8 trees required along Marksheffel per Section 6.2.2 of the LDC

Please see CSU comment for showing utility easements on landscape plan.

Please indicate property lines, either by labeling or providing a legend on this sheet,

include legend on following sheet, to this sheet, you can shrink the over all depiction down to allow the legend to fit on the same sheet.

North Arrow and legend required. provide distances between property lines, and landscape setbacks.

N. MARKSHEFFEL ROAD

PROPOSED MONUMENT SIGN

EXISTING IRRIGATION WIRING SPLICE LOCATION. CONNECT WIRING, (2 VALVES) TO PROPOSED IRRIGATION CONTROLLER.

CONNECT PROPOSED IRRIGATION TO EXISTING R.O.W. IRRIGATION, (2 VALVES) ASSOCIATED WITH THIS PROPERTY. CAP AND ABANDON MAINLINE CONNECTING TO TEMPORARY WATER SOURCE.

PROPOSED BUILDING

PROPOSED 5' SIDEWALK

IRRIGATION NOTE:
LANDSCAPE IRRIGATION SYSTEM SHALL BE CONNECTED TO AUTOMATIC IRRIGATION CONTROLLER WITH WEATHER SENSING COMPONENTS. AUTOMATIC CONTROL VALVES SHALL CONTROL DISTRIBUTION OF WATER TO PLANTS. USE SCHEDULE 40 PVC LATERAL AND MAINLINE PIPES THAT CONNECT TO DRIPLINE ON THE SOIL SUFACE. USE DRIPLINE WITH INLINE EMITTERS LOOPED AROUND BASE OF EACH PLANT. BACKFLOW PREVENTER SHALL BE INSTALLED AT THE POINT OF CONNECTION FOR THE SYSTEM. HERE:

NOTES:
SEE SHEET LP102 FOR SCHEDULES.
SEE CIVIL ENGINEERING PLANS FOR SITE ZONING, GRADING AND OTHER PERTINENT INFORMATION.

1"=10' (24"X36") NORTH ^

R. AUGUST BATEMAN 1329 09/27/2019 Original Date of Licensure STATE OF COLORADO LICENSED LANDSCAPE ARCHITECT

LIVE DESIGN
WWW.LIVEDSGN.COM

PROJECT NO: 18-17
2437 MARKSHEFFEL ROAD
COLORADO SPRINGS, CO

QUICK QUACK CONSTITUTION

ENG/ARCH: ELEVATE
DRAWN BY: RAB
REVIEWED BY: RAB

DATE: 14 Jan 2019

PLANTING PLAN
LP101

Also required in the legend is the calculation of the minimum internal landscape area. See Section 6.2.2(E) of the LDC. Show the requirement of 15% then show how much of the internal is actually landscaped.

REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION	QTY
1-01	PLANTING AREAS. WOOD MULCH. SEE SPECIFICATIONS.	12,804 sf
1-02	EXISTING PARKSTRIP TO REMAIN.	

Include required amount and amount provided.

PLANT SCHEDULE

CONIFERS	BOTANICAL NAME / COMMON NAME	CONT	CAL	SIZE	QTY	KEY FROM APPENDIX B	MATURE WIDTH
	Abies concolor `Candicans` / Candicans White Fir	B & B		7`	7	45678SA	8'-10'
	Pinus aristata / Bristlecone Pine	B & B		7`	2	45678DA	10'-20'
DECIDUOUS TREES	**BOTANICAL NAME / COMMON NAME**	**CONT**	**CAL**	**SIZE**	**QTY**		
	Fraxinus pennsylvanica `Summit` / Summit Ash	B & B	2"Cal		4	2457AD	30'-40'
	Prunus virginiana `Canada Red` / Canada Red Chokecherry	B & B	1" Cal		5	1345678DA	18'-20'
SHRUBS	**BOTANICAL NAME / COMMON NAME**	**CONT**			**QTY**		
AM	Arctostaphylos uva-ursi `Massachusetts` / Massachusetts Manzanita	5 gal			26	5678DA	8'-10'
CE	Cercocarpus montanus / Alderleaf Mountain Mahogany	5 gal			9	1256D	5'-8'
CF	Cornus stolonifera `Farrow` / Arctic Fire Dogwood	5 gal			74	457S	4'-5'
Jb	Juniperus horizontalis `Blue Chip` / Blue Chip Juniper	5 gal			44	2568A	5'-8'
PB	Prunus besseyi `Pawnee Buttes` / Sand Cherry	5 gal			43	1345A	4'-6'
Rf	Rhamnus frangula `Columnaris` / Tall Hedge Buckthorn	5 gal			10	45D	4'-5'
ANNUALS/PERENNIALS	**BOTANICAL NAME / COMMON NAME**	**CONT**			**QTY**		
Wg	Gaura lindheimeri / Wandflower	1 gal			40	35A	2'-3'
PF	Penstemon x `Firebird` / Firebird Beard Tongue	1 gal			43	12345678D	2'-3'
GRASSES	**BOTANICAL NAME / COMMON NAME**	**CONT**			**QTY**		
M	Muhlenbergia montana / Mountain Muhly	1 gal			35	23568A	18"
Sg	Panicum virgatum / Switch Grass	1 gal			51	12346D	3'-4'

DUE TO THE SCALE AND NATURE OF THE SITE, ONLY ONE HYDROZONE WAS NEEDED.

