STAFF REPORT

DATE: 1/9/17
REGULAR
ITEM #:

TO: City Council

FROM: Emily Becker, Planning Director

AGENDA ITEM: Royal Golf Tree Requirements

REVIEWED BY: Kristina Handt, City Administrator

BACKGROUND:

The Royal Golf Club at Lake Elmo Preliminary Landscape Plans included the need for 3800 trees within the entire Royal Golf Club at Lake Elmo Preliminary Plat per Tree Preservation and Landscape requirements. The original number of trees that were required to be planted within the development was approximately 4600, but because the area is heavily wooded and because the language within the tree preservation ordinance requires a minimum of five trees to be planted for every one acre of land that is developed *or* disturbed, the City made some concessions, and an agreement was made to require that 3800 trees be planted within the development. The Developer and City have been working on coming to an agreement for trees required within the development, as both the Developer and City believe that the required number of trees within the development would cause tree overcrowding.

The preliminary landscape plans provided that a total of 918 trees to be planted on single family lots. Of these, four are to be planted within each large single family lot, and two are to be planted within each small single family (villa) lots. The Developer is requiring the builders to plant these trees but is also requesting that the City not govern, warrant, or dictate those trees and simply ensure that they are planted.

The Development Agreement for Royal Golf Club at Lake Elmo 1st Addition required that security be in place for the cost of all trees, including those mentioned to be planted within single family lots above to be installed on single family lots by builders. Other developments within the City (i.e. Hunter's Crossing) have landscaping that is warrantied within private lots.

ISSUE BEFORE COUNCIL:

The Council is being asked to discuss trees within private lots of the Royal Golf Club at Lake Elmo and if they should be governed, warranted, or dictated.

PROPOSAL DETAILS/ANALYSIS:

The Development Agreement for Royal Golf Club at Lake Elmo 1st Addition was approved on September 19, 2017 and included the provision that the Developer agrees to install landscaping in accordance with the approved plans and that all landscaping materials such as trees, shrubs, grasses, or other vegetation installed by the Developer must be warrantied and maintained for a period of two years. Therefore, the Development Agreement inherently requires that even the trees installed on private lots be warrantied for this time period.
The Development Agreement also gives the Developer the option of reducing the number of trees it is required to plant within the subdivision by implementing woodland management and/or pollinator friendly native seeding practices and/or pay the City a per-tree parkland dedication fee of $500.00 per 2.5 caliper inch tree that the developer elects not to plant within the subdivision. Attached is a breakdown of credit the Developer would receive for various woodland management and/or pollinator friendly techniques. As previously mentioned, the City has come to accept that the tree requirement for the entire Preliminary Plat area is 3800 2.5" caliper trees. As a general rule, the City gives $200.00 credit per required caliper inch ($500.00 per 2.5" caliper tree). Therefore, for each $500.00 credit the woodland management and/or pollinator friendly technique the Developer utilizes, one less tree would be required.

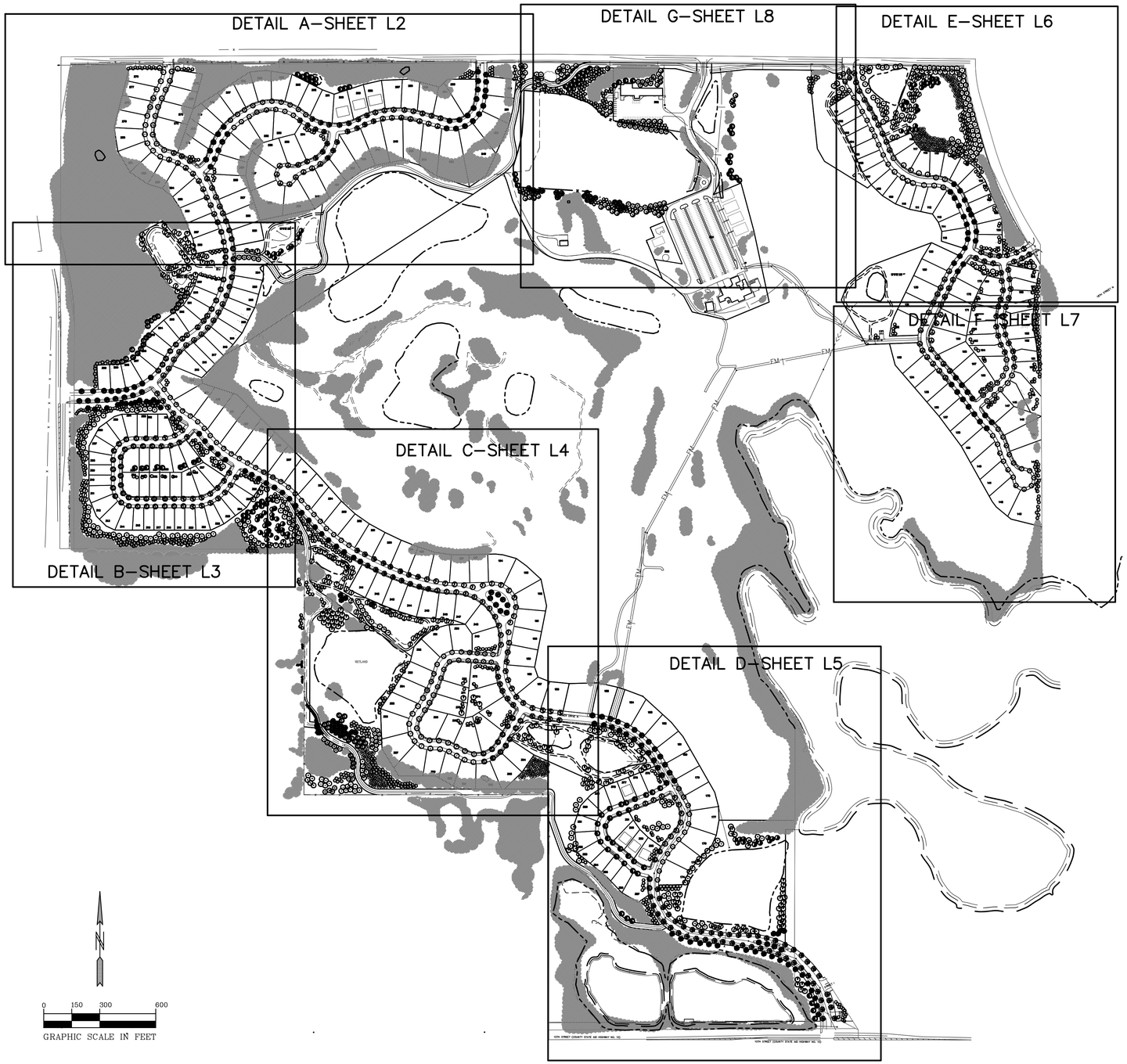
In regards to governing the types of trees that are to be planted within single family lots, the landscape plans do not include the types of trees that are required to be installed by the builder, solely that trees by builders are to be chosen from the plant schedule listed on the landscape plans and that there must be a minimum of two different species per lot.
While inspection of trees within single family lots would be burdensome on City Staff and consultants, allowing these trees to not be warrantied would be treating the Royal Golf Club at Lake Elmo development differently from other developments in that all other required trees within other developments are warrantied.

RECOMMENDATION:

For the aforementioned reasons, Staff would recommend that in lieu of planting trees on private lots within the development that the Developer utilize the option mentioned above and outlined in the Development Agreement of reducing the number of trees within the subdivision by implementing woodland management and/or pollinator friendly native seeding practices and/or pay the City a per-tree parkland dedication fee of $500.00 per 2.5 caliper inch tree that the developer elects not to plant within the subdivision. If the Developer chooses to still plant trees within private lots, the City should continue with the precedent set with other developments that have trees in private lots that have required warranty.

ATTACHMENTS:

1. Royal Golf Club at Lake Elmo Preliminary and 1st Addition Landscape Plans
2. Development Agreement Section 19: Landscaping and Tree Replacement Improvements
3. Forest Management and Pollinator Friendly Alternatives



LANDSCAPE DATA:

GROSS RESIDENTIAL DEVELOPMENT AREA: 231.2 ACRES
LAND ACREAGE "DEVELOPED OR DISTURBED BY DEVELOPMENT ACTIVITY" (DEVELOPED AREA WITHIN GRADING LIMITS): 117 ACRES

LANDSCAPE REQUIREMENTS:
1 TREE/50' OF ROW FRONTAGE: 35,961'/50=720 TREES
5 TREES PER 1 ACRE OF "LAND THAT IS DEVELOPED OR DISTURBED BY DEVELOPMENT ACTIVITY": 117 AC. X 5=585 TREES

TOTAL TREES REQUIRED FOR LANDSCAPING: 1,305

MITIGATION REQUIREMENT: 8,397" (SEE TREE PRESERVATION PLANS)

PROPOSED TREES ON PLAN: 1,844 OVERSTORY (4,800"), 1,038 EVERGREEN (3,114")
TOTAL TREES PROPOSED: 2,882 (7,914")

LARGE LOT SINGLE FAMILY WILL HAVE AN ADDITIONAL REQUIREMENT OF 4 TREES/LOT AND SMALL LOT SINGLE FAMILY WILL HAVE AN ADDITIONAL REQUIREMENT OF 2 TREES/LOT PLANTED BY THE BUILDER AS PART OF THE HOME LANDSCAPING. TOTAL NUMBER OF TREES REQUIRED TO BE PLANTED AFTER HOME CONSTRUCTION BY BUILDER:
4 TREES (2.5") PER LARGE LOT (167 LOTS): 668 TREES (1,670")
2 TREES (2.5") PER 55–65' LOT (125 LOTS): 250 TREES (625")
TOTAL TREES BY BUILDER: 918 (2,295")

TOTAL TREES PROPOSED: 3,800 (10,209")

–PROPOSED ORNAMENTAL TREES NOT INCLUDED IN ANY CALCULATIONS

TREE TOTALS FOR ENTIRE SITE

PLANT SCHEDULE

KEY	COMMON NAME/Scientific name	ROOT	QUANTITY	
	OVERSTORY TREES			
	NORTHWOODS RED MAPLE/Acer rubrum 'Northwoods'	2.5" B&B	117	
	AUTUMN BLAZE MAPLE/Acer x freemanii 'Jeffersred'	2.5" B&B	101	
	SIENNA GLEN MAPLE/Acer x freemanii 'Sienna'	2.5" B&B	92	
	SUGAR MAPLE/Acer Saccarum 'Green Mountain'	2.5" B&B	107	
	HERITAGE RIVER BIRCH/Betula nigra 'Cully'	12' B&B	225	
	WHITESPIRE BIRCH/Betula populifolia 'Whitespire'	12' B&B	131	
	COMMON HACKBERRY/Celtis occidentalis	2.5" B&B	118	
	CELEBRATION MAPLE/Acer x freemanii 'Celebration'	2.5" B&B	81	
	RED OAK/Quercus rubra	2.5" B&B	97	
	NORTHERN PIN OAK/Quercus ellipsoildalis	2.5" B&B	89	
	SWAMP WHITE OAK/Quercus bicolor	2.5" B&B	144	
	PRINCETON ELM/Ulmus americana 'Princeton'	2.5" B&B	134	
	WHITE WILLOW/Salix alba 'Niobe'	2.5" B&B	81	
	GINGKO/Ginko biloba (male only)	2.5" B&B	44	
	CATALPA/Catalpa speciosa	2.5" B&B	51	
	QUAKING ASPEN/Populus tremuloides	2.5" B&B	178	
	SPADED MAPLE AND OAK TRANSPLANTS	6" MM	54	SEE NOTES ON DETAIL E
	EVERGREEN TREES			
	BLACK HILLS SPRUCE/Picea glauca densata	6' B&B	473	
	WHITE PINE/Pinus strobus	6' B&B	358	
	RED PINE/Pinus resinosa	6' B&B	207	
	ORNAMENTAL TREES			
	PRAIRIFIRE CRAB/Malus 'Prairifire'	1.5" B&B	19	
	JAPANESE TREE LILAC/Syringa reticulata	8' B&B	23	
	SPRING SNOW CRAB/Malux 'Spring Snow'	1.5" B&B	17	

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 5-4-17

Revisions
2-10-17 new site layout
5-4-17 revised grading

Date	9-22-16
Designed	JLT
Drawn	JLT

LANDSCAPE PLAN

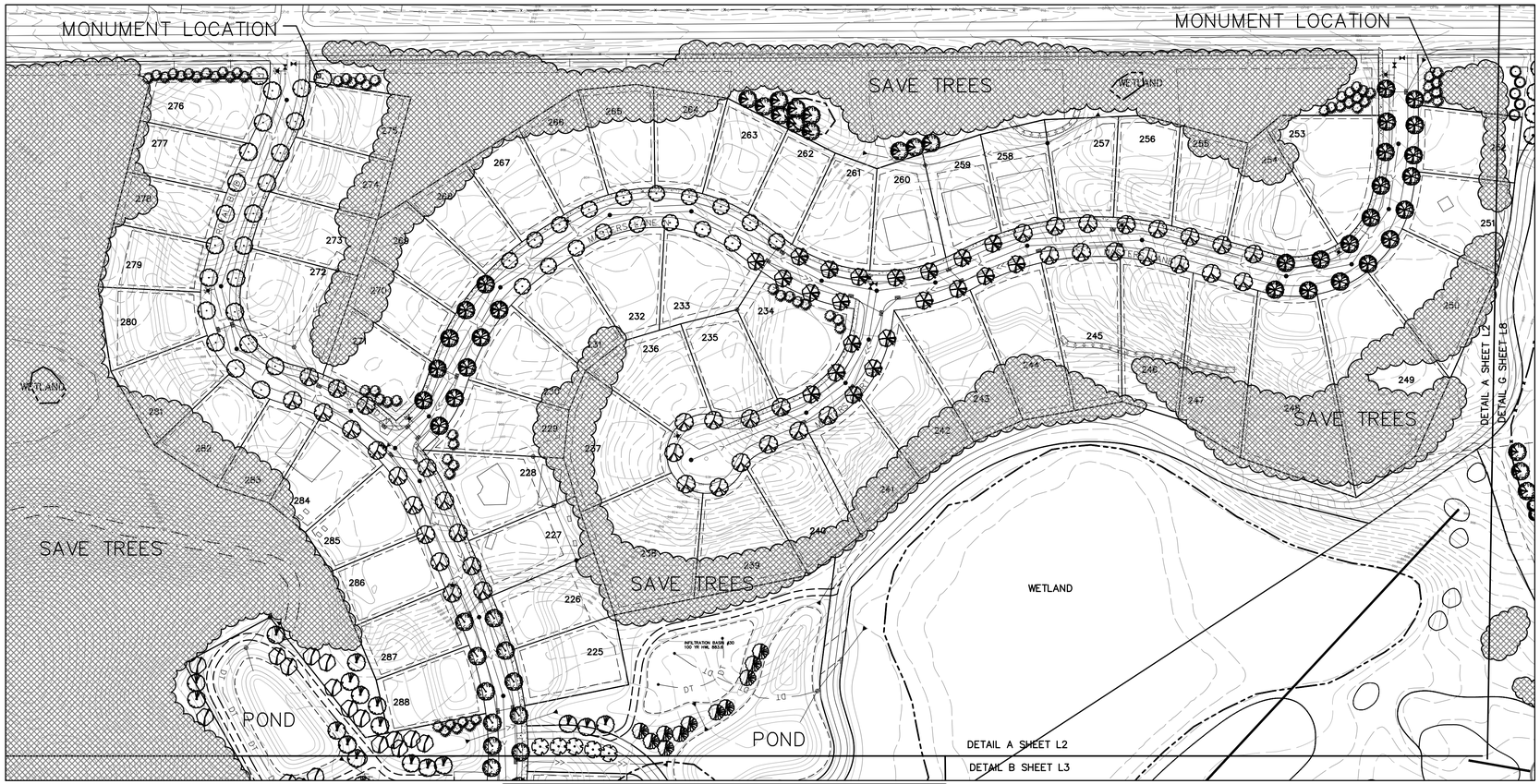
HC GOLF COURSE DEVELOPMENT, LLC
11074 RADISSON ROAD NE
BLAINE, MINNESOTA 55449

THE ROYAL GOLF CLUB AT LAKE ELMO
LAKE ELMO, MINNESOTA

L1 OF 16

116240

DETAIL A



SEE SHEETS L1 LANDSCAPE REQUIREMENTS

N

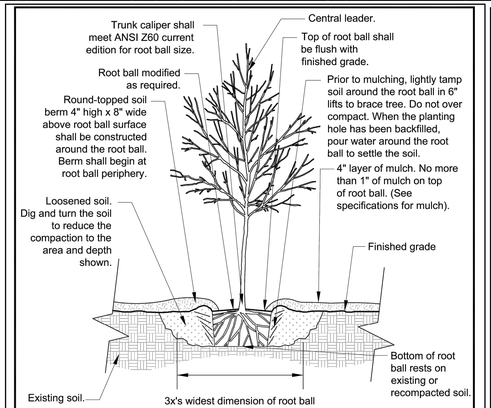
0 50 100 200

GRAPHIC SCALE IN FEET

TREE TOTALS FOR ENTIRE SITE

PLANT SCHEDULE

KEY	COMMON NAME/Scientific name	ROOT	QUANTITY	
	OVERSTORY TREES			
	NORTHWOODS RED MAPLE/Acer rubrum 'Northwoods'	2.5" B&B	117	
	AUTUMN BLAZE MAPLE/Acer x freemanii 'Jeffersred'	2.5" B&B	101	
	SIENNA GLEN MAPLE/Acer x freemanii 'Sienna'	2.5" B&B	92	
	SUGAR MAPLE/Acer Saccarum 'Green Mountain'	2.5" B&B	107	
	HERITAGE RIVER BIRCH/Betula nigra 'Cully'	12' B&B	225	
	WHITESPIRE BIRCH/Betula populifolia 'Whitespire'	12' B&B	131	
	COMMON HACKBERRY/Celtis occidentalis	2.5" B&B	118	
	CELEBRATION MAPLE/Acer x freemanii 'Celebration'	2.5" B&B	81	
	RED OAK/Quercus rubra	2.5" B&B	97	
	NORTHERN PIN OAK/Quercus ellipsoildalis	2.5" B&B	89	
	SWAMP WHITE OAK/Quercus bicolor	2.5" B&B	144	
	PRINCETON ELM/Ulmus americana 'Princeton'	2.5" B&B	134	
	WHITE WILLOW/Salix alba 'Niobe'	2.5" B&B	81	
	GINGKO/Ginko biloba (male only)	2.5" B&B	44	
	CATALPA/Catalpa speciosa	2.5" B&B	51	
	QUAKING ASPEN/Populus tremuloides	2.5" B&B	178	
	SPADED MAPLE AND OAK TRANSPLANTS	6" MM	54	SEE NOTES ON DETAIL E
	EVERGREEN TREES			
	BLACK HILLS SPRUCE/Picea glauca densata	6' B&B	473	
	WHITE PINE/Pinus strobus	6' B&B	358	
	RED PINE/Pinus resinosa	6' B&B	207	
	ORNAMENTAL TREES			
	PRAIRIFIRE CRAB/Malus 'Prairifire'	1.5" B&B	19	
	JAPANESE TREE LILAC/Syringa reticulata	8' B&B	23	
	SPRING SNOW CRAB/Malux 'Spring Snow'	1.5" B&B	17	



Notes:
1. Modified soil - Depth of soil varies (see specifications for soil modification).
2. Trees shall be of quality prescribed in crown observations and root observations details and specifications.
3. See specifications for further requirements related to this detail.

Poorly Drained Soil Notes:
1. Root ball surface shall be positioned to be one - quarter above finished grade.
2. Existing site soil shall be added to create a smooth transition from the top of the raised root ball to the finished grade at a 15% max. slope.

DECIDUOUS TREE – MODIFIED/UNMODIFIED SOIL & POORLY DRAINED SOIL

FEBRUARY 2015

CITY OF LAKE ELMO

STANDARD DRAWING NO. 902A

LAKE ELMO

1. PRIOR TO TREE STAKING AND PLANTING OPERATIONS CONTRACTOR MUST CONTACT GOPHER STATE ONE CALL (www.gopherstateonecall.org or 811) TO VERIFY UNDERGROUND UTILITIES. WHERE PRIVATE UTILITIES EXIST ON-SITE THE CONTRACTOR IS REQUIRED TO HAVE THOSE LOCATED AS WELL.
2. PLANT MATERIALS SHALL MEET AMERICAN STANDARD FOR NURSERY STOCK: ANSI Z60.1 LATEST EDITION. http://americanhort.org/documents/ANSI Nursery Stock Standards AmericanHort 2014.pdf
3. NO PLANT SUBSTITUTIONS SHALL BE MADE WITHOUT THE PRIOR WRITTEN AUTHORIZATION FROM THE CITY.
4. ALL TREE PROTECTION MEASURES TO BE FIELD STAKED PRIOR TO INSTALLATION. CONTRACTOR TO COORDINATE FIELD REVIEW OF PROPOSED TREE PROTECTION LOCATIONS WITH THE CITY AND PROJECT LANDSCAPE ARCHITECT PRIOR TO ANY TREE PROTECTION INSTALLATION.
5. ALL TREE LOCATIONS TO BE FIELD STAKED PRIOR TO INSTALLATION. CONTRACTOR TO COORDINATE FIELD REVIEW OF PROPOSED TREE LOCATIONS WITH THE CITY AND PROJECT LANDSCAPE ARCHITECT PRIOR TO ANY TREE INSTALLATION.
6. ALL PLANTS SHALL BE PLANTED IMMEDIATELY UPON ARRIVAL TO PROJECT SITE. NO PLANT MATERIAL IS TO BE LEFT OVERNIGHT ON THE PROJECT SITE WITHOUT BEING INSTALLED UNLESS WRITTEN APPROVAL BY CITY.
7. ALL TREES, SHRUBS, PERENNIALS AND TURF LAWN TO HAVE A TWO YEAR WARRANTY BEGINNING UPON WRITTEN ACCEPTANCE BY THE CITY. DEFECTIVE PLANTS AS DETERMINED BY THE CITY SHALL BE REPLACED WITHIN 30 DAYS OF NOTICE DURING THE GROWING SEASON, AND REPLACEMENT MATERIALS SHALL RECEIVE THE SAME TWO YEAR WARRANTY UNTIL PLANTS ARE SUCCESSFULLY ESTABLISHED.
8. CONTRACTOR TO PROTECT AND MAINTAIN ALL PLANTINGS AND PLANT BEDS, INCLUDING PROTECTION FROM WILDLIFE, WEEDING, RE-MULCHING, FERTILIZATION, IRRIGATION AND ALL OTHER TYPICAL FORMS OF HORTICULTURAL CARE UNTIL THE END OF THE WARRANTY PERIOD AS DETERMINED AND APPROVED BY CITY.
9. ALL AREAS DISTURBED ADJACENT TO THE PROJECT SITE INCLUDING BOULEVARDS SHALL BE REPAIRED AND MAINTAINED PER CITY DIRECTION.
10. PROVIDE A THREE YEAR MAINTENANCE PLAN FOR ALL SEEDING OF PLANT MATERIALS/AREAS WITHIN ALL COMMERCIAL PROPERTIES, COMMONLY HELD HOA AREAS, CITY OUTLOTS AND R.O.W. AREAS.
11. ALL TREE, SHRUB AND PERENNIAL BEDS, WITHIN THE R.O.W. OR LOCATED ON COMMERCIAL PROPERTIES OR ON COMMONLY HELD HOA PROPERTY AND CITY OUTLOTS WITHIN DEVELOPMENTS ARE REQUIRED TO HAVE AN AUTOMATIC IRRIGATION SYSTEM DESIGNED BY AN EPA WATER SENSE CERTIFIED PROFESSIONAL. THIS PLAN IS REQUIRED FOR CITY REVIEW AT THE SAME TIME AS LANDSCAPE PLAN REVIEW.
12. ALL TRADITIONAL TURF LAWN AREAS WITHIN R.O.W. OR LOCATED ON COMMERCIAL PROPERTIES OR ON COMMONLY HELD HOA PROPERTY AND CITY OUTLOTS WITHIN DEVELOPMENTS ARE REQUIRED TO HAVE AN AUTOMATIC IRRIGATION SYSTEM DESIGNED BY AN EPA WATER SENSE CERTIFIED PROFESSIONAL. THIS PLAN IS REQUIRED FOR CITY REVIEW AT TIME OF LANDSCAPE PLAN REVIEW.

STANDARD PLAN NOTES

LANDSCAPE PLANS

FEBRUARY 2015

CITY OF LAKE ELMO

STANDARD DRAWING NO. 900

LAKE ELMO

LANDSCAPE NOTES:
1. LOTS WILL BE SODDED AFTER CONSTRUCTION.
2. SEE SHEET L1 FOR LANDSCAPE REQUIREMENT DATA
3. ALL PLANTS TO BE PLANTED WITHIN CITY PARKS AND ON CITY PROPERTIES SHALL COMPLY WITH THE CITY'S RESOLUTION ENDORSING BEE-SAFE POLICIES AND PROCEDURES. WRITTEN ACKNOWLEDGEMENT WILL BE PROVIDED.
4. TREES WITHIN BOULEVARDS WITH SIDEWALKS WILL BE PLANTED 5' FROM CURB
5. TREES WITHIN BOULEVARDS WITHOUT SIDEWALKS WILL BE PLANTED 8' FROM CURB

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 5-4-17

Revisions
2-10-17 new site layout
5-4-17 revised grading

Date	9-22-16
Designed	JLT
Drawn	JLT

LANDSCAPE PLAN

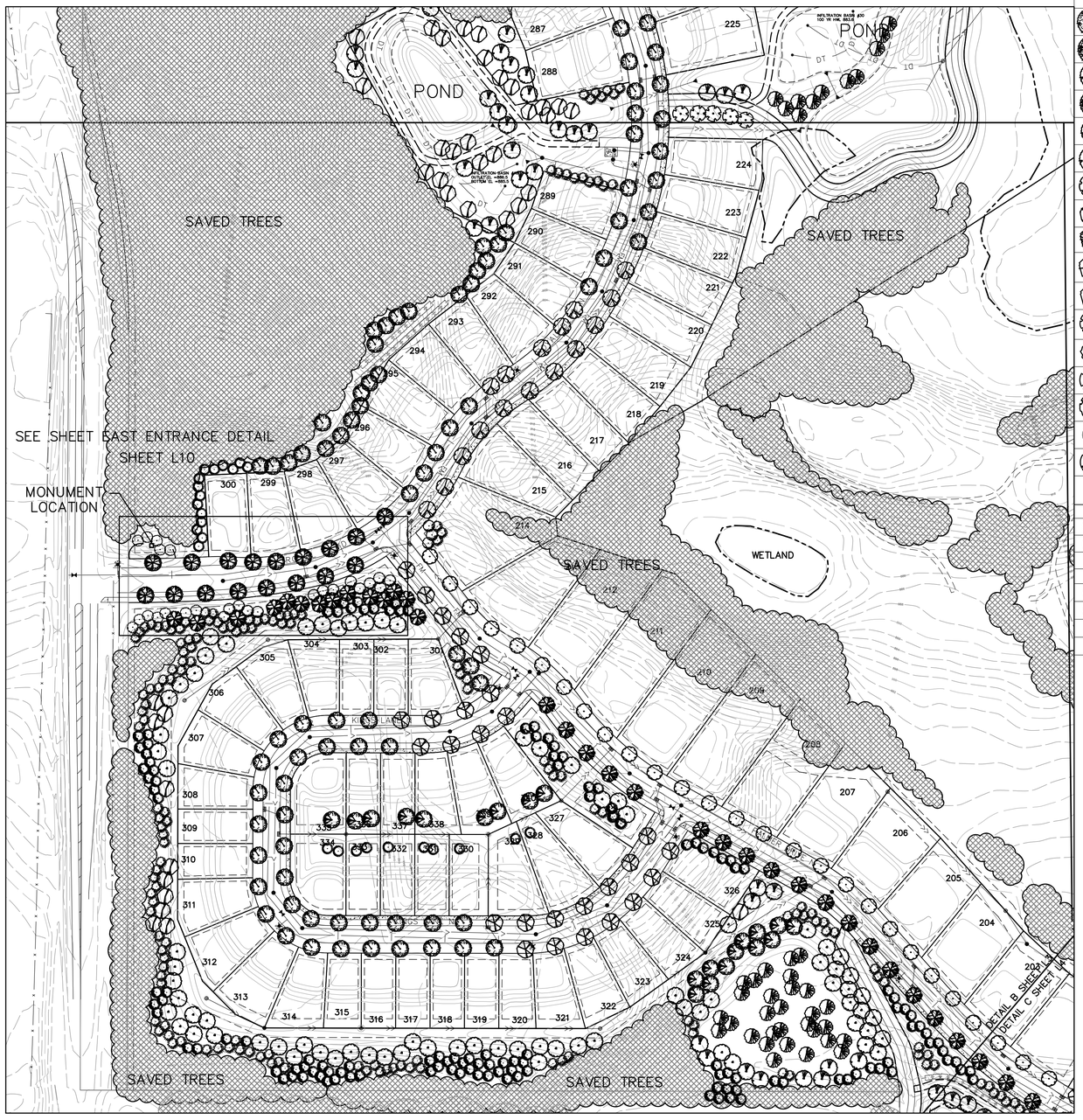
HC GOLF COURSE DEVELOPMENT, LLC
11074 RADISSON ROAD NE
BLAINE, MINNESOTA 55449

THE ROYAL GOLF CLUB AT LAKE ELMO
LAKE ELMO, MINNESOTA

L2 OF 16

116240

DETAIL B



SEE SHEETS L1 LANDSCAPE REQUIREMENTS

TREE TOTALS FOR ENTIRE SITE

PLANT SCHEDULE

KEY	COMMON NAME/Scientific name	ROOT	QUANTITY	
	OVERSTORY TREES			
	NORTHWOODS RED MAPLE/Acer rubrum 'Northwoods'	2.5" B&B	117	
	AUTUMN BLAZE MAPLE/Acer x freemanii 'Jeffersred'	2.5" B&B	101	
	SIENNA GLEN MAPLE/Acer x freemanii 'Sienna'	2.5" B&B	92	
	SUGAR MAPLE/Acer Saccarum 'Green Mountain'	2.5" B&B	107	
	HERITAGE RIVER BIRCH/Betula nigra 'Cully'	12' B&B	225	
	WHITESPIRE BIRCH/Betula populifolia 'Whitespire'	12' B&B	131	
	COMMON HACKBERRY/Celtis occidentalis	2.5" B&B	118	
	CELEBRATION MAPLE/Acer x freemanii 'Celebration'	2.5" B&B	81	
	RED OAK/Quercus rubra	2.5" B&B	97	
	NORTHERN PIN OAK/Quercus ellipsoildalis	2.5" B&B	89	
	SWAMP WHITE OAK/Quercus bicolor	2.5" B&B	144	
	PRINCETON ELM/Ulmus americana 'Princeton'	2.5" B&B	134	
	WHITE WILLOW/Salix alba 'Niobe'	2.5" B&B	81	
	GINGKO/Ginko biloba (male only)	2.5" B&B	44	
	CATALPA/Catalpa speciosa	2.5" B&B	51	
	QUAKING ASPEN/Populus tremuloides	2.5" B&B	178	
	SPADED MAPLE AND OAK TRANSPLANTS	6" MM	54	SEE NOTES ON DETAIL E
	EVERGREEN TREES			
	BLACK HILLS SPRUCE/Picea glauca densata	6' B&B	473	
	WHITE PINE/Pinus strobus	6' B&B	358	
	RED PINE/Pinus resinosa	6' B&B	207	
	ORNAMENTAL TREES			
	PRAIRIFIRE CRAB/Malus 'Prairifire'	1.5" B&B	19	
	JAPANESE TREE LILAC/Syringa reticulata	8' B&B	23	
	SPRING SNOW CRAB/Malux 'Spring Snow'	1.5" B&B	17	

