

EXHIBIT 11
PAGE 1 OF 13

LANDSCAPE REQUIREMENTS*	
NATIVE / NATURALIZED SPECIES	
TREES REQUIRED:	176 (MIN. 50% TOTAL)
SHRUBS & GROUNDCOVER REQUIRED:	12,236 (MIN. 75% TOTAL)
TREES PROVIDED:	240 (MIN. 68% TOTAL)
SHRUBS & GROUNDCOVER PROVIDED:	15,682 (MIN. 96% TOTAL)
DROUGHT TOLERANT SPECIES	
LANDSCAPE (TREES, SHRUBS, GC) REQUIRED:	9,992 (MIN. 60% TOTAL)
LANDSCAPE (TREES, SHRUBS, GC) PROVIDED:	15,298 (MIN. 92% TOTAL)

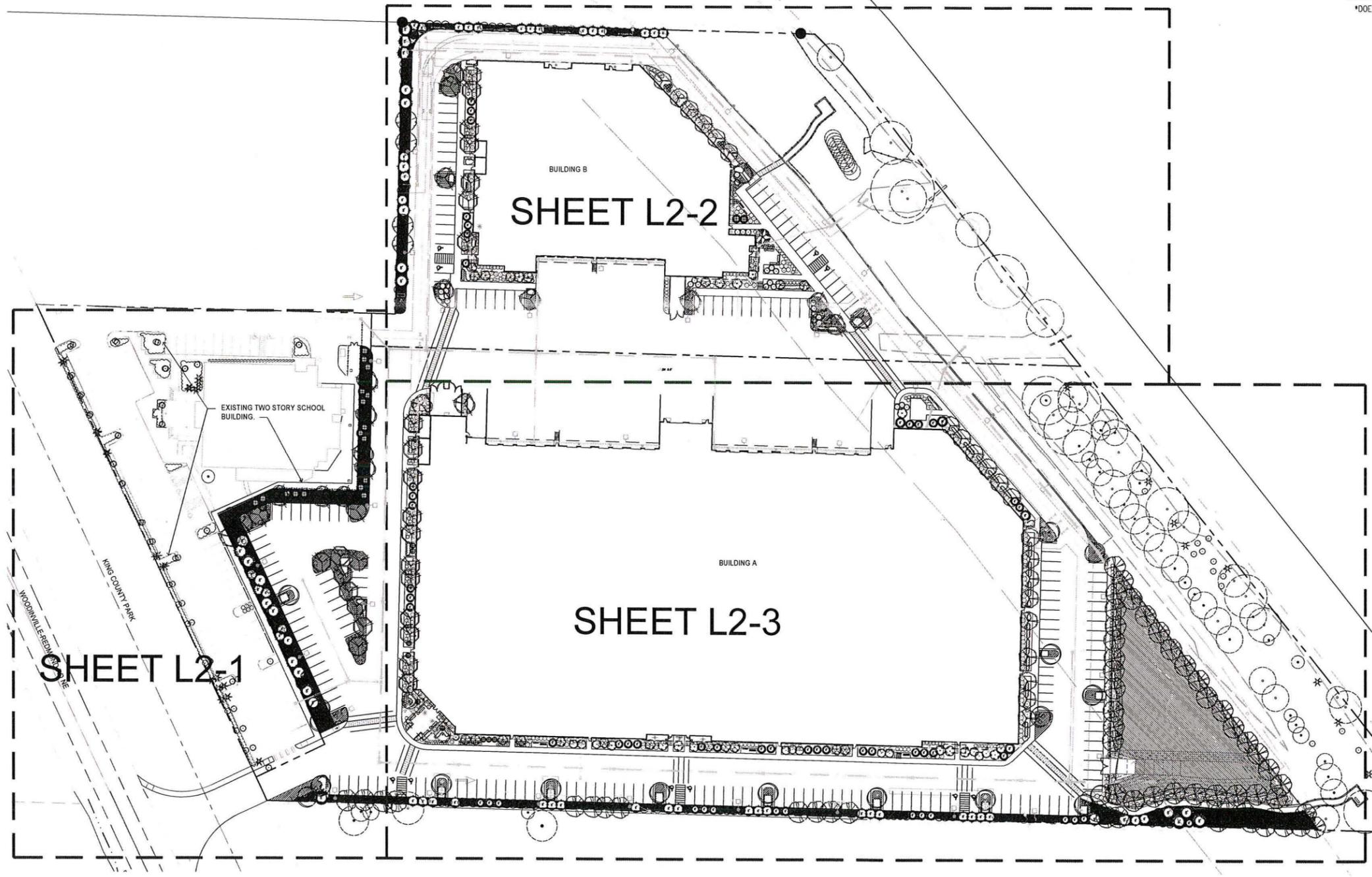
*DOES NOT INCLUDE STORMWATER WETLAND AREA

PARKING LOT LANDSCAPE REQUIREMENTS	
TOTAL STALLS:	195
PARKING LOT TREES REQUIRED (1 EVERY 5 STALLS):	39
PARKING LOT TREES PROVIDED:	39
PARKING LOT LANDSCAPE REQUIRED:	4,875 SQ. FT. -25 S.F. PER STALL
PARKING LOT LANDSCAPE PROVIDED:	8,148 SQ. FT.

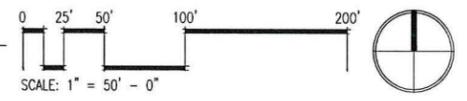
SHEET INDEX:	
L2-0	OVERALL LANDSCAPE PLAN
L2-1	LANDSCAPE PLAN
L2-2	LANDSCAPE PLAN
L2-3	LANDSCAPE PLAN
L2-4	LANDSCAPE SCHEDULE & DETAILS

- NOTES:
1. ALL PROPOSED LANDSCAPE AREAS TO RECEIVE A FULLY AUTOMATIC UNDERGROUND IRRIGATION SYSTEM PER CITY OF WOODINVILLE MUNICIPAL CODE 21.15, 21.16, 21.24. SEE IRRIGATION PLANS.
 2. SEE SHEET THIS SHEET FOR DROUGHT TOLERANT / NATIVE SPECIES. CALCULATIONS PER 21.16.090.
 3. SEE L1 SERIES FOR EXISTING TREES TO REMAIN AND TO BE REMOVED.
 4. REFER TO GEOTECHNICAL AND DRAINAGE REPORT FOR SPECIFIC WQ POND REQUIREMENTS AND COORDINATE WITH CIVIL.