Name of project: QUICK QUACK CARWASH **Date:** 19 DECEMBER 2018

Climate zone (from Figure 4 of Landscape Policy Manual) - ***circle one:***

Foothills (Foothills & Plains) Plains

Plant Communities
- to be labeled by number(s) on diagram:

1 — Semiarid Shrublands
2 — Pinon-Juniper Woodlands
3 — Prairie
4 — Lower Elevation Riparian
(**5** — Foothill Shrublands)
6 — Ponderosa Pine Forest
7 — Upper Elevation Riparian
8 — Douglas-fir Forest

Hydrozones (supplemental water)
- to be labeled by letter(s) on diagram:

V - Very Low (0 to 7 inches per year)

L - Low (7 to 15 inches per year)

(**M** - Moderate (15 to 25 inches per year))

H - High (more than 25 inches per year)

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PROJECT NO: 18-17
2437 MARKSHEFFEL ROAD
COLORADO SPRINGS, CO

QUICK QUACK CONSTITUTION

R. AUGUST BATEMAN 1329 09/27/2018 Original Date of Licensure STATE OF COLORADO LICENSED LANDSCAPE ARCHITECT

ENG/ARCH: ELEVATE
DRAWN BY: RAB
REVIEWED BY: RAB

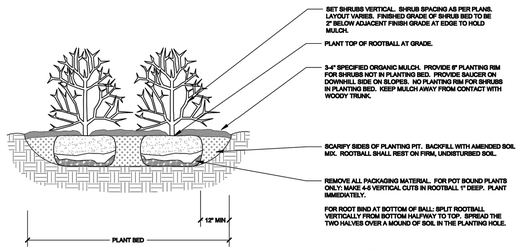
DATE: 14 Jan 2019

PLANTING SCHEDULE
LP102

LIVE DESIGN
WWW.LIVEDSGN.COM

PROJECT NO: 18-17
2437 MARKSHEFFEL ROAD
COLORADO SPRINGS, CO

NOTES:
1. PRUNE ONLY DEAD OR BROKEN BRANCHES AND WEAK OR NARROW CROTCHES.
2. KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
3. DO NOT FERTILIZE FOR AT LEAST ONE GROWING SEASON.
4. AMENDED BACKFILL SHALL BE 1/3 COMPOST (PREFERABLY CLASSIFIED) AND 2/3 NATIVE AND/OR IMPORTED TOPSOIL.
5. ALL SHRUBS IN ROCK AREAS TO RECEIVE SHREDDED MULCH RINGS.
6. DEEP WATER ALL PLANTS AT TIME OF PLANTING.



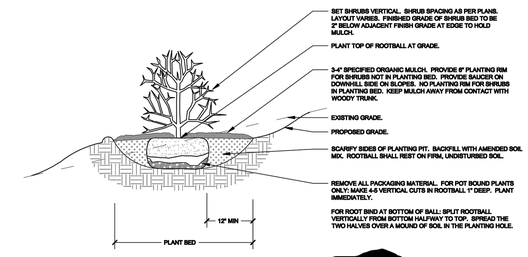
CITY OF COLORADO SPRINGS Rev: 11.13.08

Disclaimer: These planting details are for City review and approval process only and shall not be used for construction or bidding purposes.

5 / LD501 **SHRUB PLANTING DETAIL**

NOT TO SCALE SECTION

NOTES:
1. PRUNE ONLY DEAD OR BROKEN BRANCHES AND WEAK OR NARROW CROTCHES.
2. KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
3. DO NOT FERTILIZE FOR AT LEAST ONE GROWING SEASON.
4. AMENDED BACKFILL SHALL BE 1/3 COMPOST (PREFERABLY CLASSIFIED) AND 2/3 NATIVE AND/OR IMPORTED TOPSOIL.
5. ALL SHRUBS IN ROCK AREAS TO RECEIVE SHREDDED MULCH RINGS.
6. DEEP WATER ALL PLANTS AT TIME OF PLANTING.



CITY OF COLORADO SPRINGS Rev: 11.13.08

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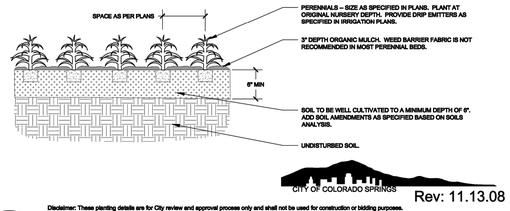
6 / LD501 **SHRUB PLANTING ON SLOPES DETAIL**

NOT TO SCALE SECTION

NOTES:
1. KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
2. PLANT GROUND COVERS AND PERENNIALS LEVEL AND AT GRADE.
3. PRUNE ALL DEAD OR BROKEN PARTS PRIOR TO PLANTING.
4. AMENDED BACKFILL SHALL BE 1/3 COMPOST (PREFERABLY CLASSIFIED) AND 2/3 NATIVE AND/OR IMPORTED TOPSOIL.
5. ALL PERENNIALS PLANTED IN ROCK MULCH AREAS TO HAVE ORGANIC MULCH RINGS AROUND THE BASE OF THE PLANT.



CITY OF COLORADO SPRINGS Rev: 11.13.08

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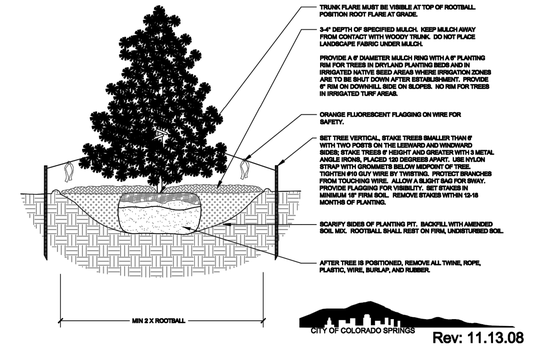
7 / LD501 **PERENNIAL/GROUNDCOVER PLANTING DETAIL**

NOT TO SCALE SECTION

NOTES:
1. DO NOT REMOVE OR CUT LEADER.
2. PRUNE ONLY DEAD OR BROKEN BRANCHES IMMEDIATELY PRIOR TO PLANTING.
3. DO NOT REMOVE ANY DOUBLE LEADER, UNLESS OTHERWISE DIRECTED BY OWNERS REPRESENTATIVE.
4. KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
5. AMENDED BACKFILL SHALL BE 1/3 COMPOST (PREFERABLY CLASSIFIED) AND 2/3 NATIVE AND/OR IMPORTED TOPSOIL.
6. MARK THE NORTH SIDE OF TREE IN THE NURSERY, AND ROTATE TREE TO FACE NORTH AT THE SITE WHENEVER POSSIBLE.
7. PINE AND SPRUCE TREES TO BE SPRAYED FOR IPS BARK BEETLE PRIOR TO PLANTING. COORDINATE WITH CITY FORESTRY FOR CURRENT INSECT AND DISEASE RECOMMENDATIONS PRIOR TO PLANTING.
8. ALL TREES TO BE DEEP WATERED AT TIME OF PLANTING.



