

**APPROVED MATERIALS LIST
PARKS & OPEN SPACE
OCTOBER 2008**

The following approved materials list applies to all City of Longmont Parks and Open Space Division related improvements per Section 600 of the City of Longmont Design Standards and Construction Specifications.

Proposed substitutes to the following specific brands and / or models shall be submitted to the City of Longmont Parks and Open Space Division in writing with all necessary technical information needed for analysis. A written approval from Parks and Open Space Division of substitute is REQUIRED for all products.

601.00 CONCRETE BIKEPATHS, BRIDGES AND UNDERPASSES

1. **Control joints:** Zip strip or saw cut.
2. **Expansion joints:** pre-formed compressible bituminous fiber Type M-213, ½” thick with removable ‘void cap’ to create ½” reveal for sealant. Sealant to be Tremco “Tremflex 834, Pecora “unicrylic +60, or Sonolastic “Sonolac”.
3. **Bridge decking:** concrete or 2”x8” IPE Ironwood. Decks must be designed with ability to easily replace individual deck boards.
4. **Underpass Lighting:**
 - a. Cooper Lighting Failsafe, model FUSLP-S-12-240BX-120-82/87-EBX2-VRSD light fixtures
 - b. NuArt, model # CPTL-48-1-1500-120-NA light fixtures
5. **Underpass Warning System:** WaveTrend Vehicle ID System (AA-R600-CSC) wall-mounted, enclosed in AA-NEM1214, powered by AA-SP20W Solar Panel and 2 AS-S401A Amber Flashing Strobe lights mounted on each side of the underpass. One DPSEC (cable and Miscellaneous Hardware also required
6. **Root Barrier:** Deep Root 24” barrier.

602.00 GRADING AND FINE GRADING

1. **General Herbicide:** Round-up Pro and Rodeo by Monsanto per manufacturer’s directions.
2. **Soil Amendment:** Premium 3 by A-1 Organics composed aspen humus or other amendments certified as Class I or Class II by Rocky Mountain Organics Council.

603.00 IRRIGATION

Note: For common open space irrigation systems, equipment equal to these must be used (i.e. commercial-grade and heavy-duty). To use equipment differing from the products listed below, submit cut sheets (minimum 2 copies) for staff review.

1. **Flow Meter:** Data Industrial brass. For ¾” – 1½” use IR250B-xx. For taps 2” or larger, use IR228B-xx.
2. **Flow Sensor:** Data Industrial PVC Flow Sensor (Model #228PVxx05-1211)
3. **Backflow Enclosure:** Strong Box SBBC-30ALI by V.I.T. Products, Inc.
4. **Mainline:** For pipe sizes larger than 3” - J.M. Ringtite pipe.

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5. **Drip line:** Irritrol blue stripe drip pipe or Rainbird XT-700 only.
6. **Valves:**
 - a. Remote Control Zone Valves: Rainbird PEB Series; Rainbird PES-B Series; Toro 252 Series, or approved equal.
 1. Pressure regulating function to be used as needed per Section 603.2.5.
 - b. Remote Control Master Valves: Rainbird GB Series (brass). For ¾" taps, use 1" Master Valve with reducing bushings.
 - c. Drip Remote Control Valves:
 1. Same as remote control zone valves, including pressure regulator and y-strainer. RBY upstream filter.
 2. Rainbird X CZ-100 with PEP remote control valve.
 - c. Ball Valves: Watts # B-6000 with tee handle.
 - d. Isolation Gate Valves: Kennedy 1571X. (**Note:** These valves can be ordered through Dana Kepner Company (303-623-6161). Valves may take up to 14 days for delivery.)
 - e. Manual Drain Valve: Watts, #B-6000.
 - f. Quick Coupling Valves: Rainbird 44RC units with rubber cover. Keys Rainbird 44K brass key. 1" on all QC valves.
7. **Valve Boxes:** Ametek Jumbo –sized only.
8. **Control System:**
 - a. Control System Enclosure: Hoffman Floor Stand (A-FK1212), Latch Kit (A-L2BR), Back Panel (C-P2424) and Enclosure (A-242412LP).
 - b. Controller (*for systems not to be maintained by the City of Longmont*):
 1. Hunter ICC series controller.
 2. Surge Protection: (*as appropriate*).
 - c. Satellite Control Field Unit (*for systems to be maintained by the City of Longmont*):
 1. Satellite control system (one per water tap), size per design plus two spare zones. To include the following specific brand and models in addition to miscellaneous requirements per detail in section 603.00:
 - aa. Toro Sentinel control field unit - Toro model #SSAKxxPSI6NS4
 - bb. Toro Sentinel Remote Modem Transceiver Assembly with Antenna (Model #SRTA)
 - cc. Toro Sentinel Hand-held Radio (Model #SHHR) or Kenwood (#370) Hand-held Radio. **Note:** Radios are to be programmed to frequencies 453.1125, 465.5125 and 453.8875, per the direction of Parks staff.
9. **Sprinkler heads:**
 - a. Gear driven Rotor heads: Hunter I-40, Hunter I-25, Hunter I-20, with stainless riser. Hunter I-40-36S-ON (opposable nozzles) for large turf areas with full circle heads.
 - b. Pop-Up Spray heads: Rainbird 1800 series or Toro 570 series.
10. **Drip system:**
 - a. Emitters: Rainbird XB series with spiral barb emitters.
 - b. Flush caps: Agrifim model #CETC-34.