LEGEND:	
	PERIMETER LANDSCAPE
	PARKING LOT LANDSCAPE



1 OVERALL LANDSCAPE PLAN
1" = 50'-0"



Brumbaugh & Associates

Landscape Architecture

600 North 85th Street, Suite 102
Seattle, WA 98103-3826
Telephone 206 782 3650
Facsimile 206 782 3675

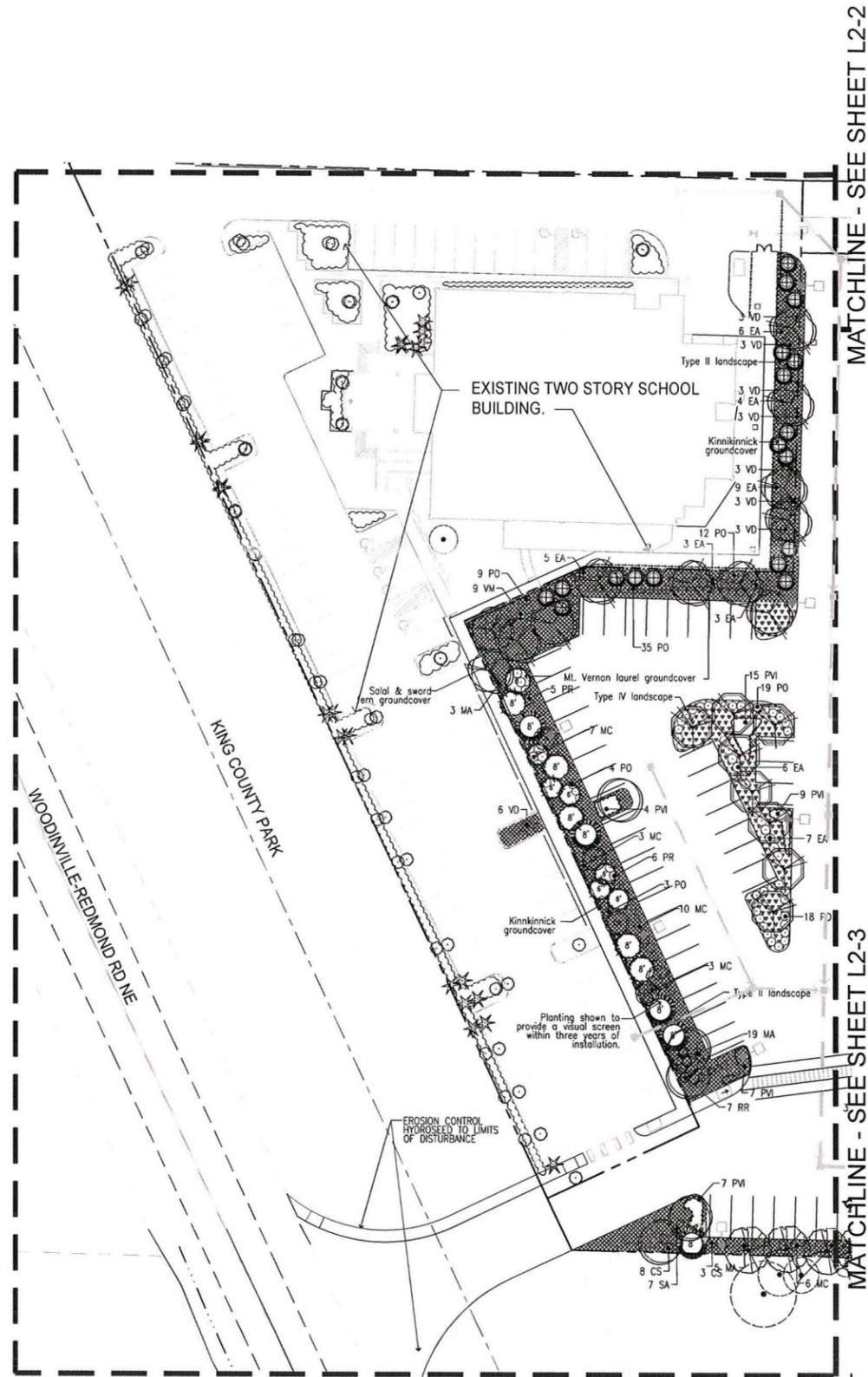
STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT MARK H. BRUMBAUGH CERTIFICATE NO. 458	JANUARY 14, 2016 date	revision	no.
DOUG BRIDY JOB NO.	HT/AM/JAV DRAWN		
SEPA / SHORELINE PERMIT RESUBMITTAL 6.06.2016	SEPA / SHORELINE PERMIT RESUBMITTAL JULY 2016		
SEPA / SHORELINE PERMIT RESUBMITTAL JULY 2016	SEPA / SHORELINE PERMIT		

NEW BUILDING FOR
THE RESERVE @ WOODINVILLE WAREHOUSE BUILDING
15902 WOODINVILLE - REDMOND ROAD NE
WOODINVILLE, WASHINGTON

OVERALL LANDSCAPE PLAN
LANCE MUELLER & ASSOCIATES
ARCHITECTS
130 LAKESIDE • SUITE 250 • SEATTLE, WA 98122 • (206) 325-2553

sheet
L2-0

m:\drawings\2012\0012-39\lance\l2-0_landscape plan.dwg



MATCHLINE - SEE SHEET L2-2

MATCHLINE - SEE SHEET L2-3

1 LANDSCAPE PLAN
1" = 30'-0"

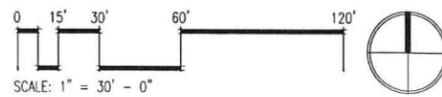


EXHIBIT 11
PAGE 2 OF 13

LANDSCAPE REQUIREMENTS*	
NATIVE / NATURALIZED SPECIES	
TREES REQUIRED:	176 (MIN. 50% TOTAL)
SHRUBS & GROUNDCOVER REQUIRED:	12,236 (MIN. 75% TOTAL)
TREES PROVIDED:	240 (MIN. 68% TOTAL)
SHRUBS & GROUNDCOVER PROVIDED:	15,682 (MIN. 96% TOTAL)
DROUGHT TOLERANT SPECIES	
LANDSCAPE (TREES, SHRUBS, GC) REQUIRED:	9,992 (MIN. 60% TOTAL)
LANDSCAPE (TREES, SHRUBS, GC) PROVIDED:	15,298 (MIN. 92% TOTAL)

*DOES NOT INCLUDE STORMWATER WETLAND AREA

PARKING LOT LANDSCAPE REQUIREMENTS	
TOTAL STALLS:	195
PARKING LOT TREES REQUIRED (1 EVERY 5 STALLS):	39
PARKING LOT TREES PROVIDED:	39
PARKING LOT LANDSCAPE REQUIRED: 4,875 SQ. FT. -25 S.F. PER STALL	
PARKING LOT LANDSCAPE PROVIDED: 8,148 SQ. FT.	

SHEET INDEX:

L2-0	OVERALL LANDSCAPE PLAN
L2-1	LANDSCAPE PLAN
L2-2	LANDSCAPE PLAN
L2-3	LANDSCAPE PLAN
L2-4	LANDSCAPE SCHEDULE & DETAILS

- NOTES:
1. ALL PROPOSED LANDSCAPE AREAS TO RECEIVE A FULLY AUTOMATIC UNDERGROUND IRRIGATION SYSTEM PER CITY OF WOODINVILLE MUNICIPAL CODE 21.15, 21.16, 21.24. SEE IRRIGATION PLANS.
 2. SEE SHEET THIS SHEET FOR DROUGHT TOLERANT / NATIVE SPECIES. CALCULATIONS PER 21.16.090.
 3. SEE L1 SERIES FOR EXISTING TREES TO REMAIN AND TO BE REMOVED.
 4. REFER TO GEOTECHNICAL AND DRAINAGE REPORT FOR SPECIFIC WQ POND REQUIREMENTS AND COORDINATE WITH CIVIL.

Brumbaugh & Associates
Landscape Architecture
600 North 85th Street, Suite 102
Seattle, WA 98103-3826
Telephone 206 782 3650
Facsimile 206 782 3675

CD 2-2850V
ISS. NO.