CITY OF COLORADO SPRINGS Rev: 11.13.08

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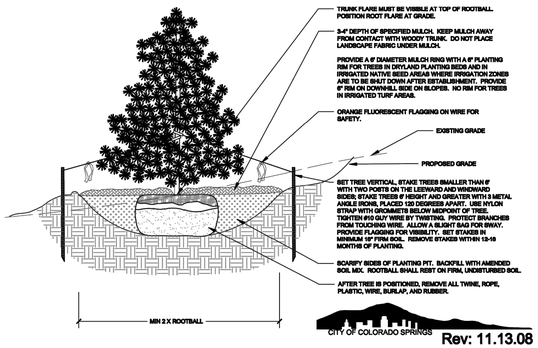
3 / LD501 **EVERGREEN TREE PLANTING DETAIL**

NOT TO SCALE SECTION

NOTES:
1. DO NOT REMOVE OR CUT LEADER.
2. PRUNE ONLY DEAD OR BROKEN BRANCHES IMMEDIATELY PRIOR TO PLANTING.
3. DO NOT REMOVE ANY DOUBLE LEADER, UNLESS OTHERWISE DIRECTED BY OWNERS REPRESENTATIVE.
4. KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
5. AMENDED BACKFILL SHALL BE 1/3 COMPOST (PREFERABLY CLASSIFIED) AND 2/3 NATIVE AND/OR IMPORTED TOPSOIL.
6. MARK THE NORTH SIDE OF TREE IN THE NURSERY, AND ROTATE TREE TO FACE NORTH AT THE SITE WHENEVER POSSIBLE.
7. PINE AND SPRUCE TREES TO BE SPRAYED FOR IPS BARK BEETLE PRIOR TO PLANTING. COORDINATE WITH CITY FORESTRY FOR CURRENT INSECT AND DISEASE RECOMMENDATIONS PRIOR TO PLANTING.
8. ALL TREES TO BE DEEP WATERED AT TIME OF PLANTING.



CITY OF COLORADO SPRINGS Rev: 11.13.08

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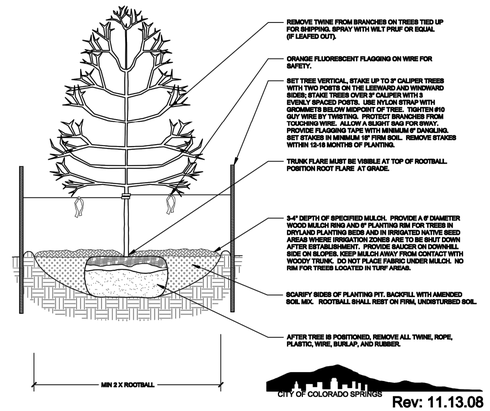
4 / LD501 **EVERGREEN TREE PLANTING ON SLOPES DETAIL**

NOT TO SCALE SECTION

NOTES:
1. MARK THE NORTH SIDE OF TREE IN THE NURSERY, AND ROTATE TREE TO FACE NORTH AT THE SITE WHENEVER POSSIBLE.
2. AT TIME OF PLANTING, DO NOT REMOVE OR CUT LEADER AND PRUNE ONLY DEAD OR BROKEN BRANCHES, CROSS OVER BRANCHES, AND WEAK OR NARROW CROTCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED. HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.
3. STRUCTURAL PRUNING SHOULD NOT BEGIN UNTIL AFTER ESTABLISHMENT PERIOD, USUALLY TWO GROWING SEASONS.
4. KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
5. DO NOT FERTILIZE FOR AT LEAST ONE GROWING SEASON.
6. AMENDED BACKFILL SHALL BE 1/3 COMPOST (PREFERABLY CLASSIFIED) AND 2/3 NATIVE AND/OR IMPORTED TOPSOIL.
7. WRAP TRUNK ON EXPOSED SITES AND SPECIES WITH THIN BARK. USE ELECTRICAL OR DUCT TAPE, NOT TWINE.
8. COORDINATE WITH CITY FORESTRY FOR CURRENT INSECT AND DISEASE RECOMMENDATIONS PRIOR TO PLANTING.
9. DEEP WATER ALL PLANTS AT TIME OF PLANTING.



CITY OF COLORADO SPRINGS Rev: 11.13.08

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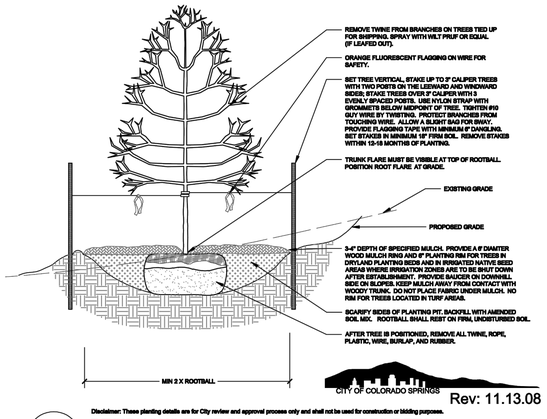
1 / LD501 **DECIDUOUS TREE PLANTING DETAIL**