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11. Miscellaneous Irrigation Equipment:

- a. Waterproof connections: 3M series 7000 epoxy kit.
- b. Elbows: EZ ELL or Rainbird SBE-050 - to match pipe brand.
- c. Risers: Funny pipe.

604.00 SEEDING

1. Pre-approved Dryland Mixes (for temporary or permanent unmowed and non-permanent areas):

- a. For urban, non-wildlife, extensive areas:
 - 50% Lincoln Smooth Brome
 - 20% Perennial Ryegrass
 - 10% Sideoats Grama
 - 9% Blue Grama
 - 5% Buffalograss (treated)
 - 5% Little Bluestem
 - 1% Sand Dropseed

- b. For native areas:
 - 20% Switchgrass
 - 20% Big Bluestem
 - 20% Yellow Indiangrass
 - 10% Alkali Sacaton
 - 10% Western Wheatgrass
 - 10% Streambank Wheatgrass
 - 10% Slender Wheatgrass

2. Pre-approved Irrigated Turf Seed Mixes:

- a. 60% Eldorado, Silverado and Monarch Turf type Tall Fescue
30% Manchar Smooth Brome
10% Bluegrass mix (drought tolerant blends)
- b. 40% Barrington Tall Fescue
40% Labarinth RTF Tall Fescue
20% Barrister Kentucky Bluegrass
- c. 35% Creeping Red Fescue
25% SR3200 Blue Fescue
12.5% SR3100 Hard Fescue
15% Reubens Canadian Blue
12.5% SR5100 Chewings Fescue
- d. 30% Matador Tall Fescue

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- 30% Tomahawk RT Tall Fescue
- 30% Pure Gold Tall Fescue
- 10% North Star Kentucky Bluegrass

3. **Mulch:** For slopes steeper than 3:1 and inaccessible areas only: Weyerhaeuser "Silva-Fiber" mulch. For native areas, certified weed free hay.
4. **Tackifier:** Teratack III (Mandatory for hydromulch).
5. **Netting:** For slopes steeper than 3:1, Soil Saver jute netting.
6. **Road Delineators:** Durapost or SafeHit. White with reflectors.

605.00 SODDING

1. **Pre-approved Sod Mixes:**

- a. 60% Eldorado, Silverado and Monarch Turf type Tall Fescue
30% Manchar Smooth Brome
10% Bluegrass Mix (drought tolerant blends)
- b. 40% Barrington Tall Fescue
40% Labarinth RTF Tall Fescue
20% Barrister Kentucky Bluegrass
- c. 35% Creeping Red Fescue
25% SR3200 Blue Fescue
12.5% SR3100 Hard Fescue
15% Reubens Canadian Blue
12.5% SR5100 Chewings Fescue
- d. 30% Matador Tall Fescue
30% Tomahawk RT Tall Fescue
30% Pure Gold Tall Fescue
10% North Star Kentucky Bluegrass
- e. VorTEX Texas Bluegrass from Korby Sod LLC