DATE OF
REVISION
REGISTERED
ARCHITECT
MARK H. BRUMBAUGH
CERTIFICATE NO. 458

JANUARY 14, 2016
date

revision

no.

LANDSCAPE PLAN

NEW BUILDING FOR
THE RESERVE @ WOODINVILLE
WAREHOUSE BUILDING
15902 WOODINVILLE - REDMOND ROAD NE
WOODINVILLE, WASHINGTON

LANDSCAPE PLAN

LANDSCAPE PLAN

sheet

L2-1

EXHIBIT 11
PAGE 3 OF 13

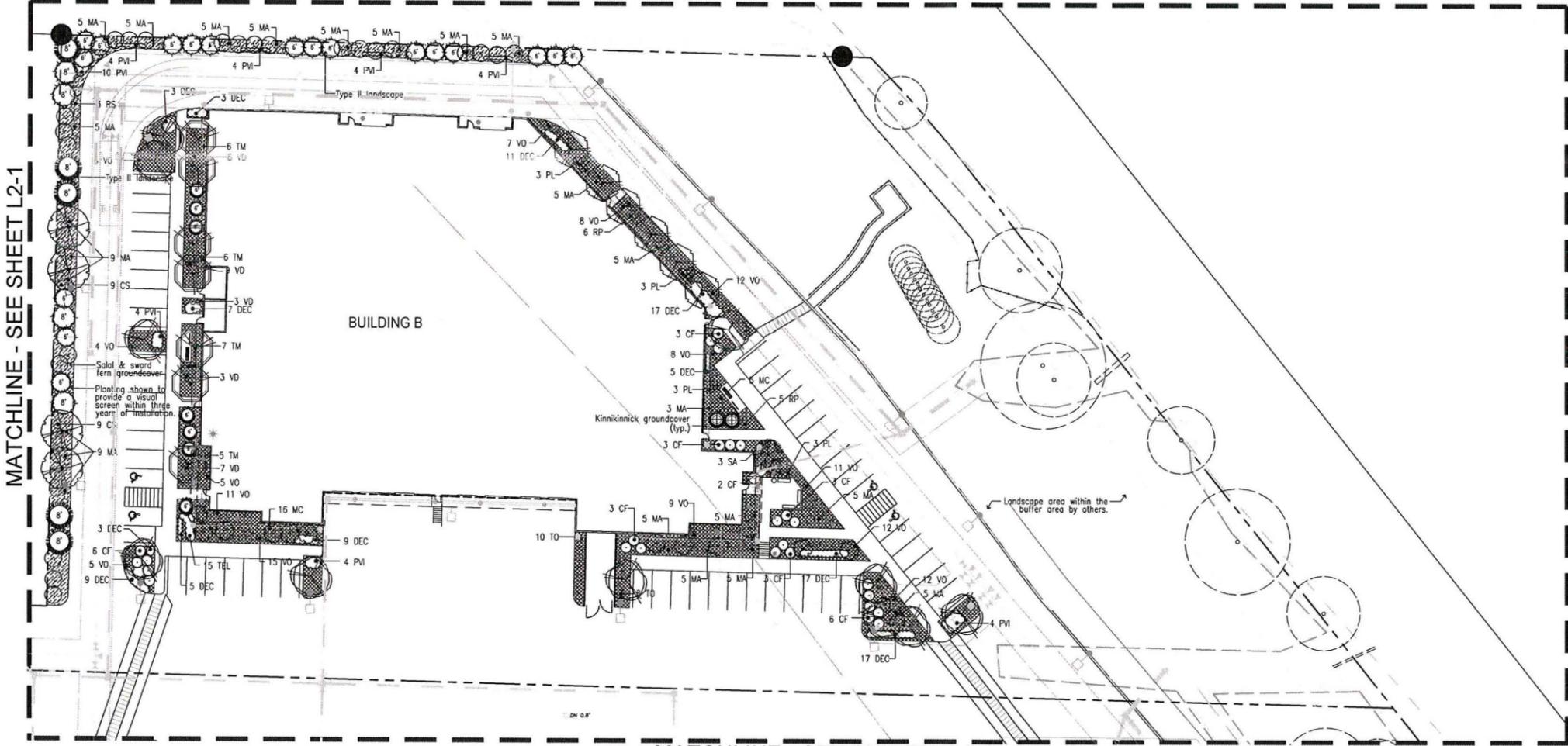
LANDSCAPE REQUIREMENTS*	
NATIVE / NATURALIZED SPECIES	
TREES REQUIRED:	176 (MIN. 50% TOTAL)
SHRUBS & GROUNDCOVER REQUIRED:	12,236 (MIN. 75% TOTAL)
TREES PROVIDED:	240 (MIN. 68% TOTAL)
SHRUBS & GROUNDCOVER PROVIDED:	15,682 (MIN. 96% TOTAL)
DROUGHT TOLERANT SPECIES	
LANDSCAPE (TREES, SHRUBS, GC) REQUIRED:	9,992 (MIN. 60% TOTAL)
LANDSCAPE (TREES, SHRUBS, GC) PROVIDED:	15,298 (MIN. 92% TOTAL)

*DOES NOT INCLUDE STORMWATER WETLAND AREA

PARKING LOT LANDSCAPE REQUIREMENTS	
TOTAL STALLS:	195
PARKING LOT TREES REQUIRED (1 EVERY 5 STALLS):	39
PARKING LOT TREES PROVIDED:	39
PARKING LOT LANDSCAPE REQUIRED: 4,875 SQ. FT. -25 S.F. PER STALL	
PARKING LOT LANDSCAPE PROVIDED: 8,148 SQ. FT.	

SHEET INDEX:	
L2-0	OVERALL LANDSCAPE PLAN
L2-1	LANDSCAPE PLAN
L2-2	LANDSCAPE PLAN
L2-3	LANDSCAPE PLAN
L2-4	LANDSCAPE SCHEDULE & DETAILS

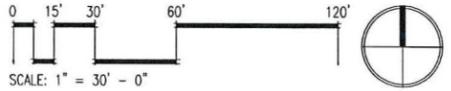
- NOTES:
- ALL PROPOSED LANDSCAPE AREAS TO RECEIVE A FULLY AUTOMATIC UNDERGROUND IRRIGATION SYSTEM PER CITY OF WOODINVILLE MUNICIPAL CODE 21.15, 21.16, 21.24. SEE IRRIGATION PLANS.
 - SEE SHEET THIS SHEET FOR DROUGHT TOLERANT / NATIVE SPECIES. CALCULATIONS PER 21.16.090.
 - SEE L1 SERIES FOR EXISTING TREES TO REMAIN AND TO BE REMOVED.
 - REFER TO GEOTECHNICAL AND DRAINAGE REPORT FOR SPECIFIC WQ POND REQUIREMENTS AND COORDINATE WITH CIVIL.