NOT TO SCALE SECTION

NOTES:
1. MARK THE NORTH SIDE OF TREE IN THE NURSERY, AND ROTATE TREE TO FACE NORTH AT THE SITE WHENEVER POSSIBLE.
2. AT TIME OF PLANTING, DO NOT REMOVE OR CUT LEADER AND PRUNE ONLY DEAD OR BROKEN BRANCHES, CROSS OVER BRANCHES, AND WEAK OR NARROW CROTCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED. HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.
3. STRUCTURAL PRUNING SHOULD NOT BEGIN UNTIL AFTER ESTABLISHMENT PERIOD, USUALLY TWO GROWING SEASONS.
4. KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
5. DO NOT FERTILIZE FOR AT LEAST ONE GROWING SEASON.
6. AMENDED BACKFILL SHALL BE 1/3 COMPOST (PREFERABLY CLASSIFIED) AND 2/3 NATIVE AND/OR IMPORTED TOPSOIL.
7. WRAP TRUNK ON EXPOSED SITES AND SPECIES WITH THIN BARK. USE ELECTRICAL OR DUCT TAPE, NOT TWINE. OCTOBER 31 AND REMOVE MARCH 31 FOR THE PIKES PEAK REGION.
8. COORDINATE WITH CITY FORESTRY FOR CURRENT INSECT AND DISEASE RECOMMENDATIONS PRIOR TO PLANTING.
9. DEEP WATER ALL PLANTS AT TIME OF PLANTING.



CITY OF COLORADO SPRINGS Rev: 11.13.08

Disclaimer: These planting details are for City review and approval process only and shall not be used for construction or bidding purposes.

2 / LD501 **DECIDUOUS TREE PLANTING ON SLOPES DETAIL**

NOT TO SCALE SECTION

QUICK QUACK CONSTITUTION

R. AUGUST BATEMAN
13219
08/27/2018
Original Date of Licensure
STATE OF COLORADO
LICENSED LANDSCAPE ARCHITECT

ENG/ARCH: ELEVATE
DRAWN BY: RAB
REVIEWED BY: RAB

DATE: 14 Jan 2019

PLANTING DETAILS
LD501

SECTION 1 - PLANT MATERIAL
PART 1 - GENERAL

1.01 SCOPE OF WORK

A. Work as evident on drawings and specified herein or required to complete all landscaping and shall include, but not necessarily limited to the following work:

1. Furnish imported topsoil from outside sources as needed.(see sub-section 2.01.)

2. Ensure all necessary permits are obtained prior to construction and staging.

3. Excavate tree/shrub pits.

4. Provide and plant all materials indicated on plan and plant list.

5. Stake and protect all trees and planted areas as specified and detailed.

6. Clean all areas prior to Acceptance of the Work, including debris, stains, and dirt from walks and other surfaces.

B. These specifications are complimentary to the drawings.

C. Related Sections:

SECTION 2 - Turf Sod and Soil Preparation

1.02 QUALITY ASSURANCE

A. Regulatory Requirements

1. Comply with applicable requirements of Federal, State and Local laws, regulations and codes having jurisdiction at the project site.

Contractor shall be responsible for certificates of inspection of plant material that may be required by Federal and Local authorities to accompany shipments of plants.

Reference Standards

1. "Standardized Plant Name" by the American Joint Committee of Horticultural Nomenclature.

2. "American Standard of Nursery Stock" by the American Association of Nurseryman.

3. American National Standards Institute (ANSI); Publication Z60.1.

C. Substitutions

1. Substitutions of plant material will not be permitted unless authorized in writing by the Landscape Architect. If proof is submitted that any plant specified is not obtainable, a proposal will be considered for use of the nearest equivalent size or variety with corresponding adjustment of Contract Price. Such proof shall be substantiated and submitted in writing to the Landscape Architect at least thirty (30) days prior to start of the work under this Section. These provisions shall not relieve Contractor of the responsibility of obtaining specified materials in advance if special growing conditions or other arrangements must be made in order to supply specified materials.

Source Quality Control

1. Plants shall be subject to inspection and approval by the Landscape Architect/Owner at place of growth and upon delivery for conformity to specifications. Such approvals shall not impair the right of inspection and rejection during progress of the Work. Submit written request for inspection of plant material at place of growth and quantity of plants to be inspected. The Landscape Architect reserves the right to refuse inspection at this time if, in his judgement, a sufficient quantity of plants is not available for inspection.

2. All plants may be inspected at the nursery by the Landscape Architect or Owner and shall be tagged with self-locking tags. Plants delivered to the site without these tags or with broken tags shall be sufficient reason for rejection.

Contractor's Qualifications

1. All bidders shall be required to present proof of their qualifications, contract sample, Utah state licensure, insurance coverage, experience, and ability to perform the scope of work set forth in these specifications according to the following construction deadlines pending unforeseen delays related to the weather or other conditions outside the contractors control.

1.03 PROJECT PERSONNEL AND SITE PROTECTION

ATTENTION:

The Contractor shall have a designated foreman in direct and personal charge of the work, and the foreman shall be on the job at least eighty-five (85) percent of the working hours. The Owner's Authorized Representative may "shut down" the work under contract if the supervision is not, in his opinion, adequate to protect the interests of the Owner. Such "shut down" time to be counted as working days and will not extend the time of the contract.

All existing site elements including but not limited to the following shall be protected: All existing utilities, existing hardscapes (drives/curbs/walks/patios), etc. shall be protected from impact damage of any sort, staining from leaky trucks or equipment, or other damage.

1.04 PACKAGING, DELIVERY, STORAGE AND HANDLING

A. Plants shall be properly marked for identification and for checking. Each block of plants and at least 25% of each variety of separate plants in any one shipment shall have legible labels securely attached upon delivery to the site.

Product Handling:

During hot weather and when practical, the contractor may be required to transport plant materials between sunset and sunrise if transported in an open trailer or un-refrigerated box.

Dug material should be maintained and watered as required at the nursery to guarantee their vitality and health until shipping.

Protect all trunks, stems, branches, and root balls during tree tying, wrapping and loading operations from damage.

