chemicals, toxins, pathogens, gases, heat, light, electromagnetic disturbances, and radiation. Detrimental effects by the use may include hours of operation and the potential to create

an attractive nuisance.

5. Environmental impacts that increase the risk of contamination of or damage to adjacent properties and injury or sickness to people such as waste disposal, fire safety, geologic hazards such as fault lines, soil or slope conditions, liquefaction potential, site grading/topography, storm drainage/flood control, high ground water, environmental health hazards, or wetlands.

6. Modifications to signs and exterior lighting to assure compatibility within the overlay zone.

7. Incompatible designs in terms of use, scale, intensity, height, mass, setbacks, character, construction, solar access, landscaping, fencing, screening, and architectural design and exterior detailing/finishes and colors within the overlay zone in which the use will be located.

8. Reduction in the tax base and property values.

9. Reduction in the current level of economy in governmental expenditures.

10. Insufficient emergency fire service and emergency vehicle access.

11. Reduction in usable public open space.

12. Graffiti prevention applications and designs.

13. Inadequate maintenance of the property and structures in perpetuity including performance measures, compliance reviews, and monitoring.

14. Enhancement of personal safety through the application of Crime Prevention Through Environmental Design (CPTED) principles to building design, especially for parking garages.

**D.** Final Development Plan – this plan submittal, subsequent to any Planning Commission public hearing(s) including an associated fee, is a detailed plan that addresses every section requirement of this ordinance, especially MKC Sections 19.73.040 and 19.73.050, in a precise manner.

**E.** Conditional use approval shall be required for any building that meets any one of the following criteria:

1. A total square footage greater than 25,000 square feet.
2. A ground floor footprint greater than 15,000 square feet.
3. A height greater than 36 feet, not including any element described as a height exception in Table 19.73-4.

**F.** The City will provide a checklist of the information required. Final development plans shall be required to the detail required by the City and shall be processed by staff. Building permit applications may be submitted after appropriate assurances in the form of cash escrow bonds are submitted for the public improvements.

**19.73.040 – Permitted and Conditional Uses**

Permitted uses on any lot in the CCOZ shall be the permitted and conditional uses allowed in the C-2 zone, with the addition of single purpose multi-family dwellings in the Neighborhood District. Uses shall be located within one of the Building Types identified in this chapter, except for the use limitations as set forth in MKC Section 19.60.030.

In addition to the uses listed below, any building that meets any one of the following criteria shall be approved using the City's Conditional Use Process:

**A.** Any proposed building with a total square footage greater than 25,000 square feet,
**B.** Any proposed building with a ground floor footprint greater than 15,000 square feet,
**C.** Any proposed building with a height greater than 36 feet, excluding any element described as a height exception in Table 19.73-4.

Applications shall be processed using the standards found in this Chapter as well as in MKC Chapter 19.84 Conditional Uses.

**Table 19.73-1 – Permitted and Conditional Uses (subject to MKC Section 19.73.040)**

| **General Categories of Use by District** |
|---|
| **Neighborhood District** - Multi-family, mixed use, neighborhood retail and neighborhood services, office uses (limited to 2,500 square feet or less, unless the uses are in a building that is located within 200 feet of the corner of a neighborhood street and either Richmond Street or Highland Drive), commercial indoor recreation, temporary/seasonal/mobile food businesses |

| |
|---|
| **Mill Center –** mixed use including residential on upper floors, office, retail, service uses, entertainment, civic uses, commercial indoor recreation/entertainment uses, temporary/seasonal/mobile food businesses |
| **Market Place** – retail commercial use, office, mixed use, commercial indoor recreation, temporary/seasonal/mobile food businesses |

**19.73.050 – Prohibited Uses and Use Limitations**

**Table 19.73-2 – Prohibited Uses and Use Limitations**

The following uses are prohibited or limited in CCOZ:

| **USES** | **LIMITATION** |
|---|---|
| Automobile Service Station, car wash and detailing businesses | Not allowed |
| Equipment, Car or Truck Rental or storage | Not allowed, except for car rental as an accessory use to a hotel |
| Non-Stealth Telecommunications Facilities. | Not allowed. Stealth telecommunication facilities are only allowed on rooftops. |
| Sexually oriented businesses | Not allowed subject to MKC 19.91.11 |
| Pawnshop, smoke shops and related products, military surplus, and retail tobacco as the principal use | Not allowed |
| Residential Uses are permitted by district and within the building types specified in section 19.73.050 (14), except that the gross floor area of any development located within 250 feet of the northwest corner of Highland Drive on 3300 South and the northwest corner of 1300 East on 3300 South shall contain no more than | Shall include mixed uses on corners in the Neighborhood District, and 100% residential buildings are not allowed in the Mill Center and Market Place districts. |

| | |
|---|---|
| 25% of the building floor area as residential uses. The 250-foot distance measurement only applies to that same quadrant of the intersection. For the purposes of this chapter, leasing offices, lobbies, required parking, and any required residential amenity spaces are not considered commercial uses. | Residential uses shall include amenities as required by MKC Chapter 19.44.050. |
| Rooftop Gardens, Patios, and Amenity Space | Not allowed within 100 feet of a R-1 or R-2 zone boundary in the Neighborhood or Market Place districts, unless the rooftop garden, patio or amenity space is not located above the highest occupied floor of a building, or is obstructed from view from the zone boundary by at least 20 feet of occupied floor space. |
| Sale or lease of new or used vehicles of all types, watercraft, mobile homes, travel trailers, campers, motorcycles and other recreational vehicles, including licensed and non-licensed mobile construction equipment and other non-licensed mobile commercial equipment. | Not allowed |
| Secondhand stores including general merchandise, precious metal dealer/processor and/or precious gem dealer. | Limited to a maximum of 2,500 square feet |
| Commercial indoor and outdoor self-storage facilities of all types as a principal use, including mini-storage units, neighborhood storage, indoor and temperature-controlled storage facilities. | Not allowed. Self-storage, for residents of the building, as part of and internal to a multi-family or mixed use development is allowed, if located on an upper floor. |
| Tattoo and Other Body Art Businesses | Not allowed |

| | |
|---|---|
| Short term ("payday", "car" title, check cashing and similar) loan services | Not allowed |
| Drive-Through Uses as an Accessory Use | Not allowed for restaurant or food or beverage services uses in the Neighborhood district<br><br>Drive through windows, order boxes, or access lanes are not are allowed to front on the Millcreek Common Street, and for all other districts drive-through uses shall conform to the requirements of MKC Section 19.62.050 and other applicable requirements of this Title. |
| Indoor and outdoor gun ranges, both for profit and non-profit | Not allowed |
| Manufacturing as a principal use | Not allowed, excepting the manufacture of beer and spirits |
| Freestanding fireworks seasonal sales | Not allowed. |
| Structured parking, including parking garages and podium parking. | Not allowed to face any street unless wrapped with commercial or office uses on the first floor, street facing facade. |
| Sidewalk Dining | Allowed on any street except for alleys and woonerfs, to within 5 feet of the curb |
| Restaurant and Retail uses facing Millcreek Common | Restaurants and retail are the only uses allowed on the first floor facing Millcreek Common |

**19.73.060 – Bulk and Yard Regulations**

The Tables below and Map 2 establish supplemental bulk and yard regulations for all buildings within CCOZ. These regulations modify and/or supersede any conflicting requirements found in the underlying zone.

Building Heights - Minimum and maximum heights are described in Map 2 below and in the chart below, and on the Official Planning and Zoning maps published by the City. Any proposed development that overlaps a defined height line that represents a change in building heights, on the Official Planning and Zoning map, shall use the lower standard or may step up the building height as per the Official Planning and Zoning map, at that height line.

**Table 19.73-3 – Height Requirements and Map 2**

| **Height Requirements** | | **Minimum** | **Maximum** |
|---|---|---|---|
| East of Highland Drive, north of 3300 South | Tan area | 12 feet | 26 feet |
| North end of the Neighborhood District and south end of the Market Place | Yellow area | 12 feet | 38 feet |
| Various areas along Richmond, Highland near 3300 South, and along 3300 South. This area along Highland Drive is 75 feet wide, as measured from the west ROW line as of the adoption date of the ordinance. | Light Orange areas | 24 feet | 50 feet |
| Areas along Millcreek Common and on the north side of 3300 South | Dark Orange areas | 40 feet | 75 feet |
| South Side of 3300 South near the 1300 East Intersection | Dark Brown areas | 48 feet | 75 feet |

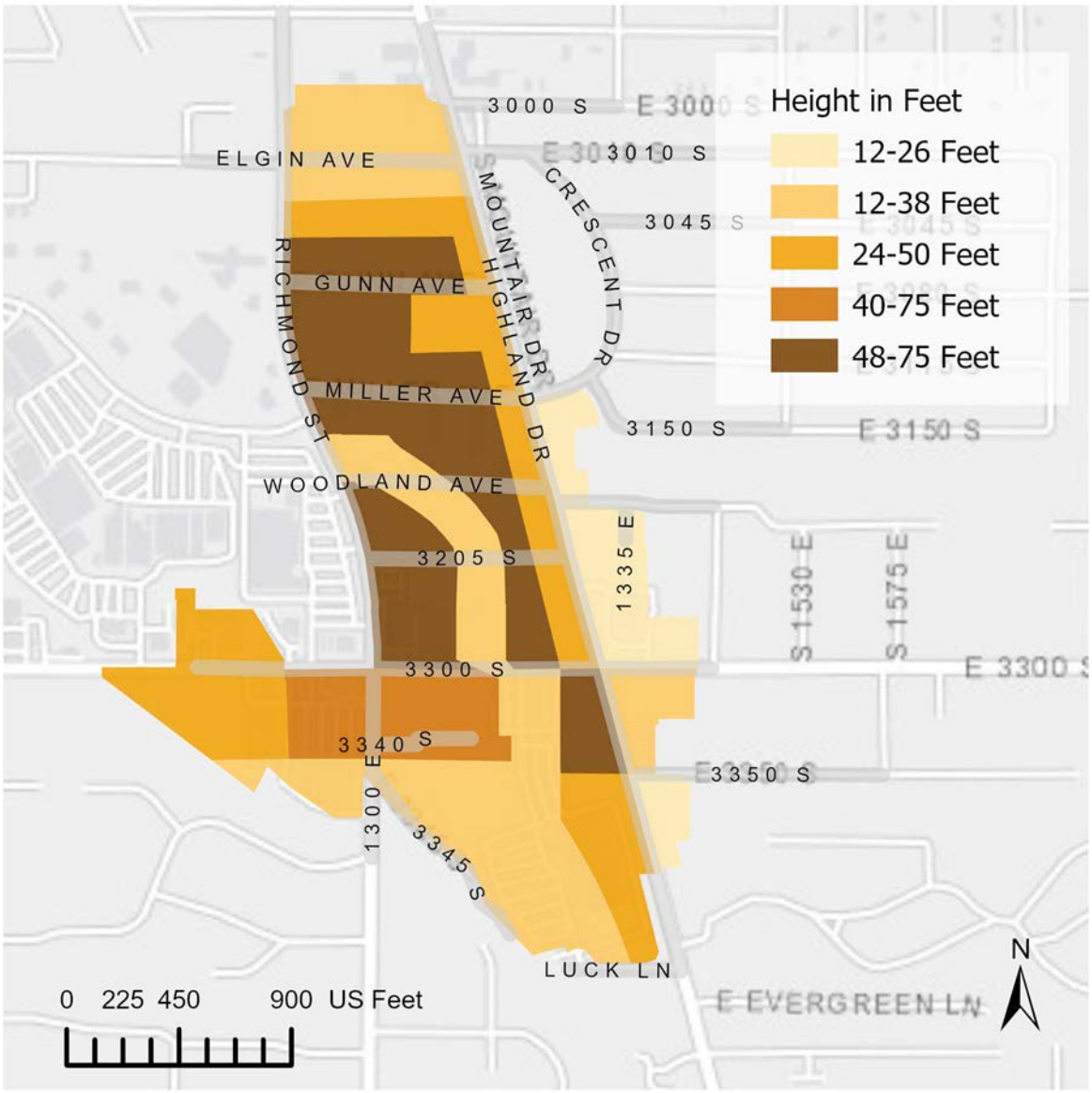

Height in Feet
12-26 Feet
12-38 Feet
24-50 Feet
40-75 Feet
48-75 Feet
3000 S
E 300
ELGIN AVE
3010 S
3045 S
MOUNTAIR DR
CRESCENT DR
HIGHLAND DR
RICHMOND ST
GUNN AVE
MILLER AVE
3150 S
E 3150 S
WOODLAND AVE
3205 S
1335 E
S 1530 E
S 1575 E
3300 S
E 3300 S
3340 S
3350 S
1300 E
3345 S
LUCK LN
E EVERGREEN LN
N
0 225 450 900 US Feet

**TABLE 19.73-4 – Bulk and Yard Regulations**

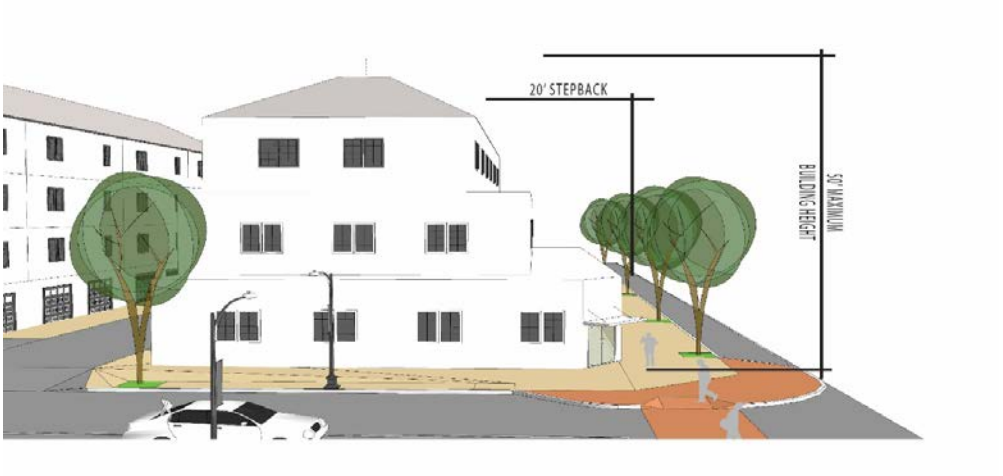
| **BULK AND YARD REGULATIONS** | |
|---|---|
| Minimum Building Height | Minimum building heights are described in Map 2 above and in this table |
| Maximum Building Height | Varies by district – see section 19.73.14 (e) and Note 2 below, and Map 2 above |
| Height exceptions | Roof structures for the housing of elevators, stairways, ventilating fans or similar equipment required to operate and maintain the building, and fire or parapet walls, skylights, shade structures (awnings, fabric roof coverings, wood and metal open frame structures, etc.), towers (where required by City ordinances), flagpoles, chimneys, stealth wireless or television installations, theater lofts, solar panels, may be erected above the height limits prescribed in this chapter, but no space above the height limit shall be allowed for the purpose of providing additional habitable floor space. No such structures except towers and solar panels, may be located closer than 10 feet to edge of the building. The maximum increase in height for the above features shall be 12 feet. |
| Height Transitions | Height transitions are required for buildings within 100 feet of an R-1 or R-2 zone. See Note 1 and 2. |
| Maximum Lot Coverage | 80 percent |
| Minimum Lot Coverage | 50 percent |
| Maximum Front Yard | 10 feet, subject to the build-to-line (see Note 4) standards established in Section 19.73.050 (8) and (14). The front yard setback is measured from the ROW line, except in the case of a plaza adjacent to the street, where the setback is measured from the edge of the plaza furthest from the street. |

| | |
|---|---|
| Off-Street Parking | Not allowed between front plane of the building and the curb on the street it fronts. |
| Residential Density | No maximum density is established. |

TABLE 19.73-4: NOTES

1. For any development in CCOZ that is directly abutting an R-1 or R-2 zone, the maximum height for structures within 100 feet of the residential zone boundary shall not exceed 30 feet, as measured from the property line abutting the residential zone. If the residential zone abuts the CCOZ at a property line, the setback is measured from that property line. Buildings may step up to the maximum height allowed after the 100 foot transition requirement has been met.
2. For any building over 40 feet in height or for any development on properties fronting on the Millcreek Common, 3300 South, Richmond and/or with frontage on Highland Drive, a twenty-foot stepback of the building façade, facing any street, is required between bottom of the first story and the top of the third story and upper stories. This stepback shall be segmented, such as, a ten foot initial stepback between the first and second floors and then an additional 10-foot stepback between the second and third floors or shall create a stepback of 20 feet between the first and third floors, that should be utilized as a usable space for residents or businesses within the building (See Figure 1).

**Figure 1 Building Stepbacks and Setbacks**



3. For the purposes of this chapter, where setbacks are measured from a right-of-way (ROW) containing a fully improved sidewalk, setbacks from a right of way shall be measured from the edge of the sidewalk that is directly abutting the public right-of-way.

4. Build-to-lines are defined as the line at which construction of a building façade is to occur on a lot, running parallel to the front property line, and ensuring a uniform or consistent façade line on the street. The flexibility provided in this Chapter is intended to allow for additional sidewalk space and façade variation, seating, for outdoor uses such as restaurants and to promote sidewalk dining.

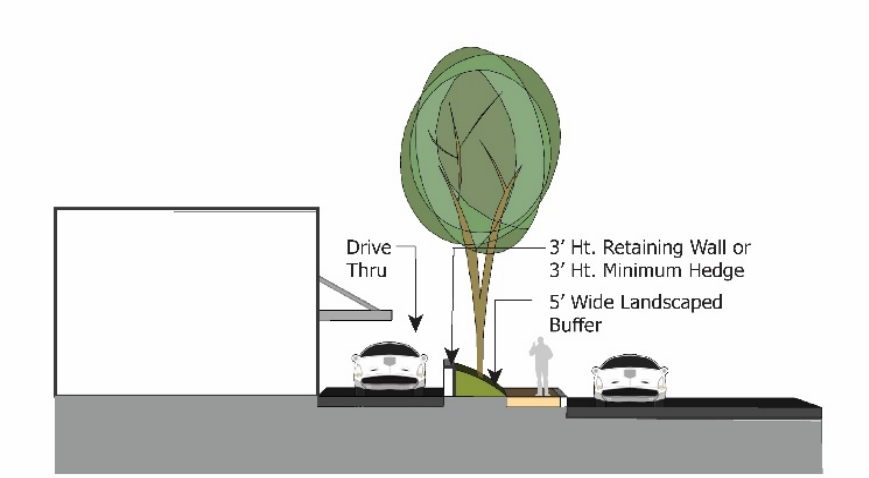
**19.73.070 – Design Standards**

A. **Objectionable Conditions and Violations of Applicable Law.** All uses shall be free from unsafe, unhealthy, objectionable and or unreasonable odor, dust, smoke, emissions, noise, vibration, or similar problems, nor be in violation of any federal, state or local law.

B. **Landscaping on Public Right-of-Way.** Where a development directly abuts a public right-of-way, the development is required to install the street tree, curb, gutter, and sidewalk, pavement matching, streetlights, landscaped planters, and street furniture as per the appropriate street cross section as shown in sub-section 6 below. This landscaping shall not be included any required open space.

C. **Drive-Through Uses as an Accessory Use.** Drive through uses, such as financial institutions and food and beverage services, are permitted as an accessory use in CCOZ, except that drive-throughs associated with a food and/or beverage service, are not allowed in the Mill Center District and the Neighborhood District. Existing drive-through uses serving food and beverage uses in the Mill Center District continue to be a legal use. Drive through facilities shall include a canopy or roof that is architecturally integrated and attached to the building and that mirrors the roof form of the primary building. Drive through windows are not permitted on facades that face a right-of-way, unless existing site or access conditions prohibit a drive through window on a façade that does not face a right-of-way. In situations where a drive through window is required on a street facing façade, the building shall incorporate a five-foot wide landscaped buffer, either sloped to a 3 foot tall retaining wall or a minimum 3 foot hedge, between the drive-through lane and the adjacent parking or right-of-way.

**Figure 2 Drive-Through requirements**




**D. Requirements for Residential Uses.** Requirements for any residential use established in CCOZ shall comply with the requirements established in MKC Chapter 19.44 Multi-Family Residential and MKC Chapter 19.78 Planned Unit Development of the Code, unless modified by this chapter. As an incentive to encourage property ownership in the City Center, no minimum area is required for Planned Unit Developments and condominiums, provided that the PUD or condominium consists of at least eight units and meets all applicable requirements of MKC Title 18 and Title 19.

**E. Street Trees**

General street tree standards can be found in subsection 9, Landscaping General below. Street trees shall comply with the Millcreek City Center Urban Forestry Standard.

**F. Street Types**

The seven street types identified below are intended to create a specific identity for the City Center District. All public sidewalks shall be colored a consistent color with complimentary accent colors at intersections and mid-block crossings. Exact dimensions and requirements, including sidewalk color and patterns, are subject to approval by Millcreek City. For the purposes of this section, where a conflict exists between the streetscape figures and the table requirements for each street type, the requirements in the table shall be interpreted as the standard.

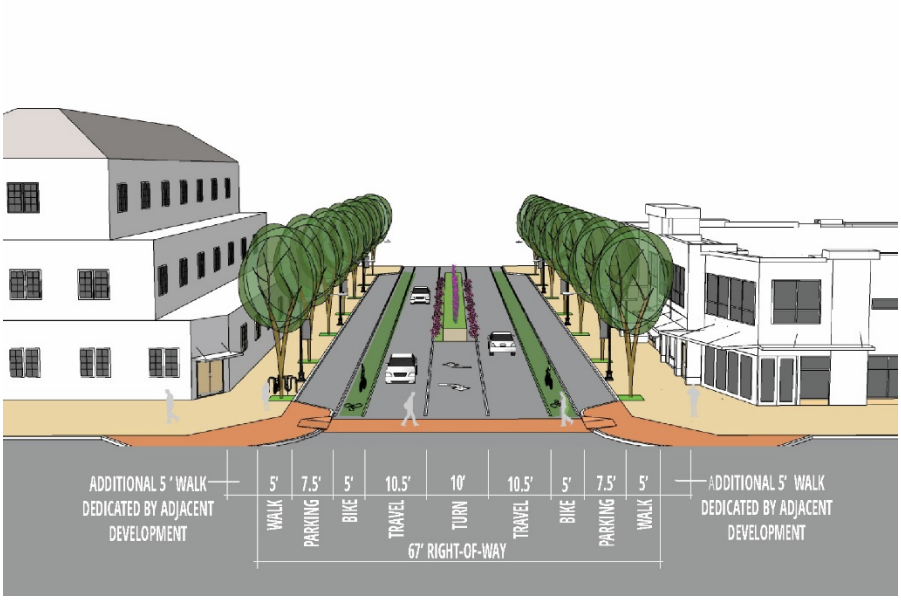
**1. Highland Drive**

Highland Drive serves as the primary eastern collector through the district. This street section is characterized by narrow travel lanes, dedicated bike lanes, on-street parking where feasible, generous sidewalks, and curb bulb outs at

intersections for traffic calming. The intent is to slow traffic through the district, accommodate all modes of travel and focus on pedestrian connectivity.

| Requirements | |
|---|---|
| **Vehicular Zone** | |
| ROW Width | 67 feet |
| Travel Lanes | 2 |
| Center Turn Lane | 1 |
| Lane Width | 10.5 feet |
| Center Median | Permitted mid-block and low turn demand areas |
| Parking Lanes | 7.5 feet On-street parallel required on each side |
| Bicycle Lane | 5-foot dedicated bike lanes each side using green thermoplastic or colored concrete |
| **Pedestrian Zone** | |
| Walkways | 10-foot minimum attached colored concrete sidewalk on each side with complementary enhanced paving at intersections and mid-block pedestrian crossings (5 feet within ROW, 5 feet dedicated by property owner) |
| Street Buffer | Trees in grates within the 10-foot walkway dimension noted above |
| Furnishings | Bike racks, seating, lighting, planters |

**Figure 3 Typical Cross Section for Highland Drive**

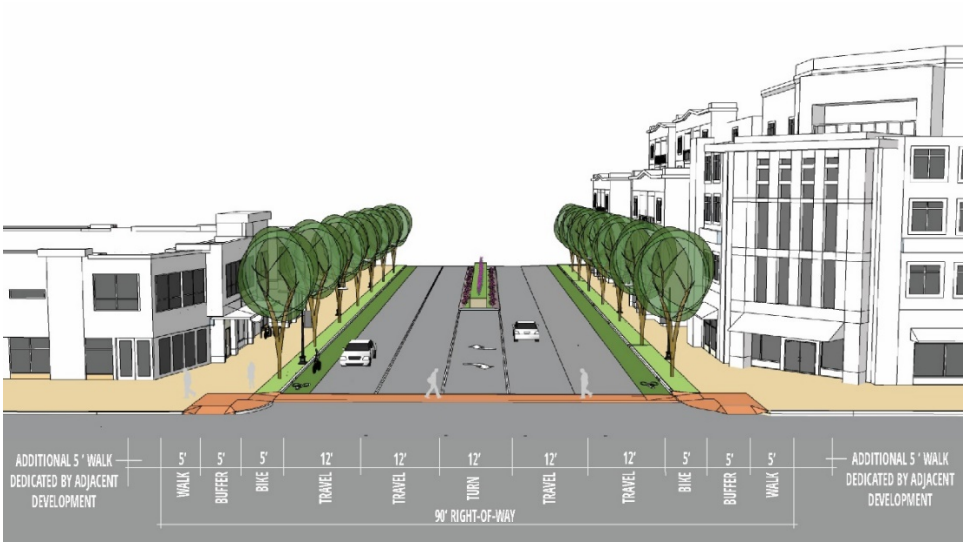


2. **Richmond/1300 East Boulevard**

   A minimum of two lanes in each direction with a median turning lane, punctuated with landscaped medians in areas not needing left turns, these streets are envisioned as grand boulevards.

| Requirements | |
|---|---|
| **Vehicular Zone** | |
| ROW Width | 90 feet |
| Travel Lanes | 4 |
| Center Turn Lane | 1, 12 feet wide |
| Lane Width | 12 feet |
| Center Median | Permitted except at intersections, 12 feet |
| Parking Lanes | No parking on street |
| Bicycle Lane | 5-foot protected bike lanes each side, using green thermoplastic or colored concrete |
| **Pedestrian Zone** | |
| Walkways | 5-foot minimum attached colored concrete sidewalk on each side with complementary enhanced paving at intersections and mid-block pedestrian crossings (5 feet within ROW, 5 feet dedicated by property owner which can be dedicated to City or provided through a public pedestrian easement and can encroach on the setback) |
| Street Buffer | 6-foot park strip xeriscape with trees |
| Furnishings | Bike racks, bus shelters, lighting |

**Figure 4 Typical Cross Section for Richmond/1300 East Boulevard**

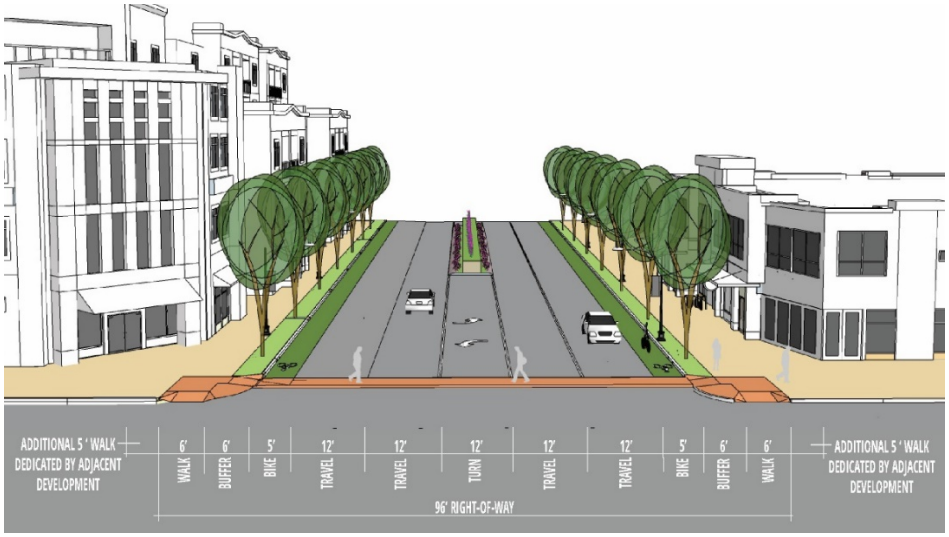


### 3. 3300 South Boulevard

This street is controlled by UDOT but plays an important role in the recognition of the City Center and the flow of major volumes of traffic in an east/west direction. To facilitate mobility with the City Center area, protected bike lanes are recommended to create better connections, between Highland and Richmond streets.

| Requirements | |
|---|---|
| **Vehicular Zone** | |
| ROW Width | 96 feet |
| Travel Lanes | 4 |
| Center Turn Lane | 1, 12-foot wide |
| Lane Width | 12 feet |
| Center Median | Permitted except at intersections, 12 feet |
| Parking Lanes | No parking on street |
| Bicycle Lane | 5-foot protected bike lanes each side, using green thermoplastic or colored concrete |
| **Pedestrian Zone** | |
| Walkways | 6-foot minimum attached colored concrete sidewalk on each side with complementary enhanced paving at intersections and mid-block pedestrian crossings (5 feet within ROW, 5 feet dedicated by property owner which can be dedicated to city or provided through a public pedestrian easement and can encroach on the setback) |
| Street Buffer | 6-foot park strip xeriscape with trees |
| Furnishings | Bike racks, bus shelters, lighting |

**Figure 5 Typical Cross Section for 3300 South**



4. **Neighborhood Streets**

Connecting neighborhood streets include all streets that run east and west between Highland and Richmond Street/1300 East through the City Center. These streets are characterized by narrower right-of-way widths with similar goals of accommodating all modes of local traffic.

| Requirements | |
|---|---|
| **Vehicular Zone** | |
| ROW Width | 61 feet to 80 feet |
| Travel Lanes | 2 |
| Center Turn Lane | None |
| Lane Width | 12 feet |
| Center Median | Not permitted |
| Parking Lanes | 8.5 feet on-street parallel, 18 feet for angled head in, or head out on each side, depending on ROW |
| Bicycle Lane | Shared with travel lanes |
| **Pedestrian Zone** | |
| Walkways | 5-foot minimum attached sidewalk on each side |
| Street Buffer | 6-foot minimum landscape area with trees |
| Furnishings | Bike racks, seating, lighting, planters |

**Figure 6 Typical Cross Section for a Neighborhood Street**

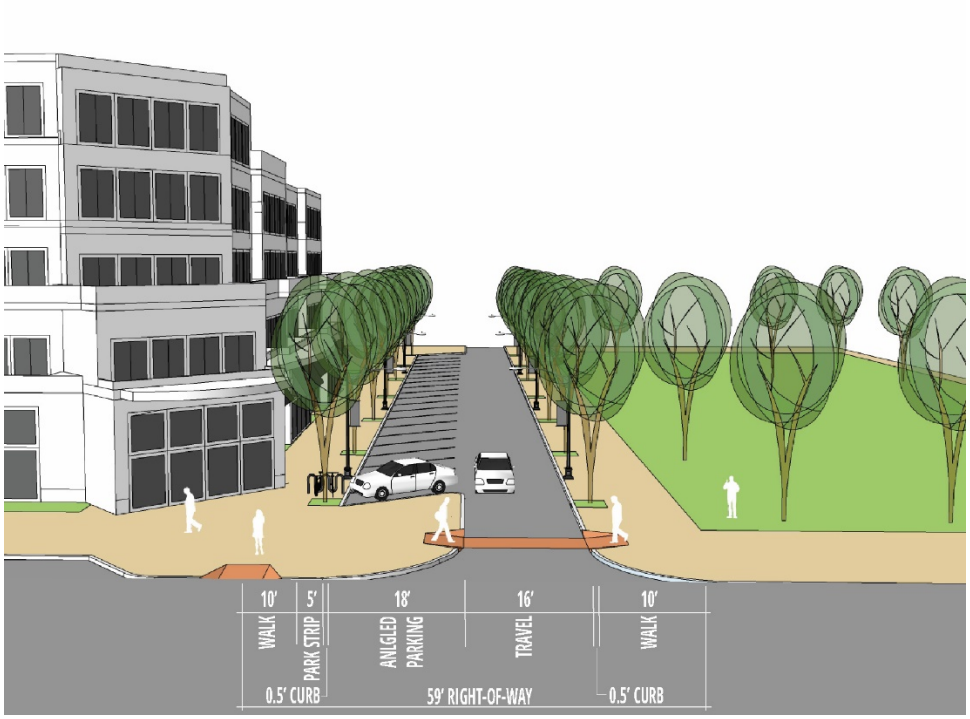


**5. Millcreek Common Street and Frontage**

If vehicular access and parking is provided between any building and Millcreek Common, it must meet the following requirements:

| Requirements | |
|---|---|
| **Vehicular Zone** | |
| ROW Width | Varies |
| Travel Lanes | 1 |
| Center Turn Lane | None |
| Lane Width | 16 feet |
| Center Median | Not permitted |
| Parking Lanes | 8.5 feet On-street parallel parking, both sides – or angled on the building side |
| Bicycle Lane | Shared with travel lanes |
| **Pedestrian Zone** | |
| Walkways | 10-foot minimum outside edge, 5 feet inside edge |
| Street Buffer | 6 feet minimum landscape area, with trees |
| Furnishings | Bike racks, seating, lighting, planters, sculptures |

**Figure 7 Potential Cross Section for Millcreek Common Street**



## 6. Laneway

Laneways are to be used as access to parking, rear loaded buildings, loading and delivery areas, services areas for refuse and utilities at the rear of lots, and as connectors for pedestrians. Laneways are intended as a shared vehicular access to the rear of buildings that allows the front façade to remain tied to the pedestrian realm.

| Requirements | |
|---|---|
| **Vehicular Zone** | |
| ROW Width | 30 feet (one way) |
| Travel Lanes | 1 |
| Center Turn Lane | None |
| Lane Width | 16 feet (one way) |
| Center Median | Not permitted |
| Parking Lanes | Not permitted |
| Bicycle Lane | Shared |
| **Pedestrian Zone – shared** | |
| Walkways | 5 feet one side, 4 feet other side |
| Street Buffer | 6 feet with tree grates and trees tied to 5-foot walkway, and breakable bollards on 4-foot walkway edge |
| Furnishings | None |

**Figure 8 Typical Cross Section for a Laneway**



**7. Woonerf**

A shared street promoting for pedestrian and bicycle use over vehicular use but in an undefined manner. No curbs and weaving vehicular ways, punctuated by landscaped islands, help to create a street that is open for all users but in a very low speed, safe, environment.

| Requirements | |
|---|---|
| **Vehicular Zone** | |
| ROW Width | 40 feet (two way) |
| Travel Lanes | 2 but unmarked other than by pavement distinction |
| Center Turn Lane | None |
| Lane Width | 10 feet |
| Center Median | Not permitted |
| Parking Lanes | One side and purposefully restricts traffic flow to one lane |
| Bicycle Lane | Shared |
| **Pedestrian Zone - shared** | |
| Walkways | 10 feet |
| Street Buffer | Regular spaced landscaped islands, with trees |
| Furnishings | Seating within the islands |

**Figure 9 Typical Cross Section for a Woonerf**



**G. Corner Lots**

Corner lots are deemed to have two front yards. Building corners that face street intersections shall be angled, rounded, setback or otherwise designed to soften the intersection of the perpendicular building facades to ensure vision clearance and create a public space. A corner plaza is required for all street intersections except for internal/mid-block intersections on Neighborhood streets and for laneways and woonerfs. Streets that require a plaza shall design a minimum of 20 feet wide 15 feet deep usable public plaza space and shall include provisions for shade and protection from inclement weather and seating. For sale art sculpture(s) are encouraged.