MATCHLINE - SEE SHEET L2-1

MATCHLINE - SEE SHEET L2-3

1 LANDSCAPE PLAN
1" = 30'-0"



LANDSCAPE PLAN

NEW BUILDING FOR
THE RESERVE @ WOODINVILLE
WAREHOUSE BUILDING
15902 WOODINVILLE - REDMOND ROAD NE
WOODINVILLE, WASHINGTON

LANDE MUELLER & ASSOCIATES
ARCHITECTS
130 LAKESIDE • SUITE 250 • SEATTLE, WA 98122 • (206) 325-2553

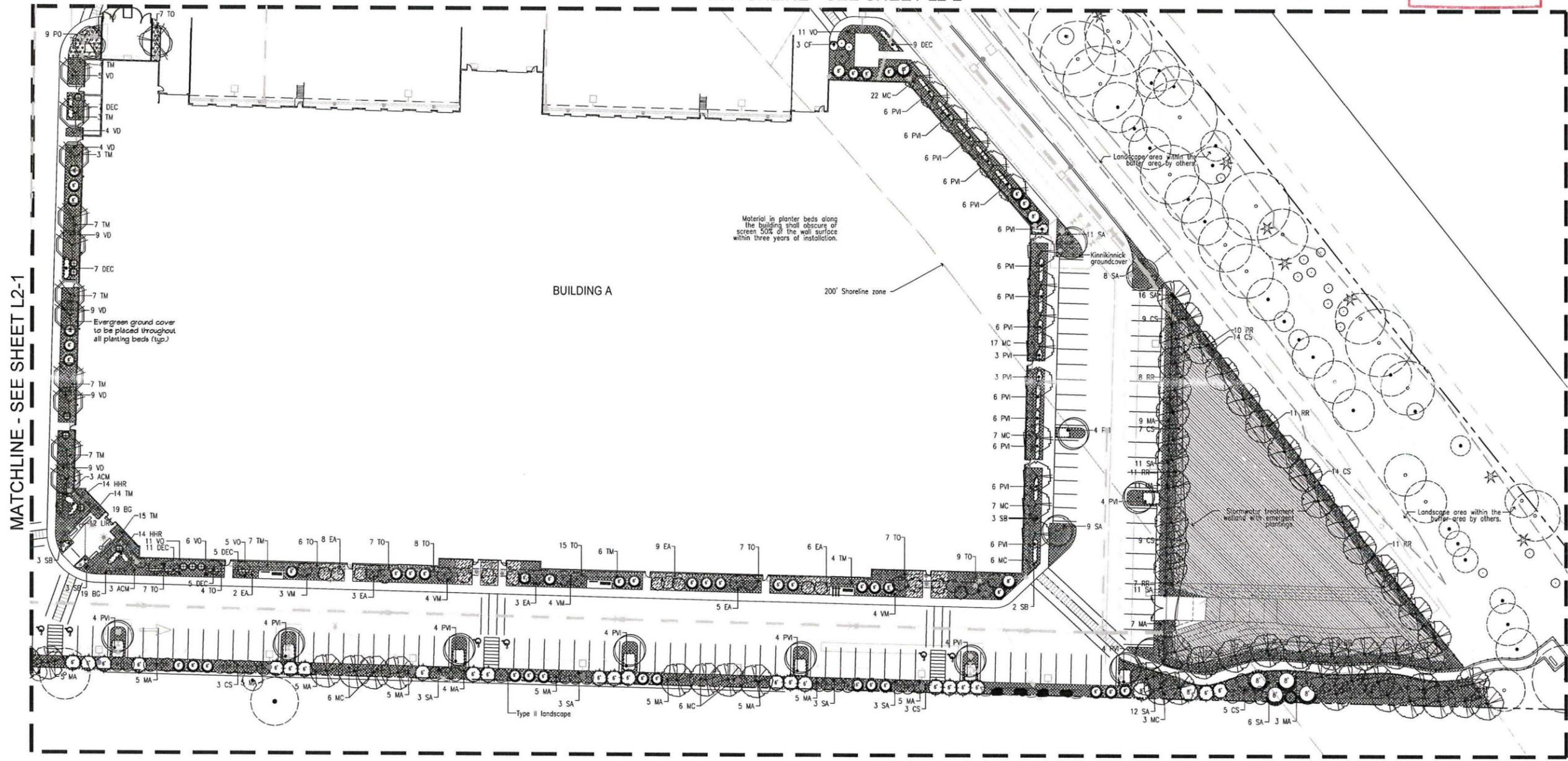
sheet
L2-2

DATE OF ISSUE	NO.	DATE
2012-09-04	1	JANUARY 14, 2016
DATE OF REVISION	NO.	DATE
11/11/14	1	
11/11/14	2	
11/11/14	3	
11/11/14	4	
11/11/14	5	
11/11/14	6	
11/11/14	7	
11/11/14	8	
11/11/14	9	
11/11/14	10	
11/11/14	11	
11/11/14	12	
11/11/14	13	
11/11/14	14	
11/11/14	15	
11/11/14	16	
11/11/14	17	
11/11/14	18	
11/11/14	19	
11/11/14	20	
11/11/14	21	
11/11/14	22	
11/11/14	23	
11/11/14	24	
11/11/14	25	
11/11/14	26	
11/11/14	27	
11/11/14	28	
11/11/14	29	
11/11/14	30	
11/11/14	31	
11/11/14	32	
11/11/14	33	
11/11/14	34	
11/11/14	35	
11/11/14	36	
11/11/14	37	
11/11/14	38	
11/11/14	39	
11/11/14	40	
11/11/14	41	
11/11/14	42	
11/11/14	43	
11/11/14	44	
11/11/14	45	
11/11/14	46	
11/11/14	47	
11/11/14	48	
11/11/14	49	
11/11/14	50	
11/11/14	51	
11/11/14	52	
11/11/14	53	
11/11/14	54	
11/11/14	55	
11/11/14	56	
11/11/14	57	
11/11/14	58	
11/11/14	59	
11/11/14	60	
11/11/14	61	
11/11/14	62	
11/11/14	63	
11/11/14	64	
11/11/14	65	
11/11/14	66	
11/11/14	67	
11/11/14	68	
11/11/14	69	
11/11/14	70	
11/11/14	71	
11/11/14	72	
11/11/14	73	
11/11/14	74	
11/11/14	75	
11/11/14	76	
11/11/14	77	
11/11/14	78	
11/11/14	79	
11/11/14	80	
11/11/14	81	
11/11/14	82	
11/11/14	83	
11/11/14	84	
11/11/14	85	
11/11/14	86	
11/11/14	87	
11/11/14	88	
11/11/14	89	
11/11/14	90	
11/11/14	91	
11/11/14	92	
11/11/14	93	
11/11/14	94	
11/11/14	95	
11/11/14	96	
11/11/14	97	
11/11/14	98	
11/11/14	99	
11/11/14	100	

Brumbaugh & Associates
Landscape Architecture
600 North 85th Street, Suite 102
Seattle, WA 98103-3826
Telephone 206 782 3650
Facsimile 206 782 3675

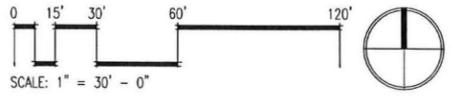
m:\drawing\31\021002-31\pda\l2-0 landscape plan.dwg

MATCHLINE - SEE SHEET L2-2



MATCHLINE - SEE SHEET L2-1

1 LANDSCAPE PLAN
1" = 30'-0"



LANDSCAPE REQUIREMENTS*	
NATIVE / NATURALIZED SPECIES	
TREES REQUIRED:	176 (MIN. 50% TOTAL)
SHRUBS & GROUNDCOVER REQUIRED:	12,236 (MIN. 75% TOTAL)
TREES PROVIDED:	240 (MIN. 68% TOTAL)
SHRUBS & GROUNDCOVER PROVIDED:	15,682 (MIN. 96% TOTAL)
DROUGHT TOLERANT SPECIES	
LANDSCAPE (TREES, SHRUBS, GC) REQUIRED:	9,992 (MIN. 60% TOTAL)
LANDSCAPE (TREES, SHRUBS, GC) PROVIDED:	15,298 (MIN. 92% TOTAL)

*DOES NOT INCLUDE STORMWATER WETLAND AREA

PARKING LOT LANDSCAPE REQUIREMENTS	
TOTAL STALLS:	195
PARKING LOT TREES REQUIRED (1 EVERY 5 STALLS):	39
PARKING LOT TREES PROVIDED:	39
PARKING LOT LANDSCAPE REQUIRED:	4,875 SQ. FT.
-25 S.F. PER STALL	
PARKING LOT LANDSCAPE PROVIDED:	8,148 SQ. FT.