Load balls or containers onto transport vehicle and secure in a manner that protects the structural integrity of the root balls.

The contractor shall be solely responsible for the safe transportation of plants to the site and their condition upon arrival. Trees damaged, dehydrated or abused during transit or storage will be rejected.

Plant materials shall not be stored on concrete or asphalt or left exposed to the sun.

Roots and balls of plants shall be adequately protected at all times from the sun and drying winds.

The Landscape Architect may inspect any phase of this operation and may reject any plant material improperly handled during any phase of this operation.

Nothing in this Section shall be interpreted as relieving the contractor of the responsibility of providing healthy, viable plants, nor shall it have any effect upon the terms of the warranty specified herein.

Deliver packaged materials in containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery, and while stored at the site.

Delivery and plantings, storage of dry bulk materials and other shall be coordinated with project General Contractor to ensure appropriate staging area. Protect dry bulk materials from inclement weather conditions such as wind and moisture.

1.06 SUBMITTALS

A. Furnish two (1) copies of manufacturer's literature, plans, samples, certifications, delivery tickets, or laboratory analytical data for approval by the Landscape Architect prior to commencement of all work under this contract for the following items:

1. Specified granular and tablet Fertilizers (certification, rate of application and number to tablets per plant pit)
2. Weed control, Pre-emergent and anti-desiccant (certification)
3. Tree guys (literature)
4. Lawn Edging (literature) See plan.
5. Wood Mulch (sample)

Submit proposed plant placement schedule to owner, indicating dates for each type of landscape work during normal seasons for such work in area of site. Once accepted, revise dates only as approved in writing, after documentation of reasons for delay.

1.07 PROJECT WARRANTY

A. Warranty trees and other plant materials, for a period of one year after date of substantial completion, against defects including death and unsatisfactory growth, except for defects resulting from neglect by Owner, abuse or damage by others, or unusual phenomena or incidents which are beyond Landscape Installer's control.

B. Remove and replace trees or other plants found to be dead or in unhealthy condition during warranty period. Replace trees or other plants that are in doubtful condition at end of warranty period; unless, in opinion of Architect, it is advisable to extend warranty period for a full growing season.

C. All replacements shall be plants of the same kind, size, and quality as originally specified and they shall be furnished, planted, guyed and maintained as specified at no additional cost.

D. Another inspection shall be conducted at end of extended warranty period to determine acceptance or rejection. Only one replacement (per tree or plant) will be required at end of warranty period, except for losses or replacements due to failure to comply with specified requirements.

.

PART 2 - PRODUCTS

2.01 SOIL, SOIL AMMENDMENTS

A. Topsoil may or may not be stockpiled on site for contractor use.

Contractor shall ensure the following amount of topsoil is found in all planter and lawn areas over a non-compacted sub-grade

- Planter Areas: 12 inch depth.

Contractor shall amend top soil on site based on the results of soil test.

Contractor shall have agronomy soils test performed or provide a soil certificate for proposed imported soil. Test results shall be submitted to Landscape Architect for approval prior to delivery of the topsoil to jobsite. Imported topsoil shall be obtained from well-drained arable land and shall be free from sub-soil, refuse, roots, heavy or stiff clay, stones 1 inch and larger in largest dimension, coarse sand, sticks, brush, litter, and other deleterious substances. Amend soil as needed to meet the ***'ideal'*** parameters in the chart below:

Soil Parameter	Acceptable	Ideal	Non Ideal - Possibly Toxic	Notes
pH	5.5-8.4	6.0-7.5	<5.5[1] and > 8.5[2]	low pH corrected by addition of lime (lab can give amount needed); high pH difficult to correct—instead solve sodium problems if any and deal with fertility issues caused by high pH
EC, dS/m	< 2.5	< 1.0-1.5	> 4.0-6.0	lower salt content by leaching with good quality water (solve sodium problems if any prior to leaching)
$CaCO_3$ (calcareousness), %	<10	<1	>30-80	difficult to correct; generally requires more phosphorus and some micronutrient fertilizers
SAR[3] (ESP)	< 8 (< 10)	< 4 (< 5)	> 11 (>14)	lower by addition of gypsum or similar (lab can give amounts needed)
OM, %	> 1.0	> 3.0	N/A	
Sand %[4]	< 85%	< 75%	N/A	
Silt/Clay ratio	< 2 if total of two is 25-15% (ratio is not critical if outside this range)			
CEC[5]	>12	15-35	N/A	
color	all	red, brown, black (avoid gray & yellow)	N/A	
aggregate (5-20 mm) stability, not dispersed (cloudy)	>1 hour	> 2 hours	N/A	
Saturated Infiltration Rate (as measured after 3 full irrigations)	> 0.2 inch/hour	> 0.6 inch/hour	<0.1 inch/hour	difficult to correct; select different soil
Subsoil drainage rate	> 0.04 inch/hour	> 0.1 inch/hour	<0.01 inch/hour	difficult to correct; select different soil
Bulk Density, g/cm^3	1.3-1.6	1.3-1.5	> 1.7-1.8	correct with tillage, but does not always correct problem permanently
NO_3-N[6], ppm	any	any	see EC	add fertilizer to meet plant needs
P - Bicarbonate, ppm	any	10-60 ppm	N/A	add fertilizer to meet plant needs; if P is high = environmental problems
P - Bray P1, ppm (only noncalcareous)	any	20-60 ppm	N/A	add fertilizer to meet plant needs; if P is high = environmental problems
P - Mehlich 3, ppm (only noncalcareous)	any	22-90 ppm	N/A	add fertilizer to meet plant needs; if P is high = environmental problems
K, ppm	150-300	> 300	N/A	add fertilizer to meet plant needs
Ca, ppm	> 300	> 500	N/A	add fertilizer to meet plant needs
Mg, ppm	> 50	100-800	N/A	add fertilizer to meet plant needs
Na	see SAR (ESP)			
S^{-2}, ppm	any	<200	see EC	add fertilizer to meet plant needs
Zn, ppm	> 1.0	< 1.0-5.0	>1007	add fertilizer to meet plant needs if value is low; if too high then reject soil
Fe, ppm	> 4.	> 6 (and pH < 7.2 or tolerant species)	Unlikely	
Mn, ppm	> 6	>8	>807	add fertilizer to meet plant needs if value is low; if too high then reject soil
Cu, ppm	0.2-2.0	0.4-2.0	>207	add fertilizer to meet plant needs if value is low; if too high then reject soil
B, ppm	0.6-2.0	1-2	>2-4	add fertilizer to meet plant needs if value is low; if too high leach Cl from soil
Cl, ppm	any	12-175	> 175-700	add fertilizer to meet plant needs if value is low; if too high leach Cl from soil
*Al, ppm	1.0-10	0	> 10-20	if high, raise soil pH to greater than 5.5 with lime (see pH)