N

0 50 100 200

GRAPHIC SCALE IN FEET

1. PRIOR TO TREE STAKING AND PLANTING OPERATIONS CONTRACTOR MUST CONTACT GOPHER STATE ONE CALL (www.gopherstateonecall.org or 811) TO VERIFY UNDERGROUND UTILITIES. WHERE PRIVATE UTILITIES EXIST ON–SITE THE CONTRACTOR IS REQUIRED TO HAVE THOSE LOCATED AS WELL.
2. PLANT MATERIALS SHALL MEET AMERICAN STANDARD FOR NURSERY STOCK: ANSI Z60.1 LATEST EDITION. http://americanhort.org/documents/ANSI Nursery Stock Standards AmericanHort 2014.pdf
3. NO PLANT SUBSTITUTIONS SHALL BE MADE WITHOUT THE PRIOR WRITTEN AUTHORIZATION FROM THE CITY.
4. ALL TREE PROTECTION MEASURES TO BE FIELD STAKED PRIOR TO INSTALLATION. CONTRACTOR TO COORDINATE FIELD REVIEW OF PROPOSED TREE PROTECTION LOCATIONS WITH THE CITY AND PROJECT LANDSCAPE ARCHITECT PRIOR TO ANY TREE PROTECTION INSTALLATION.
5. ALL TREE LOCATIONS TO BE FIELD STAKED PRIOR TO INSTALLATION. CONTRACTOR TO COORDINATE FIELD REVIEW OF PROPOSED TREE LOCATIONS WITH THE CITY AND PROJECT LANDSCAPE ARCHITECT PRIOR TO ANY TREE INSTALLATION.
6. ALL PLANTS SHALL BE PLANTED IMMEDIATELY UPON ARRIVAL TO PROJECT SITE. NO PLANT MATERIAL IS TO BE LEFT OVERNIGHT ON THE PROJECT SITE WITHOUT BEING INSTALLED UNLESS WRITTEN APPROVAL BY CITY.
7. ALL TREES, SHRUBS, PERENNIALS AND TURF LAWN TO HAVE A TWO YEAR WARRANTY BEGINNING UPON WRITTEN ACCEPTANCE BY THE CITY. DEFECTIVE PLANTS AS DETERMINED BY THE CITY SHALL BE REPLACED WITHIN 30 DAYS OF NOTICE DURING THE GROWING SEASON, AND REPLACEMENT MATERIALS SHALL RECEIVE THE SAME TWO YEAR WARRANTY UNTIL PLANTS ARE SUCCESSFULLY ESTABLISHED.
8. CONTRACTOR TO PROTECT AND MAINTAIN ALL PLANTINGS AND PLANT BEDS, INCLUDING PROTECTION FROM WILDLIFE, WEEDING, RE–MULCHING, FERTILIZATION, IRRIGATION AND ALL OTHER TYPICAL FORMS OF HORTICULTURAL CARE UNTIL THE END OF THE WARRANTY PERIOD AS DETERMINED AND APPROVED BY CITY.
9. ALL AREAS DISTURBED ADJACENT TO THE PROJECT SITE INCLUDING BOULEVARDS SHALL BE REPAIRED AND MAINTAINED PER CITY DIRECTION.
10. PROVIDE A THREE YEAR MAINTENANCE PLAN FOR ALL SEEDING OF PLANT MATERIALS/AREAS WITHIN ALL COMMERCIAL PROPERTIES, COMMONLY HELD HOA AREAS, CITY OUTLOTS AND R.O.W. AREAS.
11. ALL TREE, SHRUB AND PERENNIAL BEDS, WITHIN THE R.O.W. OR LOCATED ON COMMERCIAL PROPERTIES OR ON COMMONLY HELD HOA PROPERTY AND CITY OUTLOTS WITHIN DEVELOPMENTS ARE REQUIRED TO HAVE AN AUTOMATIC IRRIGATION SYSTEM DESIGNED BY AN EPA WATER SENSE CERTIFIED PROFESSIONAL. THIS PLAN IS REQUIRED FOR CITY REVIEW AT THE SAME TIME AS LANDSCAPE PLAN REVIEW.
12. ALL TRADITIONAL TURF LAWN AREAS WITHIN R.O.W. OR LOCATED ON COMMERCIAL PROPERTIES OR ON COMMONLY HELD HOA PROPERTY AND CITY OUTLOTS WITHIN DEVELOPMENTS ARE REQUIRED TO HAVE AN AUTOMATIC IRRIGATION SYSTEM DESIGNED BY AN EPA WATER SENSE CERTIFIED PROFESSIONAL. THIS PLAN IS REQUIRED FOR CITY REVIEW AT TIME OF LANDSCAPE PLAN REVIEW.

STANDARD PLAN NOTES

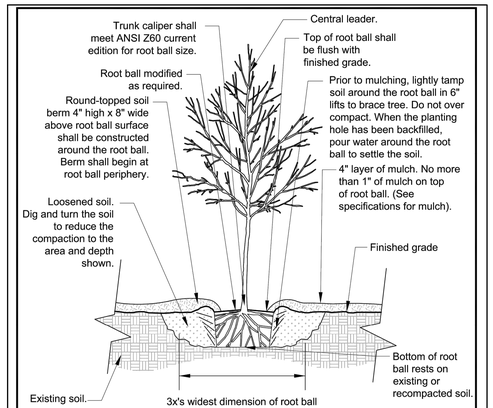
LANDSCAPE PLANS

FEBRUARY 2015

CITY OF LAKE ELMO

STANDARD DRAWING NO. 900

LAKE ELMO



Notes:
1. Modified soil - Depth of soil varies (see specifications for soil modification).
2. Trees shall be of quality prescribed in crown observations and root observations details and specifications.
3. See specifications for further requirements related to this detail.

Poorly Drained Soil Notes:
1. Root ball surface shall be positioned to be one - quarter above finished grade.
2. Existing site soil shall be added to create a smooth transition from the top of the raised root ball to the finished grade at a 15% max. slope.

DECIDUOUS TREE – MODIFIED/UNMODIFIED SOIL & POORLY DRAINED SOIL

FEBRUARY 2015

URBAN TREE FOUNDATION © 2014 OPEN SOURCE FREE TO USE

CITY OF LAKE ELMO

STANDARD DRAWING NO. 902A

LAKE ELMO

LANDSCAPE NOTES:
1. LOTS WILL BE SODDED AFTER CONSTRUCTION.
2. SEE SHEET L1 FOR LANDSCAPE REQUIREMENT DATA
3. ALL PLANTS TO BE PLANTED WITHIN CITY PARKS AND ON CITY PROPERTIES SHALL COMPLY WITH THE CITY'S RESOLUTION ENDORSING BEE–SAFE POLICIES AND PROCEDURES. WRITTEN ACKNOWLEDGEMENT WILL BE PROVIDED.
4. TREES WITHIN BOULEVARDS WITH SIDEWALKS WILL BE PLANTED 5' FROM CURB
5. TREES WITHIN BOULEVARDS WITHOUT SIDEWALKS WILL BE PLANTED 8' FROM CURB

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 5-4-17

Revisions
2-10-17 new site layout
5-4-17 revised grading

Date	9-22-16
Designed	JLT
Drawn	JLT

LANDSCAPE PLAN

HC GOLF COURSE DEVELOPMENT, LLC
11074 RADISSON ROAD NE
BLAINE, MINNESOTA 55449

THE ROYAL GOLF CLUB AT LAKE ELMO
LAKE ELMO, MINNESOTA

116240

DETAIL C

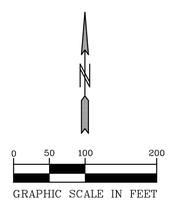
SEE SHEETS L1 FOR LANDSCAPE REQUIREMENTS

TREE TOTALS FOR ENTIRE SITE

PLANT SCHEDULE

KEY	COMMON NAME/Scientific name	ROOT	QUANTITY	
	OVERSTORY TREES			
	NORTHWOODS RED MAPLE/Acer rubrum 'Northwoods'	2.5" B&B	117	
	AUTUMN BLAZE MAPLE/Acer x freemanii 'Jeffersred'	2.5" B&B	101	
	SIENNA GLEN MAPLE/Acer x freemanii 'Sienna'	2.5" B&B	92	
	SUGAR MAPLE/Acer Saccarum 'Green Mountain'	2.5" B&B	107	
	HERITAGE RIVER BIRCH/Betula nigra 'Cully'	12' B&B	225	
	WHITESPIRE BIRCH/Betula populifolia 'Whitespire'	12' B&B	131	
	COMMON HACKBERRY/Celtis occidentalis	2.5" B&B	118	
	CELEBRATION MAPLE/Acer x freemanii 'Celebration'	2.5" B&B	81	
	RED OAK/Quercus rubra	2.5" B&B	97	
	NORTHERN PIN OAK/Quercus ellipsoildalis	2.5" B&B	89	
	SWAMP WHITE OAK/Quercus bicolor	2.5" B&B	144	
	PRINCETON ELM/Ulmus americana 'Princeton'	2.5" B&B	134	
	WHITE WILLOW/Salix alba 'Niobe'	2.5" B&B	81	
	GINGKO/Ginko biloba (male only)	2.5" B&B	44	
	CATALPA/Catalpa speciosa	2.5" B&B	51	
	QUAKING ASPEN/Populus tremuloides	2.5" B&B	178	
	SPADED MAPLE AND OAK TRANSPLANTS	6" MM	54	SEE NOTES ON DETAIL E
	EVERGREEN TREES			
	BLACK HILLS SPRUCE/Picea glauca densata	6' B&B	473	
	WHITE PINE/Pinus strobus	6' B&B	358	
	RED PINE/Pinus resinosa	6' B&B	207	
	ORNAMENTAL TREES			
	PRAIRIFIRE CRAB/Malus 'Prairifire'	1.5" B&B	19	
	JAPANESE TREE LILAC/Syringa reticulata	8' B&B	23	
	SPRING SNOW CRAB/Malux 'Spring Snow'	1.5" B&B	17	

SEE SHEET L9-10 FOR HOMESTEAD DETAILS



LANDSCAPE NOTES:
1. LOTS WILL BE SODDED AFTER CONSTRUCTION.
2. SEE SHEET L1 FOR LANDSCAPE REQUIREMENT DATA
3. ALL PLANTS TO BE PLANTED WITHIN CITY PARKS AND ON CITY PROPERTIES SHALL COMPLY WITH THE CITY'S RESOLUTION ENDORSING BEE-SAFE POLICIES AND PROCEDURES. WRITTEN ACKNOWLEDGEMENT WILL BE PROVIDED.
4. TREES WITHIN BOULEVARDS WITH SIDEWALKS WILL BE PLANTED 5' FROM CURB
5. TREES WITHIN BOULEVARDS WITHOUT SIDEWALKS WILL BE PLANTED 8' FROM CURB

1. PRIOR TO TREE STAKING AND PLANTING OPERATIONS CONTRACTOR MUST CONTACT GOPHER STATE ONE CALL (www.gopherstateonecall.org or 811) TO VERIFY UNDERGROUND UTILITIES. WHERE PRIVATE UTILITIES EXIST ON-SITE THE CONTRACTOR IS REQUIRED TO HAVE THOSE LOCATED AS WELL.
2. PLANT MATERIALS SHALL MEET AMERICAN STANDARD FOR NURSERY STOCK: ANSI Z60.1 LATEST EDITION. http://americanhort.org/documents/ANSI Nursery Stock Standards AmericanHort 2014.pdf
3. NO PLANT SUBSTITUTIONS SHALL BE MADE WITHOUT THE PRIOR WRITTEN AUTHORIZATION FROM THE CITY.
4. ALL TREE PROTECTION MEASURES TO BE FIELD STAKED PRIOR TO INSTALLATION. CONTRACTOR TO COORDINATE FIELD REVIEW OF PROPOSED TREE PROTECTION LOCATIONS WITH THE CITY AND PROJECT LANDSCAPE ARCHITECT PRIOR TO ANY TREE PROTECTION INSTALLATION.
5. ALL TREE LOCATIONS TO BE FIELD STAKED PRIOR TO INSTALLATION. CONTRACTOR TO COORDINATE FIELD REVIEW OF PROPOSED TREE LOCATIONS WITH THE CITY AND PROJECT LANDSCAPE ARCHITECT PRIOR TO ANY TREE INSTALLATION.
6. ALL PLANTS SHALL BE PLANTED IMMEDIATELY UPON ARRIVAL TO PROJECT SITE. NO PLANT MATERIAL IS TO BE LEFT OVERNIGHT ON THE PROJECT SITE WITHOUT BEING INSTALLED UNLESS WRITTEN APPROVAL BY CITY.
7. ALL TREES, SHRUBS, PERENNIALS AND TURF LAWN TO HAVE A TWO YEAR WARRANTY BEGINNING UPON WRITTEN ACCEPTANCE BY THE CITY. DEFECTIVE PLANTS AS DETERMINED BY THE CITY SHALL BE REPLACED WITHIN 30 DAYS OF NOTICE DURING THE GROWING SEASON, AND REPLACEMENT MATERIALS SHALL RECEIVE THE SAME TWO YEAR WARRANTY UNTIL PLANTS ARE SUCCESSFULLY ESTABLISHED.
8. CONTRACTOR TO PROTECT AND MAINTAIN ALL PLANTINGS AND PLANT BEDS, INCLUDING PROTECTION FROM WILDLIFE, WEEDING, RE-MULCHING, FERTILIZATION, IRRIGATION AND ALL OTHER TYPICAL FORMS OF HORTICULTURAL CARE UNTIL THE END OF THE WARRANTY PERIOD AS DETERMINED AND APPROVED BY CITY.
9. ALL AREAS DISTURBED ADJACENT TO THE PROJECT SITE INCLUDING BOULEVARDS SHALL BE REPAIRED AND MAINTAINED PER CITY DIRECTION.
10. PROVIDE A THREE YEAR MAINTENANCE PLAN FOR ALL SEEDING OF PLANT MATERIALS/AREAS WITHIN ALL COMMERCIAL PROPERTIES, COMMONLY HELD HOA AREAS, CITY OUTLOTS AND R.O.W. AREAS.
11. ALL TREE, SHRUB AND PERENNIAL BEDS, WITHIN THE R.O.W. OR LOCATED ON COMMERCIAL PROPERTIES OR ON COMMONLY HELD HOA PROPERTY AND CITY OUTLOTS WITHIN DEVELOPMENTS ARE REQUIRED TO HAVE AN AUTOMATIC IRRIGATION SYSTEM DESIGNED BY AN EPA WATER SENSE CERTIFIED PROFESSIONAL. THIS PLAN IS REQUIRED FOR CITY REVIEW AT THE SAME TIME AS LANDSCAPE PLAN REVIEW.
12. ALL TRADITIONAL TURF LAWN AREAS WITHIN R.O.W. OR LOCATED ON COMMERCIAL PROPERTIES OR ON COMMONLY HELD HOA PROPERTY AND CITY OUTLOTS WITHIN DEVELOPMENTS ARE REQUIRED TO HAVE AN AUTOMATIC IRRIGATION SYSTEM DESIGNED BY AN EPA WATER SENSE CERTIFIED PROFESSIONAL. THIS PLAN IS REQUIRED FOR CITY REVIEW AT TIME OF LANDSCAPE PLAN REVIEW.

STANDARD PLAN NOTES

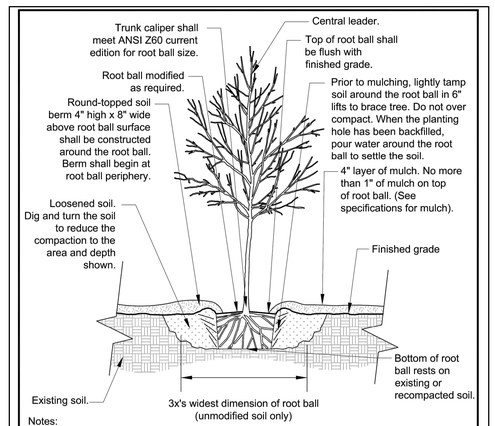
LANDSCAPE PLANS

FEBRUARY 2015

CITY OF LAKE ELMO

STANDARD DRAWING NO. 900

LAKE ELMO



Notes:
1. Modified soil - Depth of soil varies (see specifications for soil modification).
2. Trees shall be of quality prescribed in crown observations and root observations details and specifications.
3. See specifications for further requirements related to this detail.

Poorly Drained Soil Notes:
1. Root ball surface shall be positioned to be one - quarter above finished grade.
2. Existing site soil shall be added to create a smooth transition from the top of the raised root ball to the finished grade at a 15% max. slope.

DECIDUOUS TREE – MODIFIED/UNMODIFIED SOIL & POORLY DRAINED SOIL

FEBRUARY 2015

CITY OF LAKE ELMO

STANDARD DRAWING NO. 902A

LAKE ELMO

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 5-4-17

Revisions
2-10-17 new site layout
5-4-17 revised grading

Date	9-22-16
Designed	JLT
Drawn	JLT

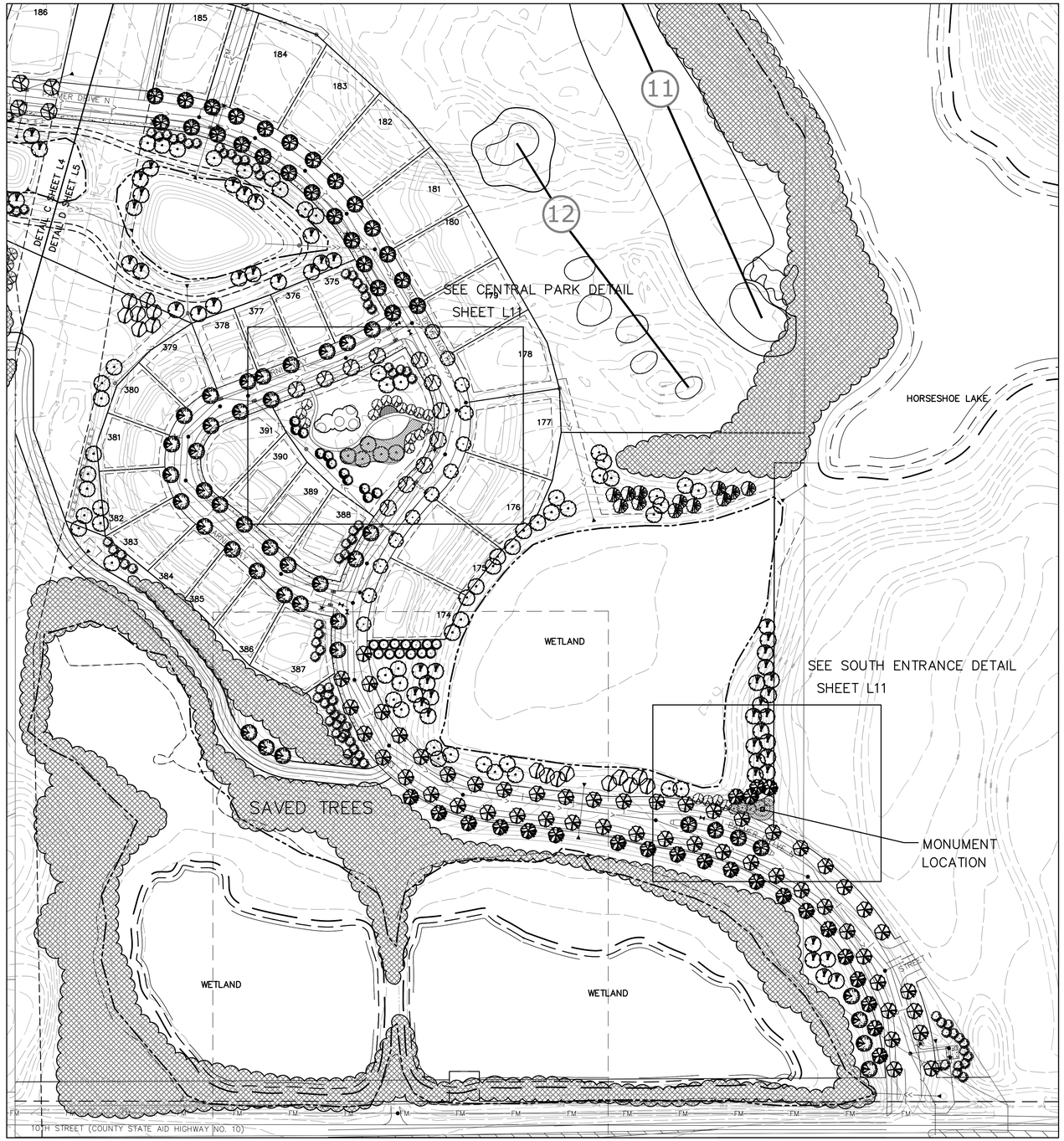
LANDSCAPE PLAN

HC GOLF COURSE DEVELOPMENT, LLC
11074 RADISSON ROAD NE
BLAINE, MINNESOTA 55449

THE ROYAL GOLF CLUB AT LAKE ELMO
LAKE ELMO, MINNESOTA

116240

DETAIL D



SEE SHEETS L1 FOR LANDSCAPE REQUIREMENTS

TREE TOTALS FOR ENTIRE SITE

PLANT SCHEDULE

KEY	COMMON NAME/Scientific name	ROOT	QUANTITY	
	OVERSTORY TREES			
	NORTHWOODS RED MAPLE/Acer rubrum 'Northwoods'	2.5" B&B	117	
	AUTUMN BLAZE MAPLE/Acer x freemanii 'Jeffersred'	2.5" B&B	101	
	SIENNA GLEN MAPLE/Acer x freemanii 'Sienna'	2.5" B&B	92	
	SUGAR MAPLE/Acer Saccarum 'Green Mountain'	2.5" B&B	107	
	HERITAGE RIVER BIRCH/Betula nigra 'Cully'	12' B&B	225	
	WHITESPIRE BIRCH/Betula populifolia 'Whitespire'	12' B&B	131	
	COMMON HACKBERRY/Celtis occidentalis	2.5" B&B	118	
	CELEBRATION MAPLE/Acer x freemanii 'Celebration'	2.5" B&B	81	
	RED OAK/Quercus rubra	2.5" B&B	97	
	NORTHERN PIN OAK/Quercus ellipsoildalis	2.5" B&B	89	
	SWAMP WHITE OAK/Quercus bicolor	2.5" B&B	144	
	PRINCETON ELM/Ulmus americana 'Princeton'	2.5" B&B	134	
	WHITE WILLOW/Salix alba 'Niobe'	2.5" B&B	81	
	GINGKO/Ginko biloba (male only)	2.5" B&B	44	
	CATALPA/Catalpa speciosa	2.5" B&B	51	
	QUAKING ASPEN/Populus tremuloides	2.5" B&B	178	
	SPADED MAPLE AND OAK TRANSPLANTS	6" MM	54	SEE NOTES ON DETAIL E
	EVERGREEN TREES			
	BLACK HILLS SPRUCE/Picea glauca densata	6' B&B	473	
	WHITE PINE/Pinus strobus	6' B&B	358	
	RED PINE/Pinus resinosa	6' B&B	207	
	ORNAMENTAL TREES			
	PRAIRIFIRE CRAB/Malus 'Prairifire'	1.5" B&B	19	
	JAPANESE TREE LILAC/Syringa reticulata	8' B&B	23	
	SPRING SNOW CRAB/Malux 'Spring Snow'	1.5" B&B	17	

1. PRIOR TO TREE STAKING AND PLANTING OPERATIONS CONTRACTOR MUST CONTACT GOPHER STATE ONE CALL (www.gopherstateonecall.org or 811) TO VERIFY UNDERGROUND UTILITIES. WHERE PRIVATE UTILITIES EXIST ON-SITE THE CONTRACTOR IS REQUIRED TO HAVE THOSE LOCATED AS WELL.
2. PLANT MATERIALS SHALL MEET AMERICAN STANDARD FOR NURSERY STOCK: ANSI Z60.1 LATEST EDITION. http://americanhort.org/documents/ANSI Nursery Stock Standards AmericanHort 2014.pdf
3. NO PLANT SUBSTITUTIONS SHALL BE MADE WITHOUT THE PRIOR WRITTEN AUTHORIZATION FROM THE CITY.
4. ALL TREE PROTECTION MEASURES TO BE FIELD STAKED PRIOR TO INSTALLATION. CONTRACTOR TO COORDINATE FIELD REVIEW OF PROPOSED TREE PROTECTION LOCATIONS WITH THE CITY AND PROJECT LANDSCAPE ARCHITECT PRIOR TO ANY TREE PROTECTION INSTALLATION.
5. ALL TREE LOCATIONS TO BE FIELD STAKED PRIOR TO INSTALLATION. CONTRACTOR TO COORDINATE FIELD REVIEW OF PROPOSED TREE LOCATIONS WITH THE CITY AND PROJECT LANDSCAPE ARCHITECT PRIOR TO ANY TREE INSTALLATION.
6. ALL PLANTS SHALL BE PLANTED IMMEDIATELY UPON ARRIVAL TO PROJECT SITE. NO PLANT MATERIAL IS TO BE LEFT OVERNIGHT ON THE PROJECT SITE WITHOUT BEING INSTALLED UNLESS WRITTEN APPROVAL BY CITY.
7. ALL TREES, SHRUBS, PERENNIALS AND TURF LAWN TO HAVE A TWO YEAR WARRANTY BEGINNING UPON WRITTEN ACCEPTANCE BY THE CITY. DEFECTIVE PLANTS AS DETERMINED BY THE CITY SHALL BE REPLACED WITHIN 30 DAYS OF NOTICE DURING THE GROWING SEASON, AND REPLACEMENT MATERIALS SHALL RECEIVE THE SAME TWO YEAR WARRANTY UNTIL PLANTS ARE SUCCESSFULLY ESTABLISHED.
8. CONTRACTOR TO PROTECT AND MAINTAIN ALL PLANTINGS AND PLANT BEDS, INCLUDING PROTECTION FROM WILDLIFE, WEEDING, RE-MULCHING, FERTILIZATION, IRRIGATION AND ALL OTHER TYPICAL FORMS OF HORTICULTURAL CARE UNTIL THE END OF THE WARRANTY PERIOD AS DETERMINED AND APPROVED BY CITY.
9. ALL AREAS DISTURBED ADJACENT TO THE PROJECT SITE INCLUDING BOULEVARDS SHALL BE REPAIRED AND MAINTAINED PER CITY DIRECTION.
10. PROVIDE A THREE YEAR MAINTENANCE PLAN FOR ALL SEEDING OF PLANT MATERIALS/AREAS WITHIN ALL COMMERCIAL PROPERTIES, COMMONLY HELD HOA AREAS, CITY OUTLOTS AND R.O.W. AREAS.
11. ALL TREE, SHRUB AND PERENNIAL BEDS, WITHIN THE R.O.W. OR LOCATED ON COMMERCIAL PROPERTIES OR ON COMMONLY HELD HOA PROPERTY AND CITY OUTLOTS WITHIN DEVELOPMENTS ARE REQUIRED TO HAVE AN AUTOMATIC IRRIGATION SYSTEM DESIGNED BY AN EPA WATER SENSE CERTIFIED PROFESSIONAL. THIS PLAN IS REQUIRED FOR CITY REVIEW AT THE SAME TIME AS LANDSCAPE PLAN REVIEW.
12. ALL TRADITIONAL TURF LAWN AREAS WITHIN R.O.W. OR LOCATED ON COMMERCIAL PROPERTIES OR ON COMMONLY HELD HOA PROPERTY AND CITY OUTLOTS WITHIN DEVELOPMENTS ARE REQUIRED TO HAVE AN AUTOMATIC IRRIGATION SYSTEM DESIGNED BY AN EPA WATER SENSE CERTIFIED PROFESSIONAL. THIS PLAN IS REQUIRED FOR CITY REVIEW AT TIME OF LANDSCAPE PLAN REVIEW.