606.00 TREES, PLANTS AND GROUND COVER

1. **Backfill mix:** Premium-3 composted aspen humus, by A-1 Organics.
2. **Tree wrap:** 4" wide Kraft tree wrap.
3. **Weed barrier fabric:** Mirafi geo-textile fabric.
4. **Steel edging:** 3/16" x 4" x 16' Ryerson steel edging.
5. **Mulch:** Aspen bark mulch, pole peelings (linear strips only) or cobble (adjacent to arterial roads only).
6. **Tree Stakes:** Two inch (2") x six feet (6') round wooden posts or six foot (6') long, heavy-duty t-bar steel posts with white tops.

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7. **Tree Guys:** ½” STRAP-X (flat synthetic webbing material) or ½” Central Bag polyester strapping with 17 gauge galvanized steel wire.
8. **Misc. Tree Equipment:** White tee post caps; Canvas strap; White plastic flagging tape or 1/2” white PVC pipe; four inch (4”) wide tree wrap.
9. **Beaver protection:** Galvanized four foot (4') high (2” x 4” openings) fencing.

MISCELLANEOUS

1. **Benches:** Webcoat expanded metal six foot bench – surface mount on appropriately sized concrete pad (B6WBRCS), black color.
2. **Trash Receptacles:** Webcoat – 32 gallon (TR32 – TSRM) – surface or in-ground mount as appropriate – black color with DOME32 gray top. Also include 30 gallon galvanized trash can (no lid) inside receptacle.
3. **Picnic Tables:** Webcoat T6STD and T8STDHDCP tables – surface mount – black color, including Play World #1409 PVC-coated clamps to bolt tables to appropriately sized concrete pad.
4. **Bike racks:** Madrax inverted U-style #U238-SF, surface mount – black color on appropriately sized concrete pad.

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Plant Materials List

*The following lists are trees specifically **PROHIBITED** from City of Longmont regulated areas (and discouraged from use elsewhere)*

Tree name	Any area	Streetscapes	Primary Greenways
Russian Olive	●	●	●
Lombardy Poplar	●	●	●
Siberian Elm	●	●	●
Boxelder Maple	●	●	●
Cotton-bearing Cottonwood	●	●	●
Fruit-bearing trees*		●	
Thorn-bearing trees*		●	
Willow (all varieties)		●	
Tree of Heaven		●	
Cottonwood (all varieties)		●	
Silver Maple		●	

* Trees that drop fruit or bear thorns will be allowed in streetscape areas only if the mature size of the tree does not come within 5' of bikepaths, walks or other pedestrian areas.

RECOMMENDED TREES for City of Longmont regulated areas

Growth rate: S = Slow, M = Medium, F = Fast

Adaptability: H = Hardy, A = Average, M = Marginal)

(Adaptability rating includes cold, soils, moisture tolerance and disease resistance)