2.02 PLANT MATERIALS

A. Plants shall be typical of their species and variety, have normal growth habits, well developed branches, dense foliage, vigorous, fibrous root systems.

Plants shall be free from defects and injuries. All shipments of plant stock shall comply with existing State and Federal laws and regulations governing plant disease and infection and interstate movement of nursery stock.

Quality and size of plants, spread of roots, and size of balls shall be in accordance with USA-Z60.1-1973, "American Standard for Nursery Stock" as published by the American Association of Nurserymen. The caliper of trees shall be measured six (6) inches above the surface of the ground. Plant lists indicate minimum size requirements only. Plant materials shall be equal to or greater in size than those specified.

Plants shall not be pruned before planting.

All trees must have straight trunks with single leader intact, except in the case of specimen plants or otherwise indicated by the plan. Bark shall be free of abrasion, all cuts over 1-1/4" shall have callused over.

Trees shall not be accepted which have had their leaders cut or which have leaders damaged so that cutting is necessary.

Trees and shrubs shall be true to name.

Upon request, Contractor shall furnish the landscape architect a list indicating the source of each of the different plants to be supplied.

All Plants shall be ball and burlap or container grown unless otherwise indicated on the Plant Material List.

All plants shall be even in growth with balanced root and top growth and shall be No.1 in grade or type conforming to the latest edition of American Standard for Nursery Stock.

Plant material shall be nursery grown and shall have received the proper fertilizing, watering, root pruning and such other care as is normally given for a particular plant under nursery conditions. All plants shall be hardy under climate conditions similar to those in the locality of the project.

All material shall be freshly dug according to American Standard for Nursery Stock. All ball and burlap material shall be of firm earth from the original soil in which the plant grew. The ball shall be wrapped with burlap and tightly tied or enclosed in a tight fitting wire basket to hold it firm and intact. Any plants with broken or loose balls or manufactured balls will be rejected.

All plant material in containers shall have been established in that container. Any newly potted material will be rejected.

2.03 FERTILIZER FOR PLANT MATERIAL

A. Fertilize trees and shrubs with a fertilizer tablet having a slow release nitrogen, phosphorus and potash (20-10-5) plus sulphur and iron formulation. 21 gram tablets manufactured by Agriform or equal. Jobe Tree Spikes are acceptable.
Execution: Position plant in hole and backfill by ⅓ the ball root height. Place tablet(s) beside the root ball about 1 inch from root tips. Do not place tablets in the bottom of the plant hole. Complete backfill, tamp and water.

- 1-2 Gallon Size: 1 Tablet
- 3-5 Gallon Size: 3 Tablets
- 15 Gallon Size: 7 Tablets
- 1.5" Caliper Trees: 6 Tablets
- 2" Caliper Trees: 8 Tablets
- 3" Caliper Trees: 12 Tablets

Any fertilizer that becomes caked or otherwise damaged, making it unsuitable for use will not be accepted.

2.04 ORGANIC/INORGANIC MULCH

Provide and place minimum three inch depth of medium wood mulch. Mulch shall be brown in color. No weed barrier fabric shall be installed under organic mulch. Submit sample to owner for approval prior to bulk delivery.

2.05 WEED CONTROL / PRE-EMERGENT

During construction, landscape contractor shall ensure all installed landscaped areas remain weed free. All spray applicated weed control shall be applied by a certified chemical applicator and shall adhere to all local and state governing codes and manufacturer's recommended application rates and processes. Contractor shall be aware of high wind conditions and shall in no case apply weed control during a wind event that may carry product beyond it's desired location.

Pre-Emergent weed killer shall be granulated and shall be "Treflan" or "Dacthal", or approved 12 month weed preventer.Product shall be delivered to the site in its original container, bearing the manufacture's label and instructions for handling and application.
Pre-Emergent shall be applied by landscape contractor following final topsoil grade and plant placement and prior to organic mulch placement. Care shall be taken to avoid spreading of Pre-Emergent on adjacent hardscapes and lawn areas. Ensure proper coverage as per manufacturer's recommendation.

PART 3 - EXECUTION

3.01 GENERAL

A. Before commencing Contractor shall become familiar with and obtain any necessary permits required for staging and performing work on the property according to Colorado Springs City or other governing ordinances.

B Proceed with and complete landscape work as rapidly as portions of site become available, working within seasonal limitations for each kind of landscape work required.

C. Plant or install materials during normal planting seasons for each type of landscape work required. Correlate planting with specified maintenance periods to provide maintenance from date of substantial completion for that portion of the work. Actual planting shall be performed only when weather and soil conditions are suitable and in accordance with locally accepted practice and as approved by the landscape architect.

D. Contractor shall be responsible to determine location of all underground utilities and perform work in a manner which will in all cases avoid possible damage. Hand excavate, as required. Low voltage and line voltage electrical lines may exist throughout the site as well as drain lines and sumps. Very all locations with General Contractor.

E. The Contractor is responsible for all damage to these utilities. In the event that damage to existing utilities is found, the owner shall coordinate the repair and labor to fix the work and shall back charge the contractor for these services.