STANDARD PLAN NOTES

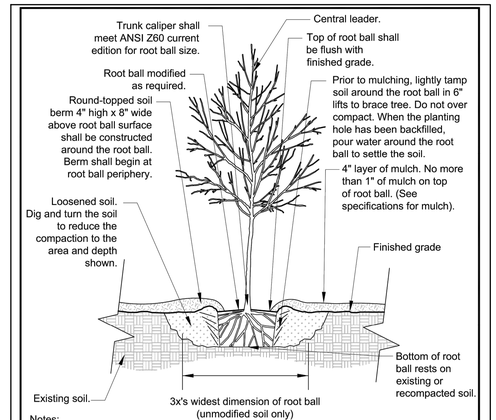
LANDSCAPE PLANS

FEBRUARY 2015

CITY OF LAKE ELMO

STANDARD DRAWING NO. 900

LAKE ELMO



Notes:
1. Modified soil - Depth of soil varies (see specifications for soil modification).
2. Trees shall be of quality prescribed in crown observations and root observations details and specifications.
3. See specifications for further requirements related to this detail.

Poorly Drained Soil Notes:
1. Root ball surface shall be positioned to be one - quarter above finished grade.
2. Existing site soil shall be added to create a smooth transition from the top of the raised root ball to the finished grade at a 15% max. slope.

DECIDUOUS TREE – MODIFIED/UNMODIFIED SOIL & POORLY DRAINED SOIL

FEBRUARY 2015

URBAN TREE FOUNDATION © 2014 OPEN SOURCE FREE TO USE

CITY OF LAKE ELMO

STANDARD DRAWING NO. 902A

LAKE ELMO

N

0 50 100 200

GRAPHIC SCALE IN FEET

LANDSCAPE NOTES:
1. LOTS WILL BE SODDED AFTER CONSTRUCTION.
2. SEE SHEET L1 FOR LANDSCAPE REQUIREMENT DATA
3. ALL PLANTS TO BE PLANTED WITHIN CITY PARKS AND ON CITY PROPERTIES SHALL COMPLY WITH THE CITY'S RESOLUTION ENDORSING BEE-SAFE POLICIES AND PROCEDURES. WRITTEN ACKNOWLEDGEMENT WILL BE PROVIDED.
4. TREES WITHIN BOULEVARDS WITH SIDEWALKS WILL BE PLANTED 5' FROM CURB
5. TREES WITHIN BOULEVARDS WITHOUT SIDEWALKS WILL BE PLANTED 8' FROM CURB

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 5-4-17

Revisions
2-10-17 new site layout
5-4-17 revised grading

Date	9-22-16
Designed	JLT
Drawn	JLT

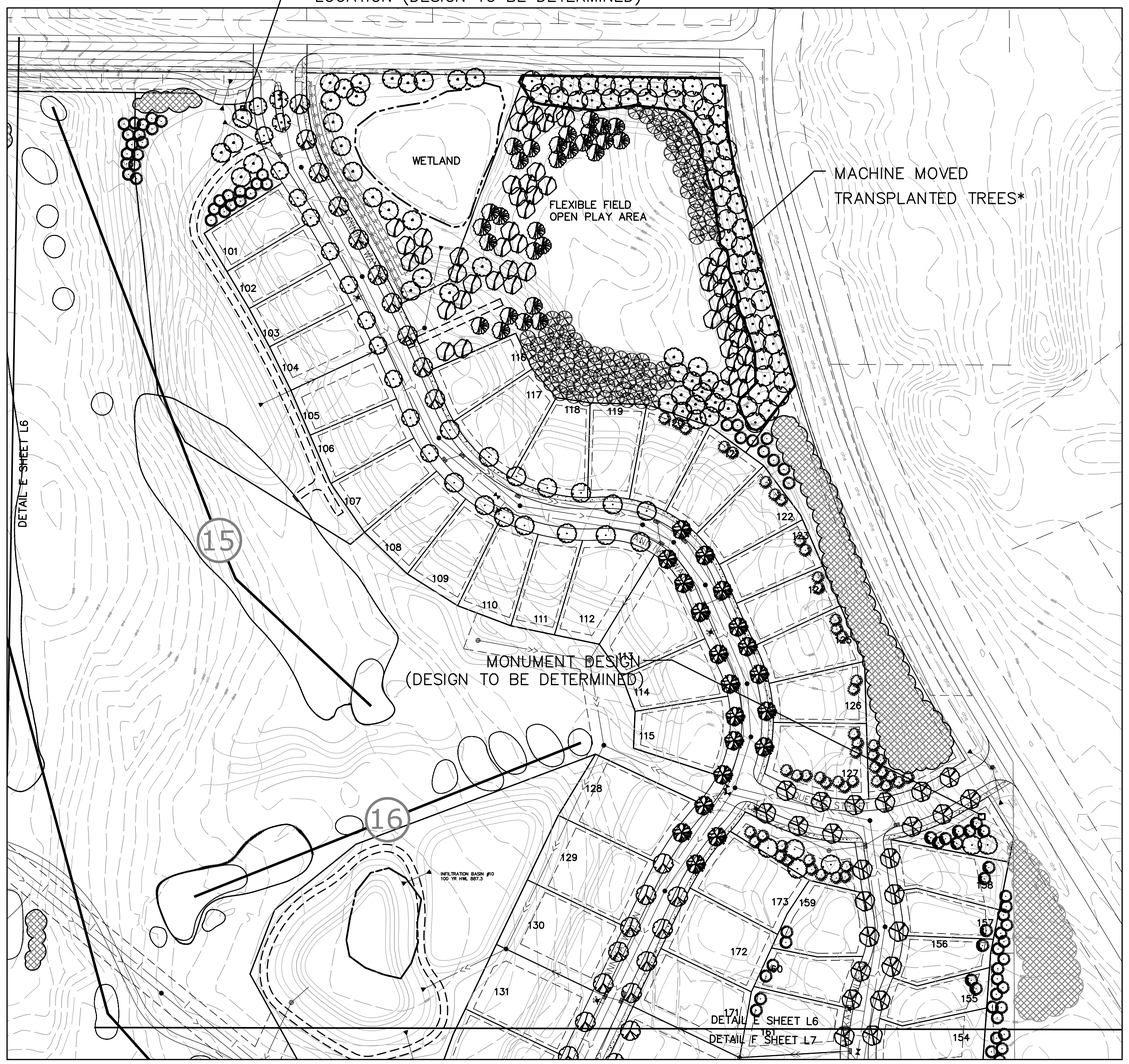
LANDSCAPE PLAN

HC GOLF COURSE DEVELOPMENT, LLC
11074 RADISSON ROAD NE
BLAINE, MINNESOTA 55449

THE ROYAL GOLF CLUB AT LAKE ELMO
LAKE ELMO, MINNESOTA

116240

DETAIL E



SEE SHEETS L1 FOR LANDSCAPE REQUIREMENTS

TREE TOTALS FOR ENTIRE SITE

PLANT SCHEDULE

KEY	COMMON NAME/Scientific name	ROOT	QUANTITY	
	OVERSTORY TREES			
	NORTHWOODS RED MAPLE/Acer rubrum 'Northwoods'	2.5" B&B	117	
	AUTUMN BLAZE MAPLE/Acer x freemanii 'Jeffersred'	2.5" B&B	101	
	SIENNA GLEN MAPLE/Acer x freemanii 'Sienna'	2.5" B&B	92	
	SUGAR MAPLE/Acer Saccarum 'Green Mountain'	2.5" B&B	107	
	HERITAGE RIVER BIRCH/Betula nigra 'Cully'	12' B&B	225	
	WHITESPIRE BIRCH/Betula populifolia 'Whitespire'	12' B&B	131	
	COMMON HACKBERRY/Celtis occidentalis	2.5" B&B	118	
	CELEBRATION MAPLE/Acer x freemanii 'Celebration'	2.5" B&B	81	
	RED OAK/Quercus rubra	2.5" B&B	97	
	NORTHERN PIN OAK/Quercus ellipsoildalis	2.5" B&B	89	
	SWAMP WHITE OAK/Quercus bicolor	2.5" B&B	144	
	PRINCETON ELM/Ulmus americana 'Princeton'	2.5" B&B	134	
	WHITE WILLOW/Salix alba 'Niobe'	2.5" B&B	81	
	GINGKO/Ginko biloba (male only)	2.5" B&B	44	
	CATALPA/Catalpa speciosa	2.5" B&B	51	
	QUAKING ASPEN/Populus tremuloides	2.5" B&B	178	
	SPADED MAPLE AND OAK TRANSPLANTS	6" MM	54	SEE NOTES BELOW
	EVERGREEN TREES			
	BLACK HILLS SPRUCE/Picea glauca densata	6' B&B	473	
	WHITE PINE/Pinus strobus	6' B&B	358	
	RED PINE/Pinus resinosa	6' B&B	207	
	ORNAMENTAL TREES			
	PRAIRIFIRE CRAB/Malus 'Prairifire'	1.5" B&B	19	
	JAPANESE TREE LILAC/Syringa reticulata	8' B&B	23	
	SPRING SNOW CRAB/Malux 'Spring Snow'	1.5" B&B	17	

* TREES IN THIS AREA TO BE COMPRISED OF MACHINE MOVED TRANSPLANTED TREES. THESE 54 TREES WILL BE COMPRISED OF:

34 SUGAR MAPLE
5 AUTUMN BLAZE MAPLE
8 SWAMP WHITE OAK
7 NORTHERN RED OAK

THESE TREES WILL BE MOVED WITH A 90" SPADE FROM ANOTHER SITE IN LAKE ELMO.

1. PRIOR TO TREE STAKING AND PLANTING OPERATIONS CONTRACTOR MUST CONTACT GOPHER STATE ONE CALL (www.gopherstateonecall.org or 811) TO VERIFY UNDERGROUND UTILITIES. WHERE PRIVATE UTILITIES EXIST ON-SITE THE CONTRACTOR IS REQUIRED TO HAVE THOSE LOCATED AS WELL.
2. PLANT MATERIALS SHALL MEET AMERICAN STANDARD FOR NURSERY STOCK: ANSI Z60.1 LATEST EDITION. http://americanhort.org/documents/ANSI Nursery Stock Standards AmericanHort 2014.pdf
3. NO PLANT SUBSTITUTIONS SHALL BE MADE WITHOUT THE PRIOR WRITTEN AUTHORIZATION FROM THE CITY.
4. ALL TREE PROTECTION MEASURES TO BE FIELD STAKED PRIOR TO INSTALLATION. CONTRACTOR TO COORDINATE FIELD REVIEW OF PROPOSED TREE PROTECTION LOCATIONS WITH THE CITY AND PROJECT LANDSCAPE ARCHITECT PRIOR TO ANY TREE PROTECTION INSTALLATION.
5. ALL TREE LOCATIONS TO BE FIELD STAKED PRIOR TO INSTALLATION. CONTRACTOR TO COORDINATE FIELD REVIEW OF PROPOSED TREE LOCATIONS WITH THE CITY AND PROJECT LANDSCAPE ARCHITECT PRIOR TO ANY TREE INSTALLATION.
6. ALL PLANTS SHALL BE PLANTED IMMEDIATELY UPON ARRIVAL TO PROJECT SITE. NO PLANT MATERIAL IS TO BE LEFT OVERNIGHT ON THE PROJECT SITE WITHOUT BEING INSTALLED UNLESS WRITTEN APPROVAL BY CITY.
7. ALL TREES, SHRUBS, PERENNIALS AND TURF LAWN TO HAVE A TWO YEAR WARRANTY BEGINNING UPON WRITTEN ACCEPTANCE BY THE CITY. DEFECTIVE PLANTS AS DETERMINED BY THE CITY SHALL BE REPLACED WITHIN 30 DAYS OF NOTICE DURING THE GROWING SEASON, AND REPLACEMENT MATERIALS SHALL RECEIVE THE SAME TWO YEAR WARRANTY UNTIL PLANTS ARE SUCCESSFULLY ESTABLISHED.
8. CONTRACTOR TO PROTECT AND MAINTAIN ALL PLANTINGS AND PLANT BEDS, INCLUDING PROTECTION FROM WILDLIFE, WEEDING, RE-MULCHING, FERTILIZATION, IRRIGATION AND ALL OTHER TYPICAL FORMS OF HORTICULTURAL CARE UNTIL THE END OF THE WARRANTY PERIOD AS DETERMINED AND APPROVED BY CITY.
9. ALL AREAS DISTURBED ADJACENT TO THE PROJECT SITE INCLUDING BOULEVARDS SHALL BE REPAIRED AND MAINTAINED PER CITY DIRECTION.
10. PROVIDE A THREE YEAR MAINTENANCE PLAN FOR ALL SEEDING OF PLANT MATERIALS/AREAS WITHIN ALL COMMERCIAL PROPERTIES, COMMONLY HELD HOA AREAS, CITY OUTLOTS AND R.O.W. AREAS.
11. ALL TREE, SHRUB AND PERENNIAL BEDS, WITHIN THE R.O.W. OR LOCATED ON COMMERCIAL PROPERTIES OR ON COMMONLY HELD HOA PROPERTY AND CITY OUTLOTS WITHIN DEVELOPMENTS ARE REQUIRED TO HAVE AN AUTOMATIC IRRIGATION SYSTEM DESIGNED BY AN EPA WATER SENSE CERTIFIED PROFESSIONAL. THIS PLAN IS REQUIRED FOR CITY REVIEW AT THE SAME TIME AS LANDSCAPE PLAN REVIEW.
12. ALL TRADITIONAL TURF LAWN AREAS WITHIN R.O.W. OR LOCATED ON COMMERCIAL PROPERTIES OR ON COMMONLY HELD HOA PROPERTY AND CITY OUTLOTS WITHIN DEVELOPMENTS ARE REQUIRED TO HAVE AN AUTOMATIC IRRIGATION SYSTEM DESIGNED BY AN EPA WATER SENSE CERTIFIED PROFESSIONAL. THIS PLAN IS REQUIRED FOR CITY REVIEW AT TIME OF LANDSCAPE PLAN REVIEW.

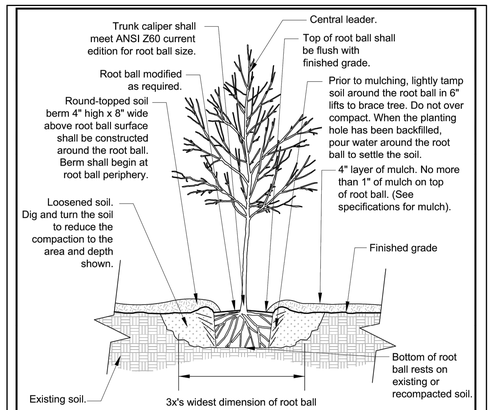
STANDARD PLAN NOTES

LANDSCAPE PLANS

FEBRUARY 2015

CITY OF LAKE ELMO

STANDARD DRAWING NO. 900 LAKE ELMO



Notes:
1. Modified soil - Depth of soil varies (see specifications for soil modification).
2. Trees shall be of quality prescribed in crown observations and root observations details and specifications.
3. See specifications for further requirements related to this detail.

Poorly Drained Soil Notes:
1. Root ball surface shall be positioned to be one - quarter above finished grade.
2. Existing site soil shall be added to create a smooth transition from the top of the raised root ball to the finished grade at a 15% max. slope.

DECIDUOUS TREE – MODIFIED/UNMODIFIED SOIL & POORLY DRAINED SOIL

FEBRUARY 2015

URBAN TREE FOUNDATION © 2014 OPEN SOURCE FREE TO USE

CITY OF LAKE ELMO

STANDARD DRAWING NO. 902A LAKE ELMO

N

0 50 100 200

GRAPHIC SCALE IN FEET

LANDSCAPE NOTES:
1. LOTS WILL BE SODDED AFTER CONSTRUCTION.
2. SEE SHEET L1 FOR LANDSCAPE REQUIREMENT DATA
3. ALL PLANTS TO BE PLANTED WITHIN CITY PARKS AND ON CITY PROPERTIES SHALL COMPLY WITH THE CITY'S RESOLUTION ENDORSING BEE-SAFE POLICIES AND PROCEDURES. WRITTEN ACKNOWLEDGEMENT WILL BE PROVIDED.
4. TREES WITHIN BOULEVARDS WITH SIDEWALKS WILL BE PLANTED 5' FROM CURB
5. TREES WITHIN BOULEVARDS WITHOUT SIDEWALKS WILL BE PLANTED 8' FROM CURB

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 5-4-17

Revisions
2-10-17 new site layout
5-4-17 revised grading

Date	9-22-16
Designed	JLT
Drawn	JLT

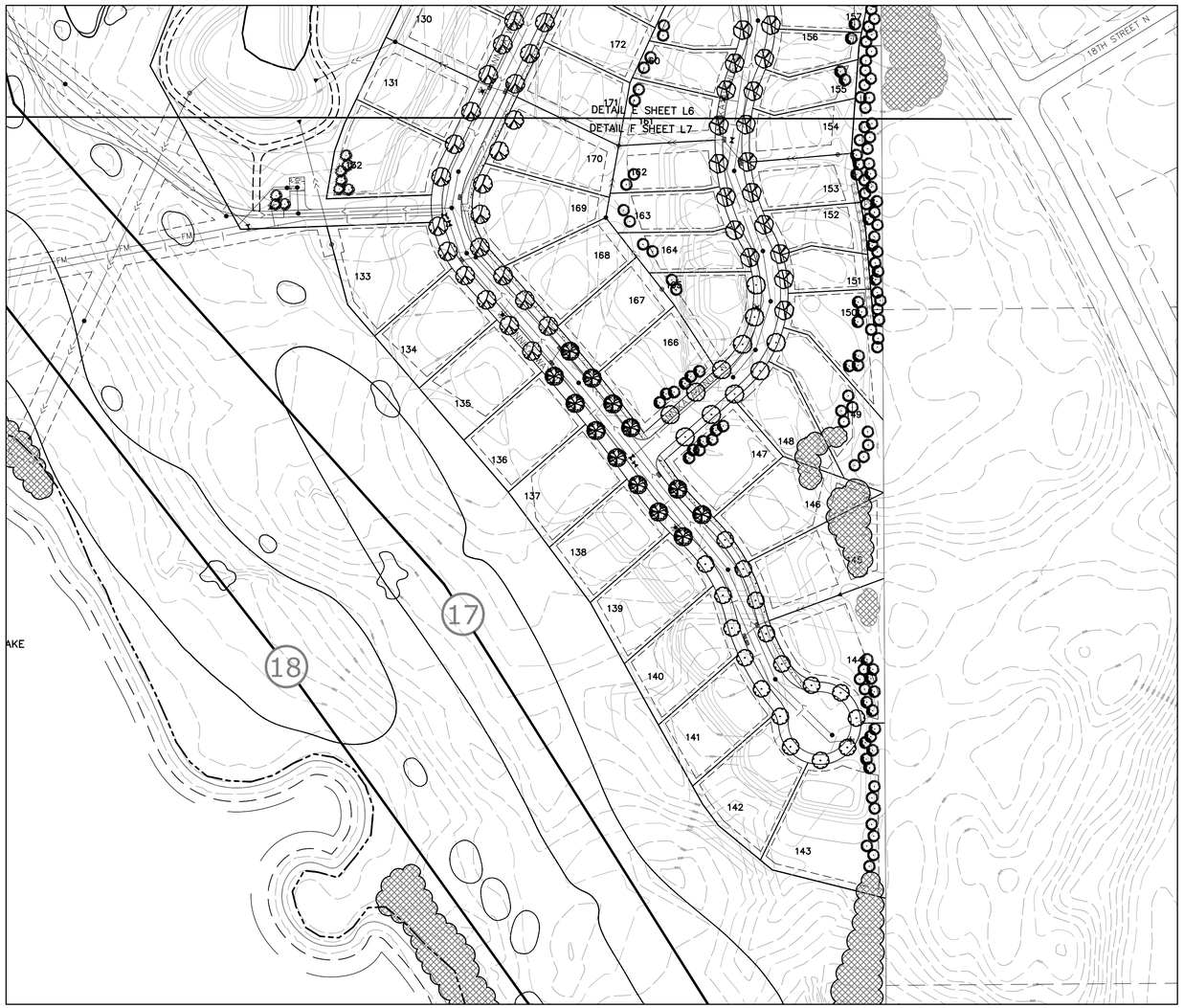
LANDSCAPE PLAN

HC GOLF COURSE DEVELOPMENT, LLC
11074 RADISSON ROAD NE
BLAINE, MINNESOTA 55449

THE ROYAL GOLF CLUB AT LAKE ELMO
LAKE ELMO, MINNESOTA

116240

DETAIL F



SEE SHEETS L1 FOR LANDSCAPE REQUIREMENTS

LANDSCAPE NOTES:
1. LOTS WILL BE SODDED AFTER CONSTRUCTION.
2. SEE SHEET L1 FOR LANDSCAPE REQUIREMENT DATA
3. ALL PLANTS TO BE PLANTED WITHIN CITY PARKS AND ON CITY PROPERTIES SHALL COMPLY WITH THE CITY'S RESOLUTION ENDORSING BEE-SAFE POLICIES AND PROCEDURES. WRITTEN ACKNOWLEDGEMENT WILL BE PROVIDED.
4. TREES WITHIN BOULEVARDS WITH SIDEWALKS WILL BE PLANTED 5' FROM CURB
5. TREES WITHIN BOULEVARDS WITHOUT SIDEWALKS WILL BE PLANTED 8' FROM CURB

N

0 50 100 200
GRAPHIC SCALE IN FEET

TREE TOTALS FOR ENTIRE SITE

PLANT SCHEDULE

KEY	COMMON NAME/Scientific name	ROOT	QUANTITY	
	OVERSTORY TREES			
	NORTHWOODS RED MAPLE/Acer rubrum 'Northwoods'	2.5" B&B	117	
	AUTUMN BLAZE MAPLE/Acer x freemanii 'Jeffersred'	2.5" B&B	101	
	SIENNA GLEN MAPLE/Acer x freemanii 'Sienna'	2.5" B&B	92	
	SUGAR MAPLE/Acer Saccarum 'Green Mountain'	2.5" B&B	107	
	HERITAGE RIVER BIRCH/Betula nigra 'Cully'	12' B&B	225	
	WHITESPIRE BIRCH/Betula populifolia 'Whitespire'	12' B&B	131	
	COMMON HACKBERRY/Celtis occidentalis	2.5" B&B	118	
	CELEBRATION MAPLE/Acer x freemanii 'Celebration'	2.5" B&B	81	
	RED OAK/Quercus rubra	2.5" B&B	97	
	NORTHERN PIN OAK/Quercus ellipsoildalis	2.5" B&B	89	
	SWAMP WHITE OAK/Quercus bicolor	2.5" B&B	144	
	PRINCETON ELM/Ulmus americana 'Princeton'	2.5" B&B	134	
	WHITE WILLOW/Salix alba 'Niobe'	2.5" B&B	81	
	GINGKO/Ginko biloba (male only)	2.5" B&B	44	
	CATALPA/Catalpa speciosa	2.5" B&B	51	
	QUAKING ASPEN/Populus tremuloides	2.5" B&B	178	
	SPADED MAPLE AND OAK TRANSPLANTS	6" MM	54	SEE NOTES ON DETAIL E
	EVERGREEN TREES			
	BLACK HILLS SPRUCE/Picea glauca densata	6' B&B	473	
	WHITE PINE/Pinus strobus	6' B&B	358	
	RED PINE/Pinus resinosa	6' B&B	207	
	ORNAMENTAL TREES			
	PRAIRIFIRE CRAB/Malus 'Prairifire'	1.5" B&B	19	
	JAPANESE TREE LILAC/Syringa reticulata	8' B&B	23	
	SPRING SNOW CRAB/Malux 'Spring Snow'	1.5" B&B	17	

1. PRIOR TO TREE STAKING AND PLANTING OPERATIONS CONTRACTOR MUST CONTACT GOPHER STATE ONE CALL (www.gopherstateonecall.org or 811) TO VERIFY UNDERGROUND UTILITIES. WHERE PRIVATE UTILITIES EXIST ON-SITE THE CONTRACTOR IS REQUIRED TO HAVE THOSE LOCATED AS WELL.
2. PLANT MATERIALS SHALL MEET AMERICAN STANDARD FOR NURSERY STOCK: ANSI Z60.1 LATEST EDITION. http://americanhort.org/documents/ANSI Nursery Stock Standards AmericanHort 2014.pdf
3. NO PLANT SUBSTITUTIONS SHALL BE MADE WITHOUT THE PRIOR WRITTEN AUTHORIZATION FROM THE CITY.
4. ALL TREE PROTECTION MEASURES TO BE FIELD STAKED PRIOR TO INSTALLATION. CONTRACTOR TO COORDINATE FIELD REVIEW OF PROPOSED TREE PROTECTION LOCATIONS WITH THE CITY AND PROJECT LANDSCAPE ARCHITECT PRIOR TO ANY TREE PROTECTION INSTALLATION.
5. ALL TREE LOCATIONS TO BE FIELD STAKED PRIOR TO INSTALLATION. CONTRACTOR TO COORDINATE FIELD REVIEW OF PROPOSED TREE LOCATIONS WITH THE CITY AND PROJECT LANDSCAPE ARCHITECT PRIOR TO ANY TREE INSTALLATION.
6. ALL PLANTS SHALL BE PLANTED IMMEDIATELY UPON ARRIVAL TO PROJECT SITE. NO PLANT MATERIAL IS TO BE LEFT OVERNIGHT ON THE PROJECT SITE WITHOUT BEING INSTALLED UNLESS WRITTEN APPROVAL BY CITY.
7. ALL TREES, SHRUBS, PERENNIALS AND TURF LAWN TO HAVE A TWO YEAR WARRANTY BEGINNING UPON WRITTEN ACCEPTANCE BY THE CITY. DEFECTIVE PLANTS AS DETERMINED BY THE CITY SHALL BE REPLACED WITHIN 30 DAYS OF NOTICE DURING THE GROWING SEASON, AND REPLACEMENT MATERIALS SHALL RECEIVE THE SAME TWO YEAR WARRANTY UNTIL PLANTS ARE SUCCESSFULLY ESTABLISHED.
8. CONTRACTOR TO PROTECT AND MAINTAIN ALL PLANTINGS AND PLANT BEDS, INCLUDING PROTECTION FROM WILDLIFE, WEEDING, RE-MULCHING, FERTILIZATION, IRRIGATION AND ALL OTHER TYPICAL FORMS OF HORTICULTURAL CARE UNTIL THE END OF THE WARRANTY PERIOD AS DETERMINED AND APPROVED BY CITY.
9. ALL AREAS DISTURBED ADJACENT TO THE PROJECT SITE INCLUDING BOULEVARDS SHALL BE REPAIRED AND MAINTAINED PER CITY DIRECTION.
10. PROVIDE A THREE YEAR MAINTENANCE PLAN FOR ALL SEEDING OF PLANT MATERIALS/AREAS WITHIN ALL COMMERCIAL PROPERTIES, COMMONLY HELD HOA AREAS, CITY OUTLOTS AND R.O.W. AREAS.
11. ALL TREE, SHRUB AND PERENNIAL BEDS, WITHIN THE R.O.W. OR LOCATED ON COMMERCIAL PROPERTIES OR ON COMMONLY HELD HOA PROPERTY AND CITY OUTLOTS WITHIN DEVELOPMENTS ARE REQUIRED TO HAVE AN AUTOMATIC IRRIGATION SYSTEM DESIGNED BY AN EPA WATER SENSE CERTIFIED PROFESSIONAL. THIS PLAN IS REQUIRED FOR CITY REVIEW AT THE SAME TIME AS LANDSCAPE PLAN REVIEW.
12. ALL TRADITIONAL TURF LAWN AREAS WITHIN R.O.W. OR LOCATED ON COMMERCIAL PROPERTIES OR ON COMMONLY HELD HOA PROPERTY AND CITY OUTLOTS WITHIN DEVELOPMENTS ARE REQUIRED TO HAVE AN AUTOMATIC IRRIGATION SYSTEM DESIGNED BY AN EPA WATER SENSE CERTIFIED PROFESSIONAL. THIS PLAN IS REQUIRED FOR CITY REVIEW AT TIME OF LANDSCAPE PLAN REVIEW.