**Figure 10 Corner Plaza**



**H. Front Yard Setback and Build-to-Line**

The front yard setback is the build-to-line within 300 feet of all public street intersections within the CCOZ boundary. At least 50% of the front elevation of the building(s) must be within 10 feet of the build-to-line, except for the corners specified above. A build-to-line is defined as the line at which construction of a building façade is to occur in a lot, running parallel to the front property, and ensuring a uniform building facade line on the street.

**I. Landscaping General**

Landscaping shall comply with this chapter and MKC Chapter 19.77. At a minimum, street trees are required in planting areas or tree grates every 40 feet, depending on tree type, on center and within 15 feet of back of curb. Trees must be 2-inch minimum caliper canopy type, at least 30 feet in height at maturity and maintained with a limb clearance of 8 feet above the ground. A Street Tree planting plan is required, which may modify the minimum separation requirement above, depending on the width of the tree canopy at maturity and shall utilize trees approved by the City in the Millcreek City

Center Urban Forestry Standard. Landscaping along the street shall comply with the requirements of the street cross sections, the Millcreek City Center Urban Forestry Standard, the Street Tree Planting plan, and MKC Chapter 19.77.

**J. Garbage and Recycling**

The development shall be designed to accommodate and efficiently manage the collection, storage, and removal of garbage in harmony with the neighborhood to minimize detrimental effects of the collection, storage, and removal on any use within the development or abutting uses. Dumpster enclosures are required. No refuse dumpster or dumpster enclosure structure shall be located closer than 10 feet to any perimeter property line, unless the dumpster or dumpster enclosure structure is located within a parking structure. Enclosure structures must have a minimum of four sides that reflect or emulate the materials, design, and quality of the overall development. All developments shall provide recycling services.

**K. Parking General**

General parking requirements are subject to MKC Section 19.80.040, except as specified below. Parking requirements may be modified as per MKC Section 19.80.040. These standards do not include guest parking, which shall be as required in MKC Section 19.80.040.

| Requirements | |
|---|---|
| Studio apartments | 1 per unit |
| 1- or 2-bedroom apartments | 1.5 per unit |
| 3 or more bedrooms | 2 per unit |
| Commercial/retail | 3 per 1,000 square feet |
| Service uses | 3 per 1,000 square feet |
| Office (excluding call centers) | 3 per 1,000 square feet |

Bicycle Parking as per MKC Section 19.80.040 (c) with the additional requirement that all such bike racks shall be painted the blue used in Millcreek's logo.

**L. Parking On-Street**

On-street parking, located on the same side of the street in front of the building housing the businesses, in the form of parallel or angled spaces can account for up to two-thirds of the required commercial, retail, or office parking.

**M. Parking Off-Street**

All off-street and structured/garage parking shall be located to the side or rear of the building to preserve street facing facades for transparency and pedestrian activity. Structured parking that faces a street shall be wrapped with commercial or office uses. Surface parking lots are not allowed if visible from the adjacent street. Guest parking shall not require a fee.

**Figure 11 Typical Off-Street Parking Locations**



## N. Building Design

### 1. Entrances and Windows

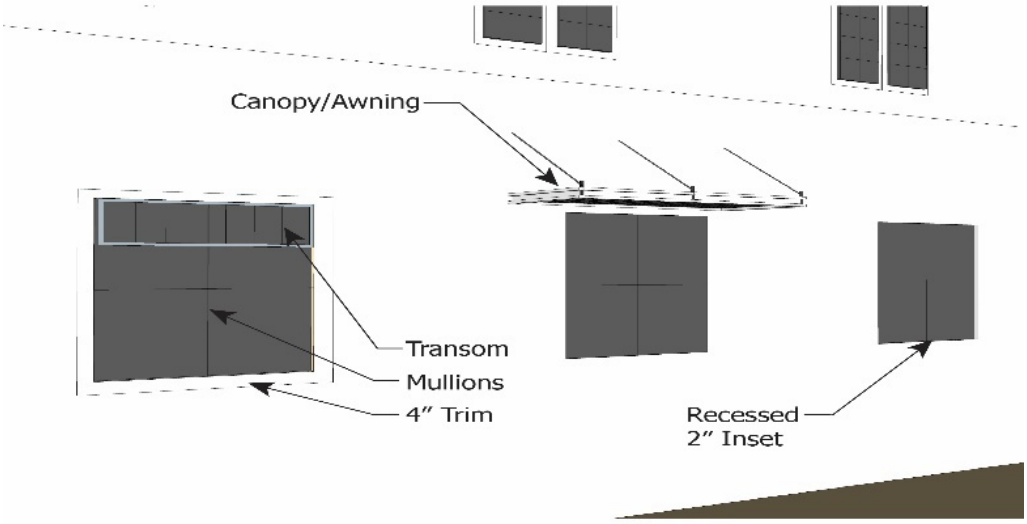
Entrances to the first floor of buildings shall front on the public street. On double or triple frontage lots, entrances are required where the greatest amount of pedestrian traffic is anticipated. Windows shall constitute at least 50% of first floor street-facing facades, and 25 percent of all upper story facades. Windows shall be at least 50 percent transparent. Interior lighting is required. Street facing windows that are not on the same façade as the main building entrance, may cover the first floor windows with non-advertising window films using a mountain, mill, orchard or mountain related sports theme. Living screens may replace up to 50% of the window requirement for the lowest anticipated pedestrian traffic frontage. Mirrored windows are not allowed. Any east or west facing windows above the third story shall be non-reflective to prevent glare. Awnings are required for any buildings facing Millcreek Common Street and on the northwest corner of Highland Drive and 3300 South and the northeast corner of 1300 East and 3300 South.

For any building opposing a residential bedroom window, located on building walls lower than 36 feet, where such buildings are closer than 20 feet from each other, shall offset the window a minimum of 5 feet and provide window blinds for each opposing window, or reduce the opacity of the window to prevent one side from viewing the other. For opposing residential bedroom windows on building walls higher than 36 feet, a minimum 40-foot separation is required, as well as window

blinds. In no case shall any balconies have a separation from an opposing balcony of less than 10 feet.

Windows above the first floor shall conform to the standards described in Figure 12.

**Figure 12 Window Design Standards**




2. **Building Materials**

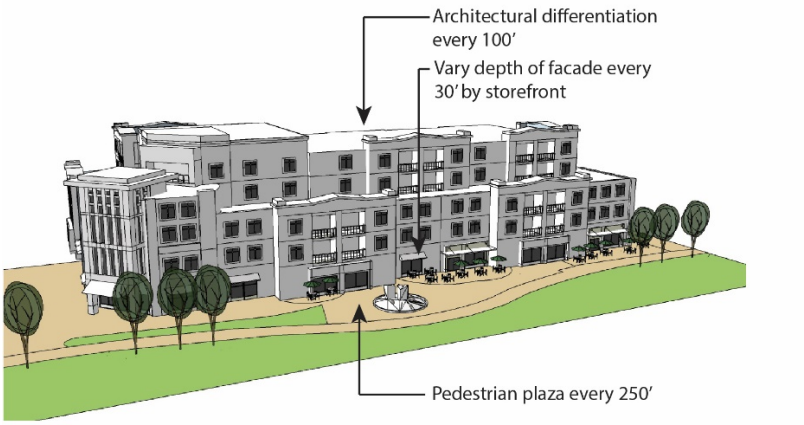
   Exterior materials of a durable or resilient nature such as brick, stone, composite materials, or other materials of similar quality, hardiness, and low maintenance characteristics are required. New development in the CCOZ, shall incorporate common, locally found materials such as granite, stone, sandstone, and brick as part of the first floor of each building for at least 50% of the first floor, excluding the windows. For the Mill Center District this requirement increases to a minimum of 75% for the first floor excluding the windows. For all Districts, all stories above the first floor shall incorporate at least 50% of the above specified materials. Stucco and EIFS are prohibited for use as materials on any façade visible from a right-of-way. Other materials may be considered for soffits, or as accent or unique architectural features. Twenty-five year guarantee architectural shingles or other longer-lasting materials are required for roofs.

3. **Building Length and Facades**

   No new building elevation may exceed 100 feet in length without at least a 3-foot variation in the depth of the façade along the public right of way and a 2-foot variation on other facades. Residential unit balconies shall not be interpreted to meet this requirement. No single building shall exceed 300 feet in length. A separation of a minimum of ten feet is required, which creates a passageway to interior spaces. Such passageways shall be lighted, provide a safe pedestrian space and include vegetation in boxes every 30 feet of length. As a minimum, building

facades shall provide pedestrian plazas every 250 feet of building length to break up long building façades along public rights-of-way. Top floors shall have architectural differentiation from the other floors of the building and rooflines shall vary every 100 feet, at a minimum. For first floor uses in the mixed use building type, the appearance of small shops/storefronts with variation in the first floor façade every 30 feet is required. All buildings fronting on Millcreek Common shall include a permanent awning, extending a minimum of 10 feet from the storefront/façade to provide shade and refuge from inclement weather. Awnings must be cantilevered from the front façade of the building. Such awnings shall be provided in colors that reflect colors incorporated as part of the exterior of the building or the green or blue found in Millcreek's logo.

**Figure 13 Building Façade Variation**




4. **Building Massing and Façade Articulation**

All buildings shall be designed to have at least three of the following:

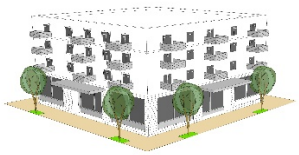
- **a.** Visual breaks along the street-facing façade such as horizontal articulation in the plane of the façade by at least 2 feet.
- **b.** Change in height at the top of the building by at least 10 feet for every 100 feet of façade length.
- **c.** Changes in materials, color, texture or pattern for greater than 50% of the building facade.
- **d.** Indentations/recesses at least 10 feet in depth along the street facing facades at 100-foot intervals.
- **e.** Usable terraces (a larger balcony intended as a private resident leisure space) at least 10 feet in depth along the street facing facades.
- **f.** Covered walkways on south, east or west facing facades on street(s) other than Millcreek Common Street.

**g.** Except for Millcreek Common facing buildings, columns or pilasters with a minimum 4-inch horizontal depth from the plane of the façade and spaced at a minimum interval of 50 feet.

**h.** Stepbacks where not otherwise required.

**5. Building Types**

**a. Mixed Use** – Intended for a mix of primarily residential with commercial/office or commercial and office uses required to be located on the first floor, and optional above the first floor at or near the front build-to-line with parking to the rear, underground, or podium type. No podium parking is allowed fronting on Millcreek Common Street. Parking structures shall include one 220-volt electric vehicle charging station for every ten stalls. This building type may support office, retail, hotel/hospitality or residential uses mixed either vertically or horizontally. For residential units, provide outdoor balconies or patios for 100% of the residential units at a minimum of 6 feet deep and 60 square feet each. Provide indoor bike storage or bike lockers.



| Requirements | |
|---|---|
| Front Build-to Zone | 0-10 feet |
| Minimum Side Yard Setback | 10 feet between buildings, except accessory buildings |
| Minimum Rear Yard Setback | 10 feet, except when abutting an R-1, R-2, or R-4-8.5 zone, where the setback is 25 feet |
| Minimum Height | See Map 2 |
| Maximum Height | See Map 2 |
| Principal Entrance Location | Front or corner side of façade |
| Vehicular Access | From alley or rear of building |
| Minimum Transparency | 50% on ground floor |
| Required First Floor Uses | Office, retail, craftsman industrial or residential (50% must be non-residential use). Any mixed use building that fronts on Millcreek Common Street shall have 100% non-residential uses on the first floor facing that street. |

| | |
|---|---|
| Depth of First Floor Non-Residential Uses | Not less than 30 feet unless at least 40 percent of the habitable floor area of the building consists of nonresidential uses, in which case the depth of first-floor non-residential uses can be reduced to not less than 20 feet. |
| Upper Story Uses | Any permitted use or conditional use |
| Where Allowed | Corners in the Neighborhood District, the entire Mill Center, and the entire Market Place |
| Storefront Width | Not to exceed 30 feet |

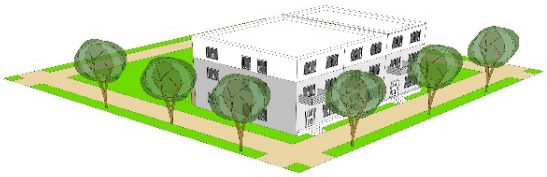
**b. Office/Commercial/Civic Mixed Use** – Minimum 2-story building that mixes uses with the primary use of office, retail, civic or commercial use.



| Requirements | |
|---|---|
| Front Build-to Zone | 0-15 feet |
| Minimum Side Yard Setback | 10 feet between buildings, except accessory buildings |
| Minimum Rear Yard Setback | 10 feet, except when abutting an R-1, R-2, or R-4-8.5 zone, where the setback is 25 feet |
| Minimum Height | See Map 2 |
| Maximum Height | See Map 2 |
| Principal Entrance Location | Front or corner side of façade |
| Vehicular Access | From alley or rear or within the building |
| Minimum Transparency | 50% on ground floor |
| Ground Story Uses | Office, Retail, Civic, or Commercial |
| Depth of First Floor Uses | 30-foot minimum depth |
| Upper Story Uses | May vary |
| Where Allowed | Mill Center, Market Place |

**c. Multi-family** –A multi-story building that contains residential uses internal to the structure with parking to the rear, in a separate structure or podium style below the building. Parking structures shall include one 220-volt electric vehicle charging station for every ten stalls. Provide outdoor balconies or patios for

100% of the units at a minimum of 6 feet deep and 60 square feet each. Provide indoor bike storage or bike lockers.



| Requirements | |
|---|---|
| Front Build-to Zone | 0-15 feet |
| Minimum Side Yard Setback | 0 feet per unit, 10 feet between buildings, except accessory buildings |
| Minimum Rear Yard Setback | 10 feet, except when abutting an R-1, R-2, or R-4-8.5 zone, where the setback is 25 feet |
| Minimum Height | See Map 2 |
| Maximum Height | See Map 2 |
| Principal Entrance Location | Front or corner side of facade |
| Vehicular Access | From alley or rear of building |
| Minimum Transparency | 40% for ground floor and 15% for other floors |
| Ground Story Uses | For buildings located on corners; office, residential or live/work units, retail, personal services, or residential (50% of the street facing front facades must be non-residential use) |
| Upper Story Uses | Residential or parking only |
| Where Allowed | Neighborhood District |

**d. Townhome** - Horizontally attached multi-story units in a rowhouse configuration. This building type can include live/work units. Parking and private garages shall be to the rear of the building allowing the primary façade to front a public street or public greenspace. Provide outdoor balconies or patios for 100% of the units at a minimum of 6 feet deep and 60 square feet each. Where private garages are proposed, they shall be wired for at least one 220-volt line for electrical vehicle charging. Guest parking shall not include any driveway that accesses a garage.



| Requirements | |
|---|---|
| Front Build-to Zone | 0-15 feet |
| Minimum Side Yard Setback | 0 feet per unit, 10 feet between buildings |
| Minimum Rear Yard Setback | 10 feet |
| Minimum Height | 2 stories |
| Maximum Height | 3 stories |
| Principal Entrance Location | Front or corner side of facade |
| Vehicular Access | From alley or rear of building |
| Minimum Transparency | 15% |
| Ground Story Uses | Residential or live/work units |
| Upper Story Uses | Residential only |
| Where Allowed | Neighborhood District |

**e. Adaptive Reuse** – There are several existing buildings within the CCOZ that could be reworked into a new use. The following general requirements are required:

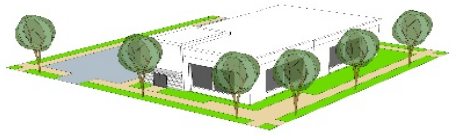
**(1)** If the character of the existing building is deemed historic or historically significant due to its age or displays a unique architectural style or unique features, as determined by the Zoning Administrator, then reconstruction should attempt to retain as much of that character as possible.

**(2)** Windows shall address the street frontage and encompass at least 50% of the first story building facades if structurally feasible.

**(3)** Parking shall be located (or relocated) to the rear of the building.



**f. Commercial single purpose buildings** – Buildings with the primary use being commercial use.



| Requirements | |
|---|---|
| Front Build-to Zone | 0-15 feet |
| Minimum Side Yard Setback | 10 feet between buildings, except accessory buildings |
| Minimum Rear Yard Setback | 10 feet, except when abutting an R-1, R-2, or R-4-8.5 zone, where the setback is 25 feet |
| Minimum Height | See Map 2 |
| Maximum Height | See Map 2 |
| Principal Entrance Location | Front or corner side of façade |
| Vehicular Access | From alley or rear of building |
| Minimum Transparency | 50% on ground floor |
| Ground Story Uses | Commercial |
| Upper Story Uses | Commercial |
| Where Allowed | Mill Center, Market Place |

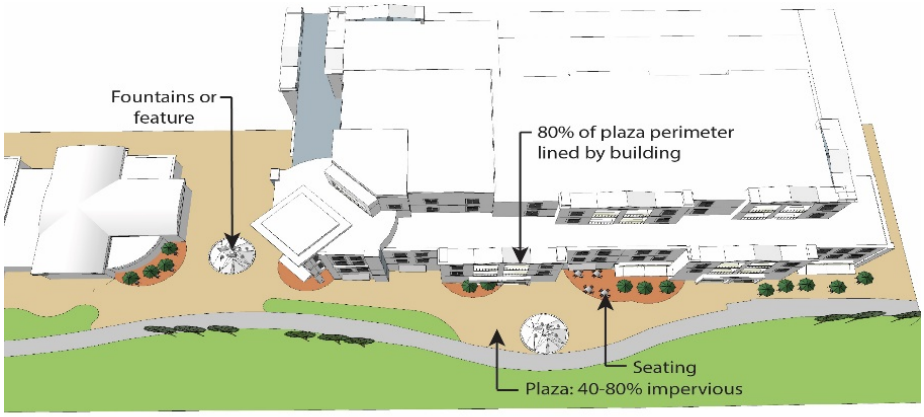
**O. Open Space and Plazas**

For all development that includes residential uses, the open space requirement is 20% of the site. This open space requirement shall be fulfilled through rooftops, terraces for general resident use, plazas and pocket parks. The required common open space shall be for general use by the residents of the building and/or the public, and be usable land areas that are not occupied by buildings, dwellings, structures, parking areas, streets, public park strips, curb-gutter-sidewalk, driveways, or alleys and shall be accessible by all residents of the development. For the purposes of this chapter, gross site area is defined as the total area of the development excluding anything in the public right of way. For development or redevelopment involving sites that are one acre in size or greater, at least 40 percent of required open space must be in the form of a plaza that is located at the front, corner or side of the building, and open and accessible to the public at all times. The following requirements must be met:

1. At least 80% of the plaza's perimeter that does not front on vehicular right-of-way shall be lined by building frontages.

2. Fully enclosed permanent structures are not permitted.
3. Playgrounds are not permitted.
4. Minimum pervious surface = 40%
5. Maximum pervious surface = 80%
6. Must include seating, shade structures, and one tree (2-inch caliper minimum) per 800 square feet of plaza area
7. Special features such as fountains and for sale public art installations are encouraged. Active features should be incorporated into the plaza.

**Figure 14 Typical Plaza**




**P. Pocket Leisure Spaces**

Residential development involving sites 2 acres in size or greater shall include a pocket leisure space that fronts on or is easily accessible from a public street, open and accessible to the public at all times, and meets the following requirements:

- Minimum size = 2,500 square feet
- Maximum size = 20,000 square feet
- Include some form of child play structure
- Must include seating, shade structures, turf, hard surfaces, and one tree (2-inch caliper minimum) per 800 square feet of park area

**Figure 15 Typical Pocket Leisure Space**



**Q. Rooftop Patios and Gardens**

If a rooftop patio or garden is included as part of a development, the rooftop patio or garden shall include a minimum of 25% of its area covered with trees to provide shade. This 25% is defined using the canopy of the tree at maturity. Seating, tables, outdoor gas barbecues, solar cells (See subsection Y of this section), and shade structures are required. All features listed above shall be set back at least 10 feet from the roof edge except solar cells. Grow boxes are encouraged. Private roof top park space is encouraged to take advantage of the mountain and valley views but shall not include active play spaces.

**R. On-site Open Space/Park Substitution – In-Lieu Substitutions**

The open space/park requirement may be modified through potential substitutions for any development that faces the Millcreek Common or could benefit from contributing to pedestrian connections to the Commons, subject to a development agreement with the City. Such substitutions are intended to enhance open spaces and pedestrian connections with features by acquiring or improve land that is destined to become part of the Millcreek Common. The Millcreek Common is the signature open space in the City Center and is a benefit to all development in the City Center, including improved pedestrian connections to the Common.

In-lieu substitutions are encouraged for the benefit of the City Center by application to the Community Development Director, under the following circumstances:

1. In-lieu substitutions of land: are intended to fulfill the requirements for open/park space and may be allowed when it can be factually established by a qualified land appraiser, that the substituted land is at least equal to or greater in value than the associated development property, as if it were to be fully developed as proposed. The City will determine with the developer the actual property to be appraised, both in the proposed development and in the

Millcreek Common. The City will select and employ an appraiser through a contract. The cost of the appraisal shall be borne by the developer, through reimbursement to the City. New appraisals will not be required if recent (within one year) information is readily available.

2. Cash in-lieu: the City may determine that in certain situations, accepting cash as an in-lieu substitution, where it can be shown that acceptance of those funds, is more effective in acquiring open space/park land and improving pedestrian connections within the City Center. Cash in-lieu payments shall not be accepted without a qualified appraisal process as per (1) above. The City shall be obligated, in a timely manner, to use the in-lieu funds within the City Center for land purchases, open space, pedestrian system enhancements, and/or park related improvements.

3. Any land which has been dedicated, set aside, platted, or otherwise approved as open space, may not be substituted or used for any purpose other than those allowed by this chapter.

4. In-lieu substitutions shall be reviewed by the Community Development Director, through an application, however, final approval of the in-lieu substitution rests with the City Council. Such approvals shall occur prior to issuance of a Final Site Plan approval or a building permit.

**S. Perimeter Fencing**

To ensure maximum pedestrian connectivity, fencing between parcels is not required. No fencing of any kind will be allowed along the Richmond, 3300 South, Highland Drive and Millcreek Common Street frontages. Privacy and/or security fencing is only allowed to screen unsightly, utility, or vehicle service areas from public right-of-way.

Fencing along a Neighborhood street frontage is permitted to define front porches and can consist of wrought iron/similar materials, wood or composites. Vinyl is prohibited as a fencing material. Fences must be a minimum of 50% open, have a maximum height of 42 inches and may incorporate a maximum 18-inch high stone, or brick wall at the base.

**T. Private Outdoor Lighting and Outdoor Dining**

Lighting for streets and parking lots on the interior of the development is required. All lighting fixtures shall be directed downward with mechanisms to prevent dark sky illumination, pursuant to the guidelines of the International Dark-Sky Association (see guidance from https://www.darksky.org/our-work/lighting/lighting-for-citizens/lighting-basics/). The applicant shall submit a plan which indicates the type and location of lights

in relation to the development and designed for pedestrian/vehicular safety. Pedestrian lighting may include bollards and all lighting shall follow established themes described in subsection W of this section. Minimum average foot-candles for interior streets shall be 0.3 and the fixture height shall not exceed 25 feet. Such fixtures shall be located a minimum of 10 feet from the public right-of-way. All parking luminaires, except those required for security, must be extinguished one hour after the end of business hours.

Outdoor seating and dining may be partially or fully covered to extend the outdoor dining experience through the spring and fall months. Outdoor patio heaters and misters are permitted. Restaurant tables and chairs may be movable or permanent and should be reflected on the site plan. If alcohol is served, the restaurant will need to provide signage and decorative fencing per the health department code. Fencing materials shall be limited to metal picket fencing. Any accommodation for dogs shall be subject to the Salt Lake County Health Department regulations, such as the Paws on the Patio HACCP plan.

**U. Access Between Uses**

Vehicular and pedestrian access is required between uses that does not force vehicles/pedestrians out to the adjacent streets.

**V. Signs**

Signs are limited to low profile monument signs, externally lit wall signs, projecting signs with a minimum of 8 feet clearance above the ground, and temporary A-frame signs. Any projecting sign along the Millcreek Common shall be limited to 42 inches in width. Lighting from signs shall be directed downward and comply with dark sky lighting standards. Internal illumination for signs is permitted only for individual letters or logos. Size, location, and number limitations are defined in MKC 19.82.

**W. Street Lighting**

All streetlights located on 3300 South, Richmond Street/1300 East, and Highland Drive, shall incorporate a luminaire (Figure 13) atop a 14-foot pole. The light shall be low intensity, shielded from uses on adjoining lots, and directed away from abutting properties, yet lighting the street and adjacent walkway. All lighting shall incorporate full cut-off fixtures to minimize light pollution and be dark sky compliant.

All lighting on Neighborhood streets and Millcreek Common Street shall utilize the streetlight shown in Figure 15 or a suitable substitute approved by the City.
All lighting on Laneways, Woonerfs, and required passages between buildings shall use downward directed sconce styles for wall lighting and lit bollards along the street.

**Figure 16 Typical Street Light**



**X. Small Wireless Facilities in Rights-of-Way in the City Center Overlay Zone**

Small wireless facilities in rights-of-way in the City Center Overlay Zone shall meet the requirements established for Small Wireless Facilities Deployment in MKC Title 16, and shall utilize streetlight poles or intersection semaphore structures for mounting. To the greatest extent possible such installations shall use the materials/colors of the pole they are using and should blend with the streetscape.

**Y. Solar Rooftops, HVACs, and Charging Stations**

Rooftops may be used as garden type open space, and/or passive recreation space but all roofs above the highest occupied floor of a building shall incorporate solar panels for power generation. 50% of the entire rooftop space above the highest occupied floor of a building shall be covered with solar panels, or, if solar panels are deemed infeasible or inefficient, the building shall be designed to exceed the energy efficiency standards of the current state-adopted International Energy Conservation Code and ASHRAE standards by at least 5%.

All Heating, Ventilating, and Air Conditioning equipment (HVAC) shall be recessed by at least 10 feet from the exterior edge of the building. Such equipment shall be enclosed or screened such that it is not readily recognizable as HVAC equipment.

For the residential portions of a mixed use or multi-family building, one electric vehicle 220 volt charging station is required for every 10 units. For the non-residential portions of mixed use, office, and commercial buildings, two charging stations per floor are required in the parking areas. Charging stations may be located in interior parking garages.

**Z. Rooftop Cell Service Towers and Overhead and Ground Level Utilities**

All existing overhead lines shall be located underground as part of any new development in the CCOZ. No new development shall exhibit any above ground utility or communication lines. Electrical transformer boxes and other large in-ground utility installations shall be either vaulted underground or placed behind a building's setback or build-to-line and screened from view.

Rooftop telecommunication equipment is only allowed as a stealth installation. Such facilities shall be made to appear to be an integrated part of the building.

**19.73.080 – General Standards of Applicability**

**A.** The use and development of property within CCOZ is also subject to other applicable chapters in the zoning ordinance and the regulations of the underlying zone except where specific regulations are provided in this chapter, including but not limited to applicable health and safety codes, building codes, and engineering standards.

**B.** Standards in other chapters may apply. In the event there is language elsewhere in Title 19 of this code that conflicts with language in this chapter, the CCOZ standards prevail.

# CCOZ Structure

**Alternate Draft Updates**

19.73.010 – I referred to the City Center Master Plan explicitly.

19.73.030 – In the survey requirements, I added a requirement that the survey include topographical information including "original ground surface" as required by our code.

19.73.040 – In a previous version, I suggested that the limitations to the office size (2500 sf) in the Neighborhood District *not apply* to buildings on a corner of either Richmond or Highland. This allows for larger buildings on these corners, which we decided would be appropriate, even in the neighborhood district. I now state that to qualify a building must be within 200 feet of said corner.
I changed most of the park strip widths to 6 feet, instead of five. I also stated that, where there's a conflict between the street type figure and the street type table, the requirements in the table take precedence. I think there is some variance between the images and the tables, in some instances.
We clarified that awnings must be permanent along Millcreek Common.

# CCOZ Structure

**Alternate Draft Updates**

We clarified fencing language.

Mixed Use Building Type: I added the 220-volt charger requirement for parking garages into this building type – it was required in the other building types.
In-Lieu Substitutions: I made these substitutions subject to a development agreement. I think that's the best vehicle to approve such substitutions.

Utilities: I added language stating that "Electrical transformer boxes and other large in-ground utility installations shall be either vaulted underground or placed behind a building's setback or build-to-line and screened from view." This was an issue with the Cottonwood Projects, and I made it a condition of approval for Russ' project.

In lieu of a specific tree list, I refer to a "Millcreek City Center Urban Forestry Standard".

Various technical and stylistic changes – e.g. instead of using the < ' > symbol, I used 'foot' or 'feet.' Same with 'inches.' Instead of calling it '33rd' I use '3300'. Small things like that. I also corrected figure numbers, and references to other sections of code.

# CCOZ Structure

## Alternate Draft Updates – Late Changes

**19.73.050**

Residential Uses are permitted by district and within the building types specified in section 19.73.050 (14), except that ~~mixed use buildings~~ the gross floor area of any development located within 250 feet of the northwest corner of Highland Drive on 3300 South and the northwest corner of 1300 East on 3300 South shall contain no more than 25% of the building floor area as residential uses. The 250-foot distance measurement only applies to that same quadrant of the intersection. For the purposes of this chapter, leasing offices, lobbies, required parking, and any required residential amenity spaces are not considered commercial uses.

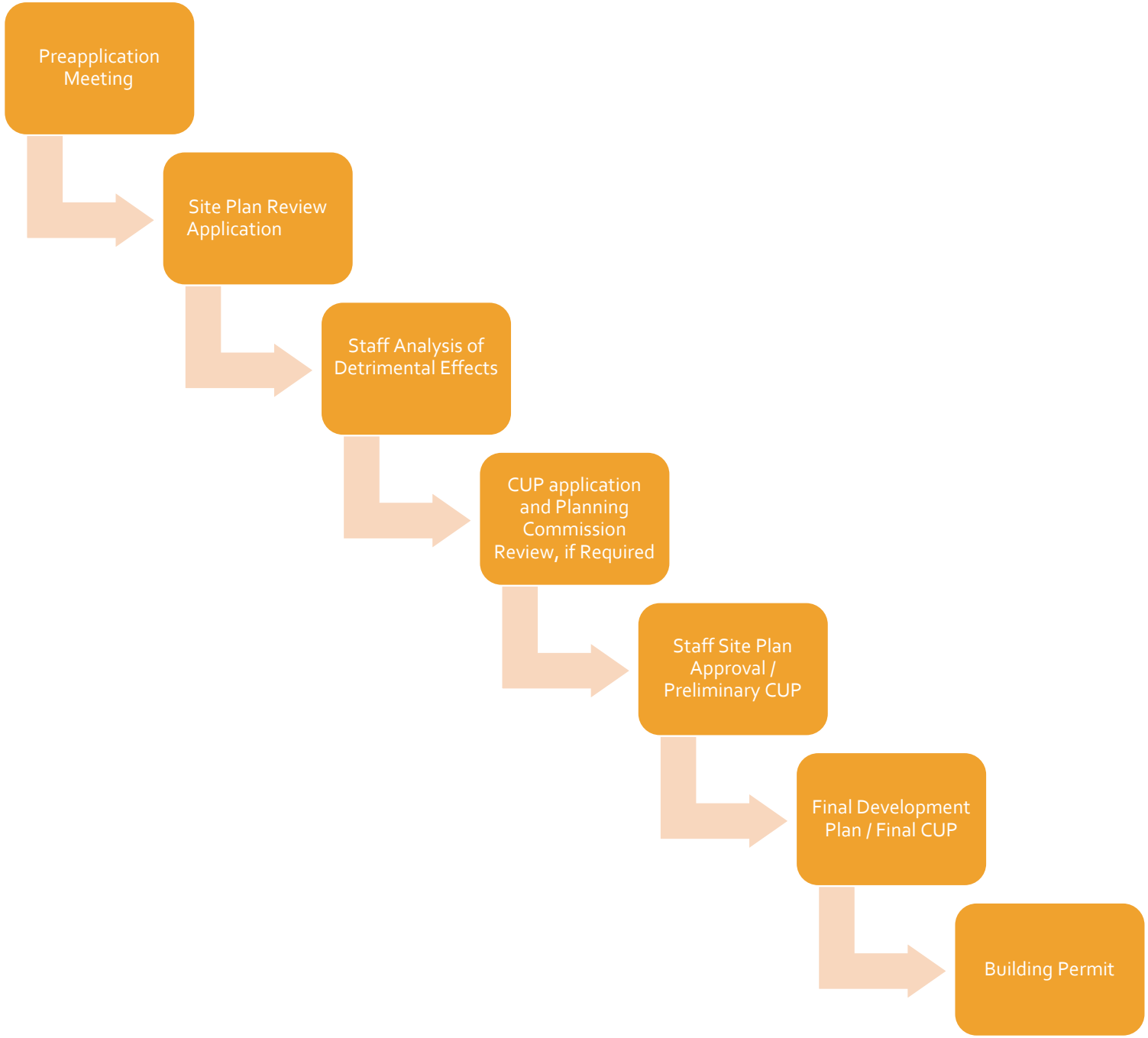
# CCOZ Structure

**Alternate Draft Updates – Late Changes**

**Side Yard Setbacks for Mixed Use, Office/Commercial/Civic Mixed Use, and Commercial Single Purpose Buildings**

Minimum Side Yard Setback: 10 feet between buildings, except accessory buildings.