F. Contractor shall only layout quantity of plantings that can be installed same day. Following layout of plantings as per plans and prior to planting, landscape architect shall inspect layout for approval and may adjust as necessary prior to installation. Landscape contractor shall notify landscape architect 48 hours in advance of plants being placed.

G. If underground construction, obstructions, or large rocks are encountered in excavation of planting areas, other locations for the planting may be selected by the landscape architect.

H. Plant totals are for convenience only and are not guaranteed. Verify amounts shown on drawings. All planting indicated on drawings is required unless indicated otherwise.

3.02 PREPARATION OF PLANTING BEDS

A. The Contractor shall furnish and spread topsoil on planting bed areas as required to meet lines, grades and elevations as needed, after light rolling and natural settlement. Finish grade of all planting bed areas shall be minimum of 4 inch below grade of any adjacent hardscape to allow for 3" depth of organic mulch.

B. Where possible, light equipment shall be utilized to deliver and spread topsoil to planter areas. Sub-grade or topsoil shall not be driven on, placed or spread when ground is muddy from precipitation. Allow ground to adequately dry to avoid compaction of sub-grade and topsoil.

C. Fine grade planting bed areas to smooth, even surface with loose, uniformly fine texture. Roll, rake and drag planting bed areas, remove ridges and fill depressions, as required to meet finish grades. Limit fine grading to areas which can be planted immediately after grading.

D. Beds shall be raked smooth and put in first class condition before final acceptance and placement of pre-emergent weed control and organic mulch.

3.03 EXCAVATION FOR PLANTING

Obstruction Below Ground: Do not plant any plant with a large obstruction directly below the root ball. In the event that rock or obstructions are encountered in any plant pit excavation, alternate locations may be selected by the Landscape Architect.

Drainage: In the event that impervious rock or hardpan is encountered during digging operations, in tree pits or shrub pits, it shall be the responsibility of the Landscape Contractor to ensure proper drainage in all pits. Minimum drainage requirements shall be the loss of water at the rate of 6" drop in water level per hour. All rock or hardpan encountered shall be disposed of from the site.

Holes for trees and shrubs shall be three times (3x) the ball diameter for trees and two to three times (2-3x) the ball diameter for shrubs as per planting details where possible. Subsoil excavated from tree and shrub pits may be used as backfill material for planting if it is free from sub-soil, refuse, roots, heavy or stiff clay, stones 1 inch and larger in largest dimension, coarse sand, sticks, brush, litter, and other deleterious substances.. Mix excavated soil by 50% volume with imported topsoil prior to backfilling.

Tree rings in lawn areas, if any, shall be circular in outline, with a diameter at least two (2) feet greater than the diameter of the ball of each plant to be planted and edged with specified edging.

Where turf areas are damaged by planting operations, they shall be replaced by equal quality turf by the Landscape Contractor at no cost to the Owner.

Remove debris, rock, and other deleterious material excavated from plants pits from the site.

3.04 SETTING AND BACKFILLING PLANTS

Placing Plants: Plants shall be set with the root ball at the same natural relationship as it had in the nursery. The top of the root ball should be 1-2" above the finished grade. Plants shall be handled by the root ball, not by the trunk or by the stems. Balls must be handled carefully and the trees must be skidded (not dropped) into the hole.

Place specified fertilizer tablets as specified.

Backfill shall be worked around the ball and tamped to eliminate air pockets. Water plants when the hole is two-thirds (2/3) full of backfill.

At this point, any tie wire, twine, burlap, grow bags, etc., tied or wrapped around the stem or plant ball shall be loosened and pulled away from the plant. The burlap on the ball shall be laid back from the top of the ball and any excess burlap and ties shall be cutoff and removed from the planting except where wire cage prohibits removal of burlap. Wire cage shall not be removed.

Soil treatment: A pre-emergent herbicide such as "Dacthal" or "Treflan", or an approved equal shall be delivered to the site in its original container, bearing the manufacturer's label and instructions for handling and application. All trees and shrubs are to receive pre-emergent.

All plants shall be watered and straightened the same day as planted. No holes will be left open over night.

Container grown plants shall have containers cut open and the plants carefully removed so that the earth around roots of plant remain unbroken. Plants shall then be planted in the same manner as ball plants.

Plant trees after final grades are established and prior to planting/placement of lawns, unless otherwise acceptable to landscape architect. If planting of trees occurs after lawn work, protect lawn areas and promptly repair damage to lawns resulting from planting operations.

All plant material must be watered the same day it is planted in order to comply with these specifications. Any plant not watered at the time of planting may be rejected at the option of the landscape architect.

As needed, the Contractor shall hand water newly planted trees twice a week for eight weeks with a minimum of five (5) gallons per tree per watering unless irrigation system is in place and provides adequate water.

All plant material shall be staked and guyed as shown on detail. The stakes will be driven after the tree has been set-in, but before backfilling begins so as to avoid damage to the roots. Any deviation will not be accepted.

3.05 PROTECTION AND CLEAN-UP

A. The Contractor shall remove at the end of each day: excess soil or other litter from roads or other hardscape surfaces (curbs/gutters, walks, driveways, stone patios, steps, walls, decks etc.) and other waste material. All planting sites shall be left in a condition acceptable to the landscape architect. If any remedial action is necessary by the landscape architect, the cost of such action ($50.00 minimum) shall be withheld from payment due the Contractor. Delays in clean-up caused by weather conditions are to be reported to the landscape architect on the day such delays occur, together with and estimate of when clean-up can be affected..

3.06 INSPECTION AND ACCEPTANCE

A. When landscape work is completed, including maintenance, landscape architect may, upon request, make an inspection to determine acceptability.

B. When inspected landscape work does not comply with requirements, replace rejected work and continue specified maintenance until re-inspected by Landscape Architect and found to be acceptable. Remove rejected plants and materials promptly from the project site.