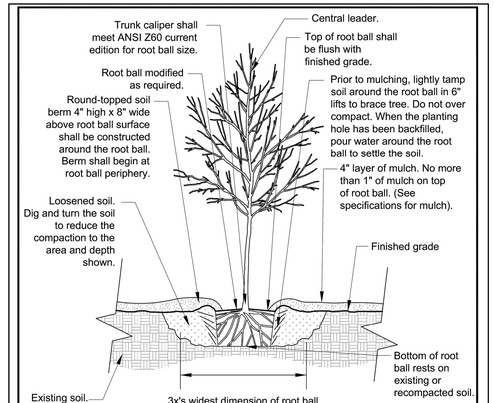
STANDARD PLAN NOTES

LANDSCAPE PLANS

FEBRUARY 2015

CITY OF LAKE ELMO

STANDARD DRAWING NO. 900 LAKE ELMO



Notes:
1. Modified soil - Depth of soil varies (see specifications for soil modification).
2. Trees shall be of quality prescribed in crown observations and root observations details and specifications.
3. See specifications for further requirements related to this detail.

Poorly Drained Soil Notes:
1. Root ball surface shall be positioned to be one - quarter above finished grade.
2. Existing site soil shall be added to create a smooth transition from the top of the raised root ball to the finished grade at a 15% max. slope.

DECIDUOUS TREE – MODIFIED/UNMODIFIED SOIL & POORLY DRAINED SOIL

FEBRUARY 2015

URBAN TREE FOUNDATION © 2014 OPEN SOURCE FREE TO USE

CITY OF LAKE ELMO

STANDARD DRAWING NO. 902A LAKE ELMO

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 5-4-17

Revisions
2-10-17 new site layout
5-4-17 revised grading

Date	9-22-16
Designed	JLT
Drawn	JLT

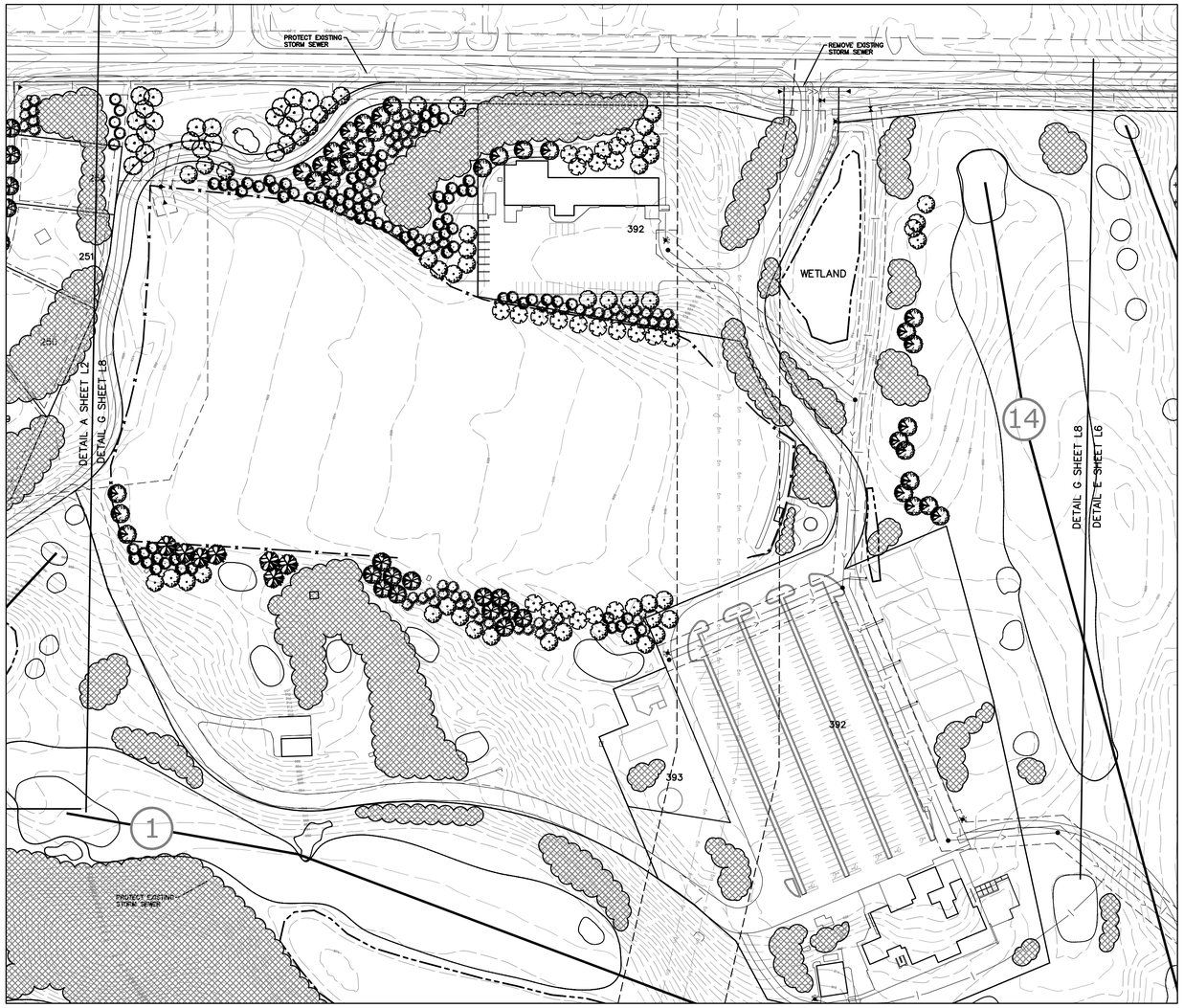
LANDSCAPE PLAN

HC GOLF COURSE DEVELOPMENT, LLC
11074 RADISSON ROAD NE
BLAINE, MINNESOTA 55449

THE ROYAL GOLF CLUB AT LAKE ELMO
LAKE ELMO, MINNESOTA

116240

DETAIL G



SEE SHEETS L1 FOR LANDSCAPE REQUIREMENTS

LANDSCAPE NOTES:
1. LOTS WILL BE SODDED AFTER CONSTRUCTION.
2. SEE SHEET L1 FOR LANDSCAPE REQUIREMENT DATA
3. ALL PLANTS TO BE PLANTED WITHIN CITY PARKS AND ON CITY PROPERTIES SHALL COMPLY WITH THE CITY'S RESOLUTION ENDORSING BEE-SAFE POLICIES AND PROCEDURES. WRITTEN ACKNOWLEDGEMENT WILL BE PROVIDED.
4. TREES WITHIN BOULEVARDS WITH SIDEWALKS WILL BE PLANTED 5' FROM CURB
5. TREES WITHIN BOULEVARDS WITHOUT SIDEWALKS WILL BE PLANTED 8' FROM CURB

N

0 50 100 200
GRAPHIC SCALE IN FEET

TREE TOTALS FOR ENTIRE SITE

PLANT SCHEDULE

KEY	COMMON NAME/Scientific name	ROOT	QUANTITY	
	OVERSTORY TREES			
	NORTHWOODS RED MAPLE/Acer rubrum 'Northwoods'	2.5" B&B	117	
	AUTUMN BLAZE MAPLE/Acer x freemanii 'Jeffersred'	2.5" B&B	101	
	SIENNA GLEN MAPLE/Acer x freemanii 'Sienna'	2.5" B&B	92	
	SUGAR MAPLE/Acer Saccarum 'Green Mountain'	2.5" B&B	107	
	HERITAGE RIVER BIRCH/Betula nigra 'Cully'	12' B&B	225	
	WHITESPIRE BIRCH/Betula populifolia 'Whitespire'	12' B&B	131	
	COMMON HACKBERRY/Celtis occidentalis	2.5" B&B	118	
	CELEBRATION MAPLE/Acer x freemanii 'Celebration'	2.5" B&B	81	
	RED OAK/Quercus rubra	2.5" B&B	97	
	NORTHERN PIN OAK/Quercus ellipsoildalis	2.5" B&B	89	
	SWAMP WHITE OAK/Quercus bicolor	2.5" B&B	144	
	PRINCETON ELM/Ulmus americana 'Princeton'	2.5" B&B	134	
	WHITE WILLOW/Salix alba 'Niobe'	2.5" B&B	81	
	GINGKO/Ginko biloba (male only)	2.5" B&B	44	
	CATALPA/Catalpa speciosa	2.5" B&B	51	
	QUAKING ASPEN/Populus tremuloides	2.5" B&B	178	
	SPADED MAPLE AND OAK TRANSPLANTS	6" MM	54	SEE NOTES ON DETAIL E
	EVERGREEN TREES			
	BLACK HILLS SPRUCE/Picea glauca densata	6' B&B	473	
	WHITE PINE/Pinus strobus	6' B&B	358	
	RED PINE/Pinus resinosa	6' B&B	207	
	ORNAMENTAL TREES			
	PRAIRIFIRE CRAB/Malus 'Prairifire'	1.5" B&B	19	
	JAPANESE TREE LILAC/Syringa reticulata	8' B&B	23	
	SPRING SNOW CRAB/Malux 'Spring Snow'	1.5" B&B	17	

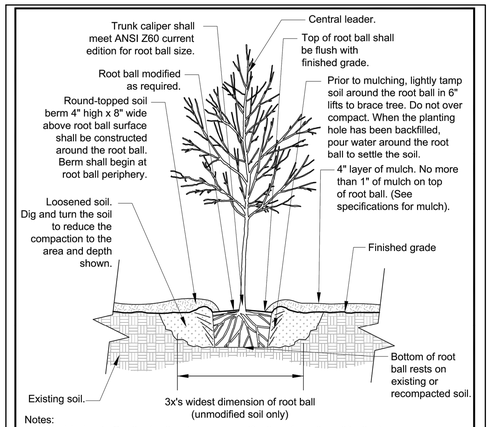
1. PRIOR TO TREE STAKING AND PLANTING OPERATIONS CONTRACTOR MUST CONTACT GOPHER STATE ONE CALL (www.gopherstateonecall.org or 811) TO VERIFY UNDERGROUND UTILITIES. WHERE PRIVATE UTILITIES EXIST ON-SITE THE CONTRACTOR IS REQUIRED TO HAVE THOSE LOCATED AS WELL.
2. PLANT MATERIALS SHALL MEET AMERICAN STANDARD FOR NURSERY STOCK: ANSI Z60.1 LATEST EDITION. http://americanhort.org/documents/ANSI Nursery Stock Standards AmericanHort 2014.pdf
3. NO PLANT SUBSTITUTIONS SHALL BE MADE WITHOUT THE PRIOR WRITTEN AUTHORIZATION FROM THE CITY.
4. ALL TREE PROTECTION MEASURES TO BE FIELD STAKED PRIOR TO INSTALLATION. CONTRACTOR TO COORDINATE FIELD REVIEW OF PROPOSED TREE PROTECTION LOCATIONS WITH THE CITY AND PROJECT LANDSCAPE ARCHITECT PRIOR TO ANY TREE PROTECTION INSTALLATION.
5. ALL TREE LOCATIONS TO BE FIELD STAKED PRIOR TO INSTALLATION. CONTRACTOR TO COORDINATE FIELD REVIEW OF PROPOSED TREE LOCATIONS WITH THE CITY AND PROJECT LANDSCAPE ARCHITECT PRIOR TO ANY TREE INSTALLATION.
6. ALL PLANTS SHALL BE PLANTED IMMEDIATELY UPON ARRIVAL TO PROJECT SITE. NO PLANT MATERIAL IS TO BE LEFT OVERNIGHT ON THE PROJECT SITE WITHOUT BEING INSTALLED UNLESS WRITTEN APPROVAL BY CITY.
7. ALL TREES, SHRUBS, PERENNIALS AND TURF LAWN TO HAVE A TWO YEAR WARRANTY BEGINNING UPON WRITTEN ACCEPTANCE BY THE CITY. DEFECTIVE PLANTS AS DETERMINED BY THE CITY SHALL BE REPLACED WITHIN 30 DAYS OF NOTICE DURING THE GROWING SEASON, AND REPLACEMENT MATERIALS SHALL RECEIVE THE SAME TWO YEAR WARRANTY UNTIL PLANTS ARE SUCCESSFULLY ESTABLISHED.
8. CONTRACTOR TO PROTECT AND MAINTAIN ALL PLANTINGS AND PLANT BEDS, INCLUDING PROTECTION FROM WILDLIFE, WEEDING, RE-MULCHING, FERTILIZATION, IRRIGATION AND ALL OTHER TYPICAL FORMS OF HORTICULTURAL CARE UNTIL THE END OF THE WARRANTY PERIOD AS DETERMINED AND APPROVED BY CITY.
9. ALL AREAS DISTURBED ADJACENT TO THE PROJECT SITE INCLUDING BOULEVARDS SHALL BE REPAIRED AND MAINTAINED PER CITY DIRECTION.
10. PROVIDE A THREE YEAR MAINTENANCE PLAN FOR ALL SEEDING OF PLANT MATERIALS/AREAS WITHIN ALL COMMERCIAL PROPERTIES, COMMONLY HELD HOA AREAS, CITY OUTLOTS AND R.O.W. AREAS.
11. ALL TREE, SHRUB AND PERENNIAL BEDS, WITHIN THE R.O.W. OR LOCATED ON COMMERCIAL PROPERTIES OR ON COMMONLY HELD HOA PROPERTY AND CITY OUTLOTS WITHIN DEVELOPMENTS ARE REQUIRED TO HAVE AN AUTOMATIC IRRIGATION SYSTEM DESIGNED BY AN EPA WATER SENSE CERTIFIED PROFESSIONAL. THIS PLAN IS REQUIRED FOR CITY REVIEW AT THE SAME TIME AS LANDSCAPE PLAN REVIEW.
12. ALL TRADITIONAL TURF LAWN AREAS WITHIN R.O.W. OR LOCATED ON COMMERCIAL PROPERTIES OR ON COMMONLY HELD HOA PROPERTY AND CITY OUTLOTS WITHIN DEVELOPMENTS ARE REQUIRED TO HAVE AN AUTOMATIC IRRIGATION SYSTEM DESIGNED BY AN EPA WATER SENSE CERTIFIED PROFESSIONAL. THIS PLAN IS REQUIRED FOR CITY REVIEW AT TIME OF LANDSCAPE PLAN REVIEW.

STANDARD PLAN NOTES
LANDSCAPE PLANS

FEBRUARY 2015

CITY OF LAKE ELMO

STANDARD DRAWING NO. 900
LAKE ELMO



Notes:
1. Modified soil - Depth of soil varies (see specifications for soil modification).
2. Trees shall be of quality prescribed in crown observations and root observations details and specifications.
3. See specifications for further requirements related to this detail.

Poorly Drained Soil Notes:
1. Root ball surface shall be positioned to be one - quarter above finished grade.
2. Existing site soil shall be added to create a smooth transition from the top of the raised root ball to the finished grade at a 15% max. slope.

DECIDUOUS TREE – MODIFIED/UNMODIFIED SOIL & POORLY DRAINED SOIL

FEBRUARY 2015

URBAN TREE FOUNDATION © 2014
OPEN SOURCE FREE TO USE

CITY OF LAKE ELMO

STANDARD DRAWING NO. 902A
LAKE ELMO

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 5-4-17

Revisions
2-10-17 new site layout
5-4-17 revised grading

Date	9-22-16
Designed	JLT
Drawn	JLT

LANDSCAPE PLAN

HC GOLF COURSE DEVELOPMENT, LLC
11074 RADISSON ROAD NE
BLAINE, MINNESOTA 55449

THE ROYAL GOLF CLUB AT LAKE ELMO
LAKE ELMO, MINNESOTA

116240

RED AND WHITE PINE TO PROVIDE SCREENING OF PROPOSED HOMES IN THIS AREA. SEE SHEETS L3-4 FOR LANDSCAPE PLAN AND TREE SCHEDULE FOR THIS AREA.

EXISTING VEGETATION

WETLAND

EXISTING TRAIL LOCATION TO BE REVISED AS SHOWN.

TECHNY ARBORVITAE AND RED TWIGGED DOGWOOD TO PROVIDE SCREEN ON WEST SIDE OF PROPOSED TRAIL.

EXISTING VEGETATION (APPROX.)

TECHNY ARBORVITAE TO BE ADJUSTED AS NECESSARY TO PROVIDE DESIRED SCREENING FOR EXISTING HOMES.

WHITE PINE TO BE ADJUSTED AS NECESSARY TO PROVIDE DESIRED SCREENING FOR EXISTING HOMES. SEE SHEET L3-4 FOR PLAN AND TREE SCHEDULE FOR THIS AREA.

TA-29

TA-61

RD-24

SEE SHEET L9

0 25 50 100

GRAPHIC SCALE IN FEET

SHRUBS

KEY	COMMON NAME/Scientific name	ROOT	QUANTITY	
TA	TECHNY ARBORVITAE/Thuja occidentalis 'Techny'	3-4' B&B	90	
RD	RED TWIGGED DOGWOOD/Cornus sericea 'Bayleyi'	#5 POT	24	

SHRUBS TO BE MULCHED WITH SHREDDED HARDWOOD TO A DEPTH OF 3".
NO WEED BARRIER USED BENEATH SHREDDED HARDWOOD.
NO EDGER USED AROUND SHRUB PLANTING AREAS.
SEE SHEET L10 FOR NORTH SIDE OF HOMESTEAD
SEE SHEET L10 FOR TREE SCHEDULE

116240

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 5-4-17

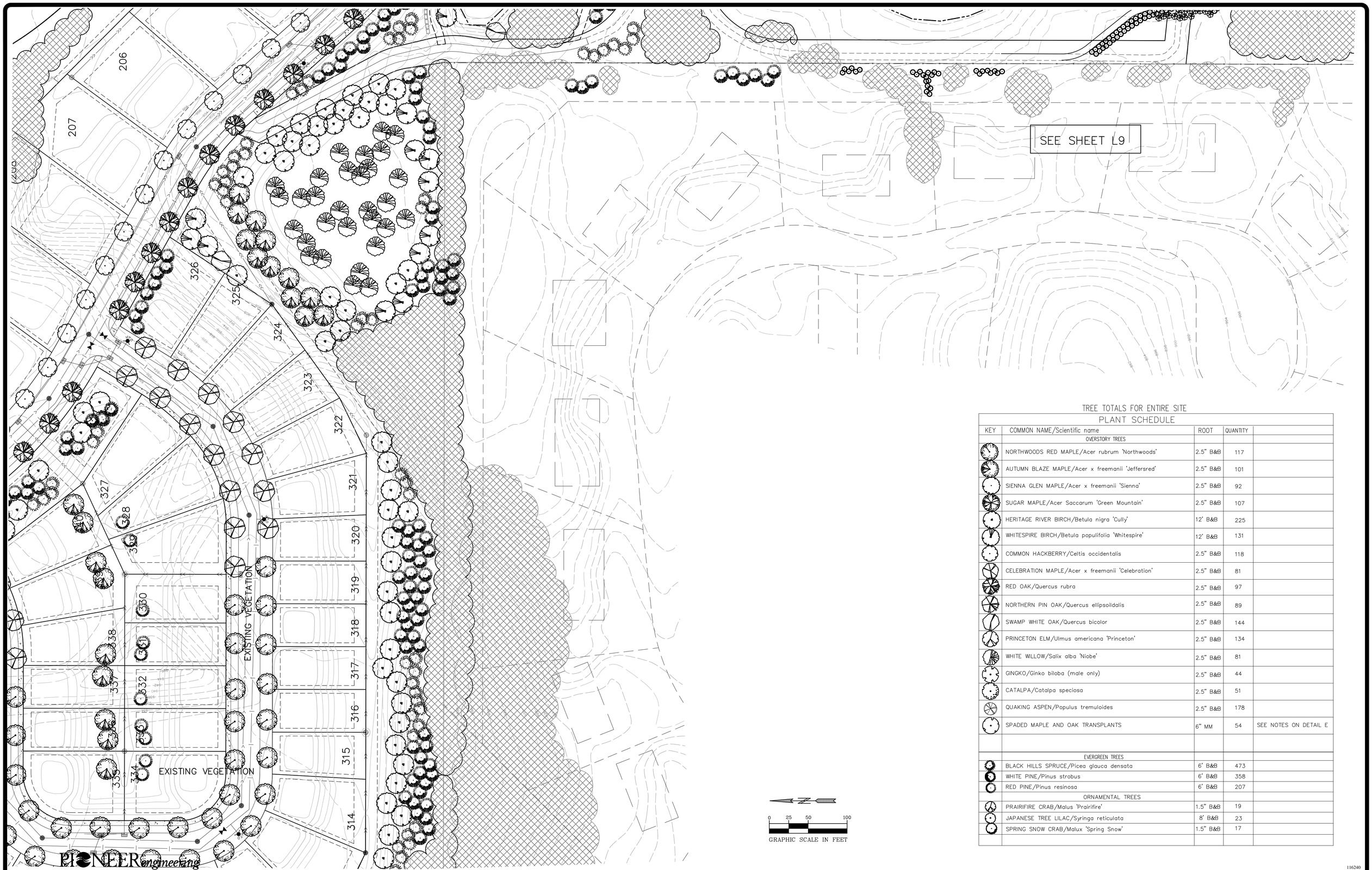
Revisions
2-10-17 new site layout
5-4-17 revised grading

Date	9-22-16
Designed	JLT
Drawn	JLT

HOMESTEAD DETAIL

HC GOLF COURSE DEVELOPMENT, LLC
11074 RADISSON ROAD NE
BLAINE, MINNESOTA 55449

THE ROYAL GOLF CLUB AT LAKE ELMO
LAKE ELMO, MINNESOTA



TREE TOTALS FOR ENTIRE SITE

PLANT SCHEDULE

KEY	COMMON NAME/Scientific name	ROOT	QUANTITY	
	OVERSTORY TREES			
	NORTHWOODS RED MAPLE/Acer rubrum 'Northwoods'	2.5" B&B	117	
	AUTUMN BLAZE MAPLE/Acer x freemanii 'Jeffersred'	2.5" B&B	101	
	SIENNA GLEN MAPLE/Acer x freemanii 'Sienna'	2.5" B&B	92	
	SUGAR MAPLE/Acer Saccarum 'Green Mountain'	2.5" B&B	107	
	HERITAGE RIVER BIRCH/Betula nigra 'Cully'	12' B&B	225	
	WHITESPIRE BIRCH/Betula populifolia 'Whitespire'	12' B&B	131	
	COMMON HACKBERRY/Celtis occidentalis	2.5" B&B	118	
	CELEBRATION MAPLE/Acer x freemanii 'Celebration'	2.5" B&B	81	
	RED OAK/Quercus rubra	2.5" B&B	97	
	NORTHERN PIN OAK/Quercus ellipsoildalis	2.5" B&B	89	
	SWAMP WHITE OAK/Quercus bicolor	2.5" B&B	144	
	PRINCETON ELM/Ulmus americana 'Princeton'	2.5" B&B	134	
	WHITE WILLOW/Salix alba 'Niobe'	2.5" B&B	81	
	GINGKO/Ginko biloba (male only)	2.5" B&B	44	
	CATALPA/Catalpa speciosa	2.5" B&B	51	
	QUAKING ASPEN/Populus tremuloides	2.5" B&B	178	
	SPADED MAPLE AND OAK TRANSPLANTS	6" MM	54	SEE NOTES ON DETAIL E
	EVERGREEN TREES			
	BLACK HILLS SPRUCE/Picea glauca densata	6' B&B	473	
	WHITE PINE/Pinus strobus	6' B&B	358	
	RED PINE/Pinus resinosa	6' B&B	207	
	ORNAMENTAL TREES			
	PRAIRIFIRE CRAB/Malus 'Prairifire'	1.5" B&B	19	
	JAPANESE TREE LILAC/Syringa reticulata	8' B&B	23	
	SPRING SNOW CRAB/Malux 'Spring Snow'	1.5" B&B	17	

116240

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 5-4-17

Revisions
2-10-17 new site layout
5-4-17 revised grading

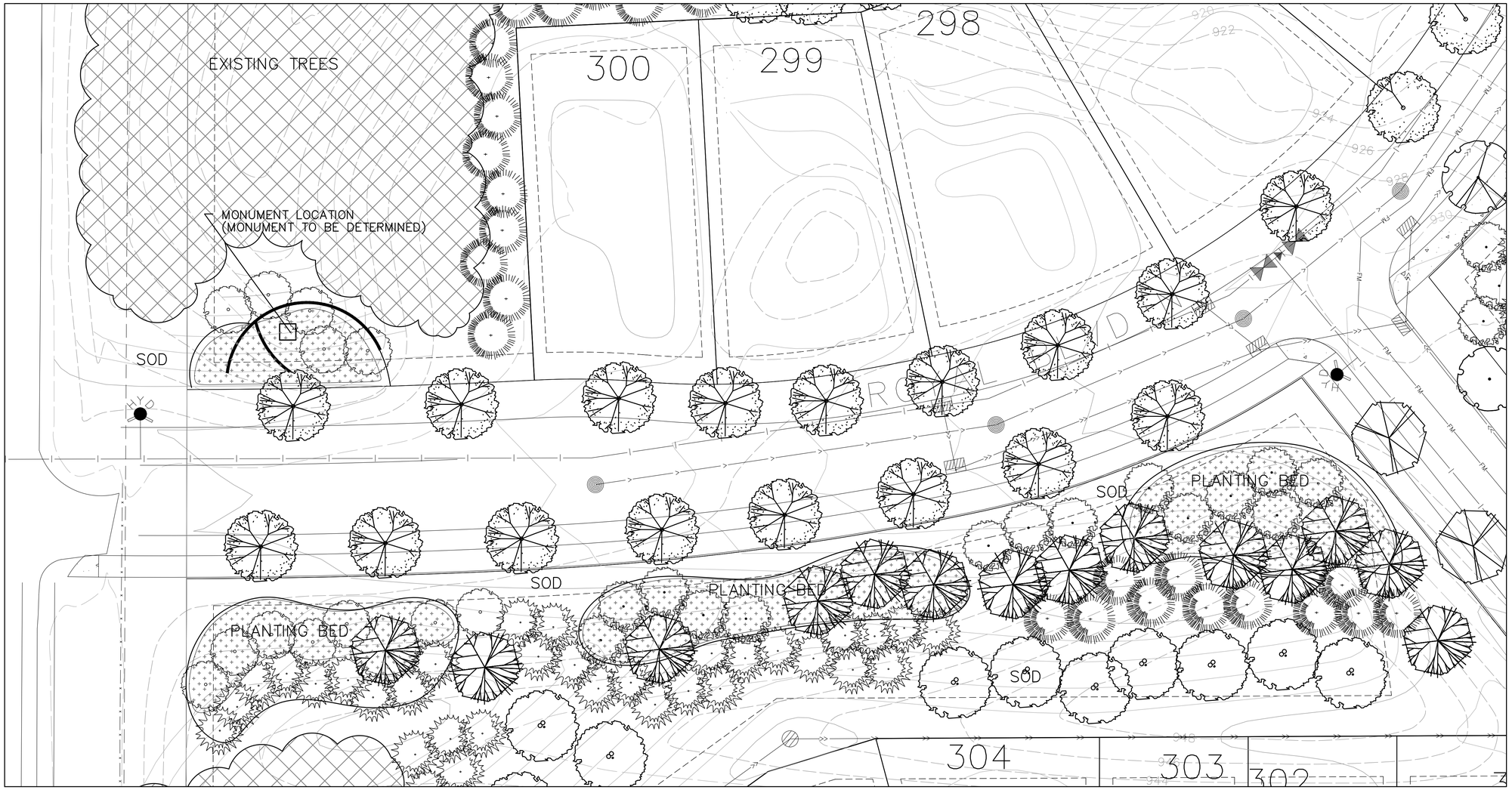
Date	9-22-16
Designed	JLT
Drawn	JLT

HOMESTEAD DETAIL

HC GOLF COURSE DEVELOPMENT, LLC
11074 RADISSON ROAD NE
BLAINE, MINNESOTA 55449

THE ROYAL GOLF CLUB AT LAKE ELMO
LAKE ELMO, MINNESOTA

WEST ENTRANCE



SEE SHEETS L1–8 FOR LANDSCAPE REQUIREMENTS, DETAILS, AND SCHEDULE

ENTRANCE FEATURE NOTES:
ALL MONUMENT DESIGNS TO BE DETERMINED
PLANTING BEDS TO BE MULCHED WITH SHREDDED HARDWOOD TO A DEPTH OF 3"
SEE SHEET L3 FOR TREE SCHEDULE