- SHEET INDEX:
- L2-0 OVERALL LANDSCAPE PLAN
 - L2-1 LANDSCAPE PLAN
 - L2-2 LANDSCAPE PLAN
 - L2-3 LANDSCAPE PLAN
 - L2-4 LANDSCAPE SCHEDULE & DETAILS

- NOTES:
- ALL PROPOSED LANDSCAPE AREAS TO RECEIVE A FULLY AUTOMATIC UNDERGROUND IRRIGATION SYSTEM PER CITY OF WOODINVILLE MUNICIPAL CODE 21.15, 21.16, 21.24. SEE IRRIGATION PLANS.
 - SEE SHEET THIS SHEET FOR DROUGHT TOLERANT / NATIVE SPECIES. CALCULATIONS PER 21.16.090.
 - SEE L1 SERIES FOR EXISTING TREES TO REMAIN AND TO BE REMOVED.
 - REFER TO GEOTECHNICAL AND DRAINAGE REPORT FOR SPECIFIC WQ POND REQUIREMENTS AND COORDINATE WITH CIVIL.

Brumbaugh & Associates

Landscape Architecture

600 North 85th Street, Suite 102
Seattle, WA 98103-3826
Telephone 206 782 3650
Facsimile 206 782 3675

LANDSCAPE PLAN

NEW BUILDING FOR
**THE RESERVE @ WOODINVILLE
WAREHOUSE BUILDING**
15902 WOODINVILLE - REDMOND ROAD NE
WOODINVILLE, WASHINGTON

LANC E MUELLER & ASSOCIATES
A R C H I T E C T S A I A
130 LAKESIDE • SUITE 250 • SEATTLE, WA 98122 • (206) 325-2553

sheet
L2-3

no.	revision	date
1		JANUARY 14, 2016
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		

STATE OF WASHINGTON
LANDSCAPE ARCHITECT
MARK K. BRUMBAUGH
CERTIFICATE NO. 458

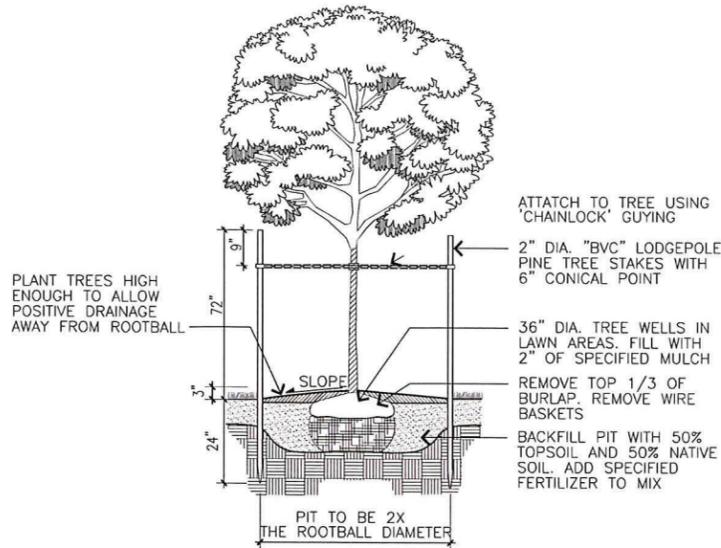
2012-38907
JOB NO.
PROJECT / DRAWN
CHECKED
DATE

SEPA / SHORELINE PERMIT RESUBMITTAL 6/26/2016
SEPA / SHORELINE PERMIT RESUBMITTAL 4/11/2016
SEPA / SHORELINE PERMIT RESUBMITTAL 01/14/2016