# Life Cycle of a CCOZ Application



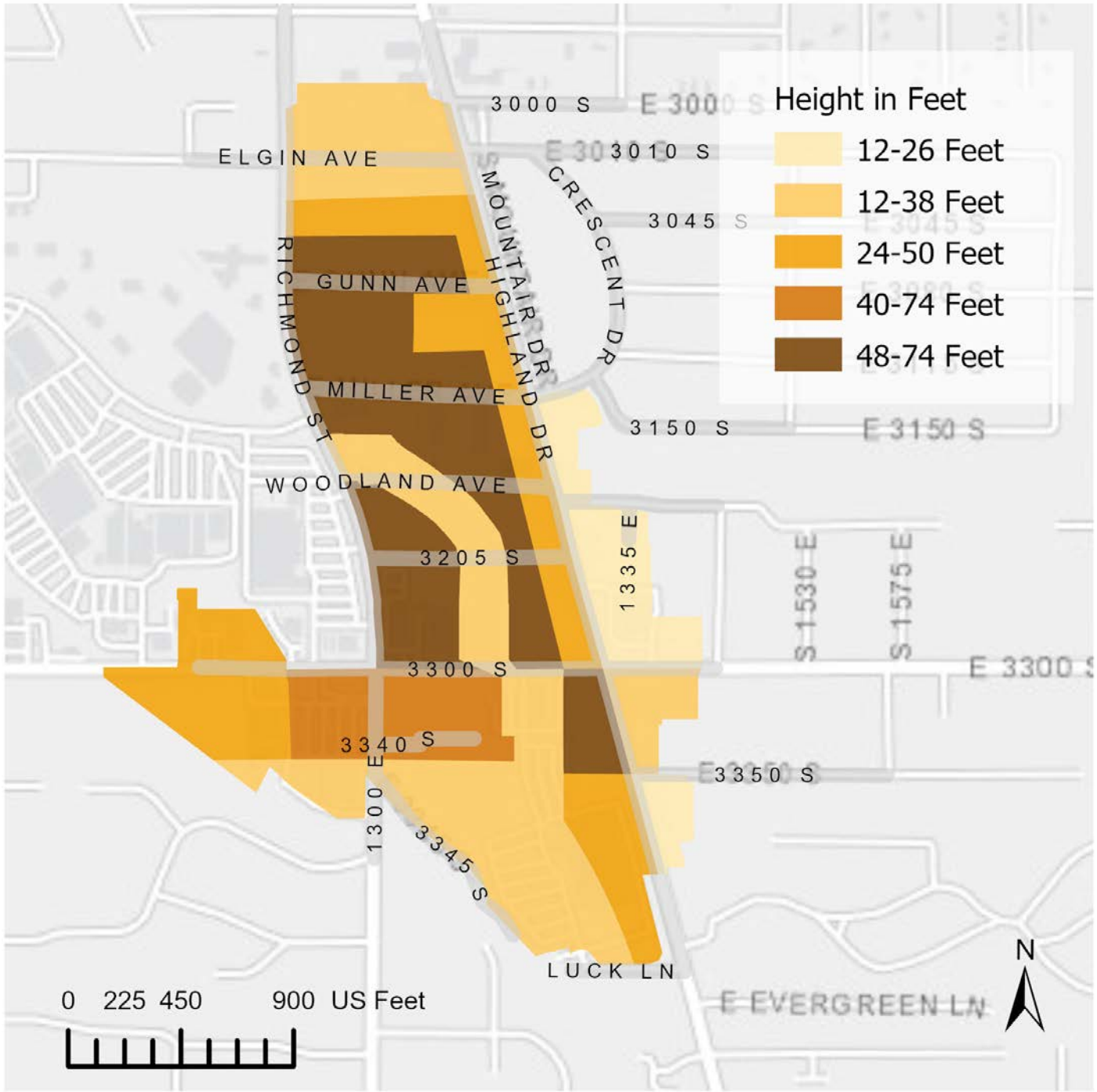
# Where are we now?



# General Plan and City Center Master Plan



# Building Heights



# Staff Recommendation

**Staff Recommendation**

Staff requests Approval of the CCOZ ordinance, as recommended by the Planning Commission

# DEDICATION OF PRIVATE STREETS TO PUBLIC OWNERSHIP

Millcreek City Council Work Session

September 23, 2019

# 14.50.010: PURPOSE:

The purpose of this chapter is to establish policy and procedures for the dedication of private streets to public ownership.

# 14.50.020: POLICY

It is the policy of Millcreek that:

- The city will not make a proactive effort to bring private streets into public ownership unless there is a compelling public interest;
- Private streets created as part of a platted subdivision will not be considered for public ownership unless there is a compelling public interest;
- Existing private streets may be considered for public ownership when requested by property owners abutting the private street by a private street dedication petition. The petition must be signed by property owners representing 100% of the total linear front footage of the street;
- Upon receipt of the petition, the Director of Public Works shall review the request and shall provide the Petitioner with a recommendation, identifying the specific action necessary to consider the request. The recommendation shall identify any necessary improvements, dedications or other incidental items deemed necessary for consideration, in accordance with the Requirements for the Public Dedication of Private Streets.

# 14.50.020: POLICY, continued…

- Based on the requirements identified by the Director of Public Works, the petitioners may withdraw their request at any time.
- If after the recommendation, the Petitioner wishes to file the request with the City Council, a fee of $115.00 shall be paid to the City.
- Upon receipt of the Petitioner's payment, the Director of Public Works shall advise the City Council of his recommendation.
- Upon receipt of the Director's recommendation, the City Council may at its sole discretion authorize the public dedication, maintenance and snow removal of the requested street, subject to the completion of all items identified in the Director's recommendation. If authorized by the City Council, all required items shall be completed by the Petitioner within 1 year.

# 14.50.020: POLICY, continued…

Private streets will not be considered for public ownership unless:

- The underground utilities meet city and applicable standards or until the utilities are brought up to city and applicable standards.
- The street surface features meet current city standards or are brought into an acceptable degree of compliance. Numerous factors will be considered through the petition process and the fact that the underground and surface standards are met does not guarantee that the street will be brought into public ownership. There are certain city standards that the city will not consider waiving or reducing: grade, surface, width, turnaround requirements. Petitioner shall provide proof acceptable to the city that the proposed street satisfies current city standards.
- Deteriorated retaining walls and other private property features abutting the proposed public ownership are removed, repaired, or replaced as approved by the city by the property owners to ensure public safety.

# 14.50.020: POLICY, continued…

- *Sidewalks, curb and gutter that meets current city standards must be present or shall be installed according to subdivision design standards where applicable.*
- All surveys and legal work necessary for public dedication shall be completed at the expense of the Petitioner.
- Any nonconforming structures or objects within the proposed right-of-way shall be removed at the expense of the Petitioner.
- Any additional street signs shall be installed at the expense of the Petitioner.
- The Director of Public Works shall analyze the fiscal implications of the requested dedication and identify any extraordinary conditions relative to the request.

# 14.50.020: POLICY, continued…

- Millcreek will not pay the cost of underground or surface improvements to bring the street up to city standards. The burden is on the private street property owners to fund necessary improvements;
- The city will not agree to split the ownership of streets unless there is compelling public benefit;
- If the street was created through a planned development, an amendment to the planned development is required. The amendment of the planned development must be reviewed by the planning commission with a recommendation forwarded to the city council;
- The city will not take ownership of a street that does not allow public access;

# 14.50.020: POLICY, continued…

- The city will not take ownership of a street that is targeted for redevelopment as identified in a city master plan;
- The city must be able to safely and efficiently provide services along the street in order to dedicate a private street to public ownership;
- No specific rights or guarantees for use of the street, such as on street parking, are conveyed to private street owners when a private street becomes publicly owned; and

# 14.50.020: POLICY, continued…

- The city will not consider the acceptance of an existing private street to public ownership unless it is demonstrated that the street dedication achieves at least one of the following objectives:
  - The street currently provides, or can provide with improvements:
    - Access to open space, public facilities/uses or other public amenities;
    - Mid-block pedestrian access;
    - An improvement to the surrounding pedestrian or vehicular circulation pattern;
    - An identified planning goal as noted in the adopted master plan for the neighborhood;
  - Dedicating the private street to public ownership will encourage reinvestment in the community;
  - Dedication of the street will improve public health, safety, and general welfare.

# 14.50.020: POLICY, continued…

- Conveyance of the proposed street shall be by plat approved by the Planning Commission and accepted by City Council
- The Petitioner will bear the burden of any surveying and recording costs, as well as any fees for third-party consultant studies or information as may be required by the city

# 14.50.030: ADMINISTRATIVE PROCEDURES:

Final acceptance is subject to the following criteria:

- Acceptability of road and public utilities construction, including pavement condition
- Condition of title
- Survey requirements for monumentation and conveyance
- The need for additional right-of-way and easements
- Cost of accepting the road and of future maintenance
- Compliance with all adopted ordinances and standards, including but not limited to all zoning and subdivision ordinances and roadway and utility standards.

The mayor may issue such rules, regulations, and procedures as are necessary and appropriate to implement this ordinance.


QUESTIONS?

| **Vehicular Zone** | |
|---|---|
| ROW Width | 90' |
| Travel Lanes | 4 |
| Center Turn Lane | 1, 12' |
| Lane Width | 12' |
| Center Median | Permitted except at intersections, 12' |
| Parking Lanes | No parking on street |
| Bicycle | 5' Protected bike lanes each side, using green thermoplastic or colored concrete |
| **Pedestrian Zone** | |
| Walkways | 5' min. attached colored concrete sidewalk on each side with complementary enhanced paving at intersections and mid-block pedestrian crossings (5' within ROW, 5' dedicated by property owner which can be dedicated to City or provided through a public pedestrian easement and can encroach on the setback) |
| Street Buffer | 6' park strip xeriscape with large trees |
| Furnishings | Bike racks, bus shelters, lighting |

**Figure 4 Typical Cross Section for Richmond/13th Ea**

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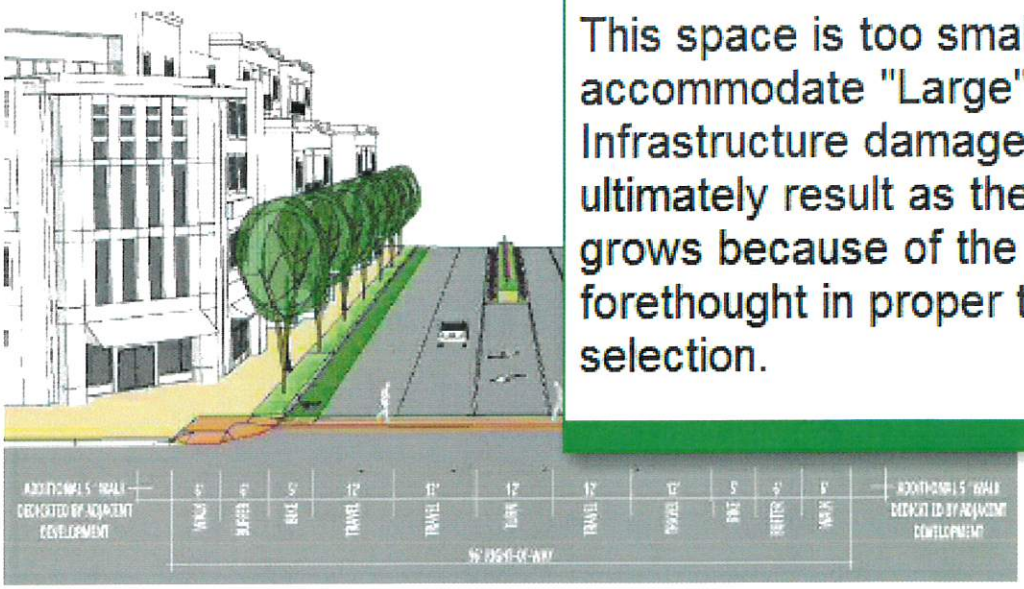
This space is too small to accommodate "Large" trees. Infrastructure damage will ultimately result as the tree grows because of the lack of forethought in proper tree selection.

| | |
|---|---|
| Street Buffer | 6' park strip xeriscape with large trees |
| Furnishings | Bike racks, bus shelters, light |

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Marvsculptor Options

This space is too small to accommodate "Large" trees. Infrastructure damage will ultimately result as the tree grows because of the lack of forethought in proper tree selection.

**Figure 5 Typical Cross Section for 33rd South**



4. **Neighborhood Streets**

Connecting neighborhood streets include all of the streets that run east and west between Highland and Richmond Street/1300 East through the City Center. These streets are characterized by narrower right-of-way widths with similar goals of accommodating all modes of local traffic.

| **Requirements** | |
|---|---|
| **Vehicular Zone** | |
| ROW Width | 61' to 80' |
| Travel Lanes | 2 |
| Center Turn Lane | None |
| Lane Width | 12' |
| Center Median | Not permitted |
| Parking Lanes | 8.5' On-street parallel, 18' for angled head in, or head out on each side, depending on ROW |
| Bicycle | Shared with travel lanes |
| **Pedestrian Zone** | |
| Walkways | 5' min. attached sidewalk on each side |
| Street Buffer | 6' min. landscape area with trees |

Parks &
Public Lands
URBAN FORESTRY PROGRAM
1965 W 500 S SALT LAKE CITY, UT 84104
PHONE: 801-972-7818

# Tree Protection and Preservation Policy

***City code mandates the protection of trees during construction.*** The urban forest contributes greatly to the environment, quality of life and property value. Tree protection is designed to preserve and protect tree health by avoiding damage to tree roots, trunk and crown. Protecting and preserving trees will reduce long term maintenance costs and tree replacement cost.

Tree roots serve four primary functions: absorption, conduction, storage, and anchorage. Although root cutting usually does not result in immediate visible changes to the tree, construction activities can cause irreparable damage to trees such as the death of the entire tree or large portions of the tree, and compromised anchorage from destroyed root systems, all of which are great public safety concerns because of the increase of the likelihood of tree failure.

Tree roots often spread two to three times wider than the drip line of the canopy. Ninety percent of a tree's roots are found in the top eighteen inches of soil. These facts illustrate why it is so important to use care when working near existing trees.

Soil Compaction anywhere tree root may eventually grow into can cause long term permanent damage that that jeopardizes tree survival years after the cause of Compaction occurs.

## Tree Protection Guidelines for Construction Sites

Prior to beginning demolition or construction work that near trees on any property, the following tree protection plan shall be implemented

1. Tree protection practices will include establishing the tree protection zone (herein known as TPZ). The TPZ will be 1 foot radius from the base of the tree's trunk for each 1 inch of the tree's diameter measured at 4.5 feet above grade (referred to as dbh)..

Soil Compaction anywhere tree root may eventually grow into can cause long term permanent damage that that jeopardizes tree survival years after the cause of Compaction occurs.

Tree Protection Zone

| Tree diameter | Tree Protection Zone radius | Total protection zone diameter including trunk |
|---|---|---|
| 2 inches | 2 feet | 4+ feet |
| 6 inches | 6 feet | 13 feet |
| 20 inches | 20 feet | 42 feet |
| 46 inches | 46 feet | 96 feet |

When trees are on the parkstrip, the TPZ will be the entire length of the parkstrip from curb to sidewalk.

The TPZ will be defined by 6' tall chain link fencing. Fencing will be erected with free standing

posts, NOT posts driven into the root system. There shall be appropriate signage posted on each linear span of the fence; example of the signage is included with this document. Signage shall be laminated on 8 ½ x 11" paper. The TPZ fencing and signage will remain until the project is complete or certificate of occupancy has been authorized.

**There will be no digging, trenching, grading, or storing of materials or equipment in the TPZ.**

2 All trees are to remain protected, unless given approval and permitted for removal by the Urban Forestry Office. If tree removal is permitted a fee will be required. If trees are damaged or destroyed (above ground or below ground) due to construction activity, the contractor will be assessed the appraised value of the trees payable to Salt Lake City. A permit is required for all removal and pruning of city trees approved and issued by the Salt Lake City Urban Forestry office. (801-972-7818).
A minimum 36 hours' notice must be given to the Urban Forestry Program prior to any request for onsite meetings.

3 Trees to be preserved during all construction activities shall have a TPZ as shown on all plans. The TPZ shall be clearly marked on the site plan, demo plan and landscape plan.

4 Only tunneling or boring will be allowed in the TPZ at a depth of 36 inches minimum. The access pit must be located outside of the TPZ. If this is not feasible, written authorization must be obtained from the Urban Forestry office PRIOR to altering the TPZ.

5 No equipment (except for a sod cutter) shall be allowed inside the tree protection zone. If special provision for excavation is approved by the Urban Forestry Office, it shall be done by hand or a soil vacuum.

6 Use tunneling or boring for irrigation and utilities. No roots larger than 4" in diameter will be cut. All roots will be cut cleanly with a saw. In situations where a root has been damaged, a clean cut shall be made on the root at the edge of the trench closest to the tree trunk.

7 If replacing the sidewalk, no roots larger than 4" in diameter shall be cut. Other alternatives such as ramping or a radius or arch around the existing trees will be used. Roots will not be ripped out with a back hoe. Cuts on tree roots shall be smooth and clean, made with a saw. Any exposed cut roots will be covered as quickly as possible to prevent them from drying out and the tree should be watered immediately. If tree roots are to remain exposed for more than four to six hours, they must be covered with burlap and kept moist at all times.

8 Tree care contractors providing services to public trees shall be certified arborists with the International Society of Arboriculture, licensed to do business in Salt Lake City and be registered with the Utah Division of Commercial Code, insured against personal injury and property damage. Prior to beginning work on tree(s) the tree care contractor shall contact the City's Urban Forestry Program to obtain appropriate public property tree work permit(s).

9 Trees shall not be used to support any scaffolding, signs, temporary utility, or any other device. Sidewalks and paving levels should be contoured whenever possible to avoid root cutting. If damage occurs to a protected tree, immediate contact shall be made with the City Forester.

10 Do not change the soil grade by cutting or filling in the TPZ

11 Do not do any additional planting within 10' of the trunk.

12 Trees shall be watered according to the following guidelines:

a. Established trees need deep watering once every two weeks with low pressure at the drip line to ensure that the ground is soaked to a depth of at least 8 inches. Generally 5 gallons per inch of trunk diameter at breast height.
b. Young or newly planted trees need to be watered every 3—4 days, depending on temperature.

Underground Utility Work

When given approval by the Urban Forestry office to work in the TPZ to replace or restore underground utilities, use only a soil vacuum or hand dig, leaving roots larger than 4'' in diameter untouched.

1. Where possible when replacing existing utilities such as water or sewer lines very near to preserved trees, abandon the lines and reinstall farther away from the tree.

2. Tunneling or boring will always be done at a minimum depth of 36 ''. This shall be performed in a manner and location least damaging to tree roots.

3. Where large anchorage roots are encountered, hand digging and bridging of roots shall be done, leaving roots intact.

4. When encountering roots over 4" in diameter the Salt Lake City Urban Forestry office will be consulted prior to cutting to find some other course of action. Any cutting of tree roots shall give due consideration to future welfare of the tree. Proper action shall be taken so as to protect, and preserve the roots. Roots will not be ripped out with a back hoe. Cuts on tree roots shall be smooth and clean, made with a saw.

Tree Pruning

1. All Pruning on public trees will be approved by the Urban Forestry with the issuance of a permit. No pruning will be allowed that will compromise the aesthetics or structural integrity of a preserved tree. Tree care contractor providing services to public trees shall be a certified arborist with the International Society of Arboriculture, licensed to do business in Salt Lake City, and be registered with the Utah Division of Commercial Code, insured against personal injury and property damage. Prior to beginning work on trees(s) the tree care contractor shall contact the City's Urban Forestry Division to receive authorizing tree permits.

# Salt Lake City Urban Forestry

## Small Species

| Common Name | Botanical Name | Common Cultivars | Mature Height | Canopy Spread | Shape | Flowers | Fruit | Fall Color | Additional Notes |
|---|---|---|---|---|---|---|---|---|---|
| Maple, Trident | Acer buergerianum | Streetwise | 20-30' | 15-25' | oval/round | small green-yellow in spring, insignificant | green samaras | orange-red | slow growing |
| Maple, Amur | Acer ginnala | | 15-20' | 15-20' | round spreading | white, clusters | samaras | red | showy red samaras in fall |
| Maple, Rocky Mountain | Acer glabrum | | 20-25' | 10-15' | oval | small green-yellow in spring, insignificant | green samaras | Yellow- orange-red | native to Utah, heat tolerance may be a concern, prune to develop strong branching structure |
| Maple, Bigtooth* | Acer grandidentatum | Rocky Mt. Glow, Mesa Glow | 20-25' | 15-25' | oval to round | small green-yellow in spring, insignificant | green samaras | yellow to orange | native to Utah |
| Maple, Paperbark* | Acer griseum | | 20-25' | 15-20' | upright oval | small green in spring, insignificant | brown samaras | Yellow-orange-red | attractive exfoliating cinnamon colored bark |
| Maple, Tatarian* | Acer tataricum | Hot Wings, Pattern Perfect, Rugged Charm | 20-25' | 15-20' | oval to round | white clusters in spring | red samaras | yellow-red | showy seeds |
| Maple, Shantung | Acer truncatum | Pacific Sunset, Norweigan Sunset, | 20-30' | 20-30' | rounded to oval | pale yellow insignificant | samaras | yellow, orange, red, purple | heat tolerant |
| Maple, Shantung | Acer truncatum | Ruby Sunset | 20-25' | 18-20' | broad oval to round | pale yellow insignificant | samaras | deep red | heat tolerant, glossy green leaves |
| Serviceberry * | Amelanchier laevis | Spring Flurry, Snow Cloud | 20-28' | 15-20' | upright oval | white clusters in spring | purplish-blue edible | orange-red | great for naturalizing or as a specimen |
| Serviceberry * | Amelanchier x grandiflora | Robin Hill | 20-25' | 15-18' | upright oval | light pink in spring | small purple-red edible | orange-red | great for naturalizing or as a specimen |
| Chinese Catalpa | Catalpa ovata | | 20-30' | 20-30' | spreading | yellow-white flowers | long slender green pods | yellow | tolerant of heat and a wide range of soil conditions |
| Netleaf Hackberry * | Celtis reticulata | | 20-25' | 20-25' | rounded spreading | green in spring, insignificant | orange-red | yellow | very tolerant to adverse growing conditions |
| Eastern Redbud * | Cercis canadensis | Various | 15-25' | 20-30' | irregular | pink/purple before leaves | small, brown pod 2-3" long | yellow | tolerant of partial shade, vibrant in the spring |
| Fringetree, Chinese * | Chionanthus retusis | | 20-25' | 20-25' | broadly oval | large green-white clusters in spring, fragrant | 1/2"-1" blue -purple fruit | yellow | light brown exfoliating young bark |
| Fringetree * | Chionanthus virginicus | | 20-25' | 20-25' | spreading oval | green-white in spring, fragrant | 1/2"-3/4" blue-black fruit | yellow | stunning when in full bloom |
| Dogwood, Corneliancherry | Cornus mas | Various | 15-20' | 15-20' | low branched/ rounded | yellow, before leaves | red, edible | reddish purple | scaly exfoliating bark when mature |
| American Smoke Tree * | Cotinus obovatus | | 20-30' | 20-30' | irregular oval | yellowish green | small, sparse unnoticeable | yellow, red, orange, purple | produces some of the best fall color of any of the native American trees |
| Hawthorn, Thornless Cockspur * | Crataegus crus-galli | Thornless Cockspur | 20-30' | 20-35' | rounded spreading | white in spring | red edible | orange-scarlet | persistent fruit in to winter, thornless |
| Hawthorn * | Crataegus laevigata | Pauls Scarlet, Crimson Cloud | 20-25" | 15-20' | broad round | double rose red | red edible | no fall color | vibrant in the spring |
| Hawthorn, Winter King * | Crataegus viridis | Winter King | 20-30' | 20-30' | wide vase | white in spring, showy | bright red edible | purplish red | tolerant of urban pollution |
| Hawthorn, Lavalle * | Crataegus x lavalleli | Lavelle | 20-30' | 15-20' | dense oval | white in spring | red edible | coppery red | lustrous green leaves, persistent fruit |
| Beech, Tricolor | Fagus sylvatica | Tri Color, Roseo-marginata | 20-30' | 15-20' | oval | yellow green, insignificant | spiny capsule | light bronze | very showy purple, rose with cream leaves |
| Maackia | Maackia amurensis | | 20-30' | 15-20' | rounded vase | white fragrant in summer | flat see pods | yellow | tolerant of urban conditions |
| Flowering Crabapple * | Malus spp. Various | Spring Snow, Snow Drift, Sargent, Zumi | 15-25' | 15-25' | rounded to oval | varies with cultivar | fruit varies with cultivar | yellow | showy in spring |
| Parrotia | Parrotia persica | Vanessa | 20-30' | 15-20' | upright vase | insignificant | insignificant | yellow-orange-red | slow growing |

# Salt Lake City Urban Forestry

## Small Species

| Common Name | Botanical Name | Common Cultivars | Mature Height | Canopy Spread | Shape | Flowers | Fruit | Fall Color | Additional Notes |
|---|---|---|---|---|---|---|---|---|---|
| Flowering Plum, Krauter Vesuvius | Prunus cerasifera | Krauter Vesuvius | 15-20' | 10-15' | upright | light pink showy | sparse plums | purple | dark purple leaves year round |
| Flowering Cherry, Kwanzan | Prunus serrulata | Kwanzan | 20-25' | 15-20' | vase shaped | double deep pink | sterile flowers do not produce fruit | yellow | blossoms are showy in the spring |
| Chokecherry | Prunus x virginiana | Sucker Punch | 20-30' | 18-20' | rounded | bright white, fragrant | dark purple | deep purple | sucker-free, leaves emerge green turning dark purple |
| Flowering Cherry, Akebono * | Prunus x yedoensis | Akebono | 20-25' | 20-25' | spreading | double, light pink | black purple | yellow | blossoms are showy in the spring |
| Flowering Pear, Korean Sun | Pyrus auriei | Korean Sun, Westwood | 10-15' | 15-Oct | compact rounded | white in spring | yellow green small | red-purple | better branch attachment than most flowering pears |
| Flowering Pear, Jack | Pyrus calleryana | Jack Pear | 15-20' | 10-12' | compact oval | white | yellow green small | yellow | ideal under utility lines |
| Flowering Pear, Prairie Gem | Pyrus ussuriensi | Prairie Gem, MorDak | 20-25' | 20-25 | oval to rounded | white | yellow green small | yellow | hardy flowering pear cultivar |
| Oak, Gambel | Quercus gambelii | | 20-25' | 20-30' | round, clump | insignificant | acorns | brow-brownish red | native to Utah, clump form |
| Lilac, Peking Lilac * | Syringa pekinensis | China Snow, Summer Charm | 20-25' | 15-20' | rounded | creamy white fragrant dense clusters | dry capsules | yellow | attractive exfoliating, amber colored bark |
| Lilac, Japanese Tree Lilac * | Syringa reticulata | Ivory Silk | 20-25' | 15-20' | upright oval/rounded | creamy white fragrant dense clusters | dry capsules | yellow | tolerant of urban conditions |
| Linden, Summer Sprite | Tilia cordata | Summer Sprite Linden | 18-20' | 12-15' | dense pyramidal | tiny yellow fragrant in spring | gray nutlets with bracts | yellow | perfect for confined urban spaces |
| Zelkova, City Sprite * | Zelkova serrata | City Sprite | 20-24' | 15-18' | compact oval to vase | insignificant | insignificant | yellow | perfect for confined urban spaces |
| Zelkova, Wireless * | Zelkova serrata | Wireless | 20-24' | 30-35' | flat topped broad spreading | insignificant | insignificant | reddish orange | ideal under utility lines |

All parkstrip trees must be a *single trunk form* unless approved by the Urban Forestry Office

Other tree species may be appropriate with approval from the Urban Forestry Office

Color = Indicates trees to be planted under utility lines

* = Salt Lake City Proven Performers

References: The Morton Arboretum
http://www.mortonarb.org/trees-plants/search-trees/search-all-trees-and-plants

References : Missouri Botanical Gardens
http://www.missouribotanicalgarden.org/plantfinder/plantfindersearch.aspx

Salt Lake City Urban Forestry

Medium Trees at maturity

| Common Name | Botanical Name | Common Culitivars | Mature Height | Canopy Spread | Shape | Flowers | Fruit | Fall Color | Additional Notes |
|---|---|---|---|---|---|---|---|---|---|
| Maple, Hedge | Acer campestre | Metro Gold, Queen Elizabeth | 25-35' | 25-35' | oval/round dense | small green-yellow in spring, insignificant | green samaras | yellow | doesn't tend to get leaf scorch |
| Maple, State Street | Acer miyabei | State Street, Rugged Ridge | 30-45' | 30-35' | oval to rounded | Small green-yellow in spring, insignificant | green samaras | yellow-orange | hardy, tough, pest free maple |
| Maple, Sycamore | Acer pseudoplatanus | | 40-55' | 35-55' | round | Small green-yellow in spring, insignificant | green samaras | yellow | Gray flaking bark |
| Maple, Sugar | Acer saccharum | John Pair Caddo, Flash Fire Caddo, Autumn Splendor Caddo | 30-45' | 30-45' | rounded to oval | Small green-yellow in spring, insignificant | green samaras | orange-red | tolerant of harsh urban conditions and alkaline soil |
| Horsechestnut, Red | Aesculus x carnea | Briotii, Fort McNair | 30-40' | 25-35' | oval to rounded | deep pink | nut | yellow | large showy flowers |
| Euorpean Alder | Alnus glutinosa | | 40-50 | 20-40' | pyramidal | drooping male catkins | small woody cones | none | tolerates a wide range of soils |
| Hornbeam, Fastigate | Carpinus betulus 'Fastigiata' | Fastigiata | 30-40' | 20-30 | oval vase | catkins | clusters of small nutlets in bracts | yellow-orange | smoth gray bark with fluting |
| Catalpa * | Catalpa speciosa | Heartland | 45-50 | 20-25 | narrow upright | white, large bell shaped | long slender seed pods | greenish-yellow | tolerant of urban conditions |
| Katsura | Cercidiphyllum japonicum | | 40-60' | 20-35' | pyramidal to round | insignificant | small green pods, female only | yellow-orange | foliage may scorch in hot, dry conditions |
| Yellowood * | Cladrastis kentukea | American, Perkins Pink | 30-50' | 30-50' | round | large hanging fragrant white or pink flowers | flat papery pod | yellow | very showy flowers in late spring, smooth gray bark |
| Turkish Filbert | Corylus colurna | | 40-50' | 15-35' | pyramidal | insignificant | edible nut | | tolerant tree once estabilshed |
| Hardy Rubber Tree | Eucommia ulmoides | Emerald Point | 35-40' | 15-20' | narrow oval | insignificant | winged seed | none | tolerates a wide range of soil conditions, glossy green leaves |
| Ginkgo * | Ginkgo biloba | Autumn Gold, Princeton Sentry, Magyar, Colonade | 40-45' | 15-30' | pyramidal | insignificant | fruitless | yellow-golden | tolerant of a wide range of soil conditions, adapts well to urban environments |
| Honeylocust * | Gleditsia triacanthos inermis | Street Keeper, Skyline, Shademaster, Northern Acclaim, Sunburst, Perfection | 35-50' | 20-40' | pyramidal to round dependent on cultivar | insignificant yet smell very sweet | reported as fruitless | golden yellow | small fine leaves give filtered shade |
| Goldenrain * | Koelreuteria paniculata | | 30-40' | 30-40' | round | very showy bright yellow flowers in upright clusters | black seed in papery capsule | yellow-orange | tough adaptable tree |
| Osage Orange, White Shield | Maclura pomifera | White Shield, Wichita | 30-25' | 30-35' | upright spreading | none | none | yellow | tough tolerant, thornless, fruitless |
| Mulberry, Fruitless | Morus alba | Fruitless Mulberry | 30-50' | 30-50' | wide spreading | small yellowish green | fruitless | none | tough tolerant tree |
| Hophornbeam | Ostrya virginiana | Autumn Treasure, Sun Beam | 25-40' | 20-30' | oval to rounded | brown-green in summer | hop-like sac | yellow | tolerant of urban conditions once established |
| Amur Corktree * | Phellodendron amurense | Macho, Eye Stopper, His Majesty | 30-45' | 30-60' | rounded broad spreading | non showy yellow-green | pea sized black | yellow | once established very tolerant to urban conditions |

Salt Lake City Urban Forestry

Medium Trees at maturity

| Common Name | Botanical Name | Common Culitivars | Mature Height | Canopy Spread | Shape | Flowers | Fruit | Fall Color | Additional Notes |
|---|---|---|---|---|---|---|---|---|---|
| Mayday Tree | Prunus padus | Merlot | 30-40' | 18-30' | pyramidal to round | showy white pendulous | pea sized black | yellow | showy in spring |
| Flowering Pear | Pyrus calleryana | Aristocrat, Autumn Blaze, Capital,Chanticleer, Trinity | 30-40' | 12-28' | upright to pyramidal | white in spring | small fruit | redish | good fall color |
| Linden, Crimean | Tilia x euchlora | | 40-50 | 20-30' | rounded pyramidal | fragrant creamy yellow | gray nutlets with bracts | yellow | reported to have more resistance to aphids |
| Elm, Emerald Flair | Ulmus parvifolia | Emerald Flair | 40-45' | 30-35' | spreading vase | insignificant | flat round samara | red-orange red | has better red fall color than most cultivars |
| Elm, Emerald Sunshine | Ulmus propinqua | Emerald Sunshine | 30-35' | 20-25 | vase | inconspicuous | small, flat, papery | yellow | tolerant of all urban conditions |
| Elm, Frontier * | Ulmus. carpinifolia and U. parvifolia. | Frontier | 30-40' | 20-30' | upright, vase | inconspicuous | small, flat, papery | burgandy-purplish | tolerant of all urban conditions |
| Zelkova * | Zelkova serrata | Village Green, Green Vase | 40-55' | 30-50' | vase | insignificant | small wingless drupe | rusty red | mature smooth gray bark exfoliates to reveal orange inner bark |

All parkstrip trees must be a *single trunk form* unless approved by the Urban Forestry Office.

Other tree species may be appropriate with approval from the Urban Forestry Office.