Use: S-6 = Street tree in areas 6' maximum tree lawn width

S-8 = Street tree in areas 8' minimum tree lawn width

G = Greenway

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Ornamental Trees

Tree Common name	Botanical name	Growth rate	Adaptability	Use
Alder, Thinleaf	<i>Alnus tenuifolia</i>	F	H	S-6, G
Birch, Native River	<i>Betula fontinalis</i>	M	A	G
Birch, Whitespire	<i>Betula platyphylla japonica</i>	M	A-M	G
Cherry, Bird (Mayday)	<i>Prunus padus</i>	S	H-A	S-6, G
Cherry, Canada Red	<i>Prunus virginiana</i> 'Schubert'.	M	H	G
Cherry, Montmorency	<i>Prunus cerasus</i>	M	A	G
Cherry, Sargent	<i>Prunus sargentii</i>	M	H	G
Crabapple, Adams	<i>Malus</i> 'Adams'	M	H-A	G
Crabapple, Adirondak	<i>Malus</i> 'Adirondak'	M	H-A	G
Crabapple, Brandywine	<i>Malus</i> 'Brandywine'	M	H-A	G
Crabapple, Centurion	<i>Malus</i> 'Centurion'	M	H-A	G
Crabapple, Coralburst	<i>Malus</i> 'Coralburst'	M	H-A	G
Crabapple, David	<i>Malus</i> 'David'	M	H-A	G
Crabapple, Indian Magic	<i>Malus</i> 'Indian Magic'	M	H-A	G
Crabapple, Prairifire	<i>Malus</i> 'Prairifire'	M	H-A	G
Crabapple, Profusion	<i>Malus</i> 'Profusion'	M	H-A	G
Crabapple, Radiant	<i>Malus</i> 'Radiant'	M	H-A	G
Crabapple, Red Barron	<i>Malus</i> 'Redbarron'	M	H-A	G
Crabapple, Royalty	<i>Malus</i> 'Royalty'	M	H-A	G
Crabapple, Spring Snow	<i>Malus</i> 'Spring Snow'	M	H-A	S-6, G
Crabapple, Thunderchild	<i>Malus</i> 'Thunderchild'	M	H-A	G
Ornamental Trees - continued				
Tree Common name	Botanical name	Growth rate	Adaptability	Use
Crabapple, White Cascade	<i>Malus</i> 'White Cascade'	M	H-A	G
Goldenrain Tree	<i>Koelreuteria paniculata</i>	S	M	S-8
Hawthorn, Crusader	<i>Crataegus ambigua</i>	S	H	G
Hawthorn, Russian	<i>Crataegus ambigua</i>	S	H	G
Hawthorn, Thornless Cocksbur	<i>Crataegus crus-galli inermis</i>	S	H	G

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Hawthorn, Washington	Crataegus phaenopyrum	S	H	G
Hornbeam, Pyramidal European	Carpinus betulus	M	H	S-6
Lilac, Japanese Tree	Syringa reticulata	M	A	S-6
Maple, Ginnala	Acer ginnala	S	H	S-6, G
Maple, Tatarian	Acer tataricum	S	H	S-6, G
Mountain Ash, European	Sorbus aucuparia	M	A	G
Oak, Gambel	Quercus gambelii	S	H-A	S-6, G
Pear, Aristocrat	Pyrus calleryana 'Aristocrat'	M	A	S-6
Pear, Autumn Blaze	Pyrus calleryana 'Autumn Blaze'	M	A	S-6
Pear, Chanticleer	Pyrus calleryana 'Chanticleer'	M	A	S-6
Pear, Redspire	Pyrus calleryana 'Redspire'	M	A	S-6
Pear, Stonehill	Pyrus calleryana 'Stonehill'	M	A	S-6
Plum, American	Prunus americana	S	H	G
Plum, Newport	Prunus cerasifera	S	A	S-6
Redbud, Eastern	Cercis canadensis	S	M	S-6
Serviceberry, Autumn Brilliance	Amelanchier grandiflora 'Autumn Brilliance'	S	H	S-6, G
Serviceberry, Robin Hill	Amelanchier grandiflora 'Robin Hill'	S	H	S-6, G
Serviceberry, Saskatoon	Amelanchier alnifolia	S	H	S-6, G
Serviceberry, Shadblow	Amelanchier canadensis	S	H	S-6, G
Shade (Canopy) Trees				
Tree Common name	Botanical name	Growth rate	Adaptability	Use
Ash, Autumn Purple	Fraxinus americana 'Autumn Purple'	M	M	S-8
Ash, Fallgold	Fraxinus nigra 'Fallgold'	M	H	S-8, G
Ash, Mancana	Fraxinus mandshurica 'Mancana'	M	H	S-8, G
Ash, Marshall	Fraxinus pennsylvanica 'Marshall'	M	H	S-8, G
Ash, Patmore	Fraxinus pennsylvanica 'Patmore'	M	H	S-8, G
Ash, Summit	Fraxinus pennsylvanica 'Summit'	M	H	S-8, G