LANDSCAPE NOTES:
1. LOTS WILL BE SODDED AFTER CONSTRUCTION.
2. SEE SHEET L1 FOR LANDSCAPE REQUIREMENT DATA
3. ALL PLANTS TO BE PLANTED WITHIN CITY PARKS AND ON CITY PROPERTIES SHALL COMPLY WITH THE CITY'S RESOLUTION ENDORSING BEE–SAFE POLICIES AND PROCEDURES. WRITTEN ACKNOWLEDGEMENT WILL BE PROVIDED.
4. TREES WITHIN BOULEVARDS WITH SIDEWALKS WILL BE PLANTED 5' FROM CURB
5. TREES WITHIN BOULEVARDS WITHOUT SIDEWALKS WILL BE PLANTED 8' FROM CURB

N

0 10 20 40
GRAPHIC SCALE IN FEET

116240

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 5-4-17

Revisions
2-10-17 new site layout
5-4-17 revised grading

Date	9-22-16
Designed	JLT
Drawn	JLT

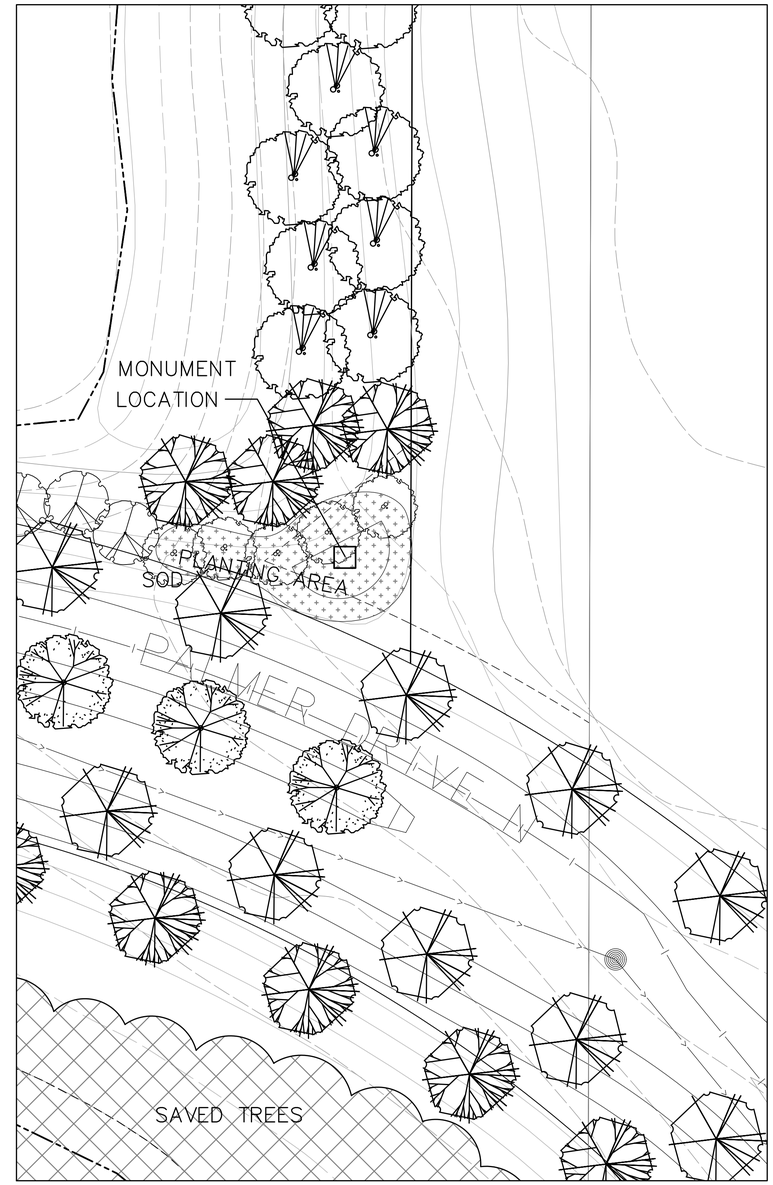
LANDSCAPE PLAN

HC GOLF COURSE DEVELOPMENT, LLC
11074 RADISSON ROAD NE
BLAINE, MINNESOTA 55449

THE ROYAL GOLF CLUB AT LAKE ELMO
LAKE ELMO, MINNESOTA

CENTRAL PARK

SOUTH ENTRANCE



SEE SHEETS L1–8 FOR TREE SCHEDULE, DETAILS, AND LANDSCAPE REQUIREMENTS
OUTLOT AREAS LABELED AS SOD TO BE IRRIGATED. IRRIGATION BY OTHERS

LANDSCAPE NOTES:
1. LOTS WILL BE SODDED AFTER CONSTRUCTION.
2. SEE SHEET L1 FOR LANDSCAPE REQUIREMENT DATA
3. ALL PLANTS TO BE PLANTED WITHIN CITY PARKS AND ON CITY PROPERTIES SHALL COMPLY WITH THE CITY'S RESOLUTION ENDORSING BEE–SAFE POLICIES AND PROCEDURES. WRITTEN ACKNOWLEDGEMENT WILL BE PROVIDED.
4. TREES WITHIN BOULEVARDS WITH SIDEWALKS WILL BE PLANTED 5' FROM CURB
5. TREES WITHIN BOULEVARDS WITHOUT SIDEWALKS WILL BE PLANTED 8' FROM CURB

N

0 10 20 40
GRAPHIC SCALE IN FEET

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 5-4-17

Revisions
2-10-17 new site layout
5-4-17 revised grading

Date	9-22-16
Designed	JLT
Drawn	JLT

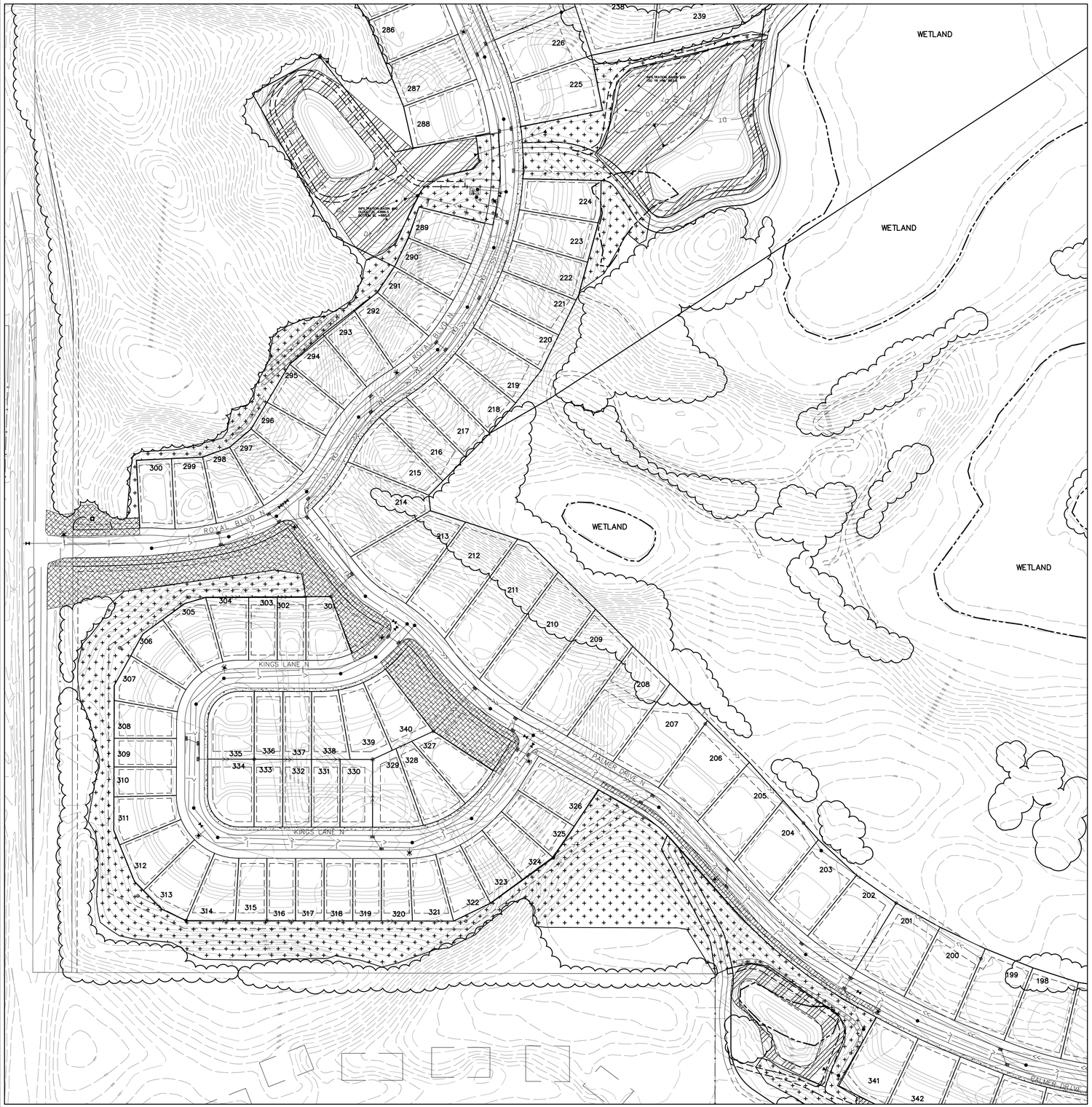
LANDSCAPE PLAN

HC GOLF COURSE DEVELOPMENT, LLC
11074 RADISSON ROAD NE
BLAINE, MINNESOTA 55449

THE ROYAL GOLF CLUB AT LAKE ELMO
LAKE ELMO, MINNESOTA

L12 OF 16

116240



NATIVE DRY PRAIRIE SOUTHEAST
(STATE SEED MIX 35-621 FORMERLY U6)

35-621	Dry Prairie Southeast				
Common Name	**Scientific Name**	**Rate (kg/ha)**	**Rate (lb/ac)**	**% of Mix (% by wt)**	**Seeds/ sq ft**
side-oats grama	*Bouteloua curtipendula*	1.27	1.13	10.23%	2.48
blue grama	*Bouteloua gracilis*	0.76	0.68	6.19%	10.00
kalm's brome	*Bromus kalmii*	0.35	0.31	2.78%	0.90
nodding wild rye	*Elymus canadensis*	1.68	1.50	13.61%	2.86
slender wheatgrass	*Elymus trachycaulus*	1.32	1.18	10.76%	3.00
junegrass	*Koeleria macrantha*	0.46	0.41	3.71%	30.00
little bluestem	*Schizachyrium scoparium*	1.69	1.51	13.70%	8.30
sand dropseed	*Sporobolus cryptandrus*	0.25	0.22	1.96%	16.00
prairie dropseed	*Sporobolus heterolepis*	0.29	0.26	2.32%	1.50
	Total Grasses	**8.07**	**7.20**	**65.28%**	**75.04**
butterfly milkweed	*Asclepias tuberosa*	0.07	0.06	0.52%	0.09
whorled milkweed	*Asclepias verticillata*	0.01	0.01	0.11%	0.05
bird's foot coreopsis	*Coreopsis palmata*	0.06	0.05	0.50%	0.20
white prairie clover	*Dalea candida*	0.10	0.09	0.78%	0.60
purple prairie clover	*Dalea purpurea*	0.17	0.15	1.32%	0.80
ox-eye	*Heliopsis helianthoides*	0.07	0.06	0.51%	0.13
round-headed bush clover	*Lespedeza capitata*	0.03	0.03	0.31%	0.10
rough blazing star	*Liatris aspera*	0.02	0.02	0.17%	0.11
dotted blazing star	*Liatris punctata*	0.02	0.02	0.23%	0.06
wild bergamot	*Monarda fistulosa*	0.03	0.03	0.30%	0.85
horsemint	*Monarda punctata*	0.02	0.02	0.22%	0.80
stiff goldenrod	*Oligoneuron rigidum*	0.07	0.06	0.59%	0.98
large-flowered beard tongue	*Penstemon grandiflorus*	0.04	0.04	0.35%	0.20
black-eyed susan	*Rudbeckia hirta*	0.10	0.09	0.86%	3.20
gray goldenrod	*solidago nemoralis*	0.01	0.01	0.14%	1.65
skyblue aster	*Symphydrichum oolentangiense*	0.01	0.01	0.06%	0.20
silky aster	*Symphyotrichum sericeum*	0.02	0.02	0.19%	0.20
bracted spiderwort	*Tradescantia bracteata*	0.01	0.01	0.12%	0.05
heart-leaved alexanders	*Zizia aptera*	0.02	0.02	0.21%	0.10
	Total Forbs	**0.90**	**0.80**	**7.49%**	**10.37**
Oats or winter wheat (see note at beginning of list for recommended dates)		3.36	3.00	27.23%	1.33
	Total Cover Crop	**3.36**	**3.00**	**27.23%**	**1.33**
	Totals:	**12.33**	**11.00**	**100.00%**	**86.75**
Purpose:	Regional dry prairie reconstruction for wetland mitigation, ecological restoration, or conservation program plantings.				
Planting Area:	Eastern Broadleaf Forest Province excluding Hardwood Hills subsection. Mn/DOT Districts Metro & 6.				

DRY SWALE/POND
(STATE SEED MIX 33-262 FORMERLY W4)

33-262	Dry Swale / Pond				
Common Name	**Scientific Name**	**Rate (kg/ha)**	**Rate (lb/ac)**	**% of Mix (% by wt)**	**Seeds/ sq ft**
big bluestem	*Andropogon gerardii*	1.68	1.50	3.40%	5.50
American slough grass	*Beckmannia syzigachne*	1.68	1.50	3.42%	27.60
fringed brome	*Bromus ciliatus*	1.68	1.50	3.40%	6.05
nodding wild rye	*Elymus canadensis*	4.48	4.00	9.09%	7.64
slender wheatgrass	*Elymus trachycaulus*	4.48	4.00	9.10%	10.15
Virginia wild rye	*Elymus virginicus*	2.80	2.50	5.67%	3.85
switchgrass	*Panicum virgatum*	0.45	0.40	0.91%	2.05
fowl bluegrass	*Poa palustris*	1.79	1.60	3.64%	76.50
Indian grass	*Sorghastrum nutans*	1.68	1.50	3.40%	6.60
	Total Grasses	**20.74**	**18.50**	**42.03%**	**145.94**
marsh milkweed	*Asclepias incarnata*	0.07	0.06	0.13%	0.10
purple prairie clover	*Dalea purpurea*	0.10	0.09	0.21%	0.50
Canada tick trefoil	*Desmodium canadense*	0.10	0.09	0.21%	0.19
ox-eye	*Heliopsis helianthoides*	0.10	0.09	0.20%	0.20
black-eyed susan	*Rudbeckia hirta*	0.08	0.07	0.17%	2.49
blue vervain	*Verbena hastata*	0.11	0.10	0.23%	3.50
	Total Forbs	**0.56**	**0.50**	**1.15%**	**6.98**
Oats or winter wheat (see note at beginning of list for recommended dates)		28.02	25.00	56.82%	11.14
	Total Cover Crop	**28.02**	**25.00**	**56.82%**	**11.14**
	Totals:	**49.32**	**44.00**	**100.00%**	**164.06**
Purpose:	Temporarily flooded swales in agricultural settings.				
Planting Area:	Tallgrass Aspen Parklands, Prairie Parkland, and Eastern Broadleaf Forest Provinces. Mn/DOT Districts 2(west), 3B, 4, Metro, 6, 7 & 8.				

3-YEAR MAINTENANCE PLAN FOR TRANSITION AREA (BETWEEN NWL AND HWL AND AROUND WETLANDS) AND UPLAND SEEDING:

YEAR 1
1. TYPE 3 BLANKET SHOULD BE USED ON SLOPES UNLESS THE AREAS ARE HYDRO SEEDED WITH A HEAVY TACKIFIER IN WHICH CASE NO BLANKET OR MULCH WILL BE NECESSARY.

YEAR 1-3
1. MOWING SHOULD OCCUR AS NECESSARY THROUGHOUT THE GROWING SEASON FOR THE FIRST 3 SEASONS TO PREVENT NOXIOUS WEEDS FROM TAKING HOLD
2. WEEDS SHOULD BE HAND PULLED OR SPOT SPRAYED AS NECESSARY.
3. IF THE POND AND WETLAND SEEDING AREAS BECOMES SATURATED WITH ANY FREQUENCY, REED CANARY GRASS OR OTHER NOXIOUS WEEDS CAN BECOME A PROBLEM. SETHOXYDIM (OR EQUIVALENT) OR OTHER HERBICIDES WILL BE EFFECTIVE IN CONTROLLING REED CANARY GRASS AND OTHER NOXIOUS WEEDS WITHOUT HARMING SEDGES, RUSHES, AND FORBS.
4. TREES AND SHRUBS SHOULD ONLY BE PRUNED IN THE EVENT OF DAMAGED OR BROKEN BRANCHES.
5. INLETS MUST BE KEPT CLEAR OF DEBRIS.
6. ANY DEBRIS OBSERVED IN INFILTRATION BASIN OR POND SHALL BE REMOVED.

SOD (TYPICAL)

SODDED OUTLOT AREAS TO BE IRRIGATED
IRRIGATION DESIGNED BY OTHERS

LOTS WILL BE SODDED TO ADJACENT CURB LINES UNLESS OTHERWISE NOTED

SEEDING NOTES:

MULCH: MNDOT TYPE 2 @ 2 TONS PER ACRE AND DISK ANCHORED IN PLACE OR APPROVED EQUAL, INSTALLED TO MINIMUM 90% COVERAGE OF THE SURFACE AREA DISTURBED. MULCH AT 90 % COVERAGE WITH DISC ANCHOR OR HYDROSEED.

POND BENCH AND UP TO HWL AND AREA DISTURBED AROUND WETLAND TO BE SEEDED WITH MN STATE SEED MIX 33-262 OR EQUIVALENT. SEE GRADING DETAIL NOTES FOR MORE STORMWATER MANAGEMENT DETAILS

DISTURBED UPLAND AREA INCLUDING ABOVE HWL ON STORM WATER TREATMENT AREAS AND ANY DISTURBED UPLAND TO BE SEEDED WITH MN STATE SEED MIX 35-621 OR EQUIVALENT.

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 5-4-17

Revisions
2-10-17 new site layout
5-4-17 revised grading

Date	9-22-16
Designed	JLT
Drawn	JLT

GROUNDCOVER PLAN

HC GOLF COURSE DEVELOPMENT, LLC
11074 RADISSON ROAD NE
BLAINE, MINNESOTA 55449

THE ROYAL GOLF CLUB AT LAKE ELMO
LAKE ELMO, MINNESOTA

116240

NATIVE DRY PRAIRIE SOUTHEAST
(STATE SEED MIX 35-621 FORMERLY U6)

35-621 Dry Prairie Southeast

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/ sq ft
side-oats grama	*Bouteloua curtipendula*	1.27	1.13	10.23%	2.48
blue grama	*Bouteloua gracilis*	0.76	0.68	6.19%	10.00
kalm's brome	*Bromus kalmii*	0.35	0.31	2.78%	0.90
nodding wild rye	*Elymus canadensis*	1.68	1.50	13.61%	2.86
slender wheatgrass	*Elymus trachycaulus*	1.32	1.18	10.76%	3.00
junegrass	*Koeleria macrantha*	0.46	0.41	3.71%	30.00
little bluestem	*Schizachyrium scoparium*	1.69	1.51	13.70%	8.30
sand dropseed	*Sporobolus cryptandrus*	0.25	0.22	1.98%	16.00
prairie dropseed	*Sporobolus heterolepis*	0.29	0.26	2.32%	1.50
	Total Grasses	**8.07**	**7.20**	**65.28%**	**75.04**
butterfly milkweed	*Asclepias tuberosa*	0.07	0.06	0.52%	0.09
whorled milkweed	*Asclepias verticillata*	0.01	0.01	0.11%	0.05
bird's foot coreopsis	*Coreopsis palmata*	0.06	0.05	0.50%	0.20
white prairie clover	*Dalea candida*	0.10	0.09	0.78%	0.60
purple prairie clover	*Dalea purpurea*	0.17	0.15	1.32%	0.80
ox-eye	*Heliopsis helianthoides*	0.07	0.06	0.51%	0.13
round-headed bush clover	*Lespedeza capitata*	0.03	0.03	0.31%	0.10
rough blazing star	*Liatris aspera*	0.02	0.02	0.17%	0.11
dotted blazing star	*Liatris punctata*	0.02	0.02	0.23%	0.06
wild bergamot	*Monarda fistulosa*	0.03	0.03	0.30%	0.85
horsemint	*Monarda punctata*	0.02	0.02	0.22%	0.80
stiff goldenrod	*Oligoneuron rigidum*	0.07	0.06	0.59%	0.98
large-flowered beard tongue	*Pensternon grandiflorus*	0.04	0.04	0.35%	0.20
black-eyed susan	*Rudbeckia hirta*	0.10	0.09	0.86%	3.20
gray goldenrod	*solidago nemoralis*	0.01	0.01	0.14%	1.65
skyblue aster	*Symphyotrichum oolentangiense*	0.01	0.01	0.06%	0.20
silky aster	*Symphyotrichum sericeum*	0.02	0.02	0.19%	0.20
bracted spiderwort	*Tradescantia bracteata*	0.01	0.01	0.12%	0.05
heart-leaved alexanders	*Zizia aptera*	0.02	0.02	0.21%	0.10
	Total Forbs	**0.90**	**0.80**	**7.49%**	**10.37**
Oats or winter wheat (see note at beginning of list for recommended dates)		3.36	3.00	27.23%	1.33
	Total Cover Crop	**3.36**	**3.00**	**27.23%**	**1.33**
	Totals:	**12.33**	**11.00**	**100.00%**	**86.75**
Purpose:	Regional dry prairie reconstruction for wetland mitigation, ecological restoration, or conservation program plantings.				
Planting Area:	Eastern Broadleaf Forest Province excluding Hardwood Hills subsection. Mn/DOT Districts Metro & 6.				

DRY SWALE/POND
(STATE SEED MIX 33-262 FORMERLY W4)

33-262 Dry Swale / Pond

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/ sq ft
big bluestem	*Andropogon gerardii*	1.68	1.50	3.40%	5.50
American slough grass	*Beckmannia syzigachne*	1.68	1.50	3.42%	27.60
fringed brome	*Bromus ciliatus*	1.68	1.50	3.40%	6.05
nodding wild rye	*Elymus canadensis*	4.48	4.00	9.09%	7.64
slender wheatgrass	*Elymus trachycaulus*	4.48	4.00	9.10%	10.15
Virginia wild rye	*Elymus virginicus*	2.80	2.50	5.67%	3.85
switchgrass	*Panicum virgatum*	0.45	0.40	0.91%	2.05
fowl bluegrass	*Poa palustris*	1.79	1.60	3.64%	76.50
Indian grass	*Sorghastrum nutans*	1.68	1.50	3.40%	6.60
	Total Grasses	**20.74**	**18.50**	**42.03%**	**145.94**
marsh milkweed	*Asclepias incarnata*	0.07	0.06	0.13%	0.10
purple prairie clover	*Dalea purpurea*	0.10	0.09	0.21%	0.50
Canada tick trefoil	*Desmodium canadense*	0.10	0.09	0.21%	0.19
ox-eye	*Heliopsis helianthoides*	0.10	0.09	0.20%	0.20
black-eyed susan	*Rudbeckia hirta*	0.08	0.07	0.17%	2.49
blue vervain	*Verbena hastata*	0.11	0.10	0.23%	3.50
	Total Forbs	**0.56**	**0.50**	**1.15%**	**6.98**
Oats or winter wheat (see note at beginning of list for recommended dates)		28.02	25.00	56.82%	11.14
	Total Cover Crop	**28.02**	**25.00**	**56.82%**	**11.14**
	Totals:	**49.32**	**44.00**	**100.00%**	**164.06**
Purpose:	Temporarily flooded swales in agricultural settings.				
Planting Area:	Tallgrass Aspen Parklands, Prairie Parkland, and Eastern Broadleaf Forest Provinces. Mn/DOT Districts 2(west), 3B, 4, Metro, 6, 7 & 8.				

3-YEAR MAINTENANCE PLAN FOR TRANSITION AREA (BETWEEN NWL AND HWL AND AROUND WETLANDS) AND UPLAND SEEDING:

YEAR 1
1. TYPE 3 BLANKET SHOULD BE USED ON SLOPES UNLESS THE AREAS ARE HYDRO SEEDED WITH A HEAVY TACKIFIER IN WHICH CASE NO BLANKET OR MULCH WILL BE NECESSARY.

YEAR 1-3
1. MOWING SHOULD OCCUR AS NECESSARY THROUGHOUT THE GROWING SEASON FOR THE FIRST 3 SEASONS TO PREVENT NOXIOUS WEEDS FROM TAKING HOLD
2. WEEDS SHOULD BE HAND PULLED OR SPOT SPRAYED AS NECESSARY.
3. IF THE POND AND WETLAND SEEDING AREAS BECOMES SATURATED WITH ANY FREQUENCY, REED CANARY GRASS OR OTHER NOXIOUS WEEDS CAN BECOME A PROBLEM. SETHOXYDIM (OR EQUIVALENT) OR OTHER HERBICIDES WILL BE EFFECTIVE IN CONTROLLING REED CANARY GRASS AND OTHER NOXIOUS WEEDS WITHOUT HARMING SEDGES, RUSHES, AND FORBS.
4. TREES AND SHRUBS SHOULD ONLY BE PRUNED IN THE EVENT OF DAMAGED OR BROKEN BRANCHES.
5. INLETS MUST BE KEPT CLEAR OF DEBRIS.
6. ANY DEBRIS OBSERVED IN INFILTRATION BASIN OR POND SHALL BE REMOVED.

SOD (TYPICAL)

SODDED OUTLOT AREAS TO BE IRRIGATED
IRRIGATION DESIGNED BY OTHERS

LOTS WILL BE SODDED TO ADJACENT CURB LINES UNLESS OTHERWISE NOTED

SEEDING NOTES:

MULCH: MNDOT TYPE 2 @ 2 TONS PER ACRE AND DISK ANCHORED IN PLACE OR APPROVED EQUAL, INSTALLED TO MINIMUM 90% COVERAGE OF THE SURFACE AREA DISTURBED. MULCH AT 90 % COVERAGE WITH DISC ANCHOR OR HYDROSEED.

POND BENCH AND UP TO HWL AND AREA DISTURBED AROUND WETLAND TO BE SEEDED WITH MN STATE SEED MIX 33-262 OR EQUIVALENT. SEE GRADING DETAIL NOTES FOR MORE STORMWATER MANAGEMENT DETAILS

DISTURBED UPLAND AREA INCLUDING ABOVE HWL ON STORM WATER TREATMENT AREAS AND ANY OTHER DISTURBED UPLAND TO BE SEEDED WITH MN STATE SEED MIX 35-621 OR EQUIVALENT.