* = Proven Performer

References: The Morton Arboretum
http://www.mortonarb.org/trees-plants/search-trees/search-all-trees-and-plants
References : Missouri Botanical Gardens
http://www.missouribotanicalgarden.org/plantfinder/plantfindersearch.aspx

Salty Lake City Urban Forestry

Large Trees at Maturity

| Common Name | Botanical Name | Common Cultivars | Mature Height | Canopy Spread | Shape | Flowers | Fruit | Fall Color | Additional Notes |
|---|---|---|---|---|---|---|---|---|---|
| Maple, State Street | Acer miyabei | State Street, Rugged Ridge | 30-45' | 30-35' | oval to rounded | Small green-yellow in spring, insignificant | green samaras | yellow-orange | hardy, tough, pest free maple |
| Black Maple | Acer nigrum | | 60-75' | 40-50' | oval to rounded | green-yellow in spring, insignificant | Green samaras | yellow-orange-red | similar to sugar maple but more heat and drought tolerant |
| Maple, Sycamore | Acer pseudoplatanus | | 40-55' | 35-55' | round | Small green-yellow in spring, insignificant | green samaras | yellow | Gray flaking bark |
| Horsechestnut | Aesculus hippocastanum | | 50-75' | 40-65' | upright oval | deep pink or white | nutlets in papery bracts | yellow | large showy flowers |
| Hornbeam | Carpinus betulus | Emerald Avenue, Frans Fontaine | 40-60' | 15-40' | narrow fastigate to broadly pyramidal | insignificant | nutlets in papery bracts | yellow | very symmetrically shaped |
| Catalpa * | Catalpa speciosa | | 50-70' | 20-50' | irregular open | white with spots inside | long slender | yellow | beautiful when in flower |
| Hackberry * | Celtis occidentalis | Chicagoland | 40-60' | 40-60' | rounded spreading | insignificant | purple drupe | pale yellow | tolerates both wet and dry conditions |
| Hardy Rubber Tree | Eucommia ulmoides | Hardy Rubber Tree, | 40-60' | 30-50' | rounded | insignificant | winged seed | none | tolerates a wide range of soil conditions, glossy green leaves |
| European Beech | Fagus sylvatica | various | 50-60' | 35-50' | rounded, pyramidal | Inconspicuous | nuts in a prickly husk | bronze-yellow | thin, smooth gray bark |
| Honeylocust * | Gleditsia triacanthos inermis | Street Keeper, Skyline, Shademaster, Northern Acclaim | 40-45' | 20-35' | pyramidal to round | insignificant yet smell very sweet | reported as fruitless | golden yellow | small fine leaves give filtered shade |
| Honeylocust * | Gleditsia triacanthos inermis | Street Keeper, Skyline, Shademaster, Northern Acclaim, Sunburst, Perfection | 35-50' | 20-40' | pyramidal to round dependent on cultivar | insignificant yet smell very sweet | reported as fruitless | golden yellow | small fine leaves give filtered shade |
| Kentucky Coffee * | Gymnocladus dioicus | Expresso, Prairie Titan, Stately Manor | 60-80' | 40-45' | irregular open | Greenish white, female are fragrant | seedless | yellow | leaves drop early in the fall |
| Tulip Tree | Liriodendron tulipifera | | 60-70' | 30-50' | broad conical | yellow with orange bands | dry brown oblong | golden yellow | flowers somewhat hidden by leaves |
| Mulberry, Fruitless | Morus alba | Fruitless Mulberry | 30-50' | 30-50' | wide spreading | small yellowish green | fruitless | none | tough tolerant tree |
| London Plane * | Platanus × acerifolia | Bloodgood, Exclamation, Ovation | 60-70' | 30-60' | spreading rounded | insignificant | round fuzzy seed ball in clusters of 2-3 | brown | exfoliating cream colored bark |
| Oak, English * | Quercus robur | | 50-70' | 50-70' | broad rounded | insignificant | acorn | none | tolerant of alkaline soils |
| Oak, Sawtooth | Quercus acutissima | | 40-60' | 40-60' | broad spreading | insignificant | acorn | dull yellow-brown | adapts to a wide range of soils |
| Oak, Northern Pin Oak | Quercus ellipsoidalis | | 55-60' | 30-40' | broadly pyramidal | insignificant | acorn | red | tolerant of alkaline and dry soils |
| Oak, Shingle | Quercus imbricaria | | 50-60' | 50-60' | conical broadening with age | insignificant | acorn | yellow-brown to red brown | adapts to a wide range of soils |
| Oak, Bur * | Quercus macrocarpa | Bullet Proof, Cobblestone | 60-80' | 60-80' | broad rounded | insignificant | oval acorns with fringed cap | yellow brown | tolerant of all soil conditions |
| Oak, Chinkapin | Quercus muehlenbergii | Red Autumn | 40-60' | 50-60' | oval to rounded | insignificant | acorn | yellow brown or red | tolerant of alkaline soils |

Salty Lake City Urban Forestry

Large Trees at Maturity

| Common Name | Botanical Name | Common Cultivars | Mature Height | Canopy Spread | Shape | Flowers | Fruit | Fall Color | Additional Notes |
|---|---|---|---|---|---|---|---|---|---|
| Oak, Shumard | Quercus shumardii | | 40-60' | 30-40' | oval | insignificant | acorn | brownish red | does well in wet and dry soil |
| Oak, Swamp White | Quercus bicolor | American Dream | 50-60' | 50-60' | broad rounded | insignificant | acorn | orange gold | tolerant of urban conditions |
| Linden, Silver * | Tilia tomentosa | Sterling Silver, Green Mountain, Satin Shadow | 50-70' | 25-40' | pyramidal | fragrant creamy yellow | gray nutlets with bracts | yellow | best heat and drought tolerant of all lindens |
| Elm, Commendation * | Ulmus (japonica x wilsoniana Morton) x (pumila x carpinifolia) | Commendation | 50-70' | 40-50' | pyramidal | insignificant | flat round samara | yellow | fast growing but not wild |
| Elm, Green stone * | Ulmus davidiana 'JFS KW2UD' | Greenstone | 50-60' | 40-50' | upright vase | insignificant | flat round samara | yellow | strong branch attachments at open angles |
| Elm, New Horizon * | Ulmus japonica × pumila 'New Horizon' | New Horizon | 50-55' | 30-40' | upright oval | insignificant | flat round samara | yellow | proven rugged street tree |
| Elm, Accolade * | Ulmus japonica × wilsoniana 'Morton' | Accolade | 50-60' | 30-40' | arching vase | insignificant | flat round samara | yellow | excellent DED resistance |
| Elm, Triumph * | Ulmus wilsoniana, U. japonica, and U. pumila | Triumph | 50-60' | 40-45' | upright oval to vase | insignificant | flat round samara | yellow | very dark green glossy leaves |
| Zelkova * | Zelkova serrata | Village Green, Green Vase | 40-55' | 30-50' | vase | insignificant | small wingless drupe | rusty red | mature smooth gray bark exfoliates to reveal orange inner bark |

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DENVER
THE MILE HIGH CITY

## Approved Street Tree List for Denver's Public Rights-of-way

Trees in the approved list are those which, given proper and consistent maintenance including supplemental irrigation, proper pruning, and avoidance of chemical contaminants, will be assets to Denver's urban canopy.

When possible, obtain trees that have been grown from a local seed source. Locally grown trees will be adapted to our area's highly variable, and often harsh, growing conditions. If locally grown trees cannot be obtained, source from locales that have similar growing conditions to our area (precipitation, soil pH, high/low temperatures, etc). Moisture requirements are based on observed species averages following root establishment. All trees require supplemental water for root establishment.

Per Forestry Rules and Regulations, the following trees may not be planted in the public right-of-way:

- Any of the poplar (Populus) species including cottonwoods and aspens
- Any of the willow (Salix) species
- Boxelder (Acer negundo)
- Siberian elm (Ulmus pumila)
- Weeping and pendulous trees
- Multi-stemmed trees

Other trees which, for various reasons, currently have a moratorium on planting in the public right-of-way include:

- Ash (Fraxinus) species
- Walnut (Juglans) species
- Silver maple (Acer saccharinum)
- Autumn Blaze / Freeman maple (Acer x freemannii)
- Sunburst honeylocust (Gleditsia triacanthos inermis 'Sunburst')
- Bradford pear (Pyrus calleryana 'Bradford')
- Mulberry (Morus) species
- Russian-olive (Elaeagnus angustifolia)
- Tree-of-heaven (Ailanthus altissima)

Trees not included on the approved street tree list may not be planted in the public right-of-way (as a street tree) without express permission from the Office of the City Forester. If a tree is excluded, it may be permitted on a case-by-case basis. Contact the Office of the City Forester (720-913-0651) for details, site inspections, and planting permits.

By Denver ordinance (§57-18), the adjoining property owner is responsible for all aspects of street tree care, including but not limited to; planting, pruning, vegetative litter clean-up, and removal. A free permit is required from the Office of the City Forester for tree planting and removal.

**Minimum Spacing Requirements**

- 35' between shade trees
- 25' between ornamental trees
- 30' from curb at intersections
- 20' from street lights
- 10' from alleys, driveways & fire hydrants
- 7' from attached sidewalks
- 5' from water meters

Shading indicates species suitable for planting under overhead utilities. These varieties should only be planted in situations where overhead growth restrictions exist.