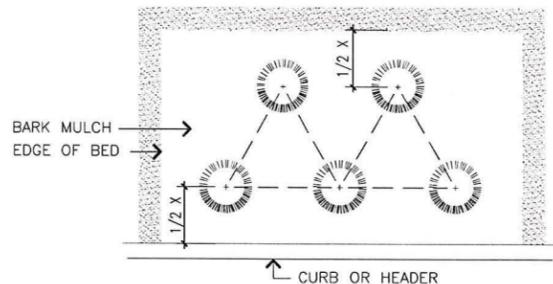
PLANT SCHEDULE

SYMBOL	BOTANICAL NAME / COMMON NAME	SIZE	QTY	NOTES
DECIDUOUS TREES				
	***ACER MACROPHYLLUM / BIG-LEAF MAPLE	2" CAL.	64	B & B, MATCHED FORM
	***PYRUS C. 'REDSPIRE' / REDSPIRE PEAR	2" CAL.	21	B & B, MATCHED FORM
	FRAXINUS PENNSYLVANICA 'SUMMIT' / GREEN ASH	2" CAL.	26	B & B, MATCHED FORM
	*FRAXINUS LATIFOLIA / OREGON ASH	2" CAL.	21	B & B, MATCHED FORM
	ACER PALMATUM / JAPANESE MAPLE	12"-14" HT.	2	B & B, SPECIMEN QLTY. MULTI-STEM (3) MIN.
	***QUERCUS GARRYANA / GARRY OAK	2" CAL.	1	B & B, MATCHED FORM
	***AMELANCHIER X G. 'PRINCESS DIANE' / SERVICEBERRY	6'-8" HT.	11	B & B, MATCHED FORM MULTI-STEM (3) MIN.
	ACER RUBRUM 'KARPICK' / RED MAPLE	2" CAL.	7	B & B, MATCHED FORM
	***POPULUS TREMULOIDES / QUAKING ASPEN	2" CAL.	27	B & B, MATCHED FORM
	CORNUS KOUSA / KOUSA DOGWOOD	6'-8" HT.	10	B & B, MULTI-STEM (3) MIN.
	***ACER CIRCINATUM / VINE MAPLE	6'-8" HT.	53	B & B, MULTI-STEM (3) MIN. B & B, NURSERY GROWN
	ACER P. 'SHISHIGASHIRA' / SHISHIGASHIRA JAPANESE MAPLE	12"-14" HT.	28	MULTI-STEM (3) MIN.
EVERGREEN TREES				
	***PSEUDOTSUGA MENZIESII / DOUGLAS FIR	6' HT.	52	B & B, MATCHED FORM
	***PSEUDOTSUGA MENZIESII / DOUGLAS FIR	8' HT.	18	B & B, MATCHED FORM
	***THUJA PLICATA 'EXCELSA' / EXCELSA CEDAR	6' HT.	50	B & B, FULL & BUSHY
	***THUJA PLICATA 'EXCELSA' / EXCELSA CEDAR	8' HT.	22	B & B, FULL & BUSHY
	CALOCEDRUS DECURRENS / INCENSE CEDAR	6'-8" HT.	20	B & B, FULL & BUSHY
	THUJA OCCIDENTALIS 'NIGRA' / DARK AMERICAN ARBORVITAE	6' HT.	10	B & B, FULL & BUSHY
SHRUBS				
	**BERBERIS T. 'CRIMSON PYGMY' / CRIMSON PYGMY BARBERRY	18"-21" HT.	38	FULL FOLIAGE, 24" O.C.
	***CORNUS STOLONIFERA 'BAILEY' / REDTWIG DOGWOOD	24"-30" HT.	137	5 STEM MIN. 48" O.C.
	***CORNUS FLAVIRAMEA / YELLOW TWIG DOGWOOD	24"-30" HT.	31	5 STEM MIN. 48" O.C.
	**EUONYMUS ALATUS 'COMPACTA' / COMPACT BURNING BUSH	21"-24" HT.	79	FULL FOLIAGE, 48" O.C.
	HAMAMELIS MOLLIS 'DIANE' / CHINESE WITCH HAZEL	42" HT. & SPR.	2	B&B, MULTI-STEM (3) MIN.
	***MAHONIA AQUIFOLIUM / OREGON GRAPE	24"-30" HT.	217	FULL FOLIAGE, 36" O.C.
	***MYRICA CALIFORNICA / PACIFIC WAX MYRLE	24"-30" HT.	120	FULL FOLIAGE, 48" O.C.
	**PHILADELPHUS LEWISII / LEWIS MOCKORANGE	21"-24" HT.	12	FULL FOLIAGE, 48" O.C.
	**PRUNUS L. 'OTTO LUYKEN' / OTTO LUYKEN LAUREL	21"-24" HT.	109	FULL FOLIAGE, 36" O.C.
	**PRUNUS LUSITANICA / PORTUGAL LAUREL	21"-24" HT.	11	FULL FOLIAGE, 36" O.C.
	***ROSA RUGOSA 'PURPLE PAVEMENT' / RUGOSA ROSE	21"-24" HT.	11	FULL FOLIAGE, 48" O.C.
	***ROSA RUGOSA 'BLANC DE COUBERT' / RUGOSA ROSE	21"-24" HT.	81	FULL FOLIAGE, 48" O.C.
	*RIBES SANGUINEUM 'KING EDWARD VII' / FLOWERING CURRANT	24"-30" HT.	3	FULL FOLIAGE, 48" O.C.
	*SYMPHORICARPOS ALBUS / SNOWBERRY	21"-24" HT.	106	FULL FOLIAGE, 36" O.C.
	SPIRAEA BUMALDA 'ANTHONY WATERER' / SPIRAEA	21"-24" HT.	6	FULL FOLIAGE, 36" O.C.
	TAXUS X. MEDIA 'HICKSII' / HICKS YEW	24"-30" HT.	108	FULL FOLIAGE, 36" O.C.
	THUJA O. 'EMERALD GREEN' / PYRAMIDAL ARBORVITAE	6' HT.	104	FULL FOLIAGE, 36" O.C.
	VIBURNUM DAVIDII / DAVID'S VIBURNUM	21" -24" SPR.	106	FULL FOLIAGE, 42" O.C.
	VIBURNUM P. TOMENTOSUM 'MARIESII' / DOUBLEFILE VIBURNUM	24"-30" HT.	24	FULL FOLIAGE, 48" O.C.
	***VACCINIUM OVATUM / EVERGREEN HUCKLEBERRY	18"-21" SPR.	160	FULL FOLIAGE, 36" O.C.
PERENNIALS & ORNAMENTAL GRASSES				
	ACANTHUS MOLLIS / BEAR'S BREACHES	1 GAL.	6	24" O.C.
	**DESCHAMPSIA CESPITOSA / TUFTED HAIR GRASS	1 GAL.	151	24" O.C.
	HEMEROCALLIS 'ROSY RETURNS' / DAYLILY	1 GAL.	28	24" O.C.
	LIROPE MUSCARI 'BIG BLUE' / LILY TURF	1 GAL.	12	24" O.C.
	***PANICUM VIRGATUM 'HAENSE HERMS' / RED SWITCH GRASS	1 GAL.	206	36" O.C.
	*TELLIMA GRANDIFLORA / FRINGE CUP	1 GAL.	15	24" O.C.
GROUND COVER				
	***ARCTOSTAPHYLOS UVA-URSI / KINNIKINNICK	1 GAL.	12,475	24" O.C.
	*PRUNUS LAUROCERASUS 'MT. VERNON' / MT. VERNON LAUREL	1 GAL.	704	24" O.C.
	***25% GAULTHERIA SHALLON / SALAL	1 GAL.	1,253	24" O.C.
	***75% POLYSTICHUM MUNIUM / SWORD FERN	1 GAL.	1,253	24" O.C.
EMERGENTS (FOR STORMWATER TREATMENT WETLAND. SEE NOTE #16, THIS SHEET)				
	CAREX STIPATA / SAWBEAK SEDGE	8" HT. PLUG/BARE-ROOT	600	15" O.C.
	ELEOCHARIS PALUSTRIS / COMMON SPIKE-RUSH	8" HT. PLUG/BARE-ROOT	600	15" O.C.
	GLYCERIA OCCIDENTALIS / WESTERN MANNAGRASS	8" HT. PLUG/BARE-ROOT	600	15" O.C.
	JUNCUS ENSIFOLIUS / DAGGER-LEAF RUSH	8" HT. PLUG/BARE-ROOT	600	15" O.C.
	JUNCUS TENUIS / SLENDER RUSH	8" HT. PLUG/BARE-ROOT	600	15" O.C.
	OENANTHE SARMENTOSA / PACIFIC WATER PARSLEY	8" HT. PLUG/BARE-ROOT	600	15" O.C.
	SAGITTARIA LATIFOLIA / ARROWHEAD	8" HT. PLUG/BARE-ROOT	400	18" O.C.
	SCRIPUS ATROVIRENS / WOOLGRASS	8" HT. PLUG/BARE-ROOT	600	15" O.C.
	SCRIPUS MICROCARPUS / SMALL-FRUITED BULRUSH	8" HT. PLUG/BARE-ROOT	600	15" O.C.

*INDICATES PNW NATIVE AND/OR NON-INVASIVE NATURALIZED SPECIES.
 **INDICATES DROUGHT TOLERANT SPECIES
 ***INDICATES NATIVE/NATURALIZED AND DROUGHT TOLERANCE