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 5-4-17

Revisions
2-10-17 new site layout
5-4-17 revised grading

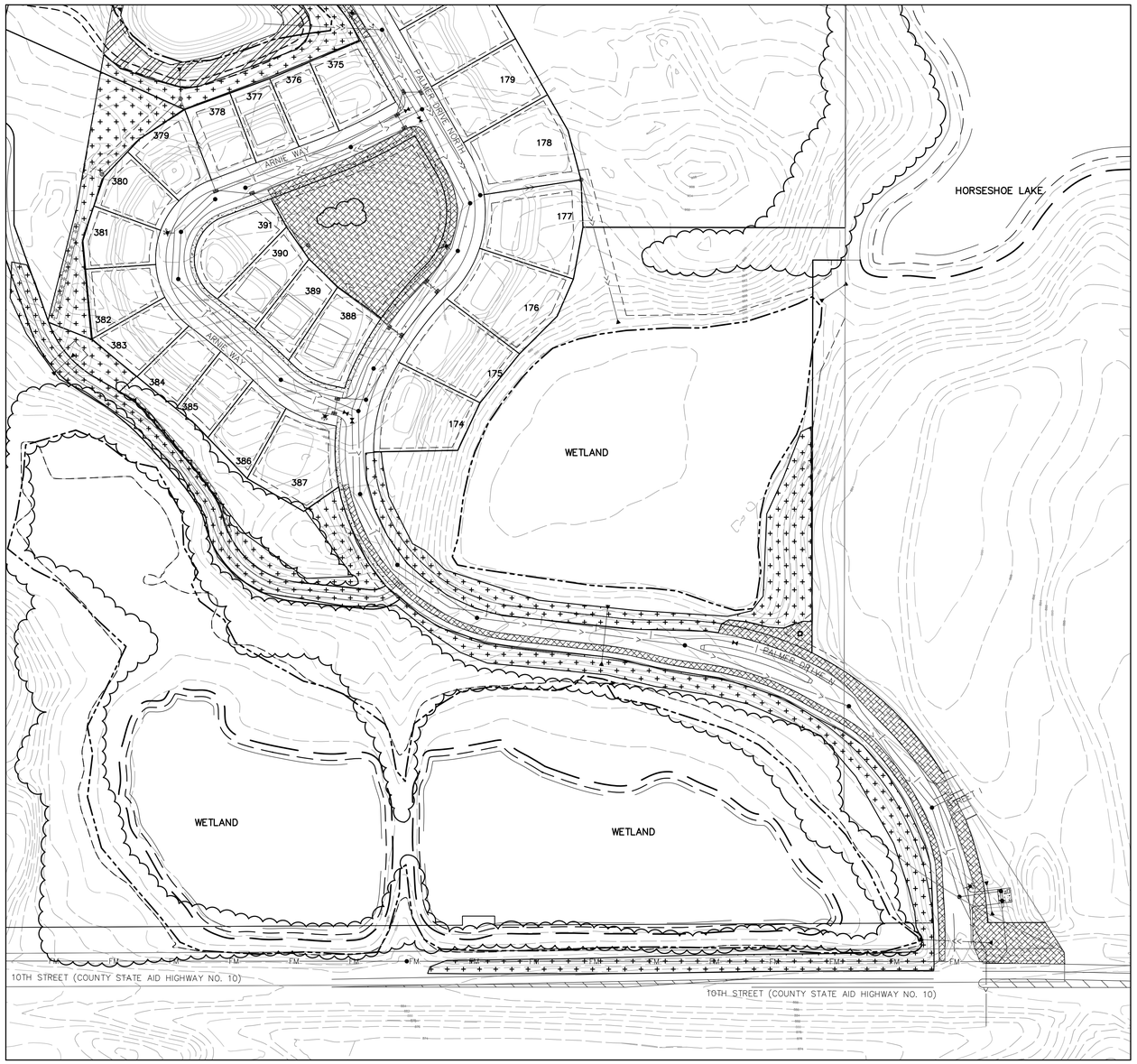
Date	9-22-16
Designed	JLT
Drawn	JLT

GROUNDCOVER PLAN

HC GOLF COURSE DEVELOPMENT, LLC
11074 RADISSON ROAD NE
BLAINE, MINNESOTA 55449

THE ROYAL GOLF CLUB AT LAKE ELMO
LAKE ELMO, MINNESOTA

116240



NATIVE DRY PRAIRIE SOUTHEAST
(STATE SEED MIX 35-621 FORMERLY U6)

35-621	Dry Prairie Southeast				
Common Name	**Scientific Name**	**Rate (kg/ha)**	**Rate (lb/ac)**	**% of Mix (% by wt)**	**Seeds/ sq ft**
side-oats grama	*Bouteloua curtipendula*	1.27	1.13	10.23%	2.48
blue grama	*Bouteloua gracilis*	0.76	0.68	6.19%	10.00
kalm's brome	*Bromus kalmii*	0.35	0.31	2.78%	0.90
nodding wild rye	*Elymus canadensis*	1.68	1.50	13.61%	2.86
slender wheatgrass	*Elymus trachycaulus*	1.32	1.18	10.76%	3.00
junegrass	*Koeleria macrantha*	0.46	0.41	3.71%	30.00
little bluestem	*Schizachyrium scoparium*	1.69	1.51	13.70%	8.30
sand dropseed	*Sporobolus cryptandrus*	0.25	0.22	1.98%	16.00
prairie dropseed	*Sporobolus heterolepis*	0.29	0.26	2.32%	1.50
	Total Grasses	**8.07**	**7.20**	**65.28%**	**75.04**
butterfly milkweed	*Asclepias tuberosa*	0.07	0.06	0.52%	0.09
whorled milkweed	*Asclepias verticillata*	0.01	0.01	0.11%	0.05
bird's foot coreopsis	*Coreopsis palmata*	0.06	0.05	0.50%	0.20
white prairie clover	*Dalea candida*	0.10	0.09	0.78%	0.80
purple prairie clover	*Dalea purpurea*	0.17	0.15	1.32%	0.80
ox-eye	*Heliopsis helianthoides*	0.07	0.06	0.51%	0.13
round-headed bush clover	*Lespedeza capitata*	0.03	0.03	0.31%	0.10
rough blazing star	*Liatris aspera*	0.02	0.02	0.17%	0.11
dotted blazing star	*Liatris punctata*	0.02	0.02	0.23%	0.06
wild bergamot	*Monarda fistulosa*	0.03	0.03	0.30%	0.85
horsemint	*Monarda punctata*	0.02	0.02	0.22%	0.80
stiff goldenrod	*Oligoneuron rigidum*	0.07	0.06	0.59%	0.98
large-flowered beard tongue	*Penstemon grandiflorus*	0.04	0.04	0.35%	0.20
black-eyed susan	*Rudbeckia hirta*	0.10	0.09	0.86%	3.20
gray goldenrod	*solidago nemoralis*	0.01	0.01	0.14%	1.65
skyblue aster	*Symphyotrichum oolentangiense*	0.01	0.01	0.06%	0.20
silky aster	*Symphyotrichum sericeum*	0.02	0.02	0.19%	0.20
bracted spiderwort	*Tradescantia bracteata*	0.01	0.01	0.12%	0.05
heart-leaved alexanders	*Zizia aptera*	0.02	0.02	0.21%	0.10
	Total Forbs	**0.90**	**0.80**	**7.49%**	**10.37**
Oats or winter wheat (see note at beginning of list for recommended dates)		3.36	3.00	27.23%	1.33
	Total Cover Crop	**3.36**	**3.00**	**27.23%**	**1.33**
	Totals:	**12.33**	**11.00**	**100.00%**	**86.75**
Purpose:	Regional dry prairie reconstruction for wetland mitigation, ecological restoration, or conservation program plantings.				
Planting Area:	Eastern Broadleaf Forest Province excluding Hardwood Hills subsection. Mn/DOT Districts Metro & 6.				

DRY SWALE/POND
(STATE SEED MIX 33-262 FORMERLY W4)

33-262	Dry Swale / Pond				
Common Name	**Scientific Name**	**Rate (kg/ha)**	**Rate (lb/ac)**	**% of Mix (% by wt)**	**Seeds/ sq ft**
big bluestem	*Andropogon gerardii*	1.68	1.50	3.40%	5.50
American slough grass	*Beckmannia syzigachne*	1.68	1.50	3.42%	27.60
fringed brome	*Bromus ciliatus*	1.68	1.50	3.40%	6.05
nodding wild rye	*Elymus canadensis*	4.48	4.00	9.09%	7.64
slender wheatgrass	*Elymus trachycaulus*	4.48	4.00	9.10%	10.15
Virginia wild rye	*Elymus virginicus*	2.80	2.50	5.67%	3.85
switchgrass	*Panicum virgatum*	0.45	0.40	0.91%	2.05
fowl bluegrass	*Poa palustris*	1.79	1.60	3.64%	76.50
Indian grass	*Sorghastrum nutans*	1.68	1.50	3.40%	6.60
	Total Grasses	**20.74**	**18.50**	**42.03%**	**145.94**
marsh milkweed	*Asclepias incarnata*	0.07	0.06	0.13%	0.10
purple prairie clover	*Dalea purpurea*	0.10	0.09	0.21%	0.50
Canada tick trefoil	*Desmodium canadense*	0.10	0.09	0.21%	0.19
ox-eye	*Heliopsis helianthoides*	0.10	0.09	0.20%	0.20
black-eyed susan	*Rudbeckia hirta*	0.08	0.07	0.17%	2.49
blue vervain	*Verbena hastata*	0.11	0.10	0.23%	3.50
	Total Forbs	**0.56**	**0.50**	**1.15%**	**6.98**
Oats or winter wheat (see note at beginning of list for recommended dates)		28.02	25.00	56.82%	11.14
	Total Cover Crop	**28.02**	**25.00**	**56.82%**	**11.14**
	Totals:	**49.32**	**44.00**	**100.00%**	**164.06**
Purpose:	Temporarily flooded swales in agricultural settings.				
Planting Area:	Tallgrass Aspen Parklands, Prairie Parkland, and Eastern Broadleaf Forest Provinces. Mn/DOT Districts 2(west), 3B, 4, Metro, 6, 7 & 8.				

3-YEAR MAINTENANCE PLAN FOR TRANSITION AREA (BETWEEN NWL AND HWL AND AROUND WETLANDS) AND UPLAND SEEDING:

YEAR 1
1. TYPE 3 BLANKET SHOULD BE USED ON SLOPES UNLESS THE AREAS ARE HYDRO SEEDED WITH A HEAVY TACKIFIER IN WHICH CASE NO BLANKET OR MULCH WILL BE NECESSARY.

YEAR 1-3
1. MOWING SHOULD OCCUR AS NECESSARY THROUGHOUT THE GROWING SEASON FOR THE FIRST 3 SEASONS TO PREVENT NOXIOUS WEEDS FROM TAKING HOLD
2. WEEDS SHOULD BE HAND PULLED OR SPOT SPRAYED AS NECESSARY.
3. IF THE POND AND WETLAND SEEDING AREAS BECOMES SATURATED WITH ANY FREQUENCY, REED CANARY GRASS OR OTHER NOXIOUS WEEDS CAN BECOME A PROBLEM. SETHOXYDIM (OR EQUIVALENT) OR OTHER HERBICIDES WILL BE EFFECTIVE IN CONTROLLING REED CANARY GRASS AND OTHER NOXIOUS WEEDS WITHOUT HARMING SEDGES, RUSHES, AND FORBS.
4. TREES AND SHRUBS SHOULD ONLY BE PRUNED IN THE EVENT OF DAMAGED OR BROKEN BRANCHES.
5. INLETS MUST BE KEPT CLEAR OF DEBRIS.
6. ANY DEBRIS OBSERVED IN INFILTRATION BASIN OR POND SHALL BE REMOVED.

SOD (TYPICAL)

SODDED OUTLOT AREAS TO BE IRRIGATED
IRRIGATION DESIGNED BY OTHERS

LOTS WILL BE SODDED TO ADJACENT CURB LINES UNLESS OTHERWISE NOTED

SEEDING NOTES:

MULCH: MNDOT TYPE 2 @ 2 TONS PER ACRE AND DISK ANCHORED IN PLACE OR APPROVED EQUAL, INSTALLED TO MINIMUM 90% COVERAGE OF THE SURFACE AREA DISTURBED. MULCH AT 90 % COVERAGE WITH DISC ANCHOR OR HYDROSEED.

POND BENCH AND UP TO HWL AND AREA DISTURBED AROUND WETLAND TO BE SEEDED WITH MN STATE SEED MIX 33-262 OR EQUIVALENT. SEE GRADING DETAIL NOTES FOR MORE STORMWATER MANAGEMENT DETAILS

DISTURBED UPLAND AREA INCLUDING ABOVE HWL ON STORM WATER TREATMENT AREAS AND ANY DISTURBED UPLAND TO BE SEEDED WITH MN STATE SEED MIX 35-621 OR EQUIVALENT.

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota
Name Jennifer L. Thompson
Reg. No. 44763 Date 5-4-17

Revisions
2-10-17 new site layout
5-4-17 revised grading

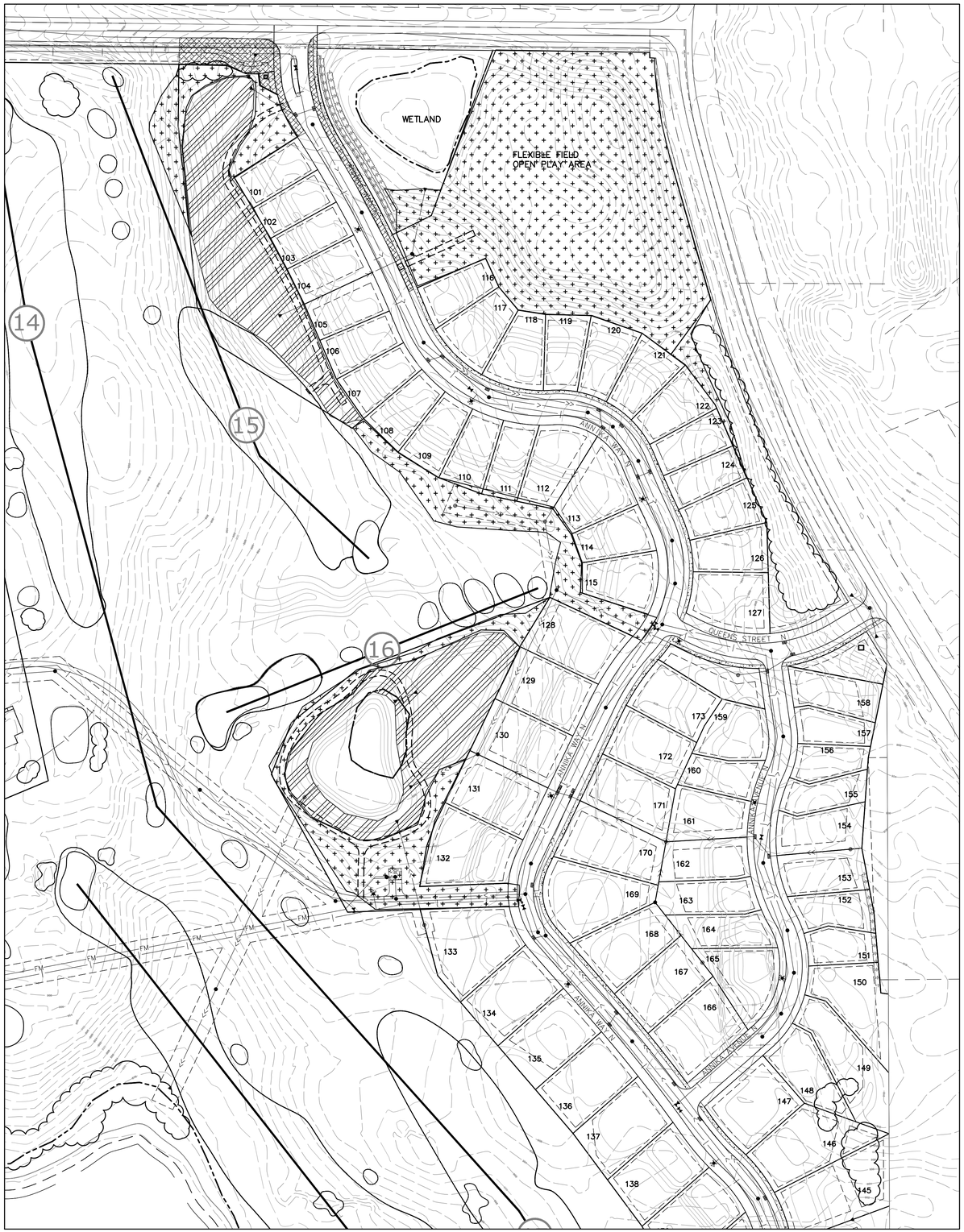
Date	9-22-16
Designed	JLT
Drawn	JLT

GROUNDCOVER PLAN

HC GOLF COURSE DEVELOPMENT, LLC
11074 RADISSON ROAD NE
BLAINE, MINNESOTA 55449

THE ROYAL GOLF CLUB AT LAKE ELMO
LAKE ELMO, MINNESOTA

116240



NATIVE DRY PRAIRIE SOUTHEAST
(STATE SEED MIX 35-621 FORMERLY U6)

35-621	Dry Prairie Southeast				
Common Name	**Scientific Name**	**Rate (kg/ha)**	**Rate (lb/ac)**	**% of Mix (% by wt)**	**Seeds/ sq ft**
side-oats grama	*Bouteloua curtipendula*	1.27	1.13	10.23%	2.48
blue grama	*Bouteloua gracilis*	0.76	0.68	6.19%	10.00
kalm's brome	*Bromus kalmii*	0.35	0.31	2.78%	0.90
nodding wild rye	*Elymus canadensis*	1.68	1.50	13.61%	2.86
slender wheatgrass	*Elymus trachycaulus*	1.32	1.18	10.76%	3.00
junegrass	*Koeleria macrantha*	0.46	0.41	3.71%	30.00
little bluestem	*Schizachyrium scoparium*	1.69	1.51	13.70%	8.30
sand dropseed	*Sporobolus cryptandrus*	0.25	0.22	1.98%	16.00
prairie dropseed	*Sporobolus heterolepis*	0.29	0.26	2.32%	1.50
	Total Grasses	**8.07**	**7.20**	**65.28%**	**75.04**
butterfly milkweed	*Asclepias tuberosa*	0.07	0.06	0.52%	0.09
whorled milkweed	*Asclepias verticillata*	0.01	0.01	0.11%	0.05
bird's foot coreopsis	*Coreopsis palmata*	0.06	0.05	0.50%	0.20
white prairie clover	*Dalea candida*	0.10	0.09	0.78%	0.60
purple prairie clover	*Dalea purpurea*	0.17	0.15	1.32%	0.80
ox-eye	*Heliopsis helianthoides*	0.07	0.06	0.51%	0.13
round-headed bush clover	*Lespedeza capitata*	0.03	0.03	0.31%	0.10
rough blazing star	*Liatris aspera*	0.02	0.02	0.17%	0.11
dotted blazing star	*Liatris punctata*	0.02	0.02	0.23%	0.06
wild bergamot	*Monarda fistulosa*	0.03	0.03	0.30%	0.85
horsemint	*Monarda punctata*	0.02	0.02	0.22%	0.80
stiff goldenrod	*Oligoneuron rigidum*	0.07	0.06	0.58%	0.98
large-flowered beard tongue	*Penstemon grandiflorus*	0.04	0.04	0.35%	0.20
black-eyed susan	*Rudbeckia hirta*	0.10	0.09	0.86%	3.20
gray goldenrod	*solidago nemoralis*	0.01	0.01	0.14%	1.65
skyblue aster	*Symphyotrichum oolentangiense*	0.01	0.01	0.06%	0.20
silky aster	*Symphyotrichum sericeum*	0.02	0.02	0.19%	0.20
bracted spiderwort	*Tradescantia bracteata*	0.01	0.01	0.12%	0.05
heart-leaved alexanders	*Zizia aptera*	0.02	0.02	0.21%	0.10
	Total Forbs	**0.90**	**0.80**	**7.49%**	**10.37**
Oats or winter wheat (see note at beginning of list for recommended dates)		3.36	3.00	27.23%	1.33
	Total Cover Crop	**3.36**	**3.00**	**27.23%**	**1.33**
	Totals:	**12.33**	**11.00**	**100.00%**	**86.75**
Purpose:	Regional dry prairie reconstruction for wetland mitigation, ecological restoration, or conservation program plantings.				
Planting Area:	Eastern Broadleaf Forest Province excluding Hardwood Hills subsection. Mn/DOT Districts Metro & 6.				

DRY SWALE/POND
(STATE SEED MIX 33-262 FORMERLY W4)

33-262	Dry Swale / Pond				
Common Name	**Scientific Name**	**Rate (kg/ha)**	**Rate (lb/ac)**	**% of Mix (% by wt)**	**Seeds/ sq ft**
big bluestem	*Andropogon gerardii*	1.68	1.50	3.40%	5.50
American slough grass	*Beckmannia syzigachne*	1.68	1.50	3.42%	27.60
fringed brome	*Bromus ciliatus*	1.68	1.50	3.40%	6.05
nodding wild rye	*Elymus canadensis*	4.48	4.00	9.09%	7.64
slender wheatgrass	*Elymus trachycaulus*	4.48	4.00	9.10%	10.15
Virginia wild rye	*Elymus virginicus*	2.80	2.50	5.67%	3.85
switchgrass	*Panicum virgatum*	0.45	0.40	0.91%	2.05
fowl bluegrass	*Poa palustris*	1.79	1.60	3.64%	76.50
Indian grass	*Sorghastrum nutans*	1.68	1.50	3.40%	6.60
	Total Grasses	**20.74**	**18.50**	**42.03%**	**145.94**
marsh milkweed	*Asclepias incarnata*	0.07	0.06	0.13%	0.10
purple prairie clover	*Dalea purpurea*	0.10	0.09	0.21%	0.50
Canada tick trefoil	*Desmodium canadense*	0.10	0.09	0.21%	0.19
ox-eye	*Heliopsis helianthoides*	0.10	0.09	0.20%	0.20
black-eyed susan	*Rudbeckia hirta*	0.08	0.07	0.17%	2.49
blue vervain	*Verbena hastata*	0.11	0.10	0.23%	3.50
	Total Forbs	**0.56**	**0.50**	**1.15%**	**6.98**
Oats or winter wheat (see note at beginning of list for recommended dates)		28.02	25.00	56.82%	11.14
	Total Cover Crop	**28.02**	**25.00**	**56.82%**	**11.14**
	Totals:	**49.32**	**44.00**	**100.00%**	**164.06**
Purpose:	Temporarily flooded swales in agricultural settings.				
Planting Area:	Tallgrass Aspen Parklands, Prairie Parkland, and Eastern Broadleaf Forest Provinces. Mn/DOT Districts 2(west), 3B, 4, Metro, 6, 7 & 8.				

3-YEAR MAINTENANCE PLAN FOR TRANSITION AREA (BETWEEN NWL AND HWL AND AROUND WETLANDS) AND UPLAND SEEDING:

YEAR 1
1. TYPE 3 BLANKET SHOULD BE USED ON SLOPES UNLESS THE AREAS ARE HYDRO SEEDED WITH A HEAVY TACKIFIER IN WHICH CASE NO BLANKET OR MULCH WILL BE NECESSARY.

YEAR 1-3
1. MOWING SHOULD OCCUR AS NECESSARY THROUGHOUT THE GROWING SEASON FOR THE FIRST 3 SEASONS TO PREVENT NOXIOUS WEEDS FROM TAKING HOLD
2. WEEDS SHOULD BE HAND PULLED OR SPOT SPRAYED AS NECESSARY.
3. IF THE POND AND WETLAND SEEDING AREAS BECOMES SATURATED WITH ANY FREQUENCY, REED CANARY GRASS OR OTHER NOXIOUS WEEDS CAN BECOME A PROBLEM. SETHOXYDIM (OR EQUIVALENT) OR OTHER HERBICIDES WILL BE EFFECTIVE IN CONTROLLING REED CANARY GRASS AND OTHER NOXIOUS WEEDS WITHOUT HARMING SEDGES, RUSHES, AND FORBS.
4. TREES AND SHRUBS SHOULD ONLY BE PRUNED IN THE EVENT OF DAMAGED OR BROKEN BRANCHES.
5. INLETS MUST BE KEPT CLEAR OF DEBRIS.
6. ANY DEBRIS OBSERVED IN INFILTRATION BASIN OR POND SHALL BE REMOVED.

SOD (TYPICAL)

SODDED OUTLOT AREAS TO BE IRRIGATED
IRRIGATION DESIGNED BY OTHERS

ALL BOULEVARDS TO BE SODDED.

LOTS WILL BE SODDED TO ADJACENT CURB LINES
UNLESS OTHERWISE NOTED

SEEDING NOTES:

MULCH: MNDOT TYPE 2 @ 2 TONS PER ACRE AND DISK ANCHORED IN PLACE OR APPROVED EQUAL, INSTALLED TO MINIMUM 90% COVERAGE OF THE SURFACE AREA DISTURBED. MULCH AT 90 % COVERAGE WITH DISC ANCHOR OR HYDROSEED.

POND BENCH AND UP TO HWL AND AREA DISTURBED AROUND WETLAND TO BE SEEDED WITH MN STATE SEED MIX 33-262 OR EQUIVALENT. SEE GRADING DETAIL NOTES FOR MORE STORMWATER MANAGEMENT DETAILS

DISTURBED UPLAND AREA INCLUDING ABOVE HWL ON STORM WATER TREATMENT AREAS AND ANY DISTURBED UPLAND TO BE SEEDED WITH MN STATE SEED MIX 35-621 OR EQUIVALENT.

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 2-10-17

Revisions
2-10-17 new site layout
5-4-17 revised grading

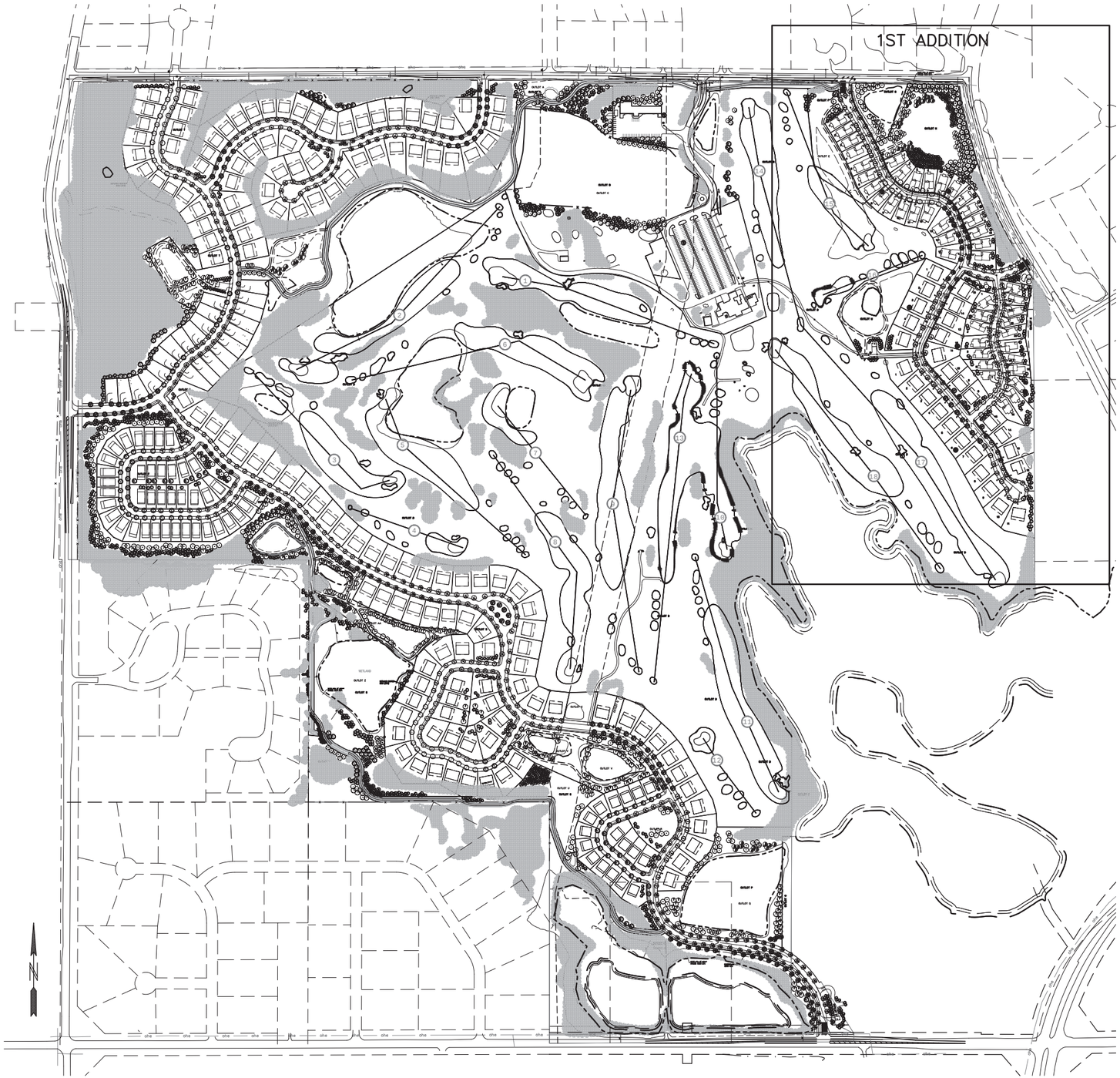
Date	5-4-17
Designed	JLT
Drawn	JLT

GROUNDCOVER PLAN

HC GOLF COURSE DEVELOPMENT, LLC
11074 RADISSON ROAD NE
BLAINE, MINNESOTA 55449

THE ROYAL GOLF CLUB AT LAKE ELMO
LAKE ELMO, MINNESOTA

116240



LANDSCAPE DATA:

SEE PRELIMINARY PLAT FOR LANDSCAPE AND MITIGATION REQUIREMENTS.

TREES PROPOSED ON PRELIMINARY PLAT: 3800

TREES PROPOSED IN 1ST ADDITION: 666
TREES TO BE PROVIDED BY BUILDERS IN FIRST ADDITION: 202
TOTAL TREES TO BE PLANTED IN 1ST ADDITION: 868

TREES BY BUILDER TO BE CHOSEN FROM PLANT SCHEDULE BELOW. BUILDER-SUPPLIED TREES MUST BE A MINIMUM OF TWO DIFFERENT SPECIES PER LOT.