# Denver Office of the City Forester Approved Street Tree List

Updated March 2017

| Family | Botanical Name | Acceptable Cultivar | Common Name | Hardiness Zone | Moisture Level | Soil Salt Tolerance | Aerosol Salt Tolerance | Water Quality Area | Height @ Maturity | Canopy Spread @ Maturity | Canopy Area @ Maturity | Growth Form/Shape | Flowers | Fruits | Leaf Color - Spring/Fall | | Additional Notes (includes compaction/tolerances/restrictions) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | Spring | Fall | |
| Aceraceae | Acer buergeranum | Streetwise | Trident Maple | 5 | Min | Tolerant | Intermediate | | 30 | 30 | 707 | Oval to rounded | Small green-yellow in spring, insignificant | Green samaras | Dark green | Orange-red | Slow growing. No pests or disease problems at this time. Snow & ice damage may be a concern. |
| Aceraceae | Acer campestre | | Hedge Maple | 5 | Min | Tolerant | Tolerant | | 30 | 30 | 707 | Oval to rounded, dense | Small green-yellow in spring, insignificant | Green samaras | Dark green | Yellow | Tolerates dry soil. Intolerant of soil compaction. Prune to develop strong branching structure and overhead clearance. |
| Aceraceae | Acer campestre | Panacek | Metro Gold Hedge Maple | 5b | Min | Tolerant | Tolerant | | 30 | 15 | 177 | Upright to narrow oval | Small green-yellow in spring, insignificant | Green samaras | Dark green | Yellow | Upright, narrow form. Tolerates dry soil. Intolerant of soil compaction. Prune to develop strong branching structure and overhead clearance. |
| Aceraceae | Acer campestre | JFS Shichtel2 | Streetside Maple | 5 | Min | Tolerant | Tolerant | | 32 | 15 | 177 | Upright to narrow oval | Small green-yellow in spring, insignificant | Green samaras | Dark green | Yellow | Upright, narrow form. Tolerates dry soil. Intolerant of soil compaction. Prune to develop strong branching structure and overhead clearance. Availability may be limited. |
| Aceraceae | Acer glabrum | | Rocky Mountain Maple | 5 | Min to Mod | Sensitive | Sensitive | | 20 | 13 | 133 | Oval | Small green-yellow in spring, insignificant | Green samaras | Green | Yellow-orange-red | Plant in protected site - heat tolerance may be a concern. Prune to develop strong branching structure and overhead clearance. |
| Aceraceae | Acer grandidentatum | | Bigtooth Maple | 4 | Xeric | Sensitive | Sensitive | | 25 | 25 | 491 | Rounded to broad spreading | Small green-yellow in spring, insignificant | Green samaras | Green | Orange-red | Also known as Wasatch maple. Slow growing. Tolerant of alkaline soils. Typically multistem. Prune to develop central leader, strong branching structure and overhead clearance. |
| Aceraceae | Acer grandidentatum | JFS-NuMex 3 P.A.F. | Mesa Glow Bigtooth Maple | 4 | Xeric | Sensitive | Sensitive | | 25 | 15 | 177 | Upright oval | Small green-yellow in spring, insignificant | Green samaras | Dark green | Orange-red to red | Upright form of parent species. Slow growing. Tolerant of alkaline soils. NM State introduction - Availability may be limited. Prune to develop central leader, strong branching structure and overhead clearance. |
| Aceraceae | Acer grandidentatum | Schmidt | Rocky Mountain Glow | 4 | Xeric | Sensitive | Sensitive | | 20 | 13 | 133 | Oval | Small green-yellow in spring, insignificant | Green samaras | Green | Yellow-orange-red | Faster growing than species. Intolerant of soil compaction. Prune to develop strong branching structure and overhead clearance. |
| Aceraceae | Acer grandidentatum x saccharum | Hipzam | Highland Park Maple | 4 | Min | Sensitive | Sensitive | | 35 | 22 | 380 | Narrow upright to pyramidal | Small green-yellow in spring, insignificant | Green samaras | Dark green | Red | Faster growing & more upright than bigtooth maple. More heat & drought resistant than sugar maple. Prune to develop overhead clearance. |
| Aceraceae | Acer grandidentatum x saccharum | Orbit | Canyon Treasure Bigtooth Maple | 4 | Min | Sensitive | Sensitive | | 35 | 22 | 380 | Oval to rounded | Small green-yellow in spring, insignificant | Green samaras | Dark green | Red | Very cold hardy. NDSU introduced - Availability may be limited. Prune to develop overhead clearance. |
| Aceraceae | Acer griseum | | Paperbark maple | 4 | Mod | Intermediate | Intermediate | | 25 | 20 | 314 | Oval to vase | Small green in spring, insignificant | Brown samaras | Dark green | Yellow-orange-red | Very slow growing. Attractive, exfoliating bark. Tolerant of slightly alkaline soils. Intolerant of extended drought. Not recommended for planting in or near hardscape. Availability may be limited. Prune to develop single stem form and overhead clearance. |
| Aceraceae | Acer griseum | JFS KW8AGRI | Fireburst Paperbark Maple | 5 | Mod | Intermediate | Intermediate | | 22 | 15 | 177 | Upright oval | Small green in spring, insignificant | Brown samaras | Dark green | Brilliant red | Faster growing variety of parent species. Attractive, exfoliating bark. Tolerant of slightly alkaline soils. Intolerant of extended drought. Not recommended for planting in or near hardscape. Availability may be limited. Improved branch structure over parent species. Prune to develop single stem form and overhead clearance. |
| Aceraceae | Acer miyabei | Morton | State Street Maple | 4 | Mod | Intermediate | Intermediate | X | 45 | 35 | 962 | Upright pyramidal to rounded | Small green-yellow in spring, insignificant | Green samaras | Green | Yellow-orange | Cold hardy & drought tolerant, chlorosis resistant; pest free. |
| Aceraceae | Acer miyabei | JFS-KW3AMI | Rugged Ridge Maple | 4 | Mod | Intermediate | Intermediate | X | 50 | 35 | 962 | Upright oval | Small green-yellow in spring, insignificant | Green samaras | Dark green | Yellow | Cold hardy & drought tolerant,, chlorosis resistant; pest free; touted as most vigorous miyabe maple. |
| Aceraceae | Acer nigrum | | Black Maple | 4 | Mod | Sensitive | Sensitive | | 60 | 40 | 1257 | Upright oval to rounded | Small green-yellow in spring, insignificant | Green samaras | Dark green | Yellow-orange-red | More drought & heat tolerant than sugar maple. Intolerant of poorly drained soils. Availability may be limited. |
| Aceraceae | Acer nigrum | Greencolumn | Greencolumn Maple | 4 | Min to Mod | Unknown | Unknown | | 45 | 15 | 177 | Narrow upright | Small green-yellow in spring, insignificant | Green samaras | Light green | Yellow-orange | Good heat and drought tolerance. May suffer some scorch in exposed sites. |
| Aceraceae | Acer platanoides | | Norway Maple | See comments regarding Norway maple | | | | | | | | | | | | | Tree is susceptible to sunscald, leaf scorch, frost cracks, and chlorosis. Does not tolerate planting in exposed sites or hardscape. Tree should only be planted in large areas with organic surface treatments. |
| Aceraceae | Acer pseudoplatanus | | Sycamore Maple | 4 | Mod | Tolerant | Tolerant | | 35 | 25 | 491 | Upright spreading to rounded | Small green-yellow in spring, insignificant | Green samaras, turning red | Dark green | Yellow | Soil adaptable and salt tolerant. Intolerant of heavy clay soils. Plant in large tree lawn. |
| Aceraceae | Acer pseudosieboldianum | KorDak | Northern Spotlight Korean Maple | 4 | Mod | Unknown | Unknown | | 15 | 20 | 314 | Upright to broad spreading | Off-white in spring, insignificant | Brown-purple samaras | Green | Orange-deep red | Cold hardy cross between Korean & Japanese maple. Leaves resistant to scorch, persist through winter. Thin bark may be easily damaged. NDSU introduced - Availability may be limited. |
| Aceraceae | Acer pseudosieboldianum x palmatum | Hasselkus | Northern Glow Maple | 4 | Mod | Unknown | Unknown | | 15 | 20 | 314 | Upright to broad spreading | Off-white in spring, insignificant | Brown-purple samaras | Green | Orange-deep red | Cold hardy cross between Korean & Japanese maple. Leaves resistant to scorch. Thin bark may be easily damaged. NDSU introduced - Availability may be limited. |
| Aceraceae | Acer rubrum | Minnkota | Fall Grandeur Red Maple | 3 | Insufficient Data at this time - If tree can be obtained, Forestry is open to permitting planting on trial basis | | | | | | | | | | Green | Red | Alkaline soil tolerant variety. NDSU introduced - Availability may be limited. |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | Spring | Fall | |
| Aceraceae | Acer saccharum | Collins Caddo | Collins Caddo Maple | 5 | Insufficient Data at this time - If tree can be obtained, Forestry is open to permitting planting on trial basis | | | | | | | | | | | | |
| Aceraceae | Acer saccharum | Green Mountain | Green Mountain Sugar Maple | 3 | Mod | Sensitive | Sensitive | | 45 | 35 | 962 | Upright to broad oval | Small green-yellow in spring, insignificant | Green samaras | Dark green | Yellow-red-orange | Good scorch resistance. Leaves are tatter resistant. More drought tolerant than parent species. |
| Aceraceae | Acer saccharum | Legacy | Legacy Sugar Maple | 4 | Mod | Sensitive | Sensitive | | 45 | 30 | 707 | Symmetrical oval to rounded | Small green-yellow in spring, insignificant | Green samaras | Dark green | Reddish orange-red | Good scorch resistance. Leaves are tatter resistant. More drought tolerant than parent species. |
| Aceraceae | Acer saccharum | John Pair | John Pair Caddo Maple | 5 | Min to Mod | Unknown | Unknown | X | 27 | 27 | 573 | Rounded, symmetrical | Small green-yellow in spring, insignificant | Green samaras | Glossy green | Red | Heat, drought, and alkaline soil tolerant cultivar. |
| Aceraceae | Acer saccharum | Autumn Splendor | Autumn Splendor Caddo Maple | 5 | Min to Mod | Unknown | Unknown | X | 40 | 35 | 962 | Broad oval to rounded | Small green-yellow in spring, insignificant | Green samaras | Glossy green | Orange-red | Heat, drought, and alkaline soil tolerant cultivar. |
| Aceraceae | Acer saccharum | JFS-Caddo2 | Flashfire Caddo Maple | 4 | Min to Mod | Unknown | Unknown | X | 40 | 35 | 962 | Broad oval | Small green-yellow in spring, insignificant | Green samaras | Dark green | Bright red | Heat, drought, and alkaline soil tolerant cultivar. Brilliant, early fall color. Hardiest of Caddo maples. |
| Aceraceae | Acer saccharum | JFS-Caddo3 | Oregon Trail Maple | 5 | | Unknown | Unknown | | 45 | 40 | 1257 | Broadly oval to rounded | Small green-yellow in spring, insignificant | Green samaras | Dark green | Orange red-red | Drought & heat resistant; strong branch structure resists ice damage. |
| Aceraceae | Acer saccharum | Sisseton | Northern Flare Sugar Maple | 3 | Mod | Unknown | Unknown | | 40 | 35 | 962 | Oval | Small green-yellow in spring, insignificant | Green samaras | Green | Orange-red | Slow-growing, cold hardy cultivar. Tolerant of alkaline soils, but intolerant of compaction. NDSU introduced - Availability may be limited. |
| Aceraceae | Acer saccharum | Sugar Cone | Sugar Cone Maple | 4 | Mod | Unknown | Unknown | | 22 | 11 | 95 | Dwarf pyramid, compact | Small green-yellow in spring, insignificant | Green samaras | Dark green | Red-orange-yellow | Smallest cultivar of species. Slow growing. Drought tolerant. Unproven in Denver region. |
| Aceraceae | Acer tataricum | JFS-KW2 | Rugged Charm Tatarian Maple | 3 | Xeric | Intermediate to Tolerant | Unknown | X | 24 | 13 | 133 | Upright oval, compact | White clusters in spring | Red samaras | Green | Yellow-orange-red | Form more narrow and symmetrical than parent species and Hot Wings. Rarely suckers. Showy, heavy seed crop. |
| Aceraceae | Acer tataricum | Gar-Ann | Hot Wings Tatarian Maple | 3 | Xeric | Intermediate to Tolerant | Unknown | X | 20 | 20 | 314 | Rounded, spreading | White clusters in spring | Bright red samaras | Green | Yellow-red | Broadly spreading cultivar. Rarely suckers. Showy, heavy seed crop. Prune to develop strong branching structure. |
| Aceraceae | Acer tataricum | Patdell | Pattern Perfect Tatarian Maple | 3 | Min | Intermediate to Tolerant | Unknown | X | 23 | 18 | 254 | Upright oval | White clusters in spring | Red Samaras | Green | Yellow-orange-red | Oval form more narrow than parent species and Hot Wings. Rarely suckers. Showy, heavy seed crop. Faster growing than other cultivars of species. |
| Aceraceae | Acer triflorum | | Three Flower Maple | 4 | Mod | Intermediate | Intermediate | | 15 | 20 | 314 | Rounded | Green in spring, insignificant | Green samaras | Light green | Bright orange | Slow growing. Intolerant of drought and alkaline soil. Shallow root system. Availability may be limited - Obtain from northern seed sources. Unproven in Denver region. |
| Aceraceae | Acer triflorum | Jack-O-Lantern | Orange Aglo Three Flower Maple | 3b | Mod | Intermediate | Intermediate | Insufficient Data at this time - If tree can be obtained, Forestry is open to permitting planting on trial basis | | | | Rounded | Unknown | Unknown | Green | Orange | Leaves persist through winter. Alkaline soil tolerant. NDSU introduced - Availability may be limited. |
| Aceraceae | Acer truncatum x platanoides | JFS-KW249 | Ruby Sunset Maple | 4b | Min | Unknown | Unknown | | 22 | 17 | 227 | Broad oval to rounded | Unknown | Green samaras | Glossy dark green | Deep red | Availability may be limited. Unproven in Denver region. |
| Aceraceae | Acer truncatum x platanoides | JFS-KW187 | Urban Sunset Maple | 4b | Min | Unknown | Unknown | | 35 | 20 | 314 | Narrow pyramidal to upright oval | Yellow flowers in spring, very short bloom time | Green samaras | Glossy dark green | Red | Minimal pruning is required. Produces few seeds. |
| Aceraceae | Acer truncatum x platanoides | JFS-KW202 | Crimson Sunset Maple | 4 | Min | Unknown | Unknown | | 30 | 20 | 314 | Upright oval | Yellow flowers in spring, very short bloom time | Green samaras | Deep purple | Reddish-bronze | More heat and drought tolerant than parent species. Thin bark may be easily damaged. Prune for street use to maintain shape and structure. |
| Aceraceae | Acer truncatum x platanoides | Keithsform | Norwegian Sunset Maple | 4b | Min | Unknown | Unknown | | 30 | 20 | 314 | Upright oval | Yellow flowers in spring, very short bloom time | Green samaras | Dark green | Yellow-orange-red | More heat and drought tolerant than parent species. Japanese beetle resistant. Thin bark may be easily damaged. Prune for street use to maintain shape and structure. |
| Aceraceae | Acer truncatum x platanoides | Warrenred | Pacific Sunset Maple | 4b | Min | Unknown | Unknown | | 27 | 20 | 314 | Upright spreading to rounded | Yellow flowers in spring, very short bloom time | Green samaras | Dark green | Yellow-orange-red | More heat and drought tolerant than parent species. Japanese beetle resistant. Thin bark may be easily damaged. Prune for street use to maintain shape and structure. |
| Hippocastanaceae | Aesculus flava | | Yellow Buckeye | 4 | Mod | Intermediate | Intermediate | | 60 | 30 | 707 | Upright oval to slightly spreading | Yellow-green flowers in spring, showy | Smooth, Pear-shaped capsule & nut | Dark green | Pumpkin-yellow | Greater leaf blotch resistance and less leaf drop than other Aesculus species. Leaf scorch may be an issue in windy, exposed sites. |
| Hippocastanaceae | Aesculus glabra | | Ohio Buckeye | 4 | Mod | Intermediate | Sensitive | | 35 | 35 | 962 | Rounded to oval, low branching | Yellow-green flowers in spring, showy | Spiny, oval-shaped capsule & nut | Bright green | Pumpkin-yellow | Intolerant of excess heat and drought. Powdery mildew, leaf scorch, and leaf drop may be issues. Prune to develop overhead clearance. |
| Hippocastanaceae | Aesculus x arnoldiana | Autumn Splendor | Autumn Splendor Buckeye | 4 | Mod | Intermediate | Unknown | | 30 | 25 | 491 | Rounded, low branching | Off-white flowers in spring, showy | Spiny, oval-shaped capsule & nut | Dark green | Red-orange-purple | Resistant to leaf scorch. Intolerant of excess drought. Prune to develop overhead clearance. |
| Hippocastanaceae | Aesculus x 'Homestead' | | Homestead Buckeye | 4 | Mod | Intermediate | Unknown | | 35 | 22 | 380 | Broad oval to rounded, low branching | Yellow-red flowers in spring, showy | Spiny, oval-shaped capsule & nut | Dark green | Bright red-orange | Intolerant of excess heat and drought. Powdery mildew, leaf scorch, and leaf drop may be issues. Prune to develop overhead clearance. |
| Hippocastanaceae | Aesculus hippocastanum | | Common Horsechestnut | 4 | Mod | Intermediate | Intermediate | | 60 | 40 | 1257 | Dense oval | White flowers in spring, showy | Spiny, round-shaped capsule & nut | Dark green | Yellow | Tolerant of restricted growing areas. Intolerant of excess heat and drought. Powdery mildew, leaf scorch, and leaf drop may be issues. May be subject to storm breakage; avoid planting in high wind areas. |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | Spring | Fall | |
| Hippocastanaceae | Aesculus hippocastanum | Baumannii | Baumann Horsechestnut | 4 | Mod | Intermediate | Intermediate | | 45 | 36 | 1018 | Broad oval | Double white flowers w/ red & yellow tints in spring, showy | Fruitless | Dark green | Yellow | Recommended over standard horsechestnut. Tolerant of restricted growing areas. Intolerant of excess heat and drought. Powdery mildew, leaf scorch, and leaf drop may be issues. May be subject to storm breakage; avoid planting in high wind areas. |
| Hippocastanaceae | Aesculus x Bergeson | | Prairie Torch Buckeye | 3 | Mod | Intermediate | Intermediate | | 27 | 27 | 573 | Slightly weeping, globose | Yellow-green in spring, showy | Spiny, round-shaped capsule & nut | Dark green | Orange-red | Excellent cold hardiness. Resistant to leaf scorch. Intolerant of drought. |
| Hippocastanaceae | Aesculus x carnea | Ft McNair | Ft McNair Horsechestnut | 4 | Mod | Intermediate | Intermediate | | 29 | 27 | 573 | Rounded, low branching | Pink w/ yellow tints in spring, showy | Small, spiny, round-shaped capsule | Dark green | Yellow | More leaf blotch resistant than parent species and other cultivars. Leaf scorch in windy sites may be and issue. Less leaf drop than other Aesculus sp.. |
| Hippocastanaceae | Aesculus x carnea | Briotii | Briotti Horsechestnut | 4 | Mod | Intermediate | Intermediate | | 27 | 32 | 804 | Rounded, low branching | Bright red flowers in spring, showy | Nearly fruitless | Dark green | Yellow | Nearly fruitless cultivar. Intolerant of drought. Prefers moist, well-drained soil. |
| Rosaceae | Amelanchier arborea | | Downy Serviceberry | 4 | Min to Mod | Intermediate | Sensitive | X | 20 | 15 | 177 | Rounded | White flowers in spring, showy | Small, purple-red fruit, edible | Dark green | Orange-red-yellow | Intolerant of pollution. Thin bark may be easily damaged. Prefers moist, well-drained soil. |
| Rosaceae | Amelanchier canadensis* | | Shadblow Serviceberry | 3 | Xeric | Intermediate to Tolerant | Sensitive | X | 20 | 15 | 177 | Rounded to upright vase, typically multistemmed | White flowers in spring, showy | Small, purple-red fruit, edible | Dark green | Orange-red-yellow | Thin bark may be easily damaged. Prune to develop single stem form. |
| Rosaceae | Amelanchier x grandiflora | Autumn Brilliance, Princess Diana, Robin Hill | Apple Serviceberry | 4 | Xeric to Min | Intermediate to Tolerant | Sensitive | X | 20 | 15 | 177 | Upright to moderate spreading | White, light pink flowers in spring, showy (Robin Hill) | Small, purple-red fruit, edible | Dark green | Orange-red-yellow | Cold hardy. Thin bark may be easily damaged. Prune to develop single stem form. Robin Hill best cultivar for single stem form. |
| Rosaceae | Amelanchier laevis | | Allengheny Serviceberry | 4 | Min to Mod | Intermediate to Tolerant | Sensitive | X | 22 | 13 | 133 | Upright oval, irregular | White flowers in spring, showy | Small, black-purple fruit, edible | Blue-green | Red-orange-yellow | Tolerant of full shade and confined planting spaces. Thin bark may be easily damaged. Taller and more upright than other Amelanchier species. Good selection for single stem form. |
| Rosaceae | Amelanchier laevis | JFS-Arb PP 15304 | Spring Flurry Serviceberry | 4 | Min to Mod | Intermediate to Tolerant | Sensitive | X | 25 | 15 | 177 | Upright oval vase | White flowers in spring, showy | Small, black-purple fruit, edible | Green | Red-orange-yellow | Tolerant of full shade and confined planting spaces. Thin bark may be easily damaged. Taller and more upright than other Amelanchier species. Dominant central leader with upward scaffold branches. Good selection for single stem form. |
| Annonaceae | Asiminia triloba | | Pawpaw | 5 | Mod | Unknown | Unknown | X | 23 | 12 | 113 | Upright to Rounded | Purple-maroon flowers in early spring | 2"-4" elongated fruit, green maturing to brown, edible | Green | Yellow | Tolerant of full shade, medium-wet soils, and slightly alkaline pH.. Fruit results from multiple tree cross-pollination. Plant in areas where fruit is not problematic. Prune to develop strong branching structure. Availability may be limited. Unproven in Denver region. |
| Betulaceae | Carpinus betulus | Frans Fontaine, Fastigiata | Columnar European Hornbeam | 5 | Mod | Sensitive | Sensitive | | 35 | 20 | 314 | Upright, narrow | White flowers in spring, insignificant | Insignificant | Dark green | Yellow | Intolerant of excess & reflective heat, resulting in scorch and poor vigor. Plant in protected sites with large rooting space. |
| Betulaceae | Carpinus caroliniana | | American Hornbeam | 3 | Mod | Sensitive | Sensitive | | 25 | 22 | 380 | Columnar-oval to pyramidal, low branching | Orange-yellow catkins in early spring, insignificant | Insignificant | Green | Orange-red-yellow | Tolerant of periodic flooding. Intolerant of compacted soils. Prefers slightly acidic soils. May be difficult to transplant. Highly resistant to storm damage due to hard, dense wood. Availability may be limited. |
| Betulaceae | Carpinus caroliniana | Uxbridge | Rising Fire American Hornbeam | 4 | Mod | Sensitive | Sensitive | | 27 | 12 | 113 | Upright, narrow | Orange-yellow catkins in early spring, insignificant | Insignificant | Green | Red-orange | Columnar form of parent species. Tolerant of periodic flooding. Intolerant of compacted soils. Prefers slightly acidic soils. May be difficult to transplant. Highly resistant to storm damage due to hard, dense wood. Availability may be limited. |
| Juglandaceae | Carya illinoisensis | | Pecan | 5 | Mod | Sensitive | Sensitive | | 60 | 40 | 1257 | Oval to spreading | Yellow catkins in spring, insignificant | 1"-2" Edible nut | Green | Yellow | Northern seed source is critical. May be difficult to transplant & establish due to taproot. Large root system requires large tree lawn. Prune to develop strong branching structure when young. Unproven in Denver region. |
| Juglandaceae | Carya glabra | | Pignut Hickory | 5 | Min to Mod | Sensitive | Intermediate | | 50 | 30 | 707 | Dense oval | Yellow-green catkins in spring, insignificant | 1" Nut | Green | Yellow-copper | May be difficult to transplant & establish due to taproot. Unproven in Denver region. |
| Juglandaceae | Carya ovata | | Shagbark Hickory | 5 | Mod | Intermediate | Sensitive | | 50 | 30 | 707 | Oval | Yellow catkins in spring, insignificant | 1" Nut | Deep yellow-green | Burnt yellow | May be difficult to transplant & establish due to taproot. Unproven in Denver region. |
| Bignoniaceae | Catalpa ovata | | Chinese Catalpa | 4 | Xeric to Min | Tolerant | Intermediate | | 25 | 25 | 491 | Spreading | Yellow-white flowers in spring to summer; showy | Long, brown bean pod | Green | Yellow | Smaller than Catalpa speciosa. Heat, drought, and alkaline soil tolerant. Decay when wounded or as tree ages may be an issue. Availiability may be limited. |
| Bignoniaceae | Catalpa speciosa | | Western Catalpa | 5 | Xeric to Min | Intermediate | Intermediate | X | 50 | 35 | 962 | Irregular pyramidal to rounded oval | Large, white flowers in spring to summer; showy | Long, brown bean pod | Green | Yellow | Heat, drought, and alkaline soil tolerant. Decay when wounded or as tree ages may be an issue. |
| Bignoniaceae | Catalpa speciosa | Hiawatha 2 | Heartland Catalpa | 5 | Xeric to Min | Intermediate | Intermediate | X | 45 | 23 | 415 | Upright narrow oval | Large, white flowers in spring to summer; showy | Long, brown bean pod | Green | Yellow | Narrow, upright form of parent species. Uniform branching habit. |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | Spring | Fall | |
| Bignoniaceae | Catalpa x erubescens | Purpurea | Purple Catalpa | 5 | Xeric to Min | Intermediate | Intermediate | X | 40 | 35 | 962 | Rounded | Large, yellow-purple-spotted white flowers in spring to summer; showy | Long, brown bean pod | Purple | Yellow | Purple leaved cultivar of parent species. Unproven in Denver region. |
| Ulmaceae | Celtis laevigata | All Seasons, Magnifica | Sugar Hackberry | 5 | Xeric to Min | Tolerant | Intermediate | X | 45 | 40 | 1257 | Rounded vase to broad oval | Green in spring, insignificant | Small berry, insignificant | Dark green | Yellow | Varieties are more hardy than parent species. Magnifica has similar growth habit to elm & improved insect resistance. |
| Ulmaceae | Celtis occidentalis | Prairie Pride | Common Hackberry | 3 | Xeric to Min | Tolerant | Intermediate to Sensitive | X | 45 | 35 | 962 | Rounded vase | Green in spring, insignificant | Small berry, insignificant | Green | Yellow | Tolerant of urban growing conditions. Nipple gall may be an aesthetic issue. Intolerant of mechanical damage. Transplant in spring (B&B) |
| Ulmaceae | Celtis occidentalis | Chicagoland | Common Hackberry | 3 | Xeric to Min | Tolerant | Intermediate to Sensitive | X | 45 | 35 | 962 | Rounded vase, strong central leader | Green in spring, insignificant | Orange-red to deep purple berry | Green | Yellow | Tolerant of urban growing conditions. Nipple gall may be an aesthetic issue. Intolerant of mechanical damage. Transplant in spring (B&B) |
| Ulmaceae | Celtis occidentalis | JFS-KSU1 | Prairie Sentinel Hackberry | 4 | Xeric to Min | Tolerant | Intermediate to Sensitive | X | 45 | 12 | 113 | Columnar | Green in spring,insignificant | Orange-red to deep purple berry | Green | Yellow | Columnar cultivar of parent species. Tolerant of urban growing conditions, including confined planting spaces. Nipple gall may be an aesthetic issue. Intolerant of mechanical damage. Transplant in spring (B&B) |
| Ulmaceae | Celtis reticulata | | Netleaf Hackberry | 3 | Xeric to Min | Unknown | Unknown | | 25 | 25 | 491 | Rounded, spreading | Green in spring, insignificant | Small, orange-red berry | Green | Yellow | Slow growing. Nipple gall may be an aesthetic issue. Prune to develop strong branching structure and overhead clearance. Also known as western hackberry. |
| Cercidiphyllaceae | Cercidiphyllum japonicum | | Katsuratree | 5 | Mod | Intermediate to Sensitive | Intermediate to Sensitive | | 35 | 35 | 962 | Upright, pyramidal to rounded | Green in spring, insignificant | 1/2"-1" elongated pod | Blue-green | Yellow-orange | Intolerant of soil compaction and confined planting spaces. Shallow surface roots; plant in a site with large rooting space. |
| Fabaceae | Cercis canadensis | | Eastern Redbud | 4 | Min to Mod | Sensitive | Sensitive | X | 25 | 30 | 707 | Irregular, rounded vase | Lavendar/pink/ purple in spring (before leaves), showy | Small, brown pod 2-3" long | Green | Yellow | Tolerant of partial shade. Flowers emerge before leaves. Plant in protected area. Prune to develop strong branching structure and overhead clearance. |
| Fabaceae | Cercis canadensis | Forest Pansy | Forest Pansy Redbud | 5 | Min to Mod | Sensitive | Sensitive | X | 15 | 20 | 314 | Irregular, rounded vase | Magenta-rose in spring (before leaves), showy | Small, brown pod 2-3" long | Purple-bronze green | Yellow-orange | Tolerant of partial shade. Flowers emerge before leaves. Plant in protected area. Prune to develop strong branching structure. |
| Fabaceae | Cercis canadensis | Pink Trim | Northern Herald Redbud | 4 | Min to Mod | Sensitive | Sensitive | X | 22 | 28 | 616 | Spreading, rounded | Magenta-rose in spring (before leaves), showy | Small, brown pod 2-3" long | Burgundy to forest green | Yellow | Cold hardy variety of parent species. Tolerant of urban conditions. Prune to develop strong branching structure and overhead clearance |
| Fabaceae | Cercis canadensis | JN2PP21451 | Rising Sun Redbud | 5 | Min to Mod | Sensitive | Sensitive | X | 13 | 18 | 254 | Spreading, rounded | Magenta-rose in spring (before leaves), showy | Small, brown pod 2-3" long | Yellow w/ orange new growth | Yellow | Tolerant of partial shade. Flowers emerge before leaves. Plant in protected area. Prune to develop strong branching structure. |
| Oleaceae | Chionanthus virginicus | | American Fringetree | 4 | Min to Mod | Sensitive | Sensitive | | 15 | 15 | 177 | Spreading, oval | Green-white in spring, fragrant | 1/2"-3/4" Blue-black fruit | Green | Yellow | Slow growing. Tolerant of urban conditions, including minor drought. Susceptible to emerald ash borer - increased risk of damage or death. Prune to develop strong branching structure and overhead clearance. |
| Oleaceae | Chionanthus retusis | | Chinese Fringetree | 5b | Mod | Sensitive | Sensitive | | 15 | 15 | 177 | Broad oval | Large Green-white clusters in spring, fragrant | 1/2"-1" Blue-purple fruit | Dark green | Yellow | Slow growing. Tolerant of urban conditions. Intolerant of drought. Species is not affected by emerald ash borer. Prune to develop strong branching structure and overhead clearance. Availability may be limited. |
| Oleaceae | Chionanthus retusis | Tokyo Tower | Tokyo Tower Fringetree | 5b | Mod | Sensitive | Sensitive | | 15 | 8 | 50 | Narrow upright vase | Large White clusters in spring, fragrant | 1/2"-3/4" Blue-black fruit | Dark green | Yellow | Tolerant of confined planting spaces and urban conditions. Intolerant of drought. Species is not affected by emerald ash borer. Golden-tan exfoliating bark. |
| Fabaceae | Cladrastis kentukea | | American Yellowwood | 4 | Mod | Intermediate to Sensitive | Intermediate to Sensitive | | 35 | 35 | 962 | Rounded to oval | Creamy white-yellow clusters in spring, showy, fragrant | 2"-4" Elongated pod | Bright green | Yellow | Flowers are significant source of nectar for bees. Thin, smooth bark may be easily damaged. Prune to develop strong branching structure and overhead clearance. |
| Fabaceae | Cladrastis kentukea | Perkins Pink | Perkins Pink Yellowwood | 5 | Mod | Intermediate to Sensitive | Intermediate to Sensitive | | 40 | 45 | 1590 | Rounded to oval | Pink clusters in spring, showy, fragrant | 2"-4" Elongated pod | Yellow-green | Yellow | Flowers are significant source of nectar for bees. Thin, smooth bark may be easily damaged. Prune to develop strong branching structure and overhead clearance. |
| Cornaceae | Cornus controversa | June Snow | June Snow Dogwood | 5 | Mod | Unknown | Unknown | | 25 | 35 | 962 | Horizontally layered, spreading | White in early summer | 1/4" Blue-black berry cluster | Dark green | Orange-red | Tolerant of partial shade, but prefers full sun. Tolerant of alkaline soils. Prune to develop overhead clearance. Availability may be limited. Unproven in Denver region. |
| Cornaceae | Cornus mas | Many - Consult with Forestry | Corneliancherry Dogwood | 5 | Mod | Unknown | Unknown | | 15 | 12 | 113 | Rounded oval, commonly multistem | Yellow in early spring (before leaves) | Bright red fruit in mid-summer | Dark green | Purple-red | Flowers emerge before leaves. Highly resistant to storm damage due to hard, dense wood. Prune to develop strong branching structure and overhead clearance. |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | Spring | Fall | |
| Betulaceae | Corylus colurna | | Turkish Filbert | 4 | Xeric | Sensitive | Sensitive | | 40 | 25 | 491 | Pyramidal | Catkins in spring, insignificant | Oval nut | Green | Yellow | Plant in sites with large rooting space (tree lawns 8' and wider). Tree is slow to establish. Prune to develop strong branching structure. |
| Anacardiaceae | Cotinus obovatus | | American Smoketree | 4 | Min to Mod | Intermediate to Sensitive | Intermediate to Sensitive | X | 18 | 13 | 133 | Rounded to broad spreading | Small pink/purple on long stem in late spring, showy | Small purple-brown fruit | Light green | Orange-red-yellow | Blooming flowers create smoke-like effect. Single stem form may be difficult to locate. Prune to develop strong branching structure. |
| Rosaceae | Crataegus ambigua | | Russian Hawthorn | 4 | Xeric | Sensitive | Sensitive | X | 15 | 15 | 177 | Rounded to spreading | White in spring, showy | 1/2" Dark red-purple berry, persistant | Green | Yellow | Tolerant of urban conditions, including alkaline soil and drought. Thorns are sparse and branches may be essentially thornless. |
| Rosaceae | Crataegus crus-galli | Inermis | Thornless Cockspur Hawthorn | 4 | Xeric | Tolerant | Tolerant | X | 20 | 20 | 314 | Rounded to spreading | White in spring, showy | 1/2" Dull red berry, persistant | Deep green | Orange-bronze | Thornless variety of parent species. Extensive fruit litter may be an issue. Prune to develop strong branching structure and overhead clearance. |
| Rosaceae | Crataegus laevigata | Crimson Cloud | Crimson Cloud Hawthorn | 4 | Xeric to Min | Sensitive | Sensitive | | 20 | 15 | 177 | Upright, spreading oval | Bright red w/ white centers in spring, showy | Max 1/2" Glossy red berry | Glossy green | No fall color change | Nearly thornless cultivar. More disease resistant than parent species. Prune to develop strong branching structure and overhead clearance. |
| Rosaceae | Crataegus laevigata | Paulii | Paul's Scarlet Hawthorn | 4 | Xeric to Min | Sensitive | Sensitive | | 20 | 15 | 177 | Spreading to oval | Deep pink double flowers in spring, showy | Small pink-red berry, sparse | Glossy green | No fall color change | Tree slightly more susceptible to fireblight than cockspur hawthorn. Leaf spot and cedar apple rust may be an issue. |
| Rosaceae | Crataegus x mordensis | Snowbird; Toba | Snowbird/Toba Hawthorn | 3 | Xeric to Min | Unknown | Unknown | | 15 | 15 | 177 | Upright oval to spreading | Double white in spring, fragrant | 3/8" Red berry | Glossy green | No fall color change | Drought tolerant. Snowbird is hardier cultivar than Toba. Fireblight may be an issue. |
| Rosaceae | Crataegus submollis | | Northern Downy Hawthorn | 4 | Min to Mod | Unknown | Unknown | X | 20 | 20 | 314 | Rounded to spreading | White in spring | 3/4" Red-purple berry | Green | Yellow | Branches feature thorns up to 3" in length. Prune to develop strong branching structure. Also known as Quebec hawthorn. Availability may be limited. Unproven in Denver region. |
| Rosaceae | Crataegus viridis | Winter King | Winter King Hawthorn | 4 | Min to Mod | Unknown | Unknown | X | 20 | 15 | 177 | Upright to rounded | White in spring, showy | 3/4" Bright red berry | Glossy dark green | Yellow | More disease resistant cultivar. Mostly spineless but occasional thorns up to 1.5" in length. Prune to develop strong branching structure. Also known as Green hawthorn. |
| Eucommiaceae | Eucommia ulmoides | | Hardy Rubber-tree | 5 | Min | Intermediate | Intermediate | | 40 | 40 | 1257 | Rounded | Brown in spring, insignificant | Fruitless | Dark green | Yellow | Prune to develop strong branching structure. Availability may be limited. |
| Eucommiaceae | Eucommia ulmoides | Empozam | Emerald Pointe Hardy Rubber-tree | 5 | Min | Intermediate | Intermediate | | 35 | 15 | 177 | Upright, narrow | Brown in spring, insignificant | Fruitless | Dark green | Yellow | Availability may be limited. |
| Fagaceae | Fagus grandifolia | | American Beech | 3 | Mod | Sensitive | Sensitive | | 65 | 60 | 2827 | Pyramidal to oval | Yellow-green in spring | 1/2"-1" spiny capsule & nut | Dark green | Golden bronze | Slow growing. May be difficult to transplant. Tolerant of heavy shade. Intolerant of wet, poorly drained soils and drought. Large root system requires large tree lawn. Thin bark may be easily damaged. Prune to develop overhead clearance. Availability may be limited. |
| Fagaceae | Fagus sylvatica | | Eurpoean Beech | 4 | Mod | Sensitive | Sensitive | | 50 | 40 | 1257 | Pyramidal to oval | Yellow-green in spring | 1/2"-1" spiny capsule & nut | Glossy dark green | Golden bronze | Slow growing. May be difficult to transplant. More tolerant of varying soil conditions than American beech. Intolerant of wet, poorly drained soils and extended drought. Prefers neutral to slightly acid soils. Large root system requires large tree lawn. Thin bark may be easily damaged. Prune to develop overhead clearance. Availability may be limited. |
| Fagaceae | Fagus sylvatica | Purpurea | Copper Beech | 5 | Mod | Sensitive | Sensitive | | 55 | 40 | 1257 | Upright oval to rounded | Reddish in spring, insignificant | 1/2"-1" spiny capsule & nut | Dark red to red-green | Red-orange | Slow growing. May be difficult to transplant. More tolerant of varying soil conditions than American beech. Intolerant of wet, poorly drained or compacted soils and extended drought. Prefers neutral to slightly acid soils. Large root system requires large tree lawn. Thin bark may be easily damaged. Prune to develop overhead clearance. Availability may be limited. |
| Fagaceae | Fagus sylvatica | Roseomarginata | Tricolor Beech | 4 | Mod | Sensitive | Sensitive | | 25 | 15 | 177 | Oval | Yellow-green in spring | 1/2"-1" spiny capsule & nut | Variegated purple, rose pink with cream margins | Light bronze | Slow growing. May be difficult to transplant. More tolerant of varying soil conditions than American beech. Intolerant of wet, poorly drained soils and extended drought. Thin bark may be easily damaged. |
| Ginkgoaceae | Ginkgo biloba | Autumn Gold | Autumn Gold Ginkgo | 3 | Mod | Intermediate | Intermediate | X | 40 | 30 | 707 | Broad pyramidal | Insignificant | Fruitless | Green | Golden yellow | Male (seedless) clone with slow growth rate. |
| Ginkgoaceae | Ginkgo biloba | JFS-UGA2 | Golden Colonnade Ginkgo | 4 | Mod | Intermediate | Intermediate | X | 40 | 20 | 314 | Narrow oval | Insignificant | Fruitless | Green | Golden yellow | Male (seedless) clone with moderate growth rate. |
| Ginkgoaceae | Ginkgo biloba | Magyar | Magyar Gingko | 4 | Mod | Intermediate | Intermediate | X | 45 | 20 | 314 | Narrow to pyramidal | Insignificant | Fruitless | Green | Golden yellow | Male (seedless) clone with moderate growth rate (faster than Princeton Sentry). |
| Ginkgoaceae | Ginkgo biloba | The President | Presidential Gold Ginkgo | 4 | Mod | Intermediate | Intermediate | X | 45 | 35 | 962 | Broad pyramidal to oval | Insignificant | Fruitless | Green | Golden yellow | Male (seedless) clone with slow growth rate. |
| Ginkgoaceae | Ginkgo biloba | Princeton Sentry | Princeton Sentry Ginkgo | 4 | Mod | Intermediate | Intermediate | X | 35 | 15 | 177 | Narrow pyramidal | Insignificant | Fruitless | Green | Golden yellow | Male (seedless) clone with slow growth rate. |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | Spring | Fall | |
| Ginkgoaceae | Ginkgo biloba | Shangri-la | Ginkgo | 4 | Mod | Intermediate | | X | 45 | 30 | 707 | | Insignificant | Fruitless | | | Male clone, fruitless. Slow grower |
| Fabaceae | Gleditsia triacanthos inermis | Imperial | Thornless Honeylocust | 4 | Xeric | Tolerant | Tolerant | X | 35 | 35 | 962 | Rounded | Insignificant | Fruitless | Green | Yellow | Thornless and fruitless cultivar. Genus overplanted in Denver region. |
| Fabaceae | Gleditsia triacanthos inermis | Moraine | Moraine Honeylocust | 4 | Xeric | Tolerant | Tolerant | X | 40 | 40 | 1257 | Rounded | Insignificant | Fruitless | Dark green | Yellow | Thornless and fruitless cultivar. Genus overplanted in Denver region. |
| Fabaceae | Gleditsia triacanthos inermis | Harve | Northern Acclaim Honeylocust | 3b | Xeric | Tolerant | Tolerant | X | 40 | 30 | 707 | Broad pyramidal | Insignificant | Fruitless | Green | Yellow | Thornless and fruitless cultivar. Genus overplanted in Denver region. |
| Fabaceae | Gleditsia triacanthos inermis | Shademaster | Shademaster Honeylocust | 4 | Xeric | Tolerant | Tolerant | X | 40 | 30 | 707 | Vase to rectangular | Insignificant | Fruitless | Green | Yellow | Thornless and fruitless cultivar. Central leader less present than Skyline. Genus overplanted in Denver region. |
| Fabaceae | Gleditsia triacanthos inermis | Skycole | Skyline Honeylocust | 4 | Xeric | Tolerant | Tolerant | X | 40 | 30 | 707 | Broad pyramidal | Insignificant | Fruitless | Green | Yellow | Thornless and fruitless cultivar. Tree features strong central leader. Form is more upright than Shademaster. Genus overplanted in Denver region. |
| Fabaceae | Gleditsia triacanthos inermis | Draves PP21698 | Street Keeper Honeylocust | 4b | Xeric | Tolerant | Tolerant | X | 40 | 15 | 177 | Upright, narrow pyramidal | Insignificant | Fruitless | Dark green | Yellow | Columnar cultivar of parent species.Thornless and fruitless. Genus overplanted in Denver region. |
| Fabaceae | Gleditsia triacanthos inermis | True Shade | True Shade Honeylocust | 4 | Xeric | Tolerant | Tolerant | X | 40 | 30 | 707 | Oval | Insignificant | Fruitless | Dark green | Yellow | Thornless and fruitless cultivar. Faster growth rate and better branch angles than other cultivars. Genus overplanted in Denver region. |
| Fabaceae | Gymnocladus dioicus | Espresso | Kentucky Coffeetree | 4 | Xeric | Tolerant | Tolerant | X | 60 | 40 | 1257 | Spreading vase | Greenish-white clusters in late spring | Fruitless | Blue-green | Yellow | Male (fruitless) cultivar. Tolerant of urban growing conditions. No known insect or disease issues. Leaves, seeds, and pulp reported to be poisonous if ingested. |
| Fabaceae | Gymnocladus dioicus | JC McDaniel | Prairie Titan Coffeetree | 4 | Xeric to min | Tolerant | Tolerant | X | 55 | 35 | 962 | Upright, spreading | Greenish-white clusters in late spring | Fruitless | Blue-green | Yellow | Male (fruitless) cultivar. Tolerant of urban growing conditions. No known insect or disease issues. Leaves, seeds, and pulp reported to be poisonous if ingested. |
| Fabaceae | Gymnocladus dioicus | Stately Manor | Stately Manor Coffeetree | 4 | Xeric to Min | Tolerant | Tolerant | X | 45 | 20 | 314 | Narrow, upright | Greenish-white clusters in late spring | Fruitless | Blue-green | Yellow | Male (fruitless) cultivar. Tolerant of urban growing conditions. No known insect or disease issues. Leaves, seeds, and pulp reported to be poisonous if ingested. |
| Sapindaceae | Koelreuteria paniculata | | Goldenraintree | 5 | Xeric | Intermediate | Intermediate | X | 30 | 30 | 707 | Open, rounded vase | Yellow in summer, very showy | Small, black fruit in brown seed pod, resembles small lantern | Green | Yellow | Volunteer seedlings could be an issue in mulched areas. |
| Sapindaceae | Koelreuteria paniculata | JFS-Sunleaf | Summer Burst Goldenraintree | 5 | Xeric | Intermediate | Intermediate | X | 30 | 30 | 707 | Open, rounded vase | Yellow in summer, very showy | Small fruit in brown seed pod w/ pink highlights, pod resembles small lantern | Dark green | Yellow | Cultivar more heat resistant than parent species. Volunteer seedlings could be an issue in mulched areas. |
| Altingiaceae | Liquidambar styraciflua | Check with Office of the City Forester for acceptable cultivars | Sweetgum | 5 | Mod to Moist | Intermediate | Intermediate | | 60 | 40 | 1257 | Pyramidal to rounded | Yellow-green in spring, insignificant | Spiny, round-shaped capsule & nut | Green | Red-orange-yellow | Shallow surface roots; plant in a site with large rooting space. Rotundiloba is a seedless cultivar. Fruit litter may be an issue for parent species and/or other cultivars. |
| Magnoliaceae | Liriodendron tulipifera | | Tulip Tree | 4 | Mod to Moist | Sensitive | Sensitive | | 70 | 40 | 1257 | Pyramidal to oval | Green-yellow in spring, showy | Insignificant | Green | Yellow | Large root system requires large tree lawn. |
| Magnoliaceae | Liriodendron tulipifera | JFS-Oz | Emerald City Tulip Tree | 5 | Mod to Moist | Sensitive | Sensitive | | 55 | 25 | 491 | Upright oval | Green-yellow in spring, showy | Insignificant | Dark green | Yellow | Cold hardy cultivar. Form features strong, central leader and is more upright than parent species. Large root system requires large tree lawn. Unproven in Denver region. |
| Fabaceae | Maackia amurensis | | Amur Maackia | 3 | Xeric | Intermediate | Intermediate | | 25 | 18 | 254 | Rounded vase | White in summer | Insignificant | Green | Yellow | Tolerant of urban conditions, including drought. Prune to develop strong branching structure and overhead clearance. |
| Fabaceae | Maackia amurensis | MaacNificent | MaacNificent Amur Maackia | 3 | Xeric | Intermediate | Intermediate | | 28 | 20 | 314 | Upright vase | White in summer | Insignificant | Silvery green | Yellow | Tolerant of urban conditions, including drought. Branching more upright than species. Prune to develop strong branching structure and overhead clearance. |
| Fabaceae | Maackia amurensis | Summertime | Summertime Amur Maackia | 3 | Xeric | Intermediate | Intermediate | | 18 | 16 | 201 | Upright to rounded | White in summer | Insignificant | Silvery green | Yellow | Small cultivar of parent species. Tree displays low branching habit (starting at 48" above ground). Plant where overhead clearance is not an issue. |
| Fabaceae | Maackia amurensis | Starburst | Starburst Amur Maackia | 3 | Xeric | Intermediate | Intermediate | | 27 | 18 | 254 | Upright to rounded | White in summer | Insignificant | Silvery green | Yellow | Tree displays low branching habit (starting at 48" above ground). Plant where overhead clearance is not an issue. |
| Moraceae | Maclura pomifera | White Shield | White Shield Osage Orange | 5 | Xeric | Unknown | Unknown | | 30 | 30 | 707 | Upright spreading | Green in late spring, insignificant | Fruitless | Dark green | Yellow | Fruitless and thornless male cultivar. Tolerant of heat and drought. Highly resistant to storm damage due to hard, dense wood. Availability may be limited. |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | Spring | Fall | |
| Moraceae | Maclura pomifera | Wichita | Wichita Osage Orange | 5 | Xeric | Unknown | Unknown | X | 30 | 30 | 707 | Upright spreading, rounded | Green in late spring, insignificant | Fruitless | Glossy dark green | Yellow | Fruitless and thornless male cultivar. Tolerant of wet soils, dry soils, heat, and drought. Highly resistant to storm damage due to hard, dense wood. Young trees may have few thorns but become thornless with age. Availability may be limited. |
| Magnoliaceae | Magnolia acuminata | | Cucumbertree Magnolia | 4 | Mod | Intermediate | Intermediate | | 65 | 50 | 1963 | Pyramidal to rounded | Yellow in spring, insignificant, fragrant | 2"-3" red cucumber-shaped fruit, persistant | Dark green | Yellow-bronze | Fast growing species. Intolerant of compacted soils. Thin bark may be easily damaged. Large root system requires large tree lawn. Transplant in spring for best survivability. Availability may be limited. |
| Magnoliaceae | Magnolia | NCMX1 P.A.F. | Mercury Magnolia | 5 | Mod | Unknown | Unknown | | 23 | 12 | 113 | Upright pyramidal | Large lavender pink flowers,very late blooming | Unknown | Dark green | Yellow | Upright pyramidal form with strong, central leader & branching structure. Flowers emerge much later than other magnolias, reducing susceptibility to frosts & freezes. NC State introduced - Availability may be limited. Unproven in Denver region. |
| Rosaceae | Malus cv | Check with Office of the City Forester for acceptable cultivars | Crabapple | 4 | Varies with Cultivar | Varies with Cultivar | Varies with Cultivar | X | Varies with Cultivar | Varies with Cultivar | - | No multi-stemmed or pendulous forms permitted | Varies with Cultivar | Varies with Cultivar | Varies with Cultivar | Yellow | Check with Office of the City Forester for guidance on cultivars. |
| Betulaceae | Ostrya virginiana | | American Hophornbeam | 3 | Min to Mod | Sensitive | Sensitive | | 30 | 30 | 707 | Oval to rounded | Brown-green in summer, showy | 1/4" Nut in hoplike sac, persistant | Dark green | Yellow | Tolerant of urban conditions. Tree is slow to establish, plant in early spring. Shallow root system. Prune to develop overhead clearance. Also known as ironwood. |
| Betulaceae | Ostrya virginiana | JFS-KW5 | Autumn Treasure Hophornbeam | 4 | Min to Mod | Sensitive | Sensitive | | 35 | 17 | 227 | Upright pyramidal to oval | Brown-green in summer, showy | 1/4" Nut in hoplike sac, persistant | Dark green | Golden yellow | Upright, narrow form of parent species. Tolerant of urban conditions. Tree is slow to establish, plant in early spring. Shallow root system. Levaes do not persist through winter - Leaf drop is complete in fall. Availability may be limited. Unproven in Denver region. |
| Betulaceae | Ostrya virginiana | Camdale | Sun Beam American Hophornbeam | 3 | Min to Mod | Sensitive | Sensitive | | 33 | 30 | 707 | Oblong pyramidal to rounded | Brown-green in summer, showy | Nut in hoplike sac, persistant | Dark green | Yellow | Leaves may persist through winter. NDSU introduced - Availability may be limited. |
| Hamamelidaceae | Parrotia persica | | Persian Ironwood | 5 | Min | Unknown | Unknown | | 30 | 30 | 707 | Upright oval to rounded | Red in spring | Insignificant | Red-purple to dark green | Orange-red-yellow | Few issues once established. Prune to develop overhead clearance. Availability may be limited. |
| Hamamelidaceae | Parrotia persica | JLColumnar P.A.F. | Persian Spire Parrotia | 5 | Min | Unknown | Unknown | | 25 | 10 | 79 | Columnar to Upright Oval | Red in spring | Insignificant | Red-purple to dark green | Orange-red-yellow | New introduction. Availability may be limited. |
| Hamamelidaceae | Parrotia persica | Vanessa | Vanessa Persian Spire Parrotia | 5 | Min | Unknown | Unknown | | 25 | 12 | 113 | Upright vase | Red in spring | Insignificant | Dark green | Orange-red-yellow | New introduction. Availability may be limited. |
| Rutaceae | Phellodendron amurense | | Amur Corktree | 3 | Min to Mod | Intermediate | Intermediate | | 38 | 45 | 1590 | Open, rounded to spreading | Green-white in spring, insignificant | Small, black berry-like fruit cluster, only on females. | Green | Yellow | Easy to transplant. Large, shallow root system requires large tree lawn. Use only male cultivars, as fruit from females can be messy. Naturalization & seeding may be an issue. |
| Rutaceae | Phellodendron amurense | His Majesty | His Majesty Amur Corktree | 3 | Min to Mod | Intermediate | Intermediate | | 30 | 25 | 491 | Broad vase | Green-white in spring, insignificant | Generally Fruitless | Green | Yellow | Generally fruitless, but use only male cultivars. Large, shallow root system requires large tree lawn. Naturalization & seeding may be an issue. |
| Rutaceae | Phellodendron amurense | Longenecker | Eye Stopper Corktree | 4 | Min to Mod | Intermediate | Intermediate | | 30 | 25 | 491 | Upright to rounded | Green-white in spring, insignificant | Generally Fruitless | Green | Yellow | Generally fruitless, but use only male cultivars. Large, shallow root system requires large tree lawn. Naturalization & seeding may be an issue. |
| Rutaceae | Phellodendron amurense | Macho | Macho Amur Corktree | 4 | Min to Mod | Intermediate | Intermediate | | 40 | 40 | 1257 | Upright to rounded | Green-white in spring, insignificant | Fruitless | Green | Yellow | Male, seedless cultivar of parent species. Large, shallow root system requires large tree lawn. |
| Anacardiaceae | Pistacia chinensis | | Chinese Pistache | 6 | Min to Mod | Sensitive | Sensitive | | 30 | 30 | 707 | Rounded vase | Green-white in spring, showy | 1/3" red to blue-purple fruit cluster, only on females | Dark green | Orange-red | Resistant to storm damage. Plant in protected site. Prune to develop strong branching structure and overhead clearance. |
| Anacardiaceae | Pistacia chinensis | Pair'sChoice | Western Son Pistache | 6 | Min to Mod | Sensitive | Sensitive | | 27 | 27 | 573 | Upright spreading to rounded | Unknown | Seedless | Dark green | Orange-red | Resistant to storm damage. Plant in protected site. Ascending branches minimize overhead clearance issues. Prune to develop strong branching structure. |
| Platanaceae | Platanus occidentalis | | American Sycamore | 4 | Mod | Intermediate | Intermediate | X | 75 | 60 | 2827 | Pyramidal to rounded | Deep red in spring, insignificant | 1" Round seed ball, persistant | Green | Yellow | Upper branches display showy bark. Large root system requires large tree lawn. Fruit litter may be an issue. |
| Platanaceae | Platanus occidentalis | Bismarck | Northern Advance American Sycamore | 3 | Mod | Intermediate | Intermediate | X | 75 | 60 | 2827 | Pyramidal to rounded | Insignificant | 1" Round seed ball, persistant | Green | Yellow | Cold hardy cultivar of parent species. Large root system requires large tree lawn. NDSU introduced - Availability may be limited. |
| Platanaceae | Platanus occidentalis | Glabra | Texas Sycamore | Insufficient Data at this time - If tree can be obtained, Forestry is open to permitting planting on trial basis | | | | | | | | | Insignificant | 1" Round seed ball, persistant | Green | Yellow | Alkaline soil tolerant cultivar. Faster growing than parent species. Anthracnose resistant. Large root system requires large tree lawn. |
| Platanaceae | Platanus x acerifolia | Bloodgood | Bloodgood London Planetree | 5 | Mod | Intermediate | Intermediate | X | 40 | 35 | 962 | Broad pyramidal | Insignificant | 1" Round seed ball in cluster of 2-3, persistant | Green | Yellow | Upper branches display showy bark. Cultivar more resistant to anthracnose than parent species. Large root system requires large tree lawn. |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | Spring | Fall | |
| Platanaceae | Platanus x acerifolia | Morton Circle | Exclamation London Planetree | 5 | Mod | Intermediate | Intermediate | X | 50 | 30 | 707 | Pyramidal | Insignificant | 1" Round seed ball in cluster of 2-3, persistant | Green | Yellow | Upper branches display showy bark. Cultivar more resistant to anthracnose than parent species. Large root system requires large tree lawn. |
| Rosaceae | Prunus sp. | Check with Office of the City Forester for acceptable cultivars | Plum/Cherry | 5 | Varies with Cultivar | Varies with Cultivar | Varies with Cultivar | | Varies with Cultivar | Varies with Cultivar | - | Varies with Cultivar | Varies with Cultivar | Varies with Cultivar | Varies with Cultivar | Varies with Cultivar | Check with Office of the City Forester for guidance on cultivars. |
| Rosaceae | Prunus x virginiana | P002s | Sucker Punch Chokecherry | 2 | Min to Mod | Intermediate | Intermediate | | 25 | 20 | 314 | Rounded | White in spring, showy | 1/4"-1/2" Dark purple berry | Green to deep purple | Purple-red | Non-suckering cultivar of parent species. Availability may be limited. |
| Rutaceae | Ptelea trifoliata | | Common Hoptree | 3 | Xeric | Intermediate | Intermediate | | 15 | 15 | 177 | Rounded to vase | White in summer, not showy but fragrant | 3/4"-1" Round samara | Green | Yellow | Tolerant of urban conditions and full shade sites. Suckering may be an issue. Prune to develop strong branching structure.and overhead clearance. |
| Juglandaceae | Pterocarya stenoptera | | Chinese Wingnut | 6 | Min to Mod | Unknown | Unknown | | 60 | 60 | 2827 | Rounded to vase | Light green catkins in spring, showy | 3/4" Winged nut | Glossy dark green | Yellow-green | Suckering and cold hardiness may be an issue. Large root system requires large tree lawn. Prune to develop strong branching structure. Unproven in Denver region. |
| Rosaceae | Pyrus calleryana | Aristocrat | Aristocrat Pear | 4b | Min to Mod | Intermediate | Intermediate | X | 30 | 22 | 380 | Pyramidal | White in spring, showy | Insignificant | Dark green | Deep red | Tolerant of urban conditions. Overplanting is a concern. Prune to develop strong branching structure. |
| Rosaceae | Pyrus calleryana | Autumn Blaze | Autumn Blaze Pear | 4 | Min to Mod | Intermediate | Intermediate | X | 20 | 18 | 254 | Rounded | White in spring, showy | Insignificant | Emerges with red tint to glossy green | Bright red | Most cold hardy cultivar of parent species. Tolerant of urban conditions. Overplanting is a concern. Prune to develop strong branching structure |
| Rosaceae | Pyrus calleryana | Capital | Capital Pear | 5 | Min to Mod | Intermediate | Intermediate | X | 30 | 10 | 79 | Columnar | White in spring, showy | Insignificant | Glossy green | Red-purple | Availability may be limited. |
| Rosaceae | Pyrus calleryana | Glen's Form | Chanticleer Pear | 4 | Min to Mod | Intermediate | Intermediate | X | 30 | 15 | 177 | Upright pyramidal | White in spring, showy | Insignificant | Glossy green | Red | Greater fireblight resistance than other cultivars. Overplanting is a concern. Prune to develop strong branching structure |
| Rosaceae | Pyrus calleryana | Jaczam | Jack Pear | 4 | Min to Mod | Intermediate | Intermediate | X | 12 | 8 | 50 | Compact oval | White in spring, showy | Insignificant | Dark green | Yellow | Dwarf cultivar of parent species. |
| Rosaceae | Pyrus fauriei | Westwood | Korean Sun Pear | 4 | Min to Mod | Intermediate | Intermediate | X | 10 | 12 | 113 | Compact round | White in spring, showy | Insignificant | Green | Red-purple | Fast growing dwarf. Cultivar is more cold hardy than parent species. |
| Rosaceae | Pyrus usseriensis | Bailfrost | Mountain Frost Ussurian Pear | 3b | Min to Mod | Intermediate | Intermediate | X | 20 | 20 | 314 | Narrow upright | White in spring, showy | Insignificant, sparse | Dark green | Yellow-red | Greatest cold hardiness among pear species. Fireblight resistant. Fruiting is typically sparse. |
| Rosaceae | Pyrus usseriensis | MorDak | Prairie Gem Pear | 3 | Min to Mod | Intermediate | Intermediate | X | 20 | 20 | 314 | Rounded | White in spring, showy | Insignificant | Dark green | Yellow | Greatest cold hardiness among pear species. Fireblight resistant. Fruiting may be abundant if planted adjacent to other pear cultivar(s). |
| Fagaceae | Quercus accutissima | | Sawtooth Oak | 5 | Min to Mod | | | | 50 | 50 | 1963 | Broad pyramidal to rounded | 3"-4" catkins | 1" Acorn | Dark green | Yellow-brown | Tolerant of heat & humidity. Chlorosis may be an issue. Availability may be limited. Unproven in Denver region. |
| Fagaceae | Quercus alba | | White Oak | 3 | Mod | Tolerant | Tolerant | | 60 | 60 | 2827 | Oval to rounded | Insignificant | 1/2"-1" Acorn | Green | Red | Relatively slow growing. May be intolerant of alkaline soils. Chlorosis may be an issue. |
| Fagaceae | Quercus bicolor | | Swamp White Oak | 4 | Min to Mod | Intermediate | Intermediate | X | 50 | 50 | 1963 | Upright oval | Insignificant | 1/2"-1" Acorn | Dark green | Copper-orange | Tolerant of urban conditions including periodic flooding, soil compaction, and drought. Depending on genetics, may be susceptible to bullet gall. Chlorosis may be an issue. Prune to develop central leader. |
| Fagaceae | Quercus bicolor | JFS-KW12 PP23632 | American Dream Oak | 4 | Min to Mod | Intermediate | Intermediate | X | 45 | 35 | 962 | Broad pyramidal | Insignificant | 1/2"-1" Acorn | Bright green | Yellow | Cultivar is faster growing than parent species. Tolerant of urban conditions including periodic flooding, soil compaction, and drought. Depending on genetics, may be susceptible to bullet gall. Chlorosis may be an issue. Prune to develop central leader. |
| Fagaceae | Quercus bicolor | Bonnie and Mike | Beacon Oak | 4 | Min to Mod | Intermediate | Intermediate | X | 35 | 12 | 113 | Narrow columnar | Insignificant | 1/2"-1" Acorn | Glossy green | Yellow | Tolerant of urban conditions including periodic flooding, soil compaction, and drought. Depending on genetics, may be susceptible to bullet gall. Chlorosis may be an issue. Prune to develop central leader. |
| Fagaceae | Quercus x bimundorum | Midwest | Prairie Stature Oak | 3 | Min to Mod | Intermediate | Intermediate | | 45 | 35 | 962 | Broad pyramidal | Insignificant | 1/2"-1" Acorn | Dark green | Yellow-orange-red | Cold hardy hybrid of English and white oak. Tolerant of alkaline soils. |
| Fagaceae | Quercus buckleyi | | Texas Red Oak | 5b | Min | Tolerant | Unknown | | 35 | 35 | 962 | Broad rounded | Insignificant | 1/2"-3/4" Acorn | Glossy green | Orange-red | Native of Texas is closely related to shumard oak. Tolerant of alkaline soils and drought. Check seed source for hardiness and soil tolerance. |
| Fagaceae | Quercus gambelii | | Gambel Oak | 5 | Xeric | Sensitive | Sensitive | | 20 | 20 | 314 | Irregular rounded | Insignificant | 1/2"-3/4" Acorn | Dark green | Yellow-red-brown | Root suckers may be an issue. Prune to develop single stem form. Kermes scale is an increasing issue. |