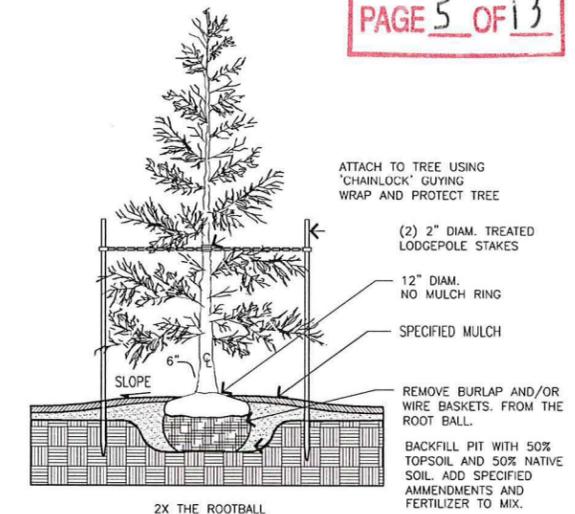


1 TREE PLANTING / STAKING
NTS

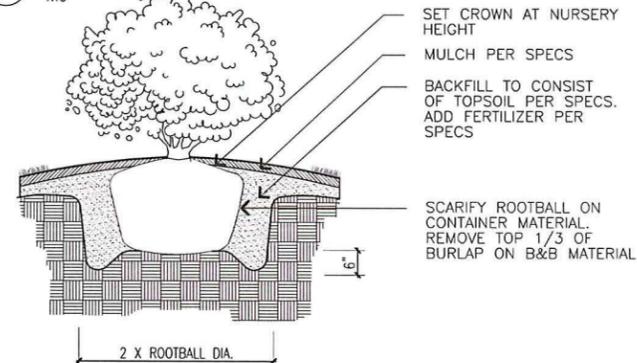


3 GROUND COVER SPACING
NTS

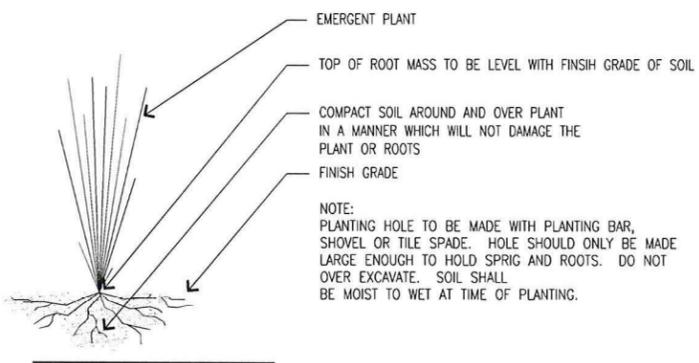
- NOTES:
- GROUND COVER SHALL BE INSTALLED CONTINUOUS UNDER ALL TREES AND SHRUBS. MAINTAIN AN 18" SETBACK FOR GROUND COVER FROM THE BASE OF TREES AND SHRUBS.
 - NO PRE-EMERGENT HERBICIDES SHALL BE APPLIED TO ANY GROUND COVER BEDS.
 - REFER TO CIVIL ENGINEERING DRAWINGS FOR GRADING, DRAINAGE AND UTILITIES INFORMATION. REFER TO ARCHITECTURAL DRAWINGS FOR SITE LAYOUT.
 - IMMEDIATELY NOTIFY LANDSCAPE ARCHITECT OF FIELD CHANGES WHICH MAY REQUIRE ADJUSTMENT OF DESIGN.
 - IMMEDIATELY NOTIFY LANDSCAPE ARCHITECT OF ANY DRAINAGE CONDITIONS WHICH MAY ADVERSELY AFFECT THE HEALTH OF PLANT MATERIALS.
 - ALL LANDSCAPE AND IRRIGATION WORK TO ADHERE TO ALL CITY, COUNTY AND STATE ZONING, PERMITTING AND APPROVAL REQUIREMENTS FROM AGENCIES.
 - VERIFY THAT ALL GRADES RESULT IN POSITIVE DRAINAGE AWAY FROM PLANT MATERIALS. INSTALL FRENCH/AREA DRAINS AS REQUIRED REMEDYING ANY LANDSCAPE AREAS OF DRAINAGE ISSUES OR SURFACE ACCUMULATION OF WATER.
 - STRIP ALL VEGETATION AND SUBGRADE MATERIALS TO A DEPTH OF 8". GRADE FREE OF AND REMOVE ALL DEBRIS LARGER THAN 2". PLACE 4" PACIFIC TOPSOILS SUPREME MIX OVER SUBGRADES AND ROTOTILL INTO THE TOP 6". PLACE AN ADDITIONAL 4" OF TOPSOIL AND LIGHTLY COMPACT TO 85%.
 - PROVIDE A BID ALTERNATE TO STRIP, STOCKPILE AND COVER, SCREEN TO 1" AND AMEND PER SOILS TEST, SUITABLE ON-SITE TOPSOIL. FURTHER TEST ON-SITE SOIL FOR CONTAMINANTS ADVERSE TO PLANT HEALTH. FOLLOW PROCEDURES IN NOTE B FOR PLACEMENT.
 - PLACE 2" OF PACIFIC TOPSOILS PACIFIC GARDEN MULCH OVER ALL NEW PLANTING AREAS.
 - ANY TOPSOIL STRIPPING AND STOCKPILING AND ALL SUBGRADE AND TOPSOIL WORK SHALL ONLY BE PERFORMED DURING DRY CONDITIONS.
 - WARRANTY ALL LANDSCAPE AND IRRIGATION MATERIALS FOR PERIOD OF 1-YEAR FROM THE TIME OF FINAL ACCEPTANCE FROM THE OWNER, GC, LANDSCAPE ARCHITECT AND CITY OF WOODINVILLE.
 - MAINTAIN ALL LANDSCAPE FOR 60 DAYS BEYOND FINAL COMPLETION.
 - AMEND ALL TOPSOIL PER A SOILS FERTILITY ANALYSIS TEST INCLUDING NUTRIENTS, PH AMENDMENTS AND MINERAL DEFICIENCIES.
 - REFER TO DRAINAGE REPORT FOR AN APPROVED LIST OF WATER QUALITY POND PLANTINGS.



2 CONIFEROUS TREE STAKING
NTS



4 SHRUB PLANTING
NTS



5 EMERGENT PLANTING
NTS

Brumbaugh & Associates

Landscape Architecture

600 North 85th Street, Suite 102
 Seattle, WA 98103-3826
 Telephone 206 782 3650
 Facsimile 206 782 3675

EXHIBIT 11
 PAGE 5 OF 13

DATE	BY	REVISION
2012-09-04	PH/ML/JW	drawn
	VW	checked
JANUARY 14, 2016		date

NEW BUILDING FOR
 THE RESERVE @ WOODINVILLE
 WAREHOUSE BUILDING
 15902 WOODINVILLE - REDMOND ROAD NE
 WOODINVILLE, WASHINGTON

LANDSCAPE SCHEDULE & DETAILS
 LANDE MUELLER & ASSOCIATES
 A R C H I T E C T S
 130 LAKESIDE • SUITE 250 • SEATTLE, WA 98122 • (206) 325-2553

sheet

L2-4

EXHIBIT 11
PAGE 6 OF 13

KEY

- Surveyed tree (typ.)
- EXISTING SIGNIFICANT EVERGREEN TREE TO REMAIN
- EXISTING SIGNIFICANT DECIDUOUS TREE TO REMAIN
- EXISTING SIGNIFICANT EVERGREEN TREE TO BE REMOVED
- EXISTING SIGNIFICANT DECIDUOUS TREE TO BE REMOVED
- EXISTING NON-SIGNIFICANT EVERGREEN TREE TO REMAIN
- EXISTING NON-SIGNIFICANT DECIDUOUS TREE TO REMAIN
- EXISTING NON-SIGNIFICANT EVERGREEN TREE TO BE REMOVED
- EXISTING NON-SIGNIFICANT DECIDUOUS TREE TO BE REMOVED