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Catalpa, Western	Catalpa speciosa	S	H	S-8, G
Coffeetree, Kentucky	Gymnocladus dioica	S	H	S-8, G
Cottonwood, Lanceleaf	Populus acuminata	F	H	G
Cottonwood, Narrowleaf	Populus angustifolia	F	H	G
Cottonwood, Plains	Populus sargentii	F	H	G
Filbert, Turkish	Corylus colurna	M	A	S-8, G
Hackberry, Western	Celtis occidentalis	M	H	S-8, G
Hornbeam, American	Carpinus caroliniana	M	H	S-8
Honeylocust, Imperial	Gleditsia triacanthos inermis 'Imperial'	M	H	S-8, G
Honeylocust, Shademaster	Gleditsia triacanthos inermis 'Shademaster'	M	H	S-8, G
Honeylocust, Skyline	Gleditsia triacanthos inermis 'Skyline'	M	H	S-8, G
Locust, Black	Robinia pseudoacacia	F	H	G
Locust, Purple Robe	Robinia pseudoacacia 'Purple Robe'	F	H-A	S-8, G
Maple, Hedge	Acer campestre	S	H	S-8
Maple, Autumn Blaze	Acer freemanii	M	M	S-8
Maple, Deborah	Acer platanoides 'Deborah'	S	A-M	S-8
Maple, Emerald Lustre	Acer platanoides 'Emerald Lustre'	S	A-M	S-8
Maple, Emerald Queen	Acer platanoides 'Emerald Queen'	S	A-M	S-8
Shade (Canopy) Trees - continued				
Tree Common name	Botanical name	Growth rate	Adaptability	Use
Maple, Green Mountain Sugar	Acer saccharum 'Green Mountain'	S	A-M	S-8
Maple, Legacy	Acer saccharum 'Legacy'	S	A-M	S-8
Maple, Northwood	Acer rubrum 'Northwood'	M	M	S-8
Maple, Red Sunset	Acer rubrum 'Red Sunset'	M	M	S-8
Maple, Pacific Sunset	Acer truncatum 'Pacific Sunset'	S	A-M	S-8
Linden, American	Tilia americana	M	H	S-8
Linden, Redmond	Tilia americana 'Redmond'	M	H	S-8

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Linden, Glenleven	Tilia cordata 'Glenleven'	M	H	S-8
Linden, Greenspire	Tilia cordata 'Greenspire'	M	H	S-8
Oak, Bur	Quercus macrocarpa	S	H	S-8, G
Oak, Chinkapin	Quercus muehlenbergii	M	H	S-8, G
Oak, English	Quercus robur	M	H	S-8, G
Oak, Northern Red	Quercus rubra	M	A-M	S-8, G
Oak, Shingle	Quercus imbricaria	M	A	S-8, G
Oak, Shumard	Quercus shumardii	M	A	S-8, G
Oak, Swamp White	Quercus bicolor	M	H-A	S-8, G
Elm, American	Ulmus americana	F	H	S-8, G
Elm, Accolade	Ulmus japonica x wilsonii 'Accolade'	F	H	S-8, G
Elm, Frontier	Ulmus carpinifolia x parvifolia 'Frontier'	F	H	S-8, G
Willow, Niobe Weeping	Salix alba 'Tristis'	F	H	G
Willow, Peach Leaf	Salix amygdaloides	F	H	G
Willow, Prairie Cascade	Salix pentandra	F	H	G
Willow, Russian Golden	Salix alba vitellina	F	H	G

Conifer (Evergreen) Trees				
Tree Common name	Botanical name	Growth rate	Adaptability	Use
Fir, Concolor	Abies concolor	M	A	G
Fir, Douglas	Pseudotsuga menziesii	M	A	G
Juniper, Rocky Mtn.	Juniperus scopulorum var.	S	H	G
Shade (Canopy) Trees - continued				
Pine, Austrian	Pinus nigra	M	H	G
Pine, Bosnian	Pinus heldreichii leucodermis	M	H	G
Pine, Bristlecone	Pinus aristata	S	A	S-8,G
Pine, Mugo	Pinus mugo	M	H	G
Pine, Pinon	Pinus edulis	M	H	S-8,G
Pine, Ponderosa	Pinus ponderosa	M	H	S-8,G
Pine, Scotch	Pinus sylvestris	M	H	G
Pine, Southwestern White	Pinus strobiformis	S	A	G

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Pine, Swiss Stone	Pinus cembra	M	A	G
Pine, Vanderwolf	Pinus flexilis	M	A	G
Spruce, Bacheri	Picea pungens 'bacheri'	M	H	G
Spruce, Black Hills	Picea glauca densata.	M	H	G
Spruce, Colorado Blue	Picea pungens	M	H	G
Spruce, Serbian	Picea omorika	M	H	G