# Denver Office of the City Forester Approved Street Tree List

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| Family | Botanical Name | Acceptable Cultivar | Common Name | Hardiness Zone | Moisture Level | Soil Salt Tolerance | Aerosol Salt Tolerance | Water Quality Area | Height @ Maturity | Canopy Spread @ Maturity | Canopy Area @ Maturity | Growth Form/Shape | Flowers | Fruits | Leaf Color - Spring/Fall | | Additional Notes (includes compaction/tolerances/restrictions) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | Spring | Fall | |
| Fagaceae | Quercus glaucoides | | Lacey Oak | 6b | Xeric | Unknown | Unknown | | 30 | 25 | 491 | Irregular rounded | Insignificant | 1/2"-3/4" Acorn | Pink turning to blue-green | Yellow-brown | Native of south-central Texas. Tolerant of heat, drought, and alkaline soils. Cold hardiness may be an issue. Prune to develop central leader. Unproven in Denver region. |
| Fagaceae | Quercus imbricaria | | Shingle Oak | 5 | Mod | Unknown | Intermediate | | 50 | 50 | 1963 | Pyramidal to oval-rounded | Insignificant | 1/2" Acorn | Green | Yellow-red | May be intolerant of alkaline soils. Transplant in spring for best survivability. Large root system requires large tree lawn. Chlorosis may be an issue. |
| Fagaceae | Quercus x macdanielii | Clemons PP11431 | Heritage Oak | 4 | Min | Unknown | Unknown | | 45 | 35 | 962 | Broad pyramidal to oval | Insignificant | 1/2" Acorn | Dark glossy green | Yellow | Hybrid of English and bur oak. More cold hardy than English oak. |
| Fagaceae | Quercus macrocarpa | | Bur Oak | 3 | Xeric | Intermediate | Intermediate | X | 70 | 60 | 2827 | Rounded | Insignificant | 1" Acorn | Dark green | Copper-yellow | Tolerant of urban conditions. Depending on genetics, may be susceptible to bullet gall. Large root system requires large tree lawn. |
| Fagaceae | Quercus macrocarpa | Bullet Proof | Bullet Proof Bur Oak | 4 | Xeric | Intermediate | Intermediate | X | 70 | 60 | 2827 | Rounded to upright | Insignificant | 1" Acorn | Dark green | Copper-yellow | Tolerant of urban conditions. High resistance to bullet gall. Large root system requires large tree lawn. |
| Fagaceae | Quercus macrocarpa | JFS-KW14 | Cobblestone Oak | 3 | Xeric | Intermediate | Intermediate | X | 50 | 40 | 1257 | Broad oval | Insignificant | 1" Acorn | Dark green | Yellow | Bark displays more cork-like features than parent species. |
| Fagaceae | Quercus macrocarpa | JFS-KW3PP22815 | Urban Pinnacle Oak | 3 | Xeric | Intermediate | Intermediate | X | 50 | 20 | 314 | Narrow pyramidal to oval | Insignificant | 1/2" Acorn | Glossy dark green | Yellow | Tree features strong central leader. |
| Fagaceae | Quercus muehlenbergii | | Chinkapin Oak | 3 | Mod | Intermediate | Intermediate | | 45 | 50 | 1963 | Upright oval to rounded | Insignificant | 1" Acorn | Yellow-green | Yellow | Tolerant of alkaline soils. Transplant in spring for best survival. Prune to develop central leader. |
| Fagaceae | Quercus muehlenbergii | Red Autumn | Red Autumn Chinkapin Oak | Insufficient Data at this time - If tree can be obtained, Forestry is open to permitting planting on trial basis | | | | | | | | | Insignificant | 1" Acorn | Unknown | Unknown | Variety displays fall color than parent species. |
| Fagaceae | Quercus prinoides | Fort Lincoln | Prairie Pioneer Dwarf Chinkapin Oak | 4 | Xeric to Min | Unknown | Unknown | | 20 | 15 | 177 | Upright | Yellow catkins in spring, insignificant | 1/2"-3/4" Acorn | Glossy green | Yellow-brown | Depending on genetics, may be susceptible to bullet gall. Prune to develop single stem form. May have limited availability. Unproven in Denver region. |
| Fagaceae | Quercus prinus | | Chestnut Oak | 4 | Min to Mod | Unknown | Unknown | | 50 | 50 | 1963 | Pyramidal to oval-rounded | Insignificant | 1-1/4" Acorn | Dark green | Orange-yellow | Tolerant of dry, rocky sites. Prefers well-drained soils. Chlorosis may be an issue. Unproven in Denver region as tolerance to alkaline soils is yet to be fully tested. |
| Fagaceae | Quercus robur | | English Oak | 5 | Xeric to Min | Intermediate | Tolerant | X | 50 | 40 | 1257 | Oval to rounded | Insignificant | 1"-1-1/4" Acorn | Dark green | Copper | Tolerant of urban conditions. Proven in Denver region. Kermes scale is an increasing issue. |
| Fagaceae | Quercus robur x alba | Crimschmidt PP9103 | Crimson Spire Oak | 4 | Xeric to Min | Intermediate | Tolerant | X | 45 | 15 | 177 | Narrow Columnar | Insignificant | 1"-1-1/2" Acorn | Dark green-blue green | Rusty red | Columnar hybrid of English and white oak. Tolerant of urban conditions. Proven in Denver region. Kermes scale may be an issue. |
| Fagaceae | Quercus robur x alba | Tabor PP21382 | Forest Knight Oak | 4 | Xeric to Min | Intermediate | Tolerant | | 45 | 35 | 962 | Broad oval | Insignificant | 1"-1-1/2" Acorn | Glossy dark green | Orange-red | Columnar hybrid of English and white oak. Tolerant of urban conditions. Kermes scale may be an issue. |
| Fagaceae | Quercus robur x alba | JFS-KW2QX P.A.F. | Skinny Genes Oak | 4 | Xeric to Min | Intermediate | Tolerant | | 45 | 10 | 79 | Narrow Columnar | Insignificant | 1"-1-1/2" Acorn | Glossy dark green | Yellow | Narrowest form of columnar English & white oak hybrids. Tolerant of urban conditions. Kermes scale may be an issue. |
| Fagaceae | Quercus robur x alba | JFS-KW1QX | Streetspire Oak | 4 | Xeric to Min | Intermediate | Tolerant | | 45 | 12 | 113 | Narrow Columnar | Insignificant | 1"-1-1/2" Acorn | Dark green | Rusty red | Columnar hybrid of English and white oak. Tolerant of urban conditions. Leaves are not persistant. Highly resistant to storm damage. Kermes scale may be an issue. |
| Fagaceae | Quercus robur x bicolor | Nadler PP17604 | Kindred Spirit Oak | 4 | Xeric to Min | Intermediate | Tolerant | | 30 | 6 | 28 | Narrow Columnar | Insignificant | 1"-1-1/2" Acorn | Green | Yellow-brown | Columnar hybrid of English and swamp white oak. Tolerant of urban conditions. Kermes scale may be an issue. |
| Fagaceae | Quercus robur x macrocarpa x muehlenbergii | Taylor | Triple Crown Oak | 4 | Xeric to Min | Intermediate | Tolerant | | 60 | 35 | 962 | Upright oval | Insignificant | 1"-1-1/2" Acorn | Glossy dark green | Unknown | Hybrid of English, chinkapin, and bur oak. Tolerant of urban conditions. Availability may be limited. Kermes scale may be an issue. |
| Fagaceae | Quercus robur | Asjes | Rosehill Oak | 4 | Xeric to Min | Intermediate | Tolerant | | 40 | 20 | 314 | Narrow oval | Insignificant | 1"-1-1/2" Acorn | Glossy green | Yellow | Columnar hybrid of English oak. Tolerant of urban conditions. Kermes scale may be an issue. |
| Fagaceae | Quercus robur | Fastigiata | Skyrocket Oak | 5 | Xeric to Min | Intermediate | Tolerant | | 45 | 15 | 177 | Narrow columnar | Insignificant | 1"-1-1/2" Acorn | Dark green | Yellow-brown | Columnar cultivar of English oak. Tighter growth habit than species. Tolerant of urban conditions. Kermes scale may be an issue. |
| Fagaceae | Quercus robur | Pyramich | Skymaster Oak | 5 | Xeric to Min | Intermediate | Tolerant | | 50 | 25 | 491 | Narrow to pyramidal | Insignificant | 1"-1-1/2" Acorn | Dark green | Yellow-brown | Cultivar of English oak displays pyramidal form. Very strong central leader. Tolerant of urban conditions. Kermes scale may be an issue. |
| Fagaceae | Quercus shumardii | | Shumard Oak | 5 | Mod | Intermediate | Intermediate | | 60 | 40 | 1257 | Pyramidal to oval | Insignificant | 1/2" Acorn | Green | Orange-red | Due to large growth range, source as locally as possible for pH, drought, and hardiness tolerance. Large root system requires large tree lawn. Prune to develop central leader. |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | Spring | Fall | |
| Fagaceae | Quercus shumardii | Fort Collins Select | Fort Collins Select Shumard Oak | Insufficient Data at this time - If tree can be obtained, Forestry is open to permitting planting on trial basis | | | | | | | | | Insignificant | 1/2" Acorn | Unknown | Unknown | Due to large growth range, source as locally as possible for pH, drought, and hardiness tolerance. Large root system requires large tree lawn. Prune to develop central leader. |
| Fagaceae | Quercus shumardii | Osage County | Osage County Shumard Oak | Insufficient Data at this time - If tree can be obtained, Forestry is open to permitting planting on trial basis | | | | | | | | | Insignificant | 1/2" Acorn | Green | Deep red | Due to large growth range, source as locally as possible for pH, drought, and hardiness tolerance. Large root system requires large tree lawn. Prune to develop central leader. |
| Fagaceae | Quercus velutina | | Northern Black Oak | 4 | Min to Mod | Unknown | Unknown | | 50 | 45 | 1590 | Oval to rounded | Insignificant | 3/4" Acorn | Dark green | Rusty red | Tolerant of clay soils. Chlorosis may be an issue. Unproven in Denver region as tolerance to alkaline soils is yet to be fully tested. |
| Fagaceae | Quercus x mazei | | Colorado Foothills Oak | 5 | Xeric | Unknown | Unknown | | 35 | 35 | 962 | Irregular rounded | Insignificant | 3/4" Acorn | Dark green | Yellow | Hybrid of Gambel and bur oak. Root suckers may be an issue. Prune to develop single stem form. |
| Fagaceae | Quercus robur x warei | Long | Regal Prince Oak | 4 | Xeric to Min | Intermediate | Tolerant | | 45 | 18 | 254 | Columnar to narrow oval | Insignificant | 1"-1.5" Acorn | Glossy green | Yellow | Columnar hybrid of English and swamp white oak. Tolerant of urban conditions. |
| Fagaceae | Quercus undulata | | Wavy Leaf Oak | 4 | Xeric to Min | unknown | Unknown | x | 20 | 16 | 201 | Upright rounded | Insignificant | 1/2"-3/4" Acorn | Glossy blue-green | Yellow | Natural hybrid of Q. gambelli x Q. turbinella. Small, slow growing oak with similar form as Gambel Oak. |
| Fabaceae | Styphnolobium japonica | | Japanese Pagodatree | 5 | Min | Intermediate | Intermediate | X | 50 | 50 | 1963 | Oval to rounded | White-light yellow in summer, showy | Elongated green pod & seeds, persistant | Green-blue green | Dull yellow | Tolerant of urban conditions, including heat, drought, and compacted soils. Transplant in spring for best survivability. Storm damage, canker, and twig blight may be issues. Formerly known as Sophora japonica. |
| Fabaceae | Styphnolobium japonica | Regent | Regent Japanese Pagodatree | 5 | Min | Intermediate | Intermediate | X | 40 | 35 | 962 | Spreading to rounded | Creamy white in summer, showy | Elongated green pod & seeds, persistant | Dark green | Yellow | Tolerant of urban conditions, including heat, drought, and compacted soils. Faster growing, improved growth habit, and greater disease resistance than parent species. Transplant in spring for best survivability. Storm damage may be an issue. |
| Fabaceae | Styphnolobium japonica | Halka | Millstone Japanese Pagodatree | 5 | Min | Intermediate | Intermediate | X | 40 | 30 | 707 | Broad oval to rounded | Creamy white in summer, showy | Elongated green pod & seeds, persistant | Dark green | Yellow | Tolerant of urban conditions, including heat, drought, and compacted soils. More upright branching habit than parent species. Greatest canker resistance of pagodatree species. |
| Oleaceae | Syringa pekinensis | Zhang Zhiming | Beijing Gold Tree Lilac | 5 | Xeric to Min | Tolerant | Tolerant | X | 15 | 15 | 177 | Upright spreading | Yellow clusters in summer, showy | Small, brown capsule in cluster, insignificant | Dark green | Golden yellow | Tolerant of urban conditions, including alkaline soils. Intolerant of poorly drained soils. Growth habit is more upright than other cultivars. Shiny, cinnamon-colored bark. Prune to develop single stem form and overhead clearance. |
| Oleaceae | Syringa pekinensis | Morton | China Snow Lilac | 5 | Xeric to Min | Tolerant | Tolerant | X | 15 | 15 | 177 | Upright spreading to rounded | Creamy white clusters in summer, showy | Small, brown capsule in cluster, insignificant | Dark green | Yellow | Tolerant of urban conditions, including alkaline soils. Intolerant of poorly drained soils. Exfoliating, amber-colored bark. Prune to develop single stem form and overhead clearance. Availability may be limited. |
| Oleaceae | Syringa pekinensis | DTR 124 PP8951 | Summer Charm Lilac | 3 | Xeric to Min | Tolerant | Tolerant | X | 15 | 12 | 113 | Upright spreading | Creamy white clusters in summer, showy | Small, brown capsule in cluster, insignificant | Dark glossy green | Yellow | Tolerant of urban conditions, including alkaline soils. Intolerant of poorly drained soils. Prune to develop single stem form and overhead clearance. |
| Oleaceae | Syringa pekinensis | WFH2 P.A.F. | Great Wall Tree Lilac | 3 | Xeric to Min | Tolerant | Tolerant | X | 17 | 10 | 79 | Upright oval | White flowers in late spring, showy | Small, brown capsule in cluster, insignificant | Dark glossy green | Golden yellow | Tolerant of urban conditions, including alkaline soils. Intolerant of poorly drained soils. Cherry-like exfoliating bark. Prune to develop single stem form and overhead clearance. Availability may be limited. |
| Oleaceae | Syringa reticulata | Ivory Silk | Ivory Silk Tree Lilac | 3 | Xeric to Min | Tolerant | Tolerant | X | 25 | 20 | 314 | Upright to oval | Creamy white clusters in early summer, showy | Small, brown capsule in cluster, insignificant | Dark green | Yellow | Tolerant of urban conditions, including alkaline and clay soils. Showy, reddish-brown bark. Prune to develop single stem form and overhead clearance. |
| Oleaceae | Syringa reticulata ssp pekinensis | SunDak | Copper Curls Peking Tree Lilac | 3 | Xeric to Min | Tolerant | Tolerant | X | 25 | 20 | 314 | Upright to oval | Creamy white clusters in early summer, showy | Small, brown capsule in cluster, insignificant | Dark green | Yellow | Tolerant of urban conditions, including alkaline soils. . Growth habit is more open than parent species. Exfoliating copper-colored bark. Prune to develop single stem form and overhead clearance. NDSU introduced - Availability may be limited. |
| Tiliaceae | Tilia americana | Boulevard | Boulevard Linden | 3 | Mod | Sensitive | Sensitive | | 45 | 20 | 314 | Narrow pyramidal | Pale green in summer, fragrant | Insignificant | Green | Yellow | Flowers are significant source of nectar for bees. Intolerant of urban conditions, particularly heat. Not recommended for planting in or near hardscape. Prune to develop strong branching structure and overhead clearance. |
| Tiliaceae | Tilia americana | Continental Appeal | Continental Appeal Linden | 4 | Mod | Sensitive | Sensitive | | 45 | 23 | 415 | Narrow oval to pyramidal | Pale green in summer, fragrant | Insignificant | Green w/ white underside | Yellow | Source and plant stock native to upper Midwest. Flowers are significant source of nectar for bees. Intolerant of heat. Not recommended for planting in or near hardscape. Prune to develop strong branching structure. |

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| | | | | | | | | | | | | | | | Spring | Fall | |
| Tiliaceae | Tilia americana | DTR 123 | Legend Linden | 4 | Mod | Sensitive | Sensitive | | 35 | 25 | 491 | Broad pyramidal | Pale green in summer, fragrant | Insignificant | Glossy green | Yellow | Flowers are significant source of nectar for bees. Intolerant of heat. Not recommended for planting in or near hardscape. Red buds & twigs provide winter interest. Cultivar is more resistant to rust than parent species. Prune to develop strong branching structure. |
| Tiliaceae | Tilia americana | McKSentry | American Sentry Linden | 3 | Mod | Sensitive | Sensitive | | 40 | 25 | 491 | Pyramidal | Pale green in summer, fragrant | Insignificant | Green | Yellow | Flowers are significant source of nectar for bees. Intolerant of heat. Not recommended for planting in or near hardscape. Prune to develop strong branching structure and overhead clearance. |
| Tiliaceae | Tilia americana | Lincoln | Lincoln Linden | 3 | Mod | Sensitive | Sensitive | | 35 | 25 | 491 | Compact pyramidal | Pale green in summer, fragrant | Insignificant | Dark green | Yellow | Flowers are significant source of nectar for bees. Intolerant of heat. Not recommended for planting in or near hardscape. Prune to develop strong branching structure and overhead clearance. |
| Tiliaceae | Tilia americana x euchlora | Redmond | Redmond Linden | 3 | Mod | Sensitive | Sensitive | | 40 | 30 | 707 | Broad pyramidal | Pale green in summer, fragrant | Insignificant | Light green | Yellow | Flowers are significant source of nectar for bees. Intolerant of heat. Not recommended for planting in or near hardscape. Prune to develop strong branching structure and overhead clearance. |
| Tiliaceae | Tilia x euchlora | | Crimean Linden | 5 | Mod | Sensitive | Sensitive | | 35 | 30 | 707 | Broad pyramidal to oval | Pale green in summer, fragrant | Insignificant | Glossy green | Yellow-green to yellow | Flowers are significant source of nectar for bees. Intolerant of heat. Not recommended for planting in or near hardscape. Prune to develop strong branching structure and overhead clearance. |
| Tiliaceae | Tilia cordata | Baileyi | Shamrock Linden | 4 | Mod | Sensitive | Sensitive | | 40 | 30 | 707 | Pyramidal | Pale green in summer, fragrant | Insignificant | Dark green | Yellow | Faster growth rate and more stout branching habit than Greenspire. Flowers are significant source of nectar for bees. Intolerant of heat. Not recommended for planting in or near hardscape. Prune to develop strong branching structure and overhead clearance. |
| Tiliaceae | Tilia cordata | Chancole | Chancellor Linden | 3 | Mod | Sensitive | Sensitive | | 35 | 20 | 314 | Narrow Pyramidal | Pale green in summer, fragrant | Insignificant | Dark green | Yellow | Flowers are significant source of nectar for bees. Intolerant of heat. Not recommended for planting in or near hardscape. Prune to develop strong branching structure. Availability may be limited. |
| Tiliaceae | Tilia cordata | Corzam | Corinthian Linden | 3 | Mod | Sensitive | Sensitive | | 40 | 15 | 177 | Narrow Pyramidal | Pale green in summer, fragrant | Insignificant | Dark green | Yellow | Narrowest cultivar of species. Flowers are significant source of nectar for bees. Intolerant of heat. Not recommended for planting in or near hardscape. Prune to develop strong branching structure. |
| Tiliaceae | Tilia cordata | Greenspire | Greenspire Linden | 4 | Mod | Sensitive | Sensitive | | 40 | 30 | 707 | Pyramidal | Pale green in summer, fragrant | Insignificant | Dark green | Yellow | Flowers are significant source of nectar for bees. Intolerant of heat. Not recommended for planting in or near hardscape. Prune to develop strong branching structure and overhead clearance. |
| Tiliaceae | Tilia cordata | Halka PP10589 | Summer Sprite Linden | 4 | Mod | Sensitive | Sensitive | | 20 | 15 | 177 | Rounded Pyramidal | Pale green in summer, fragrant | Insignificant | Green | Yellow | Dwarf cultivar of species. Flowers are significant source of nectar for bees. Intolerant of heat. Not recommended for planting in or near hardscape. Prune to develop strong branching structure and overhead clearance. |
| Tiliaceae | Tilia cordata | Golden Cascade | Golden Cascade Linden | 3a | Mod | Sensitive | Sensitive | | 40 | 27 | 573 | Rounded pyramidal to cascading oval | Yellow in early summer, fragrant | Insignificant | Dark green | Yellow | Unique branching habit features gracefully weeping branches. Flowers are significant source of nectar for bees. Resistant to sunscald, however avoid planting in or near hardscape. Prune to develop strong branching structure and overhead clearance. |
| Tiliaceae | Tilia cordata x mongolica | Harvest Gold PP12232 | Harvest Gold Linden | 3 | Mod | Unknown | Unknown | | 35 | 25 | 491 | Pyramidal | Pale green in summer, fragrant | Insignificant | Dark green | Bright yellow | Hybrid of Mongolian and littleleaf linden. Flowers are significant source of nectar for bees. Hardier and faster growing than parent species. Intolerant of heat, not recommended for planting in or near hardscape. Prune to develop strong branching structure. |
| Tiliaceae | Tilia x flavescens | Glenleven | Glenleven Linden | 3 | Mod | Sensitive | Sensitive | | 45 | 25 | 491 | Pyramidal to oval | Pale green in summer, fragrant | Insignificant | Green | Yellow | Faster growing & more open growth habit than Greenspire. Flowers are significant source of nectar for bees. Intolerant of heat, not recommended for planting in or near hardscape. Prune to develop strong branching structure. |
| Tiliaceae | Tilia tomentosa | Sterling | Sterling Silver Linden | 5 | Mod | Intermediate | Intermediate | | 40 | 30 | 707 | Broad pyramidal | Pale green in summer, fragrant | Insignificant | Green w/ silver-gray underside | Yellow | Flowers are significant source of nectar for bees. Intolerant of heat, not recommended for planting in or near hardscape. Large root system requires large tree lawn. Prune to develop strong branching structure. |

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| | | | | | | | | | | | | | | | Spring | Fall | |
| Tiliaceae | Tilia tomentosa | PNI 6051 | Green Mountain Linden | 5 | Mod | Intermediate | Intermediate | | 40 | 30 | 707 | Broad pyramidal to oval | Pale green in summer, fragrant | Insignificant | Dark green w/ silver-white underside | Yellow | Flowers are significant source of nectar for bees. Intolerant of heat, not recommended for planting in or near hardscape. Large root system requires large tree lawn. Prune to develop strong branching structure. |
| Ulmaceae | Ulmus americana | JFS-Prince II | Colonial Spirit Elm | 4 | Mod | Intermediate | Intermediate | X | 60 | 45 | 1590 | Upright vase with arching limbs | Insignificant | Round to ovate samara, insignificant | Dark green | Yellow | Growth rate unknown. Resistant to Dutch elm disease. Resistance to elm leaf beetle and scale unknown. Strong branching structure. Availability may be limited. Unproven in Denver region. |
| Ulmaceae | Ulmus americana | New Harmony | New Harmony American Elm | 4b | Mod | Intermediate | Intermediate | X | 60 | 55 | 2376 | Upright vase with arching limbs | Insignificant | Round to ovate samara, insignificant | Dark green | Yellow | Fast growth rate. Shallow root system. Dutch elm disease resistance higher than parent species. Per CSU elm trials, tree may be moderately resistant to scale. Resistance to elm leaf beetle unknown. Prune to develop strong branching structure. |
| Ulmaceae | Ulmus americana | New Horizon PP8684 | New Horizon Elm | 4 | Mod | Intermediate | Intermediate | X | 50 | 35 | 962 | Upright oval with arching limbs | Insignificant | Round to ovate samara, insignificant | Dark green | Yellow | Cold hardy, slower growing cultivar. Tolerant of urban conditions. Very high Dutch elm disease resistance. Per CSU elm trials, tree may be moderately resistant to scale. Resistance to elm leaf beetle unknown. Prune to develop strong branching structure. |
| Ulmaceae | Ulmus americana | Jefferson | Jefferson Elm | 4 | Mod | Intermediate | Intermediate | X | 60 | 40 | 1257 | Vase with arching limbs | Insignificant | Fruitless | Dark green | Yellow | Tolerant of urban conditions. High Dutch elm disease resistance. Resistance to scale & elm leaf beetle unknown. Leaves persist later than other elms. U-shaped branch unions, however prune to develop strong branching structure. Unproven in Denver region. Availability may be limited. |
| Ulmaceae | Ulmus americana | Lewis & Clark | Prairie Expedition American Elm | 2b | Mod | Intermediate | Intermediate | X | 55 | 50 | 1963 | Broad rounded to vase with arching limbs | Insignificant | Round to ovate samara, insignificant | Dark green | Yellow | Cold hardy, fast growing cultivar. Tolerant of urban conditions. Resistant to Dutch elm disease. Susceptible to scale. Resistance to elm leaf beetle unknown. Prune to develop strong branching structure. |
| Ulmaceae | Ulmus americana | Princeton | Princeton American Elm | 4 | Mod | Intermediate | Intermediate | X | 60 | 45 | 1590 | Upright vase | Insignificant | Round to ovate samara, insignificant | Dark glossy green | Yellow | Fast growing cultivar. Resistant to Dutch elm disease and elm leaf beetle. Per CSU elm trials, tree may susceptible to scale. Prune to develop strong branching structure. |
| Ulmaceae | Ulmus americana | Scale Buster | Scale Buster American Elm | Insufficient Data at this time - If tree can be obtained, Forestry is open to permitting planting on trial basis | | | | | | | | Upright vase with arching limbs | Insignificant | Round to ovate samara, insignificant | Dark green | Yellow | Dutch elm disease and elm leaf beetle resistance is unknown. Resistant to scale. Prune to develop strong branching structure. |
| Ulmaceae | Ulmus americana | Valley Forge | Valley Forge American Elm | 5 | Mod | Intermediate | Intermediate | X | 60 | 60 | 2827 | Broad vase with arching limbs | Insignificant | Round to ovate samara, insignificant | Green | Yellow | Fast growing cultivar. Highest Dutch elm disease resistance of American elms. Per CSU elm trials, tree may be susceptible to scale. Resistance to elm leaf beetle unknown. Prune to develop strong branching structure. |
| Ulmaceae | Ulmus glabra x carpinifolia | Pioneer | Pioneer Elm | 4 | Mod | Tolerant | Tolerant | X | 50 | 45 | 1590 | Rounded | Insignificant | Round to ovate samara, insignificant | Dark green | Yellow | Resistant to Dutch elm disease. Highly susceptible to elm leaf beetle. Per CSU elm trials, tree may be susceptible to scale. Prune to develop strong branching structure. |
| Ulmaceae | Ulmus davidiana | | David Elm | 3 | Mod | Unknown | Unknown | | 40 | 30 | 707 | Upright vase | Insignificant | Round to ovate samara, insignificant | Green | Yellow | Cold hardy. Resistant to Dutch elm disease and elm leaf beetle. Resistance to scale unknown. Prune to develop strong branching structure. Unproven in Denver region. |
| Ulmaceae | Ulmus davidiana | JFS KW2UD | Greenstone Elm | 4 | Mod | Unknown | Unknown | | 55 | 35 | 962 | Upright vase | Insignificant | Round to ovate samara, insignificant | Green | Yellow | Cold hardy. Resistant to Dutch elm disease. Resistance to elm leaf beetle and scale unknown. Branching structure features open branch angles. Pruning to develop strong branching structure may be necessary. Availability may be limited. Unproven in Denver region. |
| Ulmaceae | Ulmus davidiana var. japonica | Discovery | Discovery Elm | 3 | Mod | Tolerant | Tolerant | | 40 | 30 | 707 | Upright oval to arching vase | Insignificant | Round to ovate samara, insignificant | Dark green | Yellow | Slow growing, cold hardy variety. Resistant to Dutch elm disease and elm leaf beetle. Resitance to scale unknown. Large root system requires large tree lawn. Growth habit requires consistent crown-thinning. Prune to develop strong branching structure. |
| Ulmaceae | Ulmus davidiana var. japonica | Freedom | Freedom Elm | 3 | Mod | Tolerant | Tolerant | | 36 | 27 | 573 | Upright vase | Insignificant | Round to ovate samara, insignificant | Dark green | Yellow | Fast growing, cold hardy variety. Resistance to Dutch elm disease, scale, and elm leaf beetle unknown. Prune to develop strong branching structure. Availability may be limited. |
| Ulmaceae | Ulmus davidiana var. japonica | Burgundy Glow | Northern Empress Japanese Elm | 3 | Mod | Tolerant | Tolerant | | 28 | 24 | 452 | Rounded, open | Insignificant | Round to ovate samara, insignificant | Green | Red | Medium growth rate. Resitant to Dutch elm disease and elm leaf beetle. Resistance to scale unknown. Prune to develop strong branching structure. |