TREE TOTALS FOR FIRST ADDITION

PLANT SCHEDULE

KEY	COMMON NAME/Scientific name	ROOT	QUANTITY	
	OVERSTORY TREES			
	NORTHWOODS RED MAPLE/Acer rubrum 'Northwoods'	2.5" B&B	--	
	AUTUMN BLAZE MAPLE/Acer x freemanii 'Jeffersred'	2.5" B&B	--	
	SIENNA GLEN MAPLE/Acer x freemanii 'Sienna'	2.5" B&B	31	
	SUGAR MAPLE/Acer Saccarum 'Green Mountain'	2.5" B&B	13	
	HERITAGE RIVER BIRCH/Betula nigra 'Cully'	12' B&B	32	
	WHITESPIRE BIRCH/Betula populifolia 'Whitespire'	12' B&B	12	
	COMMON HACKBERRY/Celtis occidentalis	2.5" B&B	29	
	KENTUCKY COFFEE TREE/Gymnocladus dioicus	2.5" B&B	34	Use male/seedless var. True North, Espresso
	RED OAK/Quercus rubra	2.5" B&B	20	
	NORTHERN PIN OAK/Quercus ellipsoildalis	2.5" B&B	--	
	SWAMP WHITE OAK/Quercus bicolor	2.5" B&B	44	
	PRINCETON ELM/Ulmus americana 'Princeton'	2.5" B&B	36	
	WHITE WILLOW/Salix alba 'Niobe'	2.5" B&B	24	
	GINGKO/Ginko biloba (male only)	2.5" B&B	2	
	CATALPA/Catalpa speciosa	2.5" B&B	--	
	QUAKING ASPEN/Populus tremuloides	2.5" B&B	79	
	SPADED MAPLE AND OAK TRANSPLANTS	6" MM	54	SEE SHEET L2
	EVERGREEN TREES			
	BLACK HILLS SPRUCE/Picea glauca densata	6' B&B	95	
	WHITE PINE/Pinus strobus	6' B&B	55	
	RED PINE/Pinus resinosa	6' B&B	106	
	ORNAMENTAL TREES*			
	PRAIRIFIRE CRAB/Malus 'Prairifire'	1.5" B&B	--	
	JAPANESE TREE LILAC/Syringa reticulata	8' B&B	--	
	SPRING SNOW CRAB/Malux 'Spring Snow'	1.5" B&B	--	

*ORNAMENTAL TREES MAY BE EITHER B&B OR POT AS LONG AS THEY MEET THE CALIPER INCH OR HEIGHT DESIGNATION

PIONEERengineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 9-25-17

Revisions
9-7-17 revisions to outlot k
9-15-17 revisions as per City engineers memo dated 9-14-17
9-25-17 revisions as per City engineers memo dated 9-20-17

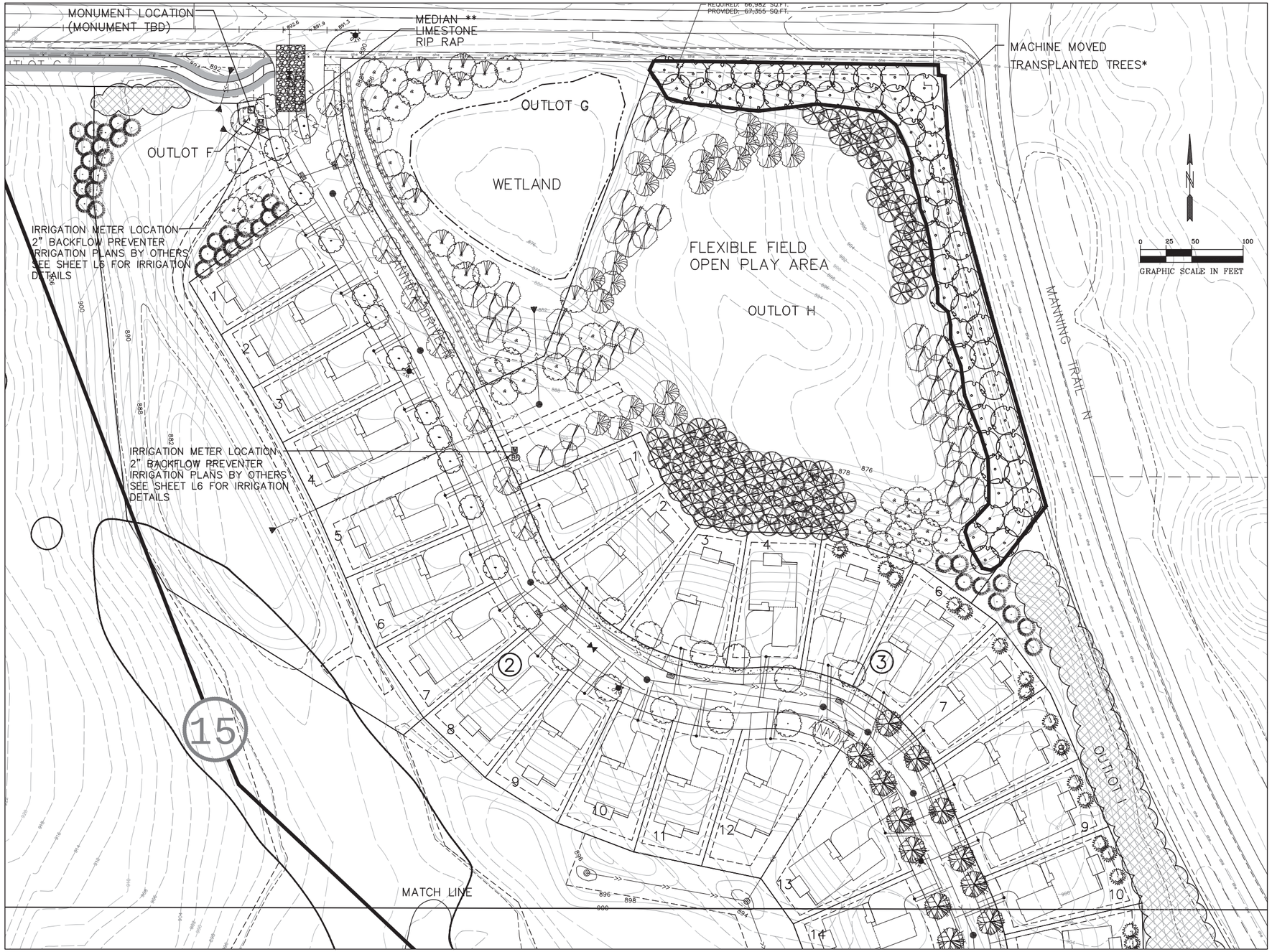
Date	8-8-17
Designed	JLT
Drawn	JLT

LANDSCAPE PLAN

HC GOLF COURSE DEVELOPMENT, LLC
11074 RADISSON ROAD NE
BLAINE, MINNESOTA 55449

THE ROYAL GOLF CLUB AT LAKE ELMO 1ST ADD.
LAKE ELMO, MINNESOTA

116240



STANDARD PLAN NOTES

LANDSCAPE PLANS

1. Contractor must contact Gopher State One Call 811 (www.gopherstateonecall.org) prior to tree staking and planting operations to verify underground utilities. Where private utilities exist on-site the Contractor is required to have those located as well.
2. Plant materials shall meet American Standard for Nursery Stock: ANSI Z60.1, latest edition.
3. No plant substitutions shall be made without the prior written authorization from the City.
4. All tree locations to be field staked prior to installation. Contractor to coordinate field review of proposed tree locations with the City and Project Landscape Architect prior to any tree installation.
5. All plants shall be planted immediately upon arrival to project site. No plant material is to be left overnight on the project site without being installed unless written approval by City.
6. All trees, shrubs, perennials, turf lawn and native seeding to have a two-year warranty beginning upon written acceptance by the City. Defective plants as determined by the City shall be replaced within 30 days of notice during the growing season, and replacement materials shall receive the same two year warranty until plants are successfully established.
7. Contractor to protect and maintain all plantings and plant beds, including protection from wildlife, weeding, re-mulching, fertilization, irrigation and all other typical forms of horticultural care until the end of the warranty period as determined and approved by City.
8. All plants installed and maintained on City property shall be in accordance with City of Lake Elmo Bee-Safe Resolution No. 2015-13.
9. An irrigation system or other water supply adequate to support the specified plant materials shall be provided.

APRIL 2017

CITY OF LAKE ELMO

STANDARD DRAWING NO.
LP2.0
LAKE ELMO

TREE TOTALS FOR FIRST ADDITION

PLANT SCHEDULE

KEY	COMMON NAME/Scientific name	ROOT	QUANTITY	
	OVERSTORY TREES			
	NORTHWOODS RED MAPLE/Acer rubrum 'Northwoods'	2.5" B&B	--	
	AUTUMN BLAZE MAPLE/Acer x freemanii 'Jeffersred'	2.5" B&B	--	
	SIENNA GLEN MAPLE/Acer x freemanii 'Sienna'	2.5" B&B	31	
	SUGAR MAPLE/Acer Saccarum 'Green Mountain'	2.5" B&B	13	
	HERITAGE RIVER BIRCH/Betula nigra 'Cully'	12' B&B	32	
	WHITESPIRE BIRCH/Betula populifolia 'Whitespire'	12' B&B	12	
	COMMON HACKBERRY/Celtis occidentalis	2.5" B&B	29	
	KENTUCKY COFFEE TREE/Gymnocladus dioicus	2.5" B&B	34	Use male/seedless var. True North, Espresso
	RED OAK/Quercus rubra	2.5" B&B	20	
	NORTHERN PIN OAK/Quercus ellipsoildalis	2.5" B&B	--	
	SWAMP WHITE OAK/Quercus bicolor	2.5" B&B	44	
	PRINCETON ELM/Ulmus americana 'Princeton'	2.5" B&B	36	
	WHITE WILLOW/Salix alba 'Niobe'	2.5" B&B	24	
	GINGKO/Ginko biloba (male only)	2.5" B&B	2	
	CATALPA/Catalpa speciosa	2.5" B&B	--	
	QUAKING ASPEN/Populus tremuloides	2.5" B&B	92	
	SPADED MAPLE AND OAK TRANSPLANTS	6" MM	54	SEE NOTES AT LEFT
	EVERGREEN TREES			
	BLACK HILLS SPRUCE/Picea glauca densata	6' B&B	95	
	WHITE PINE/Pinus strobus	6' B&B	55	
	RED PINE/Pinus resinosa	6' B&B	106	
	ORNAMENTAL TREES*			
	PRAIRIFIRE CRAB/Malus 'Prairifire'	1.5" B&B	--	
	JAPANESE TREE LILAC/Syringa reticulata	8' B&B	--	
	SPRING SNOW CRAB/Malux 'Spring Snow'	1.5" B&B	--	

*ORNAMENTAL TREES MAY BE EITHER B&B OR POT AS LONG AS THEY MEET THE CALIPER INCH OR HEIGHT DESIGNATION

LANDSCAPE NOTES:
1. LOTS WILL BE SODDED AFTER CONSTRUCTION.
2. SEE SHEET L1 FOR LANDSCAPE REQUIREMENT DATA
3. TREES WITHIN BOULEVARDS WITH SIDEWALKS WILL BE PLANTED 5' FROM CURB
4. TREES WITHIN BOULEVARDS WITHOUT SIDEWALKS WILL BE PLANTED 8' FROM CURB
5. SEE CITY DOCUMENTS 32 90 00 "PLANTING SPECIFICATION" AND 3292 "TURF ESTABLISHMENT" FOR MORE REQUIREMENTS. THESE DOCUMENTS CAN BE OBTAINED FROM THE CITY OR THE PROJECT LANDSCAPE ARCHITECT.
6. SEE SHEET L7 FOR CITY PLANTING DETAIL PLATES.
7. TREES TO BE PLANTED 10' FROM UTILITY PIPES.
8. TREES TO BE PLANTED 10' FROM INDIVIDUAL UTILITY SERVICES.

* TREES IN THIS AREA TO BE COMPRISED OF MACHINE MOVED TRANSPLANTED TREES.
THESE 54 TREES WILL BE COMPRISED OF:
34 SUGAR MAPLE
5 AUTUMN BLAZE MAPLE
8 SWAMP WHITE OAK
7 NORTHERN RED OAK
THESE TREES WILL BE MOVED WITH A 90" SPADE FROM ANOTHER SITE IN LAKE ELMO.

**MEDIAN NOTES:
MEDIAN TO HAVE BUFF LIMESTONE RIP RAP IN VARYING SIZES FROM 4–12" LAID OVER FIBER MAT WEED BARRIER. ROCK TO BE 2" BELOW EDGE OF CURB.

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota
Name Jennifer L. Thompson
Reg. No. 44763 Date 9-25-17

Revisions
9-7-17 revisions to outlot k
9-15-17 revisions as per City engineers memo dated 9-14-17
9-25-17 revisions as per City engineers memo dated 9-20-17

Date	8-8-17
Designed	JLT
Drawn	JLT

LANDSCAPE PLAN

HC GOLF COURSE DEVELOPMENT, LLC
11074 RADISSON ROAD NE
BLAINE, MINNESOTA 55449

THE ROYAL GOLF CLUB AT LAKE ELMO 1ST ADD.
LAKE ELMO, MINNESOTA

L2 OF 7

116240

GRAPHIC SCALE IN FEET

0 25 50 100

LANDSCAPE NOTES:
1. LOTS WILL BE SODDED AFTER CONSTRUCTION.
2. SEE SHEET L1 FOR LANDSCAPE REQUIREMENT DATA
3. TREES WITHIN BOULEVARDS WITH SIDEWALKS WILL BE PLANTED 5' FROM CURB
4. TREES WITHIN BOULEVARDS WITHOUT SIDEWALKS WILL BE PLANTED 8' FROM CURB
5. SEE CITY DOCUMENTS 32 90 00 "PLANTING SPECIFICATION" AND 3292 "TURF ESTABLISHMENT" FOR MORE REQUIREMENTS. THESE DOCUMENTS CAN BE OBTAINED FROM THE CITY OR THE PROJECT LANDSCAPE ARCHITECT.
6. SEE SHEET L7 FOR CITY PLANTING DETAIL PLATES.
7. TREES TO BE PLANTED 10' FROM UTILITY PIPES.
8. TREES TO BE PLANTED 10' FROM INDIVIDUAL UTILITY SERVICES.

TREE TOTALS FOR FIRST ADDITION

PLANT SCHEDULE

KEY	COMMON NAME/Scientific name	ROOT	QUANTITY	
	OVERSTORY TREES			
	NORTHWOODS RED MAPLE/Acer rubrum 'Northwoods'	2.5" B&B	--	
	AUTUMN BLAZE MAPLE/Acer x freemanii 'Jeffersred'	2.5" B&B	--	
	SIENNA GLEN MAPLE/Acer x freemanii 'Sienna'	2.5" B&B	31	
	SUGAR MAPLE/Acer Saccarum 'Green Mountain'	2.5" B&B	13	
	HERITAGE RIVER BIRCH/Betula nigra 'Cully'	12' B&B	32	
	WHITESPIRE BIRCH/Betula populifolia 'Whitespire'	12' B&B	12	
	COMMON HACKBERRY/Celtis occidentalis	2.5" B&B	29	
	KENTUCKY COFFEE TREE/Gymnocladus dioicus	2.5" B&B	34	Use male/seedless var. True North, Espresso
	RED OAK/Quercus rubra	2.5" B&B	20	
	NORTHERN PIN OAK/Quercus ellipsoildalis	2.5" B&B	--	
	SWAMP WHITE OAK/Quercus bicolor	2.5" B&B	44	
	PRINCETON ELM/Ulmus americana 'Princeton'	2.5" B&B	36	
	WHITE WILLOW/Salix alba 'Niobe'	2.5" B&B	24	
	GINGKO/Ginko biloba (male only)	2.5" B&B	2	
	CATALPA/Catalpa speciosa	2.5" B&B	--	
	QUAKING ASPEN/Populus tremuloides	2.5" B&B	92	
	SPADED MAPLE AND OAK TRANSPLANTS	6" MM	54	SEE SHEET L2
	EVERGREEN TREES			
	BLACK HILLS SPRUCE/Picea glauca densata	6' B&B	95	
	WHITE PINE/Pinus strobus	6' B&B	55	
	RED PINE/Pinus resinosa	6' B&B	106	
	ORNAMENTAL TREES*			
	PRAIRIFIRE CRAB/Malus 'Prairifire'	1.5" B&B	--	
	JAPANESE TREE LILAC/Syringa reticulata	8' B&B	--	
	SPRING SNOW CRAB/Malux 'Spring Snow'	1.5" B&B	--	

*ORNAMENTAL TREES MAY BE EITHER B&B OR POT AS LONG AS THEY MEET THE CALIPER INCH OR HEIGHT DESIGNATION

STANDARD PLAN NOTES

LANDSCAPE PLANS

1. Contractor must contact Gopher State One Call 811 (www.gopherstateonecall.org) prior to tree staking and planting operations to verify underground utilities. Where private utilities exist on-site the Contractor is required to have those located as well.
2. Plant materials shall meet American Standard for Nursery Stock: ANSI Z60.1, latest edition.
3. No plant substitutions shall be made without the prior written authorization from the City.
4. All tree locations to be field staked prior to installation. Contractor to coordinate field review of proposed tree locations with the City and Project Landscape Architect prior to any tree installation.
5. All plants shall be planted immediately upon arrival to project site. No plant material is to be left overnight on the project site without being installed unless written approval by City.
6. All trees, shrubs, perennials, turf lawn and native seeding to have a two-year warranty beginning upon written acceptance by the City. Defective plants as determined by the City shall be replaced within 30 days of notice during the growing season, and replacement materials shall receive the same two year warranty until plants are successfully established.
7. Contractor to protect and maintain all plantings and plant beds, including protection from wildlife, weeding, re-mulching, fertilization, irrigation and all other typical forms of horticultural care until the end of the warranty period as determined and approved by City.
8. All plants installed and maintained on City property shall be in accordance with City of Lake Elmo Bee-Safe Resolution No. 2015-13.
9. An irrigation system or other water supply adequate to support the specified plant materials shall be provided.

APRIL 2017

CITY OF LAKE ELMO

STANDARD DRAWING NO.
LP2.0
LAKE ELMO

116240

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 9-25-17

Revisions
9-7-17 revisions to outlot k
9-15-17 revisions as per City engineers memo dated 9-14-17
9-25-17 revisions as per City engineers memo dated 9-20-17

Date	8-8-17
Designed	JLT
Drawn	JLT

LANDSCAPE PLAN

HC GOLF COURSE DEVELOPMENT, LLC
11074 RADISSON ROAD NE
BLAINE, MINNESOTA 55449

THE ROYAL GOLF CLUB AT LAKE ELMO 1ST ADD.
LAKE ELMO, MINNESOTA

TREE TOTALS FOR FIRST ADDITION

PLANT SCHEDULE

KEY	COMMON NAME/Scientific name	ROOT	QUANTITY	
	OVERSTORY TREES			
	NORTHWOODS RED MAPLE/Acer rubrum 'Northwoods'	2.5" B&B	--	
	AUTUMN BLAZE MAPLE/Acer x freemanii 'Jeffersred'	2.5" B&B	--	
	SIENNA GLEN MAPLE/Acer x freemanii 'Sienna'	2.5" B&B	31	
	SUGAR MAPLE/Acer Saccarum 'Green Mountain'	2.5" B&B	13	
	HERITAGE RIVER BIRCH/Betula nigra 'Cully'	12' B&B	32	
	WHITESPIRE BIRCH/Betula populifolia 'Whitespire'	12' B&B	12	
	COMMON HACKBERRY/Celtis occidentalis	2.5" B&B	29	
	KENTUCKY COFFEE TREE/Gymnocladus dioicus	2.5" B&B	34	Use male/seedless var. True North, Espresso
	RED OAK/Quercus rubra	2.5" B&B	20	
	NORTHERN PIN OAK/Quercus ellipsoildalis	2.5" B&B	--	
	SWAMP WHITE OAK/Quercus bicolor	2.5" B&B	44	
	PRINCETON ELM/Ulmus americana 'Princeton'	2.5" B&B	36	
	WHITE WILLOW/Salix alba 'Niobe'	2.5" B&B	24	
	GINGKO/Ginko biloba (male only)	2.5" B&B	2	
	CATALPA/Catalpa speciosa	2.5" B&B	--	
	QUAKING ASPEN/Populus tremuloides	2.5" B&B	92	
	SPADED MAPLE AND OAK TRANSPLANTS	6" MM	54	SEE SHEET L2
	EVERGREEN TREES			
	BLACK HILLS SPRUCE/Picea glauca densata	6' B&B	95	
	WHITE PINE/Pinus strobus	6' B&B	55	
	RED PINE/Pinus resinosa	6' B&B	106	
	ORNAMENTAL TREES*			
	PRAIRIFIRE CRAB/Malus 'Prairifire'	1.5" B&B	--	
	JAPANESE TREE LILAC/Syringa reticulata	8' B&B	--	
	SPRING SNOW CRAB/Malux 'Spring Snow'	1.5" B&B	--	

*ORNAMENTAL TREES MAY BE EITHER B&B OR POT AS LONG AS THEY MEET THE CALIPER INCH OR HEIGHT DESIGNATION

STANDARD PLAN NOTES

LANDSCAPE PLANS

1. Contractor must contact Gopher State One Call 811 (www.gopherstateonecall.org) prior to tree staking and planting operations to verify underground utilities. Where private utilities exist on-site the Contractor is required to have those located as well.
2. Plant materials shall meet American Standard for Nursery Stock: ANSI Z60.1, latest edition.
3. No plant substitutions shall be made without the prior written authorization from the City.
4. All tree locations to be field staked prior to installation. Contractor to coordinate field review of proposed tree locations with the City and Project Landscape Architect prior to any tree installation.
5. All plants shall be planted immediately upon arrival to project site. No plant material is to be left overnight on the project site without being installed unless written approval by City.
6. All trees, shrubs, perennials, turf lawn and native seeding to have a two-year warranty beginning upon written acceptance by the City. Defective plants as determined by the City shall be replaced within 30 days of notice during the growing season, and replacement materials shall receive the same two year warranty until plants are successfully established.
7. Contractor to protect and maintain all plantings and plant beds, including protection from wildlife, weeding, re-mulching, fertilization, irrigation and all other typical forms of horticultural care until the end of the warranty period as determined and approved by City.
8. All plants installed and maintained on City property shall be in accordance with City of Lake Elmo Bee-Safe Resolution No. 2015-13.
9. An irrigation system or other water supply adequate to support the specified plant materials shall be provided.

APRIL 2017

CITY OF LAKE ELMO

STANDARD DRAWING NO.
LP2.0
LAKE ELMO

LANDSCAPE NOTES:
1. LOTS WILL BE SODDED AFTER CONSTRUCTION.
2. SEE SHEET L1 FOR LANDSCAPE REQUIREMENT DATA
3. TREES WITHIN BOULEVARDS WITH SIDEWALKS WILL BE PLANTED 5' FROM CURB
4. TREES WITHIN BOULEVARDS WITHOUT SIDEWALKS WILL BE PLANTED 8' FROM CURB
5. SEE CITY DOCUMENTS 32 90 00 "PLANTING SPECIFICATION" AND 3292 "TURF ESTABLISHMENT" FOR MORE REQUIREMENTS. THESE DOCUMENTS CAN BE OBTAINED FROM THE CITY OR THE PROJECT LANDSCAPE ARCHITECT.
6. SEE SHEET L7 FOR CITY PLANTING DETAIL PLATES.
7. TREES TO BE PLANTED 10' FROM UTILITY PIPES.
8. TREES TO BE PLANTED 10' FROM INDIVIDUAL UTILITY SERVICES.

N

0 25 50 100
GRAPHIC SCALE IN FEET

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 9-25-17

Revisions
9-7-17 revisions to outlot k
9-15-17 revisions as per City engineers memo dated 9-14-17
9-25-17 revisions as per City engineers memo dated 9-20-17

Date	8-8-17
Designed	JLT
Drawn	JLT

LANDSCAPE PLAN

HC GOLF COURSE DEVELOPMENT, LLC
11074 RADISSON ROAD NE
BLAINE, MINNESOTA 55449

THE ROYAL GOLF CLUB AT LAKE ELMO 1ST ADD.
LAKE ELMO, MINNESOTA

116240

NATIVE DRY PRAIRIE SOUTHEAST
(STATE SEED MIX 35-621 FORMERLY U6)

35-621	Dry Prairie Southeast				
Common Name	**Scientific Name**	**Rate (kg/ha)**	**Rate (lb/ac)**	**% of Mix (% by wt)**	**Seeds/ sq ft**
side-oats grama	*Bouteloua curtipendula*	1.27	1.13	10.23%	2.48
blue grama	*Bouteloua gracilis*	0.76	0.68	6.19%	10.00
kalm's brome	*Bromus kalmii*	0.35	0.31	2.78%	0.90
nodding wild rye	*Elymus canadensis*	1.68	1.50	13.61%	2.86
slender wheatgrass	*Elymus trachycaulus*	1.32	1.18	10.76%	3.00
junegrass	*Koeleria macrantha*	0.46	0.41	3.71%	30.00
little bluestem	*Schizachyrium scoparium*	1.69	1.51	13.70%	8.30
sand dropseed	*Sporobolus cryptandrus*	0.25	0.22	1.98%	16.00
prairie dropseed	*Sporobolus heterolepis*	0.29	0.26	2.32%	1.50
	Total Grasses	**8.07**	**7.20**	**65.28%**	**75.04**
butterfly milkweed	*Asclepias tuberosa*	0.07	0.06	0.52%	0.09
whorled milkweed	*Asclepias verticillata*	0.01	0.01	0.11%	0.05
bird's foot coreopsis	*Coreopsis palmata*	0.06	0.05	0.50%	0.20
white prairie clover	*Dalea candida*	0.10	0.09	0.78%	0.60
purple prairie clover	*Dalea purpurea*	0.17	0.15	1.32%	0.80
ox-eye	*Heliopsis helianthoides*	0.07	0.06	0.51%	0.13
round-headed bush clover	*Lespedeza capitata*	0.03	0.03	0.31%	0.10
rough blazing star	*Liatris aspera*	0.02	0.02	0.17%	0.11
dotted blazing star	*Liatris punctata*	0.02	0.02	0.23%	0.06
wild bergamot	*Monarda fistulosa*	0.03	0.03	0.30%	0.85
horsemint	*Monarda punctata*	0.02	0.02	0.22%	0.80
stiff goldenrod	*Oligoneuron rigidum*	0.07	0.06	0.59%	0.98
large-flowered beard tongue	*Penstemon grandiflorus*	0.04	0.04	0.35%	0.20
black-eyed susan	*Rudbeckia hirta*	0.10	0.09	0.86%	3.20
gray goldenrod	*solidago nemoralis*	0.01	0.01	0.14%	1.65
skyblue aster	*Symphyotrichum oolentangiense*	0.01	0.01	0.06%	0.20
silky aster	*Symphyotrichum sericeum*	0.02	0.02	0.19%	0.20
bracted spiderwort	*Tradescantia bracteata*	0.01	0.01	0.12%	0.05
heart-leaved alexanders	*Zizia aptera*	0.02	0.02	0.21%	0.10
	Total Forbs	**0.90**	**0.80**	**7.49%**	**10.37**
Oats or winter wheat (see note at beginning of list for recommended dates)		3.36	3.00	27.23%	1.33
	Total Cover Crop	**3.36**	**3.00**	**27.23%**	**1.33**
	Totals:	**12.33**	**11.00**	**100.00%**	**86.75**
Purpose:	Regional dry prairie reconstruction for wetland mitigation, ecological restoration, or conservation program plantings.				
Planting Area:	Eastern Broadleaf Forest Province excluding Hardwood Hills subsection. Mn/DOT Districts Metro & 6.				

DRY SWALE/POND
(STATE SEED MIX 33-262 FORMERLY W4)

33-262	Dry Swale / Pond				
Common Name	**Scientific Name**	**Rate (kg/ha)**	**Rate (lb/ac)**	**% of Mix (% by wt)**	**Seeds/ sq ft**
big bluestem	*Andropogon gerardii*	1.68	1.50	3.40%	5.50
American slough grass	*Beckmannia syzigachne*	1.68	1.50	3.42%	27.60
fringed brome	*Bromus ciliatus*	1.68	1.50	3.40%	6.05
nodding wild rye	*Elymus canadensis*	4.48	4.00	9.09%	7.64
slender wheatgrass	*Elymus trachycaulus*	4.48	4.00	9.10%	10.15
Virginia wild rye	*Elymus virginicus*	2.80	2.50	5.67%	3.85
switchgrass	*Panicum virgatum*	0.45	0.40	0.91%	2.05
fowl bluegrass	*Poa palustris*	1.79	1.60	3.64%	76.50
Indian grass	*Sorghastrum nutans*	1.68	1.50	3.40%	6.60
	Total Grasses	**20.74**	**18.50**	**42.03%**	**145.94**
marsh milkweed	*Asclepias incarnata*	0.07	0.06	0.13%	0.10
purple prairie clover	*Dalea purpurea*	0.10	0.09	0.21%	0.50
Canada tick trefoil	*Desmodium canadense*	0.10	0.09	0.21%	0.19
ox-eye	*Heliopsis helianthoides*	0.10	0.09	0.20%	0.20
black-eyed susan	*Rudbeckia hirta*	0.08	0.07	0.17%	2.49
blue vervain	*Verbena hastata*	0.11	0.10	0.23%	3.50
	Total Forbs	**0.56**	**0.50**	**1.15%**	**6.98**
Oats or winter wheat (see note at beginning of list for recommended dates)		28.02	25.00	56.82%	11.14
	Total Cover Crop	**28.02**	**25.00**	**56.82%**	**11.14**
	Totals:	**49.32**	**44.00**	**100.00%**	**164.06**
Purpose:	Temporarily flooded swales in agricultural settings.				
Planting Area:	Tallgrass Aspen Parklands, Prairie Parkland, and Eastern Broadleaf Forest Provinces. Mn/DOT Districts 2(west), 3B, 4, Metro, 6, 7 & 8.				