C. Final acceptance shall require that the site be clean and free of any signs of construction in progress. All hardscape areas shall be in like new condition including public streets adjacent to the property that were affected by the construction process.

SECTION 2 - TURF SOD AND SOIL PREPARATION
PART 1 - GENERAL

NOT USED.

PART 2 - TURF SOD

NOT USED.

PART 3 - EXECUTION

3.01 PREPARATION OF SOILS

Report any unusual subsoil condition (ie. roadbase, rocks, etc.) that will require special treatment to the landscape architect.

Where possible, light equipment shall be utilized to deliver and spread topsoil to lawn areas. Sub-grade or topsoil shall not be driven on, placed or spread when ground is muddy from precipitation. Allow ground to adequately dry to avoid compaction of sub-grade and topsoil.

Limit preparation to areas that will be planted promptly after preparation.

Surface drainage shall be ensured and, if shown, shall be directed in the manner indicated on the drawings. Fill low spots and pockets with topsoil and grade to drain properly.

The Contractor shall ensure 6 inches of topsoil in sodded areas or as required to meet lines, grades and elevations shown, after light rolling and natural settlement.

Finish grading shall consist of loosening sub-grade and placing soil, as specified. Bring areas to uniform grade by floating or hand raking. Make minor adjustments of finish grades at the direction of Landscape Architect.

All rocks half inch and larger and non-conforming foreign matter such as building rubble,concrete, wire, cans, sticks, etc., shall be removed from topsoil during finish grading.

Fine grade lawn areas to smooth, even surface with loose, uniformly fine texture. Roll, rake and drag lawn areas, remove ridges and fill depressions, as required to meet finish grades. Limit fine grading to areas which can be planted immediately after grading.

Allow for sod root mass and blade height thickness in areas to be sodded.

Moisten prepared lawn areas before planting if soil is dry. Water thoroughly and allow surface moisture to dry before planting lawn. Do not create a muddy soil condition.

Restore lawn areas to specified condition if eroded or otherwise disturbed after fine grading and prior to planting.

The topsoil shall be placed, water settled, re-graded, and brought to finish grades at a compaction rate of 80% to 85% optimum moisture content. Add additional topsoil as needed to insure minimum depth requirement.

3.02 SOD INSTALLATION

NOT USED.

3.03 CARE AFTER SOD INSTALLATION

NOT USED.

3.04 INSPECTION

A. Pre-Inspection Walk-Through

1. Notify landscape architect 48 hours in advance to schedule pre-inspection.
2. Work of this section shall be completely installed prior to scheduling of walk-through.
3. Generate a "punch list" of items to be corrected, prior to Final Inspection for Substantial Completion.
4. Furnish all required material and equipment and perform all work required to correct deficiencies.

B. Inspection For Substantial Completion

1. Contact landscape architect 48 hours in advance to schedule inspection.
2. Items deemed not acceptable by landscape architect shall be re-worked to the complete satisfaction of the landscape architect.

3.05 TURF WARRANTY AND MAINTENANCE

NOT USED.

3.06 EROSION CONTROL PROTECTION

Temporary erosion control Best Management Practices (BMP'S) shall be utilized where the potential for erosion may occur. BMP's may include but are not limited to the following: silt fencing, fiber rolls or wattles, erosion control blankets or other means may be needed to ensure proper soil stability during and after construction and until the slopes have been established by the re-vegetation process. Installation of erosion control materials shall be installed as per the manufacturer's recommendation for the existing site conditions.

LIVE DESIGN
WWW.LIVEDSGN.COM
PROJECT NO: 18-17
2437 MARKSHEFFEL ROAD
COLORADO SPRINGS, CO

QUICK QUACK CONSTITUTION

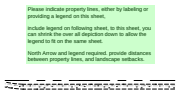
R. AUGUST BATEMAN
13291
08/27/2019
Original Date of Licensure
STATE OF COLORADO
LICENSED LANDSCAPE ARCHITECT

ENG/ARCH: ELEVATE
DRAWN BY: RAB
REVIEWED BY: RAB
DATE: 14 Jan 2019

LANDSCAPE SPECIFICATIONS
LS600

Markup Summary

dsdsevigny (5)

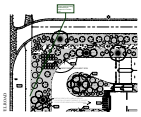


Subject: Text Box
Page Label: [1] QQ CoSprings Const PP-LP101
Lock: Locked
Author: dsdsevigny
Date: 2/22/2019 12:18:00 PM
Color:

Please indicate property lines, either by labeling or providing a legend on this sheet,

include legend on following sheet, to this sheet, you can shrink the over all depiction down to allow the legend to fit on the same sheet.

North Arrow and legend required. provide distances between property lines, and landscape setbacks.



Subject: Callout
Page Label: [1] QQ CoSprings Const PP-LP101
Lock: Locked
Author: dsdsevigny
Date: 2/22/2019 12:18:01 PM
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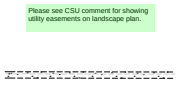
8 trees required along Marksheffel per Section 6.2.2 of the LDC

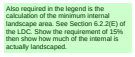
Subject: Callout
Page Label: [2] QQ CoSprings Const PP-LP102
Lock: Locked
Author: dsdsevigny
Date: 2/22/2019 12:18:02 PM
Color:

Include required amount and amount provided.



Subject: Text Box
Page Label: [1] QQ CoSprings Const PP-LP101
Lock: Locked
Author: dsdsevigny
Date: 2/22/2019 12:18:02 PM
Color:

Please see CSU comment for showing utility easements on landscape plan.



Subject: Text Box
Page Label: [2] QQ CoSprings Const PP-LP102
Lock: Locked
Author: dsdsevigny
Date: 2/22/2019 12:18:03 PM
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Also required in the legend is the calculation of the minimum internal landscape area. See Section 6.2.2(E) of the LDC. Show the requirement of 15% then show how much of the internal is actually landscaped.