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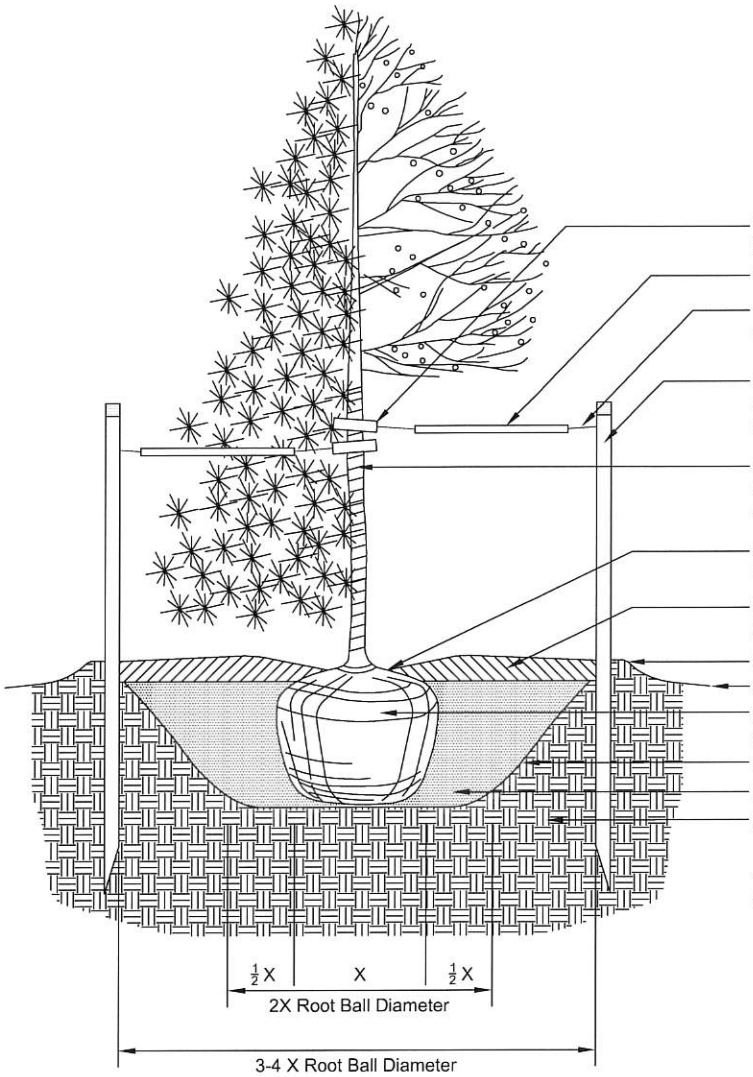
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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | Spring | Fall | |
| Ulmaceae | Ulmus (japonica x wilsoniana Morton) x (pumila x carpinifolia) | Morton Stalwart | Commendation Elm | 5 | Min to Mod | Tolerant | Tolerant | | 50 | 40 | 1257 | Upright oval | Insignificant | Round to ovate samara, insignificant | Dark green | Yellow | Fast growth rate, but easier to maintain good branching form than other hybrids. Resistant to Dutch elm disease. Susceptible to elm leaf beetle. Per CSU elm trials, tree shows high scale resistance. Tolerant of urban conditions. Large root system requires large tree lawn. Prune to develop strong branching structure. |
| Ulmaceae | Ulmus japonica x wilsoniana | Morton | Accolade elm | 4 | Min to Mod | Intermediate | Intermediate | X | 60 | 50 | 1963 | Vase with arching limbs | Insignificant | Round to ovate samara, insignificant | Dark glossy green | Yellow | Cold hardy. Resistant to Dutch elm disease and elm leaf beetle. Per CSU elm trials, tree shows high scale resistance. Prune to develop strong branching structure. |
| Ulmaceae | Ulmus japonica x wilsoniana | Morton Red Tip | Danada Charm elm | 4 | Min to Mod | Intermediate | Intermediate | | 60 | 50 | 1963 | Upright vase with arching limbs | Insignificant | Round to ovate samara, insignificant | Emerges red-tinged turning dark green | Yellow | Resistant to Dutch elm disease. Susceptible to elm leaf beetle. Per CSU elm trials, tree may be moderately resistant to scale. Prune to develop strong branching structure. |
| Ulmaceae | Ulmus parvifolia | Emer II PP7552 | Allee Lacebark Elm | 5 | Mod | Intermediate | Intermediate | X | 45 | 30 | 707 | Upright vase with arching limbs | Insignificant | Round to ovate samara, insignificant | Green | Orange-red | High resistance to Dutch elm disease and elm leaf beetle. Resistance to scale unknown. Thin, showy bark. Prune to develop strong branching structure. |
| Ulmaceae | Ulmus parvifolia | Emer I PP7551 | Athena Lacebark Elm | 5 | Mod | Intermediate | Intermediate | X | 28 | 30 | 707 | Broad rounded, compact | Insignificant | Round to ovate samara, insignificant | Glossy green | Yellow | High resistance to Dutch elm disease and elm leaf beetle. Resistance to scale unknown. Thin, showy bark. Prune to develop strong branching structure. Unproven in Denver region. |
| Ulmaceae | Ulmus parvifolia | Dynasty | Dynasty Elm | 5 | Mod | Intermediate | Intermediate | X | 35 | 35 | 962 | Vase | Insignificant | Round to ovate samara, insignificant | Green | Yellow-orange | Fast growth rate. Resistance to Dutch elm disease, scale, and elm leaf beetle unknown. Prune to develop strong branching structure. Availability may be limited. Unproven in Denver region. |
| Ulmaceae | Ulmus parvifolia | A. Ross Central Park | Central Park Splendor Elm | 5 | Mod | Tolerant | Tolerant | X | 35 | 30 | 707 | Broad rounded vase | Insignificant | Round to ovate samara, insignificant | Green | Yellow to red-purple | Hardiest cultivar of species. Excellent resistance to Dutch elm disease and elm leaf beetle. Resistance to scale unknown. Tolerant of urban conditions. Prune to develop strong branching structure. |
| Ulmaceae | Ulmus parvifolia | Will Rogers | Will Rogers Elm | Insufficient Data at this time - If tree can be obtained, Forestry is open to permitting planting on trial basis | | | | | | | | | Insignificant | Round to ovate samara, insignificant | Unknown | Unknown | Cold hardy. Resistance to Dutch elm disease, scale, and elm leaf beetle unknown. Prune to develop strong branching structure. Availability may be limited. Unproven in Denver region. |
| Ulmaceae | Ulmus parvifolia | Corticosa | Cork Bark Elm | 6 | Mod | Intermediate | Intermediate | X | 40 | 40 | 1257 | Vase | Insignificant | Round to ovate samara, insignificant | Dark green | Orange | Resistance to Dutch elm disease, scale, and elm leaf beetle unknown. Prune to develop strong branching structure. Cold hardiness may be an issue. Availability may be limited. Unproven in Denver region. |
| Ulmaceae | Ulmus parvifolia | Emerald Prairie | Emerald Prairie Elm | 5 | Mod | Intermediate | Intermediate | X | 35 | 27 | 573 | Upright spreading, arching vase | Insignificant | Round to ovate samara, insignificant | Dark green | Yellow | Cold hardy. Drought & heat tolerant. Resistant to Dutch elm disease and elm leaf beetle. Resistance to scale unknown. Prune to develop strong branching structure. KSU introduced - Availability may be limited. Unproven in Denver region. |
| Ulmaceae | Ulmus propinqua | JFS-Bieberich | Emerald Sunshine Elm | 5 | Min to mod | Intermediate | Intermediate | | 30 | 20 | 314 | Vase | Insignificant | Round to ovate samara, insignificant | Emerges copper bronze turning dark green | Yellow | Slow growth rate. Resistant to Dutch elm disease and elm leaf beetle. Resiatance to scale unknown. Tolerant of urban conditions, including heat and drought. Prune to develop strong branching structure. |
| Ulmaceae | Ulmus pumila x japonica | Morton Plainsman | Vanguard Elm | 4 | Min to mod | Tolerant | Tolerant | | 45 | 40 | 1257 | Rounded vase | Insignificant | Round to ovate samara, insignificant | Green | Yellow | Fast growth rate. Resistant to Dutch elm disease. Resistance to elm leaf beetle unknown. Per CSU elm trials, tree shows high scale resistance. Tolerant of urban conditions. Prune to develop strong branching structure. |
| Ulmaceae | Ulmus pumila x hollandica x carpnifolia | Homestead | Homestead Elm | 5 | Min to mod | Tolerant | Tolerant | | 50 | 30 | 707 | Pyramidal to oval | Insignificant | Round to ovate samara, insignificant | Dark green | Yellow | Fast growth rate. Resistant to Dutch elm disease. Susceptible to elm leaf beetle. Per CSU elm trials, tree may be moderately resistant to scale. Prune to develop strong branching structure. |
| Ulmaceae | Ulmus pumila x japonica x wilsoniana | Morton Glossy | Triumph elm | 4 | Min to mod | Tolerant | Tolerant | X | 50 | 40 | 1257 | Upright oval to vase | Insignificant | Round to ovate samara, insignificant | Dark glossy green | Yellow | Cold hardy. Excellent resistance to Dutch elm disease. Resistant to elm leaf beetle. Per CSU elm trials, tree may be moderately resistant to scale. Prune to develop strong branching structure. |
| Ulmaceae | Ulmus wilsoniana Prospector | Prospector | Prospector Elm | 4b | Mod | Tolerant | Tolerant | X | 35 | 27 | 573 | Dense vase | Insignificant | Round to ovate samara, insignificant | Emerges orange-red turning dark green | Yellow | Resistant to Dutch elm disease and elm leaf beetle. Per CSU elm trials, tree shows high scale resistance. Prune to develop strong branching structure. |
| Ulmaceae | Ulmus (wilsoniana x pumila Accolade) x carpinifolia x glabra | Patriot | Patriot Elm | 4 | Mod | Tolerant | Tolerant | X | 45 | 35 | 962 | Upright, narrow vase | Insignificant | Round to ovate samara, insignificant | Dark green | Yellow | Fast growth rate. Highly resistant to Dutch elm disease. Per CSU elm trials, tree may be susceptible to scale. Not as drought tolerant as other hybrids. Prune to develop strong branching structure. |
| Ulmaceae | Ulmus x 'Cathedral' | Cathedral | Cathedral Elm | 4 | Min to Mod | Intermediate | Intermediate | | 40 | 35 | 962 | Vase | Insignificant | Round to ovate samara, insignificant | Med to light Green | Yellow-Orange-Brown | Moderate resistance to Dutch elm disease. Resistant to elm leaf beetle. Resistance to scale unknown. Prune to develop strong branching structure. Unproven in Denver region. |

# Denver Office of the City Forester Approved Street Tree List

Updated March 2017

| Family | Botanical Name | Acceptable Cultivar | Common Name | Hardiness Zone | Moisture Level | Soil Salt Tolerance | Aerosol Salt Tolerance | Water Quality Area | Height @ Maturity | Canopy Spread @ Maturity | Canopy Area @ Maturity | Growth Form/Shape | Flowers | Fruits | Leaf Color - Spring/Fall | | Additional Notes (includes compaction/tolerances/restrictions) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | Spring | Fall | |
| Sapindaceae | Xanthoceras sorbifolium | Clear Creek | Golden Yellowhorn | 5 | Xeric to Mod | Unknown | Unknown | X | 25 | 15 | 177 | Rounded, often multistem | White with yellow/red blotch at base in late spring | 1/2" black seeds in 2-3" round capsule | Dark green w/ lighter underside | Yellow | Tolerant of urban conditions including partial shade, damp soils, and drought. Edible plant, fruit, and seeds. Plant where overhead clearance is not an issue. Prune to develop strong branching structure. |
| Ulmaceae | Zelkova serrata | City Sprite | City Sprite Zelkova | 5b | Xeric to Mod | Intermediate | Intermediate | X | 20 | 15 | 177 | Compact oval to vase, semi-dwarf | Insignificant | Insignificant | Dark green | Yellow | Dwarf cultivar of species. Tolerant of urban conditions. Susceptible to canker from mechanical injury. Plant in spring where overhead clearance is not an issue. Prune in fall to develop strong branching structure. |
| Ulmaceae | Zelkova serrata | Green Vase | Green Vase Zelkova | 5b | Xeric to Mod | Intermediate | Intermediate | X | 45 | 30 | 707 | Vase, upright arching branches | Insignificant | Insignificant | Green | Orange | Faster growth rate, but less cold hardy than Village Green. Tolerant of urban conditions. Susceptible to canker from mechanical injury. Plant in spring. Prune in fall to develop strong branching structure. |
| Ulmaceae | Zelkova serrata | Halka | Halka Zelkova | 5b | Xeric to Mod | Intermediate | Intermediate | X | 50 | 35 | 962 | Upright vase, open & loose form | Insignificant | Insignificant | Green | Yellow-orange | Growth rate is fastest of zelkova cultivars. Tolerant of urban conditions. Susceptible to canker from mechanical injury. Plant in spring. Prune in fall to develop strong branching structure. |
| Ulmaceae | Zelkova serrata | Musashino | Musashino Columnar Zelkova | 5b | Xeric to Mod | Intermediate | Intermediate | X | 45 | 15 | 177 | Very narrow upright vase | Insignificant | Insignificant | Green | Yellow | Columnar form of parent species. Tolerant of urban conditions. Susceptible to canker from mechanical injury. Plant in spring. Prune in fall to develop strong branching structure. Unproven in Denver region for snowload. |
| Ulmaceae | Zelkova serrata | Village Green | Village Green Zelkova | 5b | Xeric to Mod | Intermediate | Intermediate | X | 40 | 40 | 1257 | Vase, rounded | Insignificant | Insignificant | Dark Green | Rusty red | Most cold hardy Zelkova cultivar. Growth habit may develop more straight trunk than Green Vase. Susceptible to canker from mechanical injury. Plant in spring. Prune in fall to develop strong branching structure. |
| Ulmaceae | Zelkova sinica | | Chinese Zelkova | 5b | Xeric to Mod | Intermediate | Intermediate | X | 35 | 35 | 962 | Vase | Insignificant | Insignificant | Dark green | Yellow-orange | Resistant to elm leaf beetle. Exfoliating cinnamon-colored bark. Prune in fall to develop strong branching structure. Availability may be limited. Unproven in Denver region. |
| | | | | | | | | | | | | | | | | | |
| | Fits under power lines | | | | | | | | | | | | | | | | |




***Do not cut single leader. Prune only damaged, dead wood, or co-dominant leaders.***

***12" nylon tree strap with grommets on guy wire. Do not twist straps tight around trunk.***

***1/2" diameter white PVC pipe section on entire length of each wire.***

***14-gauge galvanized wire, double strand. Leave 1-2" slack in wire to allow for trunk movement.***

***If needed, 6' steel T-post or wood stake (4' exposed, 2' in undisturbed subgrade) with safety caps, set to windward side and other opposite; or other pre-approved staking method.***

***Deciduous Tree Fall Planting: Wrap trunk to first branch with specified tree wrap material. Secure at top with masking tape. Do not wrap rough bark trees. Remove trunk wrap in spring after last frost.***

***Set top of root flare 2 to 3" higher than finished grade. Remove excess soil from top of root ball.***

***Circle of shredded wood mulch, 3" deep and 4-6" away from trunk, to outer edge of planting hole.***

***Form 2" high dirt saucer around pit at outside of transition zone.***

***Finish Grade***

***Completely remove all twine and wire basket. Pull burlap down minimum of 2/3, cut and remove from pit.***

***Slope sides of planting pit as shown, roughen sides prior to backfill.***

***Native soil or appropriate planting media.***

***Undisturbed subgrade.***

***Any broken, crumbling, or otherwise damaged rootball should be rejected. Do not damage during planting.***

***Trees planted upon park land, public property, or within the Public Right of Way (PRW) are subject to the following restrictions:***

- An approved planting permit from the Office of the City Forester (OCF), regardless of approved plans, is required prior to planting.
- Administrative citations up to $999 shall be issued for trees planted without an OCF issued permit.
- Only tree species approved by or listed on the OCF's approved street tree list shall be planted in the PRW.
- For a list of prohibited or suspended PRW trees, contact or visit the OCF website.
- If overhead utility wires exist in the PRW, only ornamental or trees maturing at 20 (twenty) feet maximum height shall be planted.
- Trees shall be centered in tree lawns and/or planting areas.
- Trees shall not be planted in tree lawns less than five feet wide unless authorized by the OCF.
- Where sidewalks are not present, trees shall be located as designated by Office of the City Forester.
- Planting in corner triangle formed by the first 30 (thirty) feet along the PRW in each direction from the corner is not permitted.
- Planting within 10 (ten) feet of alleys, driveways, or fire hydrants is not permitted.
- Planting within 20 (twenty) feet of stop signs is not permitted.
- Planting within 25 (twenty-five) feet of street lights is not permitted.
- Planting within five feet of water meters or pits is not permitted.
- Large shade trees shall be spaced 35 (thirty-five) feet o.c. and ornamental trees 25 (twenty-five) feet o.c. or as designated by OCF.
- Trees shall be pruned to maintain a clearance of 13'-6" over streets and alleys and 6'-6" over remaining portions of PRW, including sidewalk.

***Prior to digging, the Utility Notification Center of Colorado shall be contacted at 811 to locate underground utilities.***

| REVISIONS | MARK | BULLETIN | DATE | PREPARED BY OFFICE OF THE CITY FORESTER, DENVER PARKS AND RECREATION DEPARTMENT | CITY AND COUNTY OF DENVER 201 W. COLFAX AVE. DENVER, COLORADO 80202 | STANDARD RESIDENTIAL TREE PLANTING DETAIL FOR SOD AREA OR TREE LAWN | NOT TO SCALE |
|---|---|---|---|---|---|---|---|
| | | | | | | | DATE: 3/13/17 |
| | | | | | | | DIAGRAM P-1.A |

# UNIFIED FIRE AUTHORITY

TO: Board of Directors

FROM: Dan Petersen, Fire Chief

SUBJECT: Weighted Voting

DATE: October 14, 2019

The Board of Directors began addressing considerations for a revised and restated Interlocal Agreement in late 2017. The Governance Committee identified the most controversial items and began presenting these specific issues to the Board of Directors one at a time. Weighted voting was identified as an important issue for many Board Members and was one of those controversial issues.

After several months of discussion, four voting options were presented by the Governance Committee to the Board of Directors at the November 2018 Board Meeting. Board Members were asked to consider the options and prepare for a discussion at the December 2018 Board Meeting. Those options included: One member - one vote; one vote for municipalities with populations in excess of 15,000/25,000, with the County receiving one vote; voting weighted by the cost to provide service to the member (with UFSA determining how to divide their cost); voting weighted by population.

At the December 18, 2018 Board Meeting, the Board considered all four options and determined, by consensus, that population was the most appropriate. The Board directed staff to develop the option of a population-weighted vote with a "trigger" related to budgetary or financial issues, which would then activate the rules for weighted voting. Staff was directed to prepare this proposal for consideration at the January 2019 Board Meeting.

At the January 15, 2019 Board Meeting, the Board considered a proposal that provided one member one vote for all matters not having a budget impact. For budget matters, two members could call for a weighted vote, which would then be based on percentages of the population. This proposal received consensus from the Board of Directors for inclusion in the overarching work on the Interlocal Agreement in preparation for a future vote by the Board of Directors.

In September of 2019, the County expressed displeasure with the population weighted vote method proposed in the ILA. They believed the additional funding provided to the UFA should carry additional weight. Through meetings with Associate Deputy Mayor Mike Reberg, a hybrid was developed providing additional weight to the County based on their regional funding, specifically, the canyon fee and emergency management program. I presented this option to Board Members via memo on October 2, 2019. Directors were asked to consider this concept and be prepared to discuss the issue at the October 15, 2019 Board Meeting. Municipalities were invited to discuss this further prior to the Board Meeting.

As the Fire Chief/CEO, I met individually with several Board Members and city staff on this issue since the memo was distributed. Based on those meetings, we have expanded the options for weighted vote. The trigger remains a budget matter and requires two members to call out. The weighted voting options are identified below and further defined in the attachments to this memo:

- POPULATION
- HYBRID OF POPULATION AND ADDITIONAL SALT LAKE COUNTY FUNDING
- MEMBER FEE with the UFSA Weight divided by the taxable value of each member
- 50% MEMBER FEE / 50% POPULATION

With the addition of funding to the potential for weighted voting, there has been a recommendation that the County representation be reduced to a single elected official as opposed to two as originally agreed to with the population vote.

I believe the number of options and the limited time for review by all Board Members will make a decision difficult during the October Board Meeting, and I recommend consideration for the Interlocal Agreement be made without the weighted voting during the October 15, 2019 Board meeting. This will allow all Board Members the time for thoughtful discussion with their governing body in preparation for consideration of weighted voting at the November 2019 Board Meeting, and final consideration of the full Interlocal Agreement in December 2019.

| POPULATION WEIGHTED VOTE | | |
|---|---|---|
| Municipality | Population | % of Total |
| Millcreek City | 60,308 | **14.29%** |
| Taylorsville City | 59,601 | **14.12%** |
| Riverton City | 44,231 | **10.48%** |
| Herriman City | 42,981 | **10.18%** |
| Kearns Metro Township | 35,242 | **8.35%** |
| Eagle Mountain City | 34,632 | **8.21%** |
| Midvale City | 34,263 | **8.12%** |
| Cottonwood Heights City | 33,626 | **7.97%** |
| Holladay City | 31,110 | **7.37%** |
| Magna Metro Township | 27,450 | **6.50%** |
| Salt Lake County Unincorporated | 10,193 | **2.42%** |
| White City Metro Township | 5,599 | **1.33%** |
| Emigration Metro Township | 1,623 | **0.38%** |
| Copperton Metro Township | 812 | **0.19%** |
| Alta Town | 378 | **0.09%** |
| TOTAL | **422,049** | **100.00%** |

Source: Kem Gardner Policy Institute, University of Utah: July 1, 2018
Salt Lake and Utah County Subcounty Estimates
Subcounty Estimates Data (Excel Format) / City-Population tab / Total Population column

October 1, 2019

# HYBRID: POPULATION AND SLCo FUNDING WEIGHTED VOTE

**Concept:** Provide additional weight to Salt Lake County for their funding of regional services provided by the UFA (Currently the Canyon Fee and Emergency Management).

**Method:** The County would receive their percentage of vote from this funding plus the citizens they represent. The spreadsheet would deduct that from the 100% of the population and the remaining weight would then be divided by population served. The budget process would determine the percentage of regional funding from the County compared to the total UFA budget.

| Municipality | Population | % of Total | Adjusted % |
|---|---|---|---|
| Millcreek City | 60,308 | 14.29% | **13.26%** |
| Taylorsville City | 59,601 | 14.12% | **13.11%** |
| Riverton City | 44,231 | 10.48% | **9.73%** |
| Herriman City | 42,981 | 10.18% | **9.45%** |
| Salt Lake County Unincorporated* | 10,193 | 2.42% | **9.43%** |
| Kearns Metro Township | 35,242 | 8.35% | **7.75%** |
| Eagle Mountain City | 34,632 | 8.21% | **7.62%** |
| Midvale City | 34,263 | 8.12% | **7.53%** |
| Cottonwood Heights City | 33,626 | 7.97% | **7.39%** |
| Holladay City | 31,110 | 7.37% | **6.84%** |
| Magna Metro Township | 27,450 | 6.50% | **6.04%** |
| White City Metro Township | 5,599 | 1.33% | **1.23%** |
| Emigration Metro Township | 1,623 | 0.38% | **0.36%** |
| Copperton Metro Township | 812 | 0.19% | **0.18%** |
| Alta Town | 378 | 0.09% | **0.08%** |
| TOTAL | 422,049 | 100.00% | 100.00% |

| *Adjusting for SLCo Funding | SLCo Funding | Total Budget | |
|---|---|---|---|
| SLCo funding % of total budget | 5,561,377 | 77,331,732 | 7.19% |
| Percentage of total weighted vote divided between all municipalities | | | 92.81% |

Source: Kem Gardner Policy Institute, University of Utah: July 1 2018
Salt Lake and Utah County Subcounty Estimates
Subcounty Estimates Data (Excel Format) / City-Population tab / Total Population column

October 1, 2019

## MEMBER FEE WEIGHTED VOTE

| Member | FUNDING TO UFA | % of UFSA | % OF FUNDING |
|---|---|---|---|
| UFSA* | $48,890,839 | | 88.17% |
| Millcreek City | | 20.38% | **17.97%** |
| Salt Lake County Unincorporated | | 18.18% | **16.03%** |
| Taylorsville City | | 13.06% | **11.52%** |
| Riverton City | | 12.21% | **10.77%** |
| Herriman City | | 9.61% | **8.47%** |
| Midvale City | | 8.49% | **7.48%** |
| Cottonwood Heights City | $3,818,822 | | **6.89%** |
| Eagle Mountain City | | 6.98% | **6.15%** |
| Holladay City | $2,586,904 | | **4.67%** |
| Kearns Metro Township | | 4.89% | **4.31%** |
| Magna Metro Township | | 4.21% | **3.71%** |
| Emigration Metro Township | | 0.96% | **0.84%** |
| White City Metro Township | | 0.93% | **0.82%** |
| Alta Town | $152,665 | | **0.28%** |
| Copperton Metro Township | | 0.12% | **0.11%** |
| TOTAL | 55,449,230 | 100.00% | 100.00% |

*UFSA is weight is divided between service area members based on taxable value

October 12, 2019

## UFSA BREAKDOWN BY 2019 TAXABLE VALUE

| UFSA Members | Taxable Value | % of total |
|---|---|---|
| Copperton Metro Township | 33,690,335 | 0.12% |
| Eagle Mountain City* | 1,943,067,756 | 6.98% |
| Emigration Metro Township | 266,505,821 | 0.96% |
| Herriman City | 2,675,129,875 | 9.61% |
| Kearns Metro Township | 1,362,438,642 | 4.89% |
| Magna Metro Township | 1,171,724,025 | 4.21% |
| Midvale City | 2,363,336,028 | 8.49% |
| Millcreek City | 5,675,214,848 | 20.38% |
| Riverton City | 3,401,242,120 | 12.21% |
| Salt Lake County Unincorporated | 5,063,126,841 | 18.18% |
| Taylorsville City | 3,637,908,383 | 13.06% |
| White City Metro Township | 257,643,776 | 0.93% |
| TOTAL | 27,851,028,450 | 100% |

## 50% POPULATION - 50% MEMBER FEE WEIGHTED VOTE

| Member | POPULATION | MEMBER FEE | 50/50 |
|---|---|---|---|
| Millcreek City | 14.29% | 17.97% | **16.13%** |
| Taylorsville City | 14.12% | 11.52% | **12.82%** |
| Riverton City | 10.48% | 10.77% | **10.62%** |
| Herriman City | 10.18% | 8.47% | **9.33%** |
| Salt Lake County Unincorporated | 2.42% | 16.03% | **9.22%** |
| Midvale City | 8.12% | 7.48% | **7.80%** |
| Cottonwood Heights City | 7.97% | 6.89% | **7.43%** |
| Eagle Mountain City | 8.21% | 6.15% | **7.18%** |
| Kearns Metro Township | 8.35% | 4.31% | **6.33%** |
| Holladay City | 7.37% | 4.67% | **6.02%** |
| Magna Metro Township | 6.50% | 3.71% | **5.11%** |
| White City Metro Township | 1.33% | 0.82% | **1.07%** |
| Emigration Metro Township | 0.38% | 0.84% | **0.61%** |
| Alta Town | 0.09% | 0.28% | **0.18%** |
| Copperton Metro Township | 0.19% | 0.11% | **0.15%** |
| TOTAL | 100.00% | 100.00% | 100.00% |

October 12, 2019

**MILLCREEK, UTAH**
**ORDINANCE NO. 19-__**

**AN ORDINANCE ADDING CHAPTER 11.48 TO THE MILLCREEK CODE OF ORDINANCES RELATED TO IDLING OF VEHICLES IN MILLCREEK**

**WHEREAS**, on December __, 2019, the Millcreek Council (the "*Council*") met in regular session to consider, among other things, an ordinance adding Chapter 11.48 to the Millcreek Code of Ordinances related to idling of vehicles in Millcreek; and

**WHEREAS,** the Council has determined that air quality in Utah is a critical concern; and

**WHEREAS,** the Council has determined that vehicle idling contributes to pollution and is detrimental to air quality;

**WHEREAS**, the Council has determined adoption of an ordinance that limits vehicle idling will protect the public heath and improve the environment by reducing emission and improve air quality in Utah; and

**WHEREAS**, after careful consideration, the Council has determined that it is in the best interest of the health, safety and welfare of the residents of the City to add Chapter 11.48 to the Millcreek Code of Ordinances related to idling of vehicles in Millcreek.

**NOW, THEREFORE**, **BE IT ORDAINED** that the Council hereby adds Chapter 11.48 to the Millcreek Code of Ordinances as follows (designated by interlineating the words to be deleted and underlining the words to be added):

CHAPTER 11.48

IDLING OF VEHICLES IN MILLCREEK

**11.48.010 Purpose:**

The purpose of this Chapter is primarily educational, as well us to protect the public health and improve the environment by reducing emissions while conserving fuel.

**11.48.020 Definitions:**

For purposes of this Chapter, these definitions shall apply:

**A.** "Driver" means any driver who drives, operates, or is in actual physical control of a vehicle.

**B.** "Idle" means the operation of a vehicle engine while the vehicle is stationary or not in the act of performing work or its normal function.

**C.** "Vehicle" means any self-propelled vehicle that is required to be registered and

have a license plate by the Utah Department of Motor Vehicles.

**11.48.030 Property Subject to this Ordinance; Enforcement:**

**A.** This ordinance may be enforceable on public property and on private property that is open to the general public, unless the private property owner:

a. has a private business that has a drive-through service as a component of the private property owner's business operations and posts a sign provided by or acceptable to the City informing its customers and the public of the City's time limit for idling vehicle engines; or

b. adopts an idle reduction education policy approved by the City.

**B.** Law enforcement personnel shall exercise reasonable caution and utilize customary safety procedures in their enforcement of this ordinance.

**11.48.040 Idling Restriction Within City Limits:**

No driver, while operating a vehicle within city limits, shall cause or permit a vehicle's engine to idle for more than two minutes, except for the following kinds of idling:

**A.** Idling while stopped:

a. for an official traffic control device;

b. for an official traffic control signal;

c. at the direction of a police officer;

**B.** Idling as needed to operate heaters or air conditioners where the temperature is below 40 degrees Fahrenheit or above 80 degrees [JB1]Fahrenheit, as measured at the Salt Lake City Airport and determined by the National Weather Service, for the health or safety of a driver or passenger, including service animals.

**C.** Idling for the minimum amount of time required for the operation of defrosters or other equipment to clear the windshield and windows to provide unobstructed views and ensure visibility while driving.

**D.** Idling as needed for emergency vehicles to operate equipment.

**E.** Idling as needed to ascertain that a vehicle is in safe operating condition and equipped as required by all provisions of law, and that all equipment is in good working order, either as part of the daily vehicle inspection, or as otherwise needed.

**F.** Idling as needed for testing, servicing, repairing, installation, maintenance or diagnostic purposes.

**G.** Idling for the period recommended by the manufacturer to warm up or cool down a turbo-charged heavy-duty vehicle.

**H.** Idling as needed to operate auxiliary equipment for which the vehicle was primarily designed or equipped, other than transporting goods, such as: operating a transportation refrigeration unit (TRU), lift, crane, pump, drill, hoist, ready mixed equipment, except a heater oi air conditioner.

**I.** Idling as needed to operate a lift or other piece of equipment designed to ensure safe loading and uploading of goods or people.

**J.** Idling to recharge a battery or other energy storage unit of a hybrid electric vehicle.

**K.** Idling as need for vehicles that house K-9 or other service animals.

**L.** Idling by on-duty law enforcement personnel as necessary for the performance of their official duties.

**11.48.050 Penalties:**

**A.** Violation of Section 11.48.040 shall be penalized as follows:

a. First offense as a warning but no fine.

b. Subsequent offenses punishable as an infraction the same as a parking violation under Section 11.20.170.

PASSED AND APPROVED this __ day of December 2019.

MILLCREEK

By: _____
Jeff Silvestrini, Mayor

ATTEST:

_____
Elyse Greiner, City Recorder

**Current: 11.20.130 Parking Prohibited When**

No person shall park a vehicle on any city street when it is snowing or snow is on the street during the months of November, December, January, February, March and April.

**Proposed: 11.20.130 Parking Prohibited When**

No person shall park a vehicle on any city street from November 16 through March 15.

Salt Lake City Snow Averages

| Days | | Inches | Centimeters |
|---|---|---|---|
| 8.5 | January | 12.5 | 31.8 |
| 6.2 | February | 10.7 | 27.2 |
| 4.2 | March | 6.5 | 16.5 |
| 2.4 | April | 4.0 | 10.2 |
| 0.2 | May | 0.3 | 0.8 |
| 0.9 | October | 1.4 | 3.6 |
| 4.2 | November | 7.6 | 19.3 |
| 8.2 | December | 13.2 | 33.5 |
| 34.8 | Year | 56.2 | 142.7 |

**Current: 11.20.060 Parking Of Trucks And Commercial Vehicles**

1. Definitions. As used in this section: "Commercial vehicle" means a vehicle in excess of three-quarter-ton capacity of whatever make or type designed for or adapted to commercial or agricultural purposes, regardless of the use to which such vehicle is put at any particular time, provided such vehicle is of a type, kind or adaptation commonly known as a commercial or agricultural vehicle. "Trailer" means any truck trailer or other trailer designed or adapted primarily for the transportation of property of whatever kind. "Truck" means any truck-tractor, panel truck, pickup or other truck in excess of three-quarter-ton capacity.
2. Restriction. No person shall park any commercial vehicle, agricultural vehicle, occupied or empty trailer, truck-tractor or truck on any public street adjacent to a lot or parcel containing a residential dwelling(s) or on any public street within a residential subdivision for a period of time longer than three consecutive hours.
3. Exception. The prohibitions in this section shall not apply to vehicles being used in the servicing of adjacent properties or streets.

**Proposed: 11.20.060 Parking Of Trucks And Commercial Vehicles (19.04.551 Vehicle, Commercial)**

1. "Commercial vehicle" means any motorized vehicle or trailer used for or intended for business use - including but not limited to the transportation of commercial equipment, merchandise, produce, freight, commodities, passengers, or animals - and which is characterized by any of the following:
    a. Heavy equipment, such as earth movers, backhoes, cranes, forklifts, bulldozers, and the like, which are commonly used for construction, excavation, demolition, or lifting; vehicles used to haul equipment or materials, such as dump trucks, tanker trucks, semi-tractors, semi-trailers, cement trucks, or other similar vehicle.
    b. Pickup trucks over one ton with a commercial modification, such as a flat bed, a dumping mechanism, mechanical lifts or arms for loading and unloading materials/equipment, aerial buckets or platforms, or other similar feature.
    c. Vehicles with more than two axles.
    d. Vehicles that exceed eight feet in height.
2. "Trailer" means any truck trailer or other trailer designed or adapted primarily for the transportation of property of whatever kind. "Truck" means any truck-tractor, panel truck, pickup or other truck in excess of three-quarter-ton capacity.
3. Restriction. No person shall park any commercial vehicle, agricultural vehicle, occupied or empty trailer, truck-tractor or truck on any public street adjacent to a lot or parcel containing a residential dwelling(s) or on any public street within a residential subdivision for a period of time longer than three consecutive hours.
4. Exception. The prohibitions in this section shall not apply to vehicles being used in the servicing of adjacent properties or streets.

## Chapter 14.50
## DEDICATION OF PRIVATE STREETS TO PUBLIC OWNERSHIP

**14.50.010: PURPOSE:**

The purpose of this chapter is to establish policy and procedures for the dedication of private streets to public ownership.

**14.50.020: POLICY:**

It is the policy of Millcreek that:

A. The city will not make a proactive effort to bring private streets into public ownership unless there is a compelling public interest;

B. Generally, private streets created as part of a platted subdivision will not be considered for public ownership unless there is a compelling public interest as determined by the Council in which event the Council will determine the process;

C. Existing private streets may be considered for public ownership when requested by property owners abutting the private street. The process and requirements for private street dedications is set forth in this chapter unless there is a compelling public interest as determined by the Council in which event the Council will determine the process.

**14.50.030 PROCESS/PETITION:**

A. The process to initiate a private street dedication is submission of a petition and a title report of the private street. The petition must be signed by the owner(s) of record of the private street and signed by the owner(s) of record representing one hundred percent (100%) of the total linear front footage of the frontage of the private street. The title report must be prepared and dated not more than thirty (30) days before the submission of the petition.

B. Upon receipt of the petition, the Director of Public Works shall review the request and shall provide the Petitioner with a list of requirements, identifying the specific action necessary to consider the request. The list shall identify any necessary improvements, dedications or other items deemed necessary for consideration, in accordance with the provision of this chapter.

C. The Petitioner may withdraw the Petition at any time during the dedication process.

D. If after a review of the list the Petitioner wishes to proceed with the dedication, then the Petitioners shall pay the City, a non-refundable fee in the amount set forth in the consolidated fee schedule.

E. Upon receipt of the Petitioner's payment, the Director of Public Works shall advise the City Council of his/her recommendation.