3-YEAR MAINTENANCE PLAN FOR TRANSITION AREA (BETWEEN NWL AND HWL AND AROUND WETLANDS) AND UPLAND SEEDING:

YEAR 1
1. TYPE 3 BLANKET SHOULD BE USED ON SLOPES UNLESS THE AREAS ARE HYDRO SEEDED WITH A HEAVY TACKIFIER IN WHICH CASE NO BLANKET OR MULCH WILL BE NECESSARY.

YEAR 1-3
1. MOWING SHOULD OCCUR AS NECESSARY THROUGHOUT THE GROWING SEASON FOR THE FIRST 3 SEASONS TO PREVENT NOXIOUS WEEDS FROM TAKING HOLD
2. WEEDS SHOULD BE HAND PULLED OR SPOT SPRAYED AS NECESSARY.
3. IF THE POND AND WETLAND SEEDING AREAS BECOMES SATURATED WITH ANY FREQUENCY, REED CANARY GRASS OR OTHER NOXIOUS WEEDS CAN BECOME A PROBLEM. SETHOXYDIM (OR EQUIVALENT) OR OTHER HERBICIDES WILL BE EFFECTIVE IN CONTROLLING REED CANARY GRASS AND OTHER NOXIOUS WEEDS WITHOUT HARMING SEDGES, RUSHES, AND FORBS.
4. TREES AND SHRUBS SHOULD ONLY BE PRUNED IN THE EVENT OF DAMAGED OR BROKEN BRANCHES.
5. INLETS MUST BE KEPT CLEAR OF DEBRIS.
6. ANY DEBRIS OBSERVED IN INFILTRATION BASIN OR POND SHALL BE REMOVED.

N

0 50 100 200
GRAPHIC SCALE IN FEET

SOD (TYPICAL)

SODDED OUTLOT AREAS TO BE IRRIGATED
IRRIGATION DESIGNED BY OTHERS

ALL BOULEVARDS TO BE SODDED.

LOTS WILL BE SODDED TO ADJACENT CURB LINES
UNLESS OTHERWISE NOTED

SEEDING NOTES:

MULCH: MNDOT TYPE 2 @ 2 TONS PER ACRE AND DISK ANCHORED IN PLACE OR APPROVED EQUAL, INSTALLED TO MINIMUM 90% COVERAGE OF THE SURFACE AREA DISTURBED. MULCH AT 90 % COVERAGE WITH DISC ANCHOR OR HYDROSEED.

POND BENCH AND UP TO HWL AND AREA DISTURBED AROUND WETLAND TO BE SEEDED WITH MN STATE SEED MIX 33-262 OR EQUIVALENT. SEE GRADING DETAIL NOTES FOR MORE STORMWATER MANAGEMENT DETAILS

DISTURBED UPLAND AREA INCLUDING ABOVE HWL ON STORM WATER TREATMENT AREAS AND ANY DISTURBED UPLAND TO BE SEEDED WITH MN STATE SEED MIX 35-621 OR EQUIVALENT.

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 9-25-17

Revisions
9-7-17 revisions to outlot k
9-15-17 revisions as per City engineers memo dated 9-14-17
9-25-17 revisions as per City engineers memo dated 9-20-17

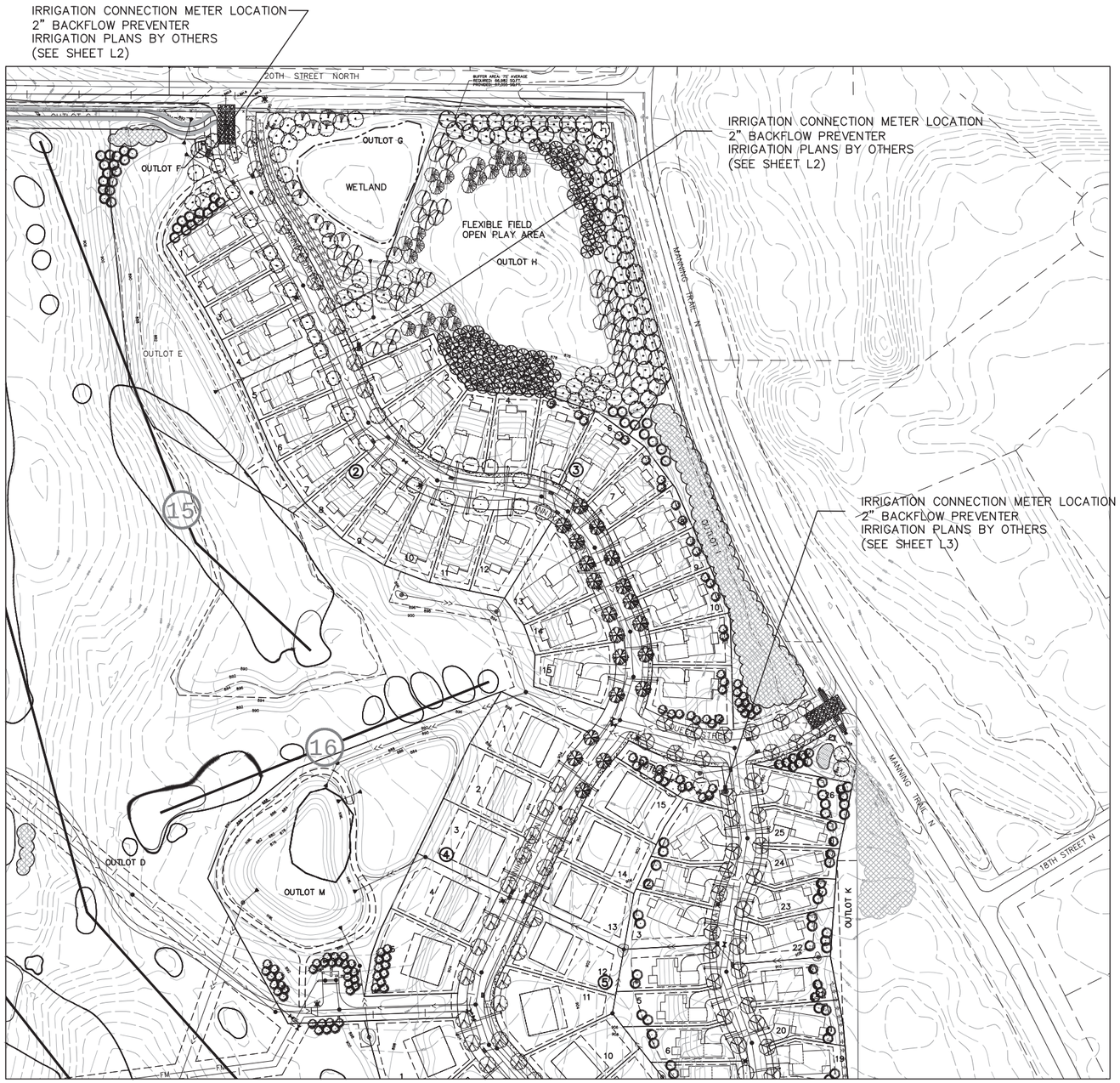
Date	8-8-17
Designed	JLT
Drawn	JLT

GROUNDCOVER PLAN

HC GOLF COURSE DEVELOPMENT, LLC
11074 RADISSON ROAD NE
BLAINE, MINNESOTA 55449

THE ROYAL GOLF CLUB AT LAKE ELMO 1ST ADD.
LAKE ELMO, MINNESOTA

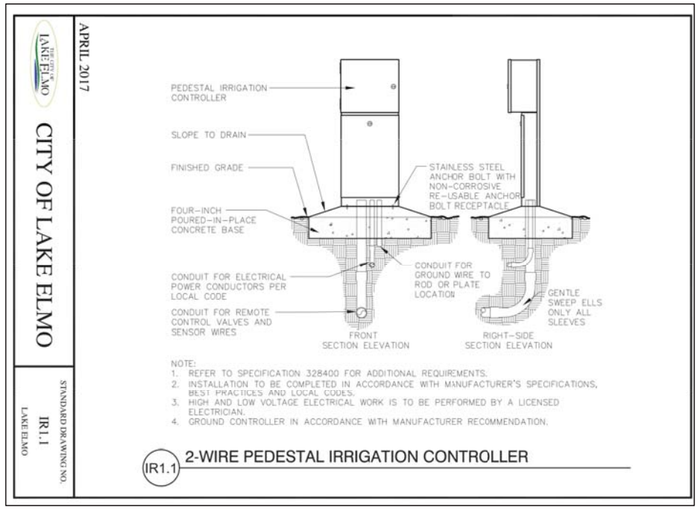
116240

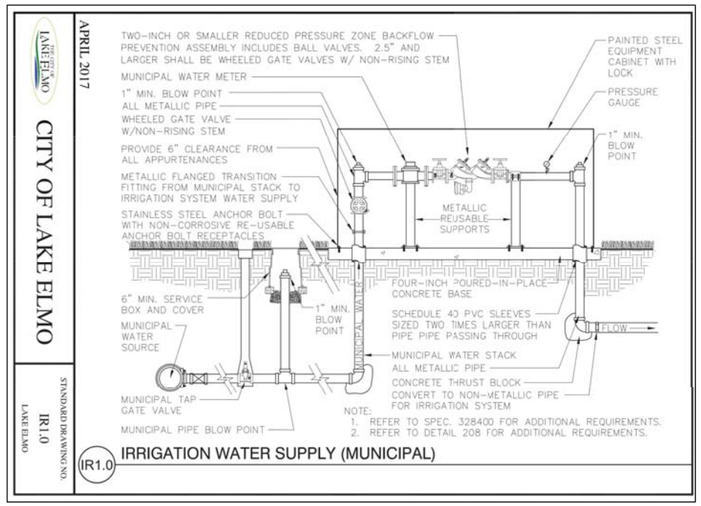


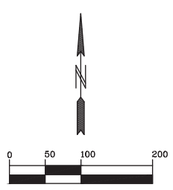
IRRIGATION DETAILS–IRRIGATION DESIGN BY OTHERS

M

BF







PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 9-25-17

Revisions
9-7-17 revisions to outlot k
9-15-17 revisions as per City engineers memo dated 9-14-17
9-25-17 revisions as per City engineers memo dated 9-20-17

Date	8-8-17
Designed	JLT
Drawn	JLT

IRRIGATION CONNECTION POINTS

HC GOLF COURSE DEVELOPMENT, LLC
11074 RADISSON ROAD NE
BLAINE, MINNESOTA 55449

THE ROYAL GOLF CLUB AT LAKE ELMO 1ST ADD.
LAKE ELMO, MINNESOTA

116240

CITY OF LAKE ELMO

APRIL 2017

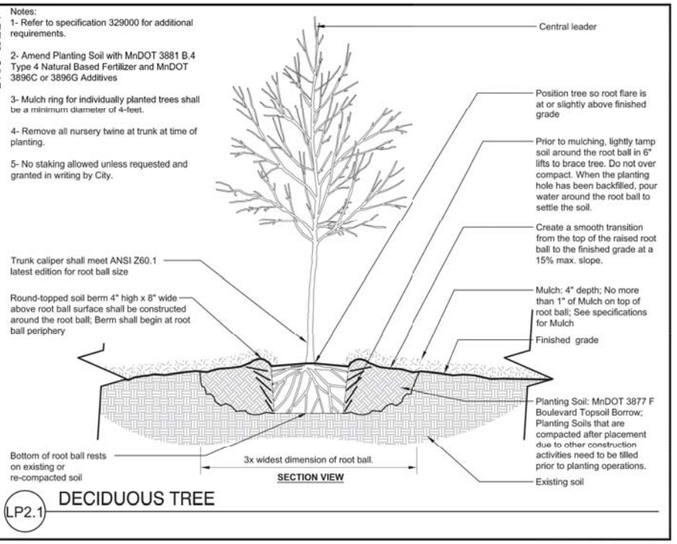
Notes:
1- Refer to specification 329000 for additional requirements.

2- Amend Planting Soil with MnDOT 3881 B.4 Type 4 Natural Based Fertilizer and MnDOT 3896C or 3896G Additives

3- Mulch ring for individually planted trees shall be a minimum diameter of 4-feet.

4- Remove all nursery twine at trunk at time of planting.

5- No staking allowed unless requested and granted in writing by City.



LP2.1 DECIDUOUS TREE

STANDARD DRAWING NO. LP2.1 LAKE ELMO

CITY OF LAKE ELMO

APRIL 2017

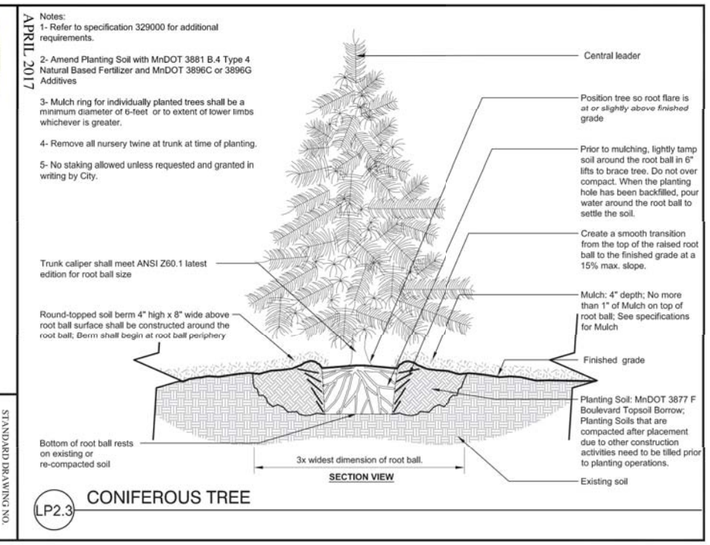
Notes:
1- Refer to specification 329000 for additional requirements.

2- Amend Planting Soil with MnDOT 3881 B.4 Type 4 Natural Based Fertilizer and MnDOT 3896C or 3896G Additives

3- Mulch ring for individually planted trees shall be a minimum diameter of 6-feet or to extent of lower limbs whichever is greater.

4- Remove all nursery twine at trunk at time of planting.

5- No staking allowed unless requested and granted in writing by City.

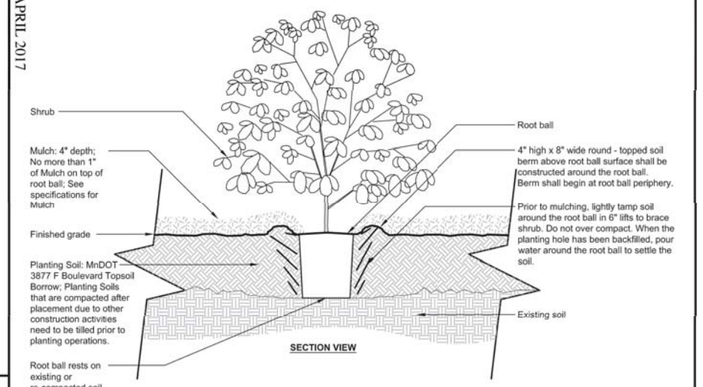


LP2.3 CONIFEROUS TREE

STANDARD DRAWING NO. LP2.3 LAKE ELMO

CITY OF LAKE ELMO

APRIL 2017



Notes:
1- Refer to specification 329000 for additional requirements.

2- Shrubs shall be of quality as prescribed in the root observations detail and specification.

LP2.5 SHRUB

STANDARD DRAWING NO. LP2.5 LAKE ELMO

CITY OF LAKE ELMO

APRIL 2017

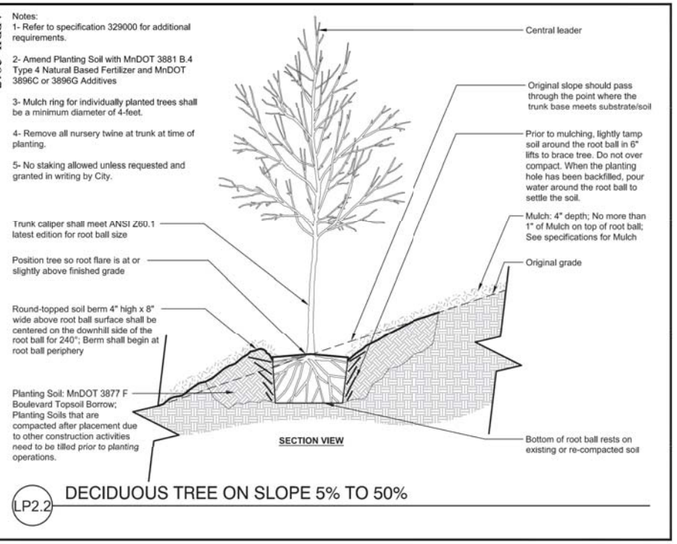
Notes:
1- Refer to specification 329000 for additional requirements.

2- Amend Planting Soil with MnDOT 3881 B.4 Type 4 Natural Based Fertilizer and MnDOT 3896C or 3896G Additives

3- Mulch ring for individually planted trees shall be a minimum diameter of 4-feet.

4- Remove all nursery twine at trunk at time of planting.

5- No staking allowed unless requested and granted in writing by City.



LP2.2 DECIDUOUS TREE ON SLOPE 5% TO 50%

STANDARD DRAWING NO. LP2.2 LAKE ELMO

CITY OF LAKE ELMO

APRIL 2017

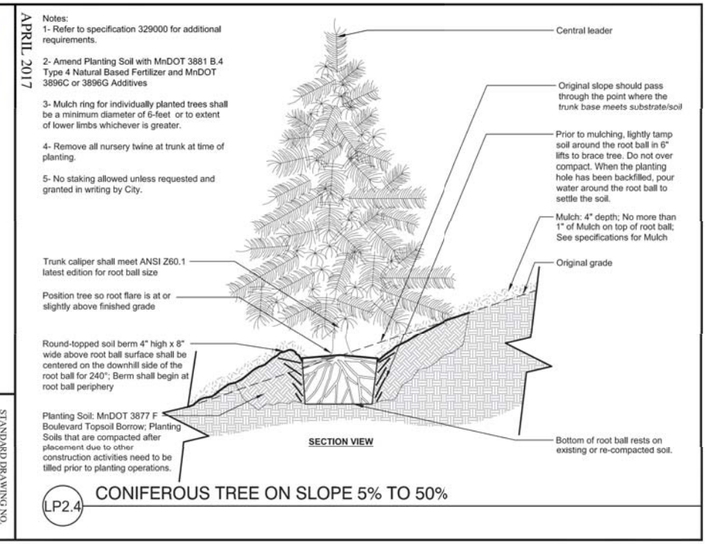
Notes:
1- Refer to specification 329000 for additional requirements.

2- Amend Planting Soil with MnDOT 3881 B.4 Type 4 Natural Based Fertilizer and MnDOT 3896C or 3896G Additives

3- Mulch ring for individually planted trees shall be a minimum diameter of 6-feet or to extent of lower limbs whichever is greater.

4- Remove all nursery twine at trunk at time of planting.

5- No staking allowed unless requested and granted in writing by City.

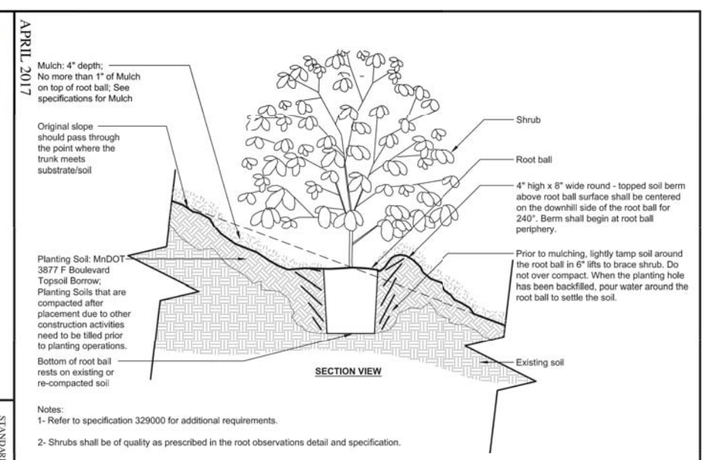


LP2.4 CONIFEROUS TREE ON SLOPE 5% TO 50%

STANDARD DRAWING NO. LP2.4 LAKE ELMO

CITY OF LAKE ELMO

APRIL 2017



Notes:
1- Refer to specification 329000 for additional requirements.

2- Shrubs shall be of quality as prescribed in the root observations detail and specification.

LP2.6 SHRUB ON SLOPE 5% TO 50%

STANDARD DRAWING NO. LP2.6 LAKE ELMO

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 9-25-17

Revisions
9-7-17 revisions to outlot k
9-15-17 revisions as per City engineers memo dated 9-14-17
9-25-17 revisions as per City engineers memo dated 9-20-17

Date	8-8-17
Designed	JLT
Drawn	JLT

CITY PLANTING DETAILS

HC GOLF COURSE DEVELOPMENT, LLC
11074 RADISSON ROAD NE
BLAINE, MINNESOTA 55449

THE ROYAL GOLF CLUB AT LAKE ELMO 1ST ADD.
LAKE ELMO, MINNESOTA

116240

19. LANDSCAPING AND TREE REPLACEMENT IMPROVEMENTS.

A. The Developer agrees to install landscaping in accordance with the approved Plans, the City approvals, the City Code, the City's Engineering Design and Construction Standards Manual, and the City's Landscape and Irrigation Standards. All landscaping materials such as trees, shrubs, grasses, or other vegetation installed by the Developer must be warrantied and maintained for a period of two years. The two year warranty period shall be deemed to start once all required landscaping identified as responsibility of Developer in the approved Plans has received acceptance by the City. The Developer agrees to have the installer of the landscaping complete an inspection 30 days prior to the end of the two year warranty period and provide the City with a written report identifying the condition of all landscaping. In the event that any landscaping installed by the Developer is deemed to be in poor condition or dead, the Developer is to replace the landscaping with like kind materials or as otherwise approved by the City.

B. The Developer shall be responsible for maintaining regular watering, fertilizing, and over-seeding necessary to establish final lawns and yards as identified in the approved Plans for outlots, public rights-of-way, and any disturbed areas outside the Subdivision boundaries according to a landscape maintenance plan approved by the City. The Developer agrees to achieve "substantial performance" on all seeded or sodded lawns and yards disturbed during the construction of Subdivision Improvements. For the purpose of this Agreement "substantial performance" shall be defined for areas seeded or sodded with a turf or lawn mix as "square foot turf areas with an average blade height of three inches, free of eroded, bare, or dead spots, and free from perennial weeds or unwanted grasses with no visible surface soil." For areas seeded with a native grass or flower mix "substantial performance" shall be defined as "square foot native grass or flower areas with an average height

of eight inches free of eroded, bare, or dead spots and no visible surface soil."

C. Notwithstanding anything herein to the contrary, the Developer may reduce the number of trees it is required to plant within the Subdivision, as such number is reflected currently in the landscape plan referenced in Exhibit C attached hereto, by (i) implementing woodland management and/or pollinator friendly native seeding practices within the Subdivision, in a manner approved by the City's Landscape Architect, provided that the number of trees that may be removed from the Developer's plantings will be agreed upon by the Developer and the City at the time such practices are approved, and/or (ii) paying to the City a per-tree parkland dedication fee of $500.00 per 2.5 caliper inch tree that the Developer elects not to plant within the Subdivision. In the event the Developer elects to utilize either or both of the foregoing to reduce its tree planting requirements and the Developer and the City reach agreement on mutually acceptable terms relating to the same, the City and the Developer shall execute an amendment to this Agreement that memorializes the parties' agreement relating to such reduction in tree planting requirements and that includes a revised landscape plan for the Subdivision the reflects the reduced number of trees that will be planted.

20. SIGNAGE, STREET LIGHTING, AND OTHER UTILITIES. The Developer agrees to install street signs, traffic and parking signs, and pavement markings within the Subdivision all in accordance with the approved Plans and the City Engineering Design Standards Manual. Street and traffic sign details shall be submitted by the Developer to the City for approval prior to installation. In addition, the Developer shall be responsible for the cost and all coordination work to extend private utilities along with street lighting within the Subdivision all in accordance with the approved plans and right-of-way permits.

21. OWNERSHIP OF IMPROVEMENTS. Upon completion of the work and construction

From: Stephen Mastey
To: Emily Becker
Subject: The Royal Golf Club at Lake Elmo
Date: Thursday, August 31, 2017 9:35:53 AM

Emily,
In response to requests from the RGC design team and to work towards completing the outstanding quantification of the landscape master plan required plantings for the entire development we have provided the following direction:

We welcome the use of different size plant material with ecological restoration to enhance the project site coupled with preserving and protecting the existing landscape of value to create a complete landscape that capitalizes on the genius of this site.

As noted by the City previously we've come to accept the 3800 @ the 2.5" caliper tree size as the replacement number (3800 x 2.5 = 9,500 total caliper inches required for site).

With that known caliper inch goal for the site we are excited to have your project design team work with these City accepted size conversions and landscape practices equated back to 1" caliper increments to meet your requirements for the entire site.

Note that for 2017 the City of Lake Elmo has established that a 1" caliper of any size deciduous tree installed per city details and specifications, maintained and warranty for two years equals a $200 value in today's marketplace. Therefore, a 2.5" caliper deciduous tree = $500

Deciduous overstory & understory trees both qualify equally per caliper inch and any size will be credited as a 1 to 1 inch towards meeting the goal of the site.

Coniferous trees (assuming they reach at least 20 feet in height at maturity – if they are shorter they are shrubs) are calculated as follows:
<u>Caliper inches credit = height of proposed coniferous tree</u>
1" caliper = 20 Seedlings Bare Root
1" caliper = 10 Seedling Transplants Bare Root
1" caliper = 2.5 feet height for container stock
1.25" caliper = 3 feet height for container stock
1.5" caliper = 3.5 feet height for container stock
1.75" caliper = 4 feet height for container stock
2" caliper = 5 feet height for container stock or B & B
2.5" caliper = 6 feet height for B & B
2.75" caliper = 7 feet height for B & B
3" caliper = 8 feet height for B & B
3.5" caliper = 9 feet height for B & B or Machine Moved
4" caliper = 10 feet height for B & B or Machine Moved
4.5" caliper = 11 feet height for B & B or Machine Moved
5" caliper = 12 feet height for B & B or Machine Moved
5.5" caliper = 13 feet height for B & B or Machine Moved

6” caliper = 14 feet height for B & B or Machine Moved
6.5” caliper = 15 feet height for B & B or Machine Moved
7” caliper = 16 feet height for B & B or Machine Moved
7.5” caliper = 17-18 feet height for Machine Moved
8” caliper = 19-20 feet height for Machine Moved
8.5“ caliper = 21 feet height for Machine Moved
9” caliper = 22 feet height for Machine Moved
9.5” caliper = 23 feet height for Machine Moved
10“ caliper = 24 feet or taller in height for Machine Moved

Ecosystem management (woodland, wetland, stream edge, lake edge or open field management)
5” caliper = Initial clearing/mowing/spraying: $1,000/acre

Ecosystem enhancement
6.5” caliper = Initial understory woodland seeding or open area prairie or wetland seeding (grasses / sedges / or grass like plants only with no forbs): $1300/acre
15” caliper = Initial seeding of woodland, prairie, wetland, lake or stream edge (forbs/flowers portion only with a min. 20 genus / species with 1/3 to bloom spring, 1/3 bloom summer, 1/3 to bloom fall): $3000/acre
15” caliper = Initial seeding of woodland with woody species (hardwoods for example – acorns, etc..rate to be approved by City): $3000/acre

Ecosystem maintenance
5” caliper = Maintenance for years 1-3: $1000/acre
3.75” caliper = Maintenance for years 3+: $750/acre

Shrubs (deciduous or coniferous)
1” caliper = 10 @ #1 Container
1” caliper = 6 @ #2 Container
1” caliper = 5 @ #3 Container
1” caliper = 4 @ #5 Container
1” caliper = 3 @ #7 Container
1” caliper = 2 @ #10 Container

Perennials
1” caliper = 50 @ 2” to 2.25” / Plug Container
1” caliper = 40 @ 3” to 4” Container
1” caliper = 20 @ #1 Container
1” caliper = 15 @ #2 Container
1” caliper = 10 @ #3 Container

Hardy Horticultural Bulbs (Daffodils, Tulips, etc.)
1” caliper = 50 @ DN (double nosed)
1” caliper = 100 @ Round (single nosed)

Stephen Mastey, CLARB, ASLA, LEED AP BD+C
LANDSCAPE ARCHITECTURE, INC.
2350 Bayless Place
St. Paul, MN 55114

Office 651.646.1020
Email Stephen@landarcinc.com
Web www.landarcinc.com