**14.50.040 CONDITIONS FOR DEDICATION:**

A. Upon receipt of the Director's recommendation, the City Council may at its sole discretion authorize the public dedication. Where appropriate, the City Council may

require conditions precedent to the dedications including, but not limited to the completion of all items identified in the Director's requirements. Unless provided otherwise, the City Council authorization will expire and become void one (1) year from the date of City Council approval.

B. Private streets will not be considered for public ownership unless:
    1. Underground utility providers must approve the dedication.
    2. The street must meet current city standards or are brought into compliance at the cost of the Petitioner before the dedication. Petitioner shall provide proof acceptable to the city that the proposed street satisfies current city standards.
    3. Deteriorated retaining walls and other private property features abutting the proposed public ownership are removed, repaired, or replaced as approved by the city.
    4. Sidewalks, curb and gutter that meets current city standards must be present or shall be installed according to subdivision design standards where applicable.
    5. All surveys and legal work necessary for public dedication shall be completed at the expense of the Petitioner.
    6. Any nonconforming structures or objects within the proposed right-of-way shall be removed at the expense of the Petitioner.
    7. Any additional street signs shall be installed at the expense of the Petitioner.
C. Generally, the city will not allow split ownership of streets.
D. Generally, the City will not take ownership of a street that is targeted for redevelopment as identified in a city master plan.
E. Conveyance of the proposed street shall be by plat approved by the Planning Commission and accepted by City Council.
F. The Petitioner will bear all cost of the proposed dedication such as surveying and recording costs, as well as any fees for third-party consultant studies or information as may be required by the city.

**14.50.030: ADMINISTRATIVE PROCEDURES:**

The Mayor may issue such rules, regulations, and procedures as are necessary and appropriate to implement this ordinance.

**9.65 SHOPPING CART MANAGEMENT ORDINANCE**

**9.65.010: DEFINITIONS:**

For the purposes of this chapter, the following definitions shall apply:

A. Unless the context requires otherwise, the words and terms defined in this chapter shall have the meanings ascribed to them in this section.

AUTHORIZED CITY OFFICIAL: Any person designated and empowered by ordinance to abate nuisance activities in the city, and any person authorized by the Director of Legislative Policy and Code to enforce the provisions of this chapter.

BUSINESS DAYS: Monday through Friday, excluding any legal holiday on which the city is closed for business.

CART RETRIEVAL SERVICE: A business establishment duly licensed in the city that retrieves shopping carts from public property and returns such retrieved shopping carts to the shopping cart owner thereof on a regular basis in exchange for payment of a fee.

CITY: The city of Millcreek, Utah.

DIRECTOR OF LEGISLATIVE POLICY AND CODE: The director of legislative policy and code of the city.

HEARING OFFICER: An administrative law judge who presides over an administrative hearing.

IDENTIFICATION SIGN: A sign or sticker that is permanently affixed to every shopping cart and that:

1. Identifies the name, address and telephone number of the shopping cart owner that can be used to coordinate the return of the shopping cart to the shopping cart owner or to notify the shopping cart owner of the location of such shopping cart;
2. Notifies the public of the procedure, if any, the shopping cart owner has established through which persons can obtain written authorization to remove the shopping cart from the premises;
3. Notifies the public that the removal of a shopping cart from the premises, or the use or possession thereof away from the premises, without written authorization from the shopping cart owner is a violation of section 9.65.030 of this chapter; and Utah code section 76-6-412; and
4. Notifies the public that the retrieval of a shopping cart without written authorization from the shopping cart owner is a violation of this code.

NOTICE: Written notice to a shopping cart owner or its representative delivered personally or sent via certified mail to any of the following addresses:

1. The premises;
2. The address indicated on the city business license application of the shopping cart

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owner;
3. The address indicated on the identification sign; or
4. The last known address of the shopping cart owner.

PERSON: A natural person, or a corporation, partnership, limited liability company, or other form of entity or artificial person.

PREMISES: The interior of a business establishment, and all exterior landscaped areas, pedestrian areas and sidewalks adjacent to a business establishment, and the designated parking lot area provided by a business establishment for its customers to park their automobiles or other means of transportation while they patronize the business establishment. The premises include the entire parking area used by a multistore complex or shopping center wherein such business establishment is located.

PRIVATE PROPERTY: All real property in the city, but excluding public property.

PUBLIC PROPERTY: All real property owned, leased or occupied by the city, all real property in which the city has a possessory interest, and any easement granted to the city for public purposes, including, without limitation, public streets, parks, alleys, sidewalks, flood control channels, and any other real property within the city owned, leased or occupied by any governmental entity.

SHOPPING CART: A basket, or similar device, that is mounted on wheels and is generally used by customers and patrons in retail or wholesale business establishments for the purpose of transporting goods of any kind within the premises thereof. The term includes any constituent part of a shopping cart, as well as a shopping cart that is dismantled or otherwise not in working order.

SHOPPING CART OWNER: With respect to any shopping cart:
1. The legal owner of such shopping cart;
2. The owner or operator of a business establishment that is authorized by the legal owner of such shopping cart to provide such shopping cart for use by customers and patrons at the premises of the business establishment; and
3. The authorized agents and employees of the persons listed in subsections 1 and 2 of this definition.

**9.65.020: NUISANCE:**

A shopping cart placed, located, left, situated or found upon any public property or any private property (excluding the premises at which the shopping cart owner provides such shopping cart for use by customers), is a public nuisance, which the city or its authorized agents may abate in accordance with this chapter and applicable law.

**9.65.030: REMOVAL, USE, AND POSSESSION:**

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A. Pursuant to Utah code section 76-6-602 and this chapter, it is unlawful for any person, whether for compensation or otherwise, to remove a shopping cart from the premises of any business establishment, unless the shopping cart owner has authorized such removal in writing. Any person engaged in the removal of a shopping cart from the premises of any business establishment shall carry with him or her the written authorization for removal described in this subsection.

B. It is unlawful for any person, whether for compensation or otherwise, to use or possess a shopping cart outside the premises of the business establishment indicated on the identification sign attached to the shopping cart or, if there is no attached identification sign, of the business establishment that provides the shopping cart for use by its customers, unless the shopping cart owner has authorized the use or possession thereof in writing. Any person who uses or possesses a shopping cart outside the premises of such business establishment shall carry with him or her the written authorization for possession and use described in this subsection.

C. It is unlawful for any person to fail or refuse to provide or show the authorization(s) described in subsections A and B of this section to an authorized city official upon request therefor.

D. This section does not apply to:

1. An authorized city official, or the agent or designee thereof, acting within the scope of his or her duties and in accordance with this chapter, or
2. The shopping cart owner.

**9.65.040: NOTICE AND SIGNAGE REQUIREMENTS:**

A. A shopping cart identification sign or sticker is required for business establishments that provide shopping carts to customers. Every shopping cart owner that utilizes shopping carts, as defined by Utah code section 76-6-601 and section 9.65.010 of this chapter, in the operation of its business shall affix an identification sign on the shopping cart.

B. In addition to, or as part of, the identification sign, every shopping cart owner which utilizes shopping carts, as defined by Utah code section 76-6-601 and section 9.65.010 of this chapter, in the operation of its business shall affix the following notice to all shopping carts which shall be clearly legible in the English language and shall state the following:

*WARNING*

*Any person who removes a shopping cart from the premises of the owner, or is in the possession of any shopping cart, shall be presumed to be in possession of stolen property and may be fined by Unified Police.*

C. Each and every owner of a business establishment which utilizes shopping carts or owner of a shopping center in which one or more business establishments utilizes shopping carts in the

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operation of its business shall:

Prominently and conspicuously post a notice with minimum dimensions of eighteen inches by twenty-four inches (18" x 24") at all entrance(s) and exit(s) of its parking area(s), in substantially the following form:

*Removal of shopping carts from these premises is prohibited by law*

**9.65.050: EXEMPTION TO NOTICE AND SIGNAGE REQUIREMENTS:**

Any business establishment desiring an exemption from section 9.65.040 of this chapter shall file a petition for exemption and enclose an appropriate application fee as set in the city's fee schedule. A petition for an exemption from the requirements of section 9.65.040 of this chapter may be granted by the City Director of Legislative Policy and Code or designee to any business establishment, which meets the requirements of subsection A or B of this section.

A. Mechanical Prevention and Signage: Each and every shopping cart owner desiring an exemption under this subsection shall post a sign having minimum dimensions of twelve inches by eighteen inches (12" x 18") in a conspicuous location at each entrance to the premises notifying shopping cart users of the containment measures put into place pursuant to this section and at least one of the following:

1. Install a wheel locking mechanism on all shopping carts that is used in conjunction with an electronic barrier along the perimeter of the premises, which is activated when a shopping cart crosses the electronic barrier; or
2. Construct physical barriers, such as bollards, preventing the removal of shopping carts while permitting full wheelchair ingress and egress by disabled persons; or
3. Install a mechanical system requiring a reasonable deposit to use a shopping cart; or
4. Equip shopping carts with a protruding arm or similar device prohibiting a cart from being removed from the interior of a business establishment; or
5. Any similar method that prevents the removal of shopping carts from the premises.

B. Implementation Of A Daily Retrieval Program: Each and every shopping cart owner shall be exempt from the requirements of section 9.65.040 of this chapter under this subsection during any period of time in which such shopping cart owner implements, enforces and utilizes measures for retrieving shopping carts from public property daily and returning such shopping carts promptly to the shopping cart owner. Permitted measures include any or all of the following:

1. Entering into a written contract with a cart retrieval service requiring the daily retrieval of shopping carts from public property, and return of such shopping carts to the shopping cart owner;
2. Daily retrieval by the shopping cart owner of its shopping carts from public property; or
3. Any other similar method that results in the daily retrieval of shopping carts from public property.

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C. Containment or Retrieval Measures: Within thirty (30) calendar days following request of the City Director of Legislative Policy and Code, each shopping cart owner shall provide to the City Director of Legislative Policy and Code, or his or her designee, information concerning the adequacy and effectiveness of the shopping cart containment or retrieval measures implemented pursuant to this section, and any similar information as requested by the City Director of Legislative Policy and Code.

**9.65.060: PENALTY FOR NONCOMPLIANCE WITH NOTICE AND SIGNAGE REQUIREMENTS:**

A. If a shopping cart owner fails to implement the notice and signage requirements of section 9.65.040 of this chapter without qualifying for an exemption under section 9.65.050 of this chapter, or if, after such notice and signage requirements are implemented, the shopping cart owner fails to maintain such signs as to comply with section 9.65.040 of this chapter, the city shall give notice of noncompliance to such shopping cart owner, which notice of noncompliance shall set forth the following:

1. The shopping cart owner is in violation of section 9.65.040 of this chapter and does not qualify for an exemption under section 9.65.050 of this chapter;
2. Pursuant to subsection B of this section the city shall levy a penalty against the shopping cart owner in the amount of twenty five dollars ($25.00) for each calendar day the shopping cart owner is not in compliance with section 9.65.040 of this chapter;
3. The shopping cart owner may submit a written request for an administrative hearing as described in section 9.65.090 of this chapter within twelve (12) business days after date of the notice.

B. If on the thirteenth business day following the date of the notice required by subsection A of this section, the shopping cart owner who was given the notice under subsection A of this section remains noncompliant with section 9.65.040 of this chapter and has failed to file with the city a written request for an administrative hearing, then the city shall assess a civil penalty against such shopping cart owner in the amount of twenty five dollars ($25.00) for each calendar day of noncompliance with section 9.65.040 of this chapter.

**9.65.070: ABANDONED SHOPPING CART DISPOSITION**

In the event a shopping cart is placed, located, left, situated or found upon public property, such shopping cart will be deemed abandoned and an authorized city official, or the authorized agent or designee thereof, may take any or all of the following actions:

A. The Director of Legislative Policy and Code, or the authorized agent or designee thereof, may remove, or cause the removal of, the abandoned shopping cart and return it, or cause it to be returned, to the location indicated on the identification sign or to the shopping cart owner. The shopping cart owner shall be responsible for payment of the city's fees and actual costs for retrieving and returning such shopping cart pursuant to this subsection.

B. The Director of Legislative Policy and Code, or the authorized agent or designee thereof, may impound the abandoned shopping cart in accordance with section 9.65.080 of this chapter.

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C. The Director of Legislative Policy and Code, or the authorized agent or designee thereof, may give notice to the shopping cart owner of the location of such abandoned shopping cart. Such notice shall state that the shopping cart owner has one calendar day following the date of the notice to remove or cause the removal of such shopping cart from the public property upon which it is placed, located, left, situated or found and that the city may impound the abandoned shopping cart if the shopping cart owner fails to remove or cause the removal thereof within such one day period. If removal of the abandoned shopping cart is not accomplished by or on behalf of the shopping cart owner within such one day time period the authorized city official, or the authorized agent or designee thereof, may remove or cause the removal of the abandoned shopping cart, and may impound it.

For purposes of this section, "shopping cart owner" includes the apparent owner of such shopping cart when the actual ownership is unknown.

**9.65.080: IMPOUND OF ABANDONED SHOPPING CART:**

A. Within five (5) business days after the city impounds an abandoned shopping cart pursuant to this chapter, the city shall give notice of impound to the owner of the abandoned shopping cart setting forth the following:

1. The date and the location from which the city retrieved the abandoned shopping cart;
2. The location at which the city has impounded the abandoned shopping cart, and its hours of operation;
3. The estimated impound fee as of the date of the notice, and a statement of the amount, if any, by which the impound fee will increase for each calendar day the abandoned shopping cart remains impounded with the city or its agents;
4. That the owner of the abandoned shopping cart has thirty (30) calendar days from the date of the notice of impound to retrieve the abandoned shopping cart from the impound location upon payment of the impound fee calculated in accordance with subsection B of this section and upon provision to the city of reasonable proof of ownership;
5. That an abandoned shopping cart that is not retrieved from the impound location within the thirty (30) day time period permitted by subsection A4 of this section will be deemed to be permanently abandoned, and the city may exercise any or all of the remedies permitted by this chapter with respect thereto, but the exercise of such remedies will be stayed during the pendency of an administrative hearing requested pursuant to subsection A6 of this section;
6. That the owner of the abandoned shopping cart may submit a written request for an administrative hearing as described in section 9.65.090 of this chapter within twelve (12) business days after the date of the notice of impound, which hearing shall be conducted in accordance with this chapter;
7. That the owner of the abandoned shopping cart will be deemed to have waived its right to an administrative hearing if a written request for a hearing is not submitted to the city within twelve (12) business days after the date of the notice of impound.

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B. Each and every time the city, or its agents, impounds an abandoned shopping cart, the city, or its agents, shall assess an impound fee against the shopping cart owner. The impound fee shall be set forth in the city fee schedule.

C. Any impounded shopping cart not retrieved from the city within thirty (30) calendar days from the date of the notice of impound shall be deemed to be permanently abandoned. The city, at its option, may take any of the following actions:

1. Retain the abandoned shopping cart in impound;
2. Release such abandoned shopping cart to the shopping cart owner upon payment of the impound fee;
3. Sell the abandoned shopping cart at a public auction; or
4. Dispose of the abandoned shopping cart in any lawful manner.

In the event the city sells the impounded shopping cart pursuant to subsection C3 of this section, the shopping cart owner remains liable to the city for all impound fees plus the costs of the sale. Any proceeds from the sale of an abandoned shopping cart shall be applied first to the costs of the sale and second to the amount of the impound fee. The remainder of the sale proceeds, if any, after payment of all costs and expenses and the impound fee, shall be refunded to the owner of the abandoned shopping cart so sold. In the event the sum of the costs of the sale and the impound fee exceeds the proceeds from the sale, then the shopping cart owner shall be required promptly to pay the deficiency to the city.

D. During the pendency of an administrative hearing pursuant to section 9.65.090 of this chapter, the city shall not take the actions set forth in subsection C of this section.

E. For purposes of this section, "shopping cart owner" includes the apparent owner of a shopping cart when the actual ownership is unknown.

**9.65.090: HEARING PROCEDURE:**

A. If a shopping cart owner lawfully makes a written request for an administrative hearing pursuant to section 9.65.060 of this chapter or this section, then the Director of Legislative Policy and Code, or his or her designee, shall schedule a hearing within twelve (12) business days after his or her receipt of the written request.

B. The request for hearing must set forth the grounds upon which the hearing is requested and provide all relevant facts and documentation known to the shopping cart owner requesting the hearing.

C. The Hearing Officer, shall inform the requesting shopping cart owner of his or her decision in writing within five (5) business days after the hearing is concluded. This decision shall be the final administrative determination.

D. With respect to a hearing concerning the city's removal, retrieval or impound of a shopping

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cart if, based on the facts and evidence presented, the Director of Legislative Policy and Code, or his or her designee, makes a determination that the city's actions with respect to the shopping cart were warranted, then the shopping cart owner thereof shall have fifteen (15) calendar days following such determination to pay the impound fee in accordance with subsection 9.65.080B of this chapter and to retrieve the shopping cart from the impound location. After the fifteen (15) day time period has expired, the shopping cart shall be deemed permanently abandoned, and the city may pursue any of the remedies set forth in subsection 9.65.080C of this chapter.

E. With respect to a hearing concerning the city's removal, retrieval or impound of a shopping cart if, based on the facts and evidence presented, the Director of Legislative Policy and Code, or his or her designee, makes a determination that the city's actions with respect to the shopping cart were unwarranted, then the shopping cart owner shall have fifteen (15) calendar days following such determination to retrieve the shopping cart from the impound location and the city shall waive all fees and costs accrued as of that date. After the fifteen (15) day time period has expired, the city shall levy an impound fee in the amount set forth in subsection 9.65.080B of this chapter, which impound fee must be paid by the shopping cart owner before the shopping cart may be released from impound. In the event the shopping cart remains in impound for an additional fifteen (15) calendar days, the shopping cart shall be deemed permanently abandoned, and the city may pursue any of the remedies set forth in subsection 9.65.080C of this chapter.

F. With respect to a hearing concerning the levying of a penalty pursuant to section 9.65.060 of this chapter if, based on the facts and evidence presented, the Director of Legislative Policy and Code, or his or her designee, makes a determination that the levying of a penalty pursuant to section 9.65.060 of this chapter is not warranted, then the city shall not levy a penalty with respect to the occurrence(s) that is the subject of the administrative hearing.

G. With respect to a hearing concerning the levying of a penalty pursuant to section 9.65.060 of this chapter if, based on the facts and evidence presented, the Director of Legislative Policy and Code, or his or her designee, makes a determination that the levying of a penalty pursuant to section 9.65.060 of this chapter is warranted, then the shopping cart owner shall have thirty (30) calendar days to become compliant with section 9.65.040 of this chapter. If the shopping cart owner has not become compliant with section 9.65.040 of this chapter by the expiration of such time period, the city shall levy the penalty set forth in section 9.65.060 of this chapter until such time as compliance with section 9.65.040 of this chapter is achieved.

**9.65.100: VIOLATION; PENALTY:**

Any person violating any of the provisions of this chapter found guilty shall be punished by a fine of not more than seven hundred and fifty dollars ($750.00).

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# Proposed Shopping Cart Management Ordinance

City Council Work Session

September 23, 2019

# THE WHY… ABANDONED SHOPPING CARTS













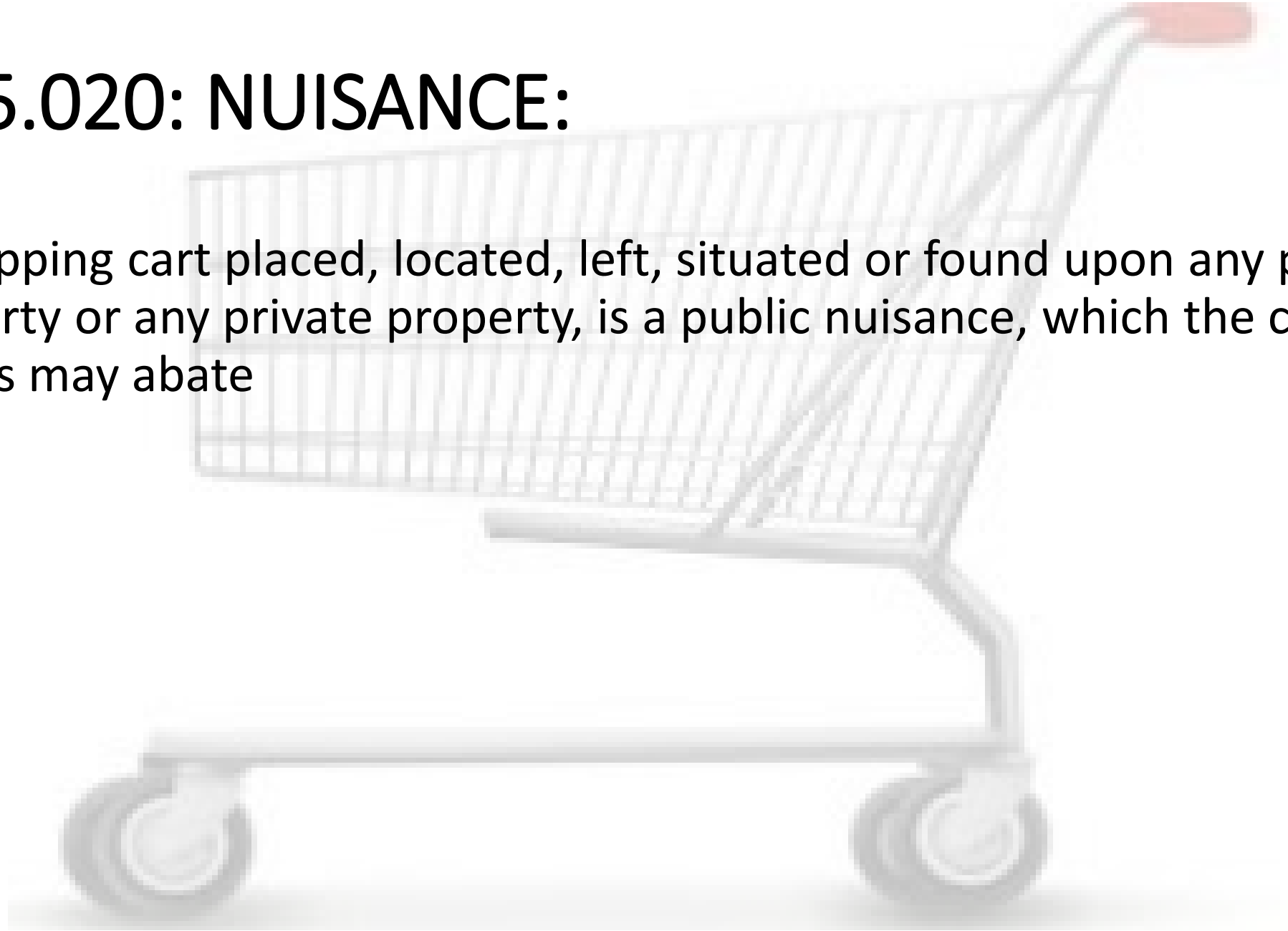

# CITIES WITH A SHOPPING CART ORDINANCE



- South Jordan, UT
- Beaverton, OR
- Federal Way, WA
- Pittsburg, CA
- Palmdale, CA
- Medford, OR
- Fresno, CA

# 9.65.020: NUISANCE:

A shopping cart placed, located, left, situated or found upon any public property or any private property, is a public nuisance, which the city agents may abate



# 9.65.030: REMOVAL, USE, AND POSSESSION:

A. It is unlawful for any person to remove a shopping cart from the premises of any business establishment, unless the shopping cart owner has authorized such removal in writing

B. It is unlawful for any person to use or possess a shopping cart outside the premises of the business establishment unless the shopping cart owner has authorized the use or possession thereof in writing

C. It is unlawful for any person to fail or refuse to provide or show the authorization to an authorized city official upon request

D. This section does not apply to:

1. A city official acting within the scope of his or her duties, or
2. The shopping cart owner

# 9.65.040: NOTICE AND SIGNAGE REQUIREMENTS:

A. A shopping cart identification sign or sticker is required. Every business that utilizes shopping carts shall affix an identification sign on the shopping cart

B. Every business shall affix the following notice to all shopping carts:

*WARNING: Any person who removes a shopping cart from the premises of the owner, or is in the possession of any shopping cart, shall be presumed to be in possession of stolen property and may be fined by Unified Police.*

C. Every business which utilizes shopping carts or owner of a shopping center in which utilizes shopping carts shall post a notice at least 18" x 24" at all entrance(s) and exit(s) of its parking area(s):

*Removal of shopping carts from these premises is prohibited by law*

# 9.65.050: EXEMPTION TO NOTICE AND SIGNAGE REQUIREMENTS:

Any business desiring an exemption shall file a petition and enclose an appropriate application fee. An exemption may be granted by the City Director of Legislative Policy which meets the following requirements:

A. Mechanical Prevention and Signage: Each shopping cart owner shall post a sign at least 12" x 18" at each entrance notifying shopping cart users of the containment measures put into place pursuant to this section and at least one of the following:

1. Install a wheel locking mechanism on all shopping carts along with an electronic barrier along the perimeter of the premises; or

2. Construct physical barriers preventing the removal of shopping carts while permitting full wheelchair ingress and egress; or

3. Install a mechanical system requiring a reasonable deposit to use a shopping cart; or

4. Equip shopping carts with a protruding arm or similar device prohibiting a cart from being removed from the interior of a business establishment; or

5. Any similar method that prevents the removal of shopping carts from the premises.

# 9.65.050: EXEMPTION TO NOTICE AND SIGNAGE REQUIREMENTS, continued:

B. Implementation Of A Daily Retrieval Program:

Permitted measures include any or all of the following:

1. Entering into a written contract with a cart retrieval service;

2. Daily retrieval by the shopping cart owner; or

3. Any other similar method that results in the daily retrieval of shopping carts.

C. Containment or Retrieval Measures: Within 30 calendar days each shopping cart owner shall provide information concerning the adequacy and effectiveness of the shopping cart containment or retrieval measures.

# 9.65.060: PENALTY FOR NONCOMPLIANCE WITH NOTICE AND SIGNAGE REQUIREMENTS:

A. If a shopping cart owner fails to implement the notice and signage requirements without qualifying for an exemption, or if the shopping cart owner fails to maintain such signs, the city shall give notice of noncompliance, which notice shall set forth the following:

1. The shopping cart owner is in violation and does not qualify for an exemption;

2. The city shall levy a $25.00 penalty against the shopping cart owner for each calendar day the shopping cart owner is not in compliance;

3. The shopping cart owner may submit a written request for an administrative hearing within 12 business days after date of the notice.

B. If on the 13th business day the shopping cart owner remains noncompliant and has failed to file a written request for an administrative hearing, then the city shall assess a civil penalty against the owner for $25.00 for each calendar day of noncompliance.

# 9.65.070: ABANDONED SHOPPING CART DISPOSITION

If a shopping cart is placed, located, left, situated or found upon public property, the shopping cart will be deemed abandoned and an authorized city official may take the following actions:

A. The Director, or agent thereof, may remove the abandoned shopping cart and return it to the location indicated on the identification sign. The owner shall be responsible for payment of the city's fees and actual costs for retrieving and returning such shopping cart.

B. The Director or agent may impound the abandoned shopping cart.

C. The Director or agent may give notice. Such notice shall state that the owner has 1 day to remove the shopping cart or the city may impound the abandoned shopping cart.

# 9.65.080: IMPOUND OF ABANDONED SHOPPING CART:

A. Within 5 business days after the city impounds an abandoned shopping cart, the city shall give notice to the owner setting forth the following:

1. The date and location where the city retrieved the abandoned shopping cart;

2. The location where the city has impounded the abandoned shopping cart;

3. The estimated impound fee, if any, and that the impound fee will increase for each calendar day the abandoned shopping cart remains impounded;

4. That the owner of the shopping cart has 30 calendar days to retrieve the abandoned shopping cart;

5. That an abandoned shopping cart that is not retrieved will be deemed to be permanently abandoned, and the city may exercise any remedies permitted, but the exercise of such remedies will be stayed during the pendency of an administrative hearing;

6. That the owner of the abandoned shopping cart may request for an administrative hearing;

7. That the owner of the abandoned shopping cart will be deemed to have waived its right to an administrative hearing if a written request for a hearing is not submitted

# 9.65.080: IMPOUND OF ABANDONED SHOPPING CART, continued:

B. Each time the city impounds a shopping cart, the city shall assess a fee. The fee shall be in the fee schedule.

C. Any impounded shopping cart not retrieved within 30 days shall be deemed to be permanently abandoned. The city may take any of the following actions:

1. Retain the abandoned shopping cart in impound;
2. Release the abandoned shopping cart to the owner upon payment of the fee;
3. Sell the abandoned shopping cart at a public auction; or
4. Dispose of the abandoned shopping cart in any lawful manner.

If the city sells the shopping cart, the owner remains liable for all fees plus the costs of the sale. Any proceeds from the sale of a shopping cart shall be applied to the costs of the sale and to the amount of the fee. The remainder of the proceeds, if any, shall be refunded to the owner. In the event the costs of the sale and fee exceeds the proceeds from the sale, then the owner shall be required promptly to pay the deficiency.

D. During the pendency of an administrative hearing, the city shall not take the action.

E. For purposes of this section, "shopping cart owner" includes the apparent owner of a shopping cart when the actual ownership is unknown.

# 9.65.090: HEARING PROCEDURE:

A. If a shopping cart owner requests an administrative hearing, the Director, shall schedule a hearing within 12 business days.

B. The request for hearing must set forth the grounds upon which the hearing is requested and provide all facts and documentation known to the owner requesting the hearing.

C. The Hearing Officer, shall inform the requesting owner of his decision in writing within 5 business days after the hearing. This decision shall be the final administrative determination.

D. With respect to a hearing concerning the city's removal, retrieval or impound of a shopping cart if the Director, makes a determination that the city's actions were warranted, then the owner shall have 15 days to pay the fee and to retrieve the shopping cart. After 15 days, the shopping cart shall be deemed permanently abandoned, and the city may pursue any of the remedies set forth in this chapter.

# 9.65.090: HEARING PROCEDURE, continued:

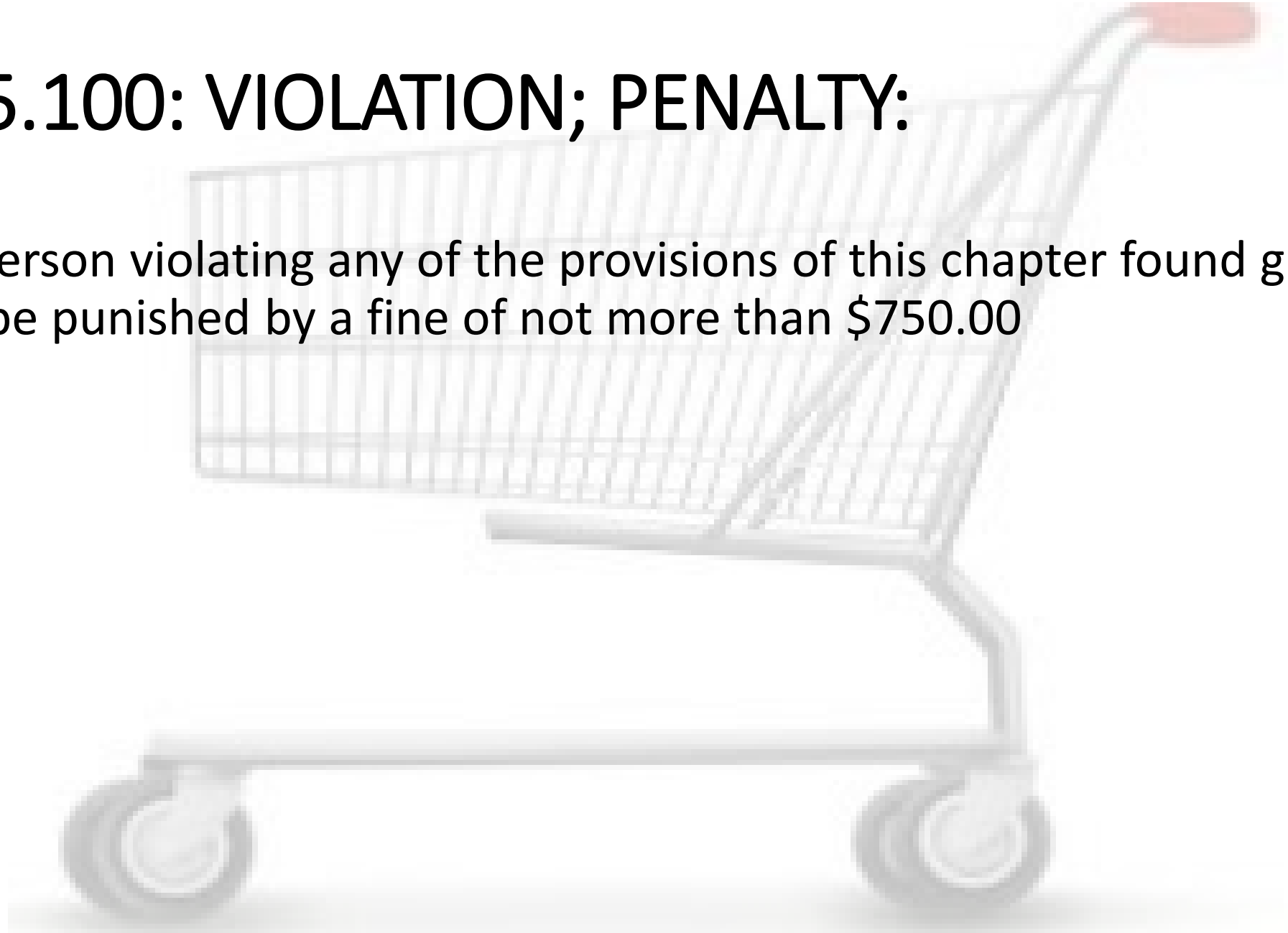
E. With respect to a hearing, retrieval or impound of a shopping cart if, the Director makes a determination that the city's actions were unwarranted, then the owner shall have 15 days to retrieve the shopping cart and the city shall waive all fees. After 15 days, the city shall levy an impound fee which must be paid by the owner before the shopping cart may be released. In the event the shopping cart remains in impound for an additional 15 days, the shopping cart shall be deemed permanently abandoned, and the city may pursue any of the remedies of this chapter.

F. With respect to a hearing concerning the levying of a penalty based on the facts and evidence presented, the Director makes a determination that the levying of a penalty is not warranted, then the city shall not levy a penalty.

G. With respect to a hearing concerning the levying of a penalty, based on the facts and evidence presented, the Director makes a determination that the levying of a penalty is warranted, then the owner shall have 30 days to become compliant. If the owner has not become compliant by the expiration of such time period, the city shall levy the penalty until such time as compliance is achieved.

# 9.65.100: VIOLATION; PENALTY:

Any person violating any of the provisions of this chapter found guilty shall be punished by a fine of not more than $750.00





# QUESTIONS?