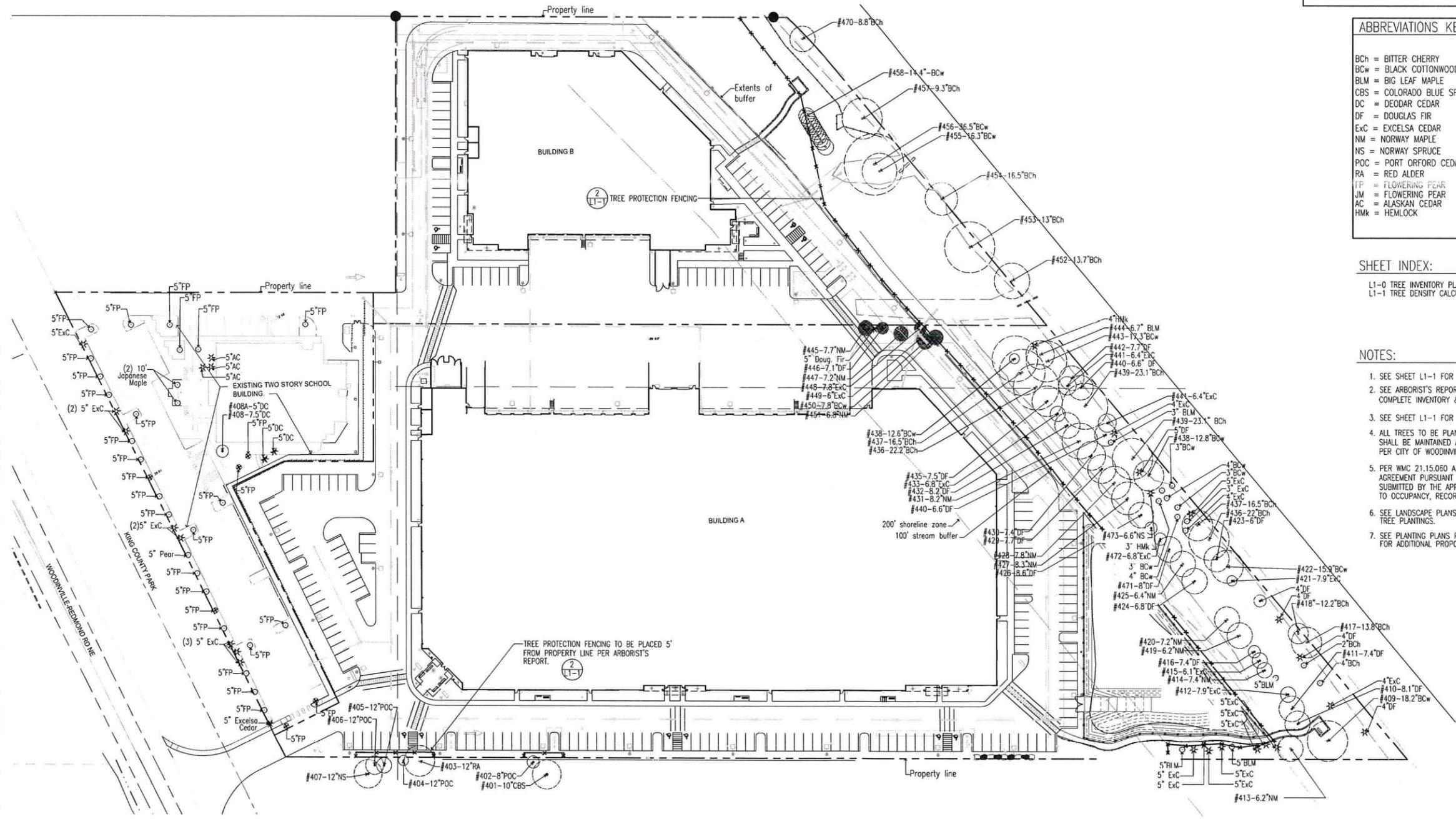
ABBREVIATIONS KEY

- BCh = BITTER CHERRY
- BCw = BLACK COTTONWOOD
- BLM = BIG LEAF MAPLE
- CBS = COLORADO BLUE SPRUCE
- DC = DEODAR CEDAR
- DF = DOUGLAS FIR
- ExC = EXCELSA CEDAR
- NM = NORWAY MAPLE
- NS = NORWAY SPRUCE
- POC = PORT ORFORD CEDAR
- RA = RED ALDER
- FP = FLOWERING PEAR
- JM = FLOWERING PEAR
- AC = ALASKAN CEDAR
- Hmk = HEMLOCK

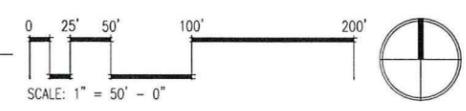
SHEET INDEX:

- L1-0 TREE INVENTORY PLAN
- L1-1 TREE DENSITY CALCULATIONS

- NOTES:**
1. SEE SHEET L1-1 FOR TREE DENSITY CALCULATIONS.
 2. SEE ARBORIST'S REPORT DATED JUNE 6, 2016 FOR COMPLETE INVENTORY & ANALYSIS OF SIGNIFICANT TREES.
 3. SEE SHEET L1-1 FOR TREE PROTECTION FENCE DETAIL.
 4. ALL TREES TO BE PLANTED AND PRESERVED SHALL BE MAINTAINED ACCORDING TO REQUIREMENTS PER CITY OF WOODINVILLE MUNICIPAL CODE 21.15.100.
 5. PER WMC 21.15.050 A PRESERVATION AND MAINTENANCE AGREEMENT PURSUANT TO WMC 21.15.100 SHALL BE SUBMITTED BY THE APPLICANT FOR APPROVAL PRIOR TO OCCUPANCY, RECORDING, OR FINAL INSPECTION.
 6. SEE LANDSCAPE PLANS FOR PROPOSED SUPPLEMENTAL TREE PLANTINGS.
 7. SEE PLANTING PLANS PREPARED BY TALESEA CONSULTANTS, INC. FOR ADDITIONAL PROPOSED PLANTINGS IN BUFFER AREA.



1 OVERALL TREE PLAN
1" = 50'-0"



Brumbaugh & Associates
Landscape Architecture

600 North 85th Street, Suite 102
Seattle, WA 98103-3826
Telephone 206 782 3650
Facsimile 206 782 3675

TREE INVENTORY PLAN

NEW BUILDING FOR
THE RESERVE @ WOODINVILLE
WAREHOUSE BUILDING
15902 WOODINVILLE - REDMOND ROAD NE
WOODINVILLE, WASHINGTON

LANCE MUELLER & ASSOCIATES
ARCHITECTS
130 LAKESIDE • SUITE 250 • SEATTLE, WA 98122 • (206) 325-2555

sheet
L1-0

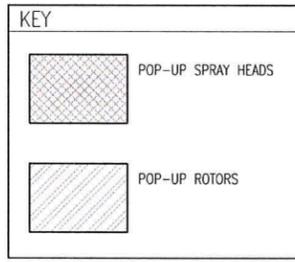
job no.	2012.3880V	no.	
drawn	PHI / MW / JW	revision	
checked	MW	date	JANUARY 14, 2016
certified no.	458		

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
MARK H. BRUMBAUGH
CERTIFICATE NO. 458

SEPA / SHORELINE PERMIT RESUBMITTAL 06.06.2016
SEPA / SHORELINE PERMIT RESUBMITTAL 01/13/2016
SEPA / SHORELINE PERMIT RESUBMITTAL 01/13/2016

m:\drawings\2012\012-3880\kappapav11-0 tree plan.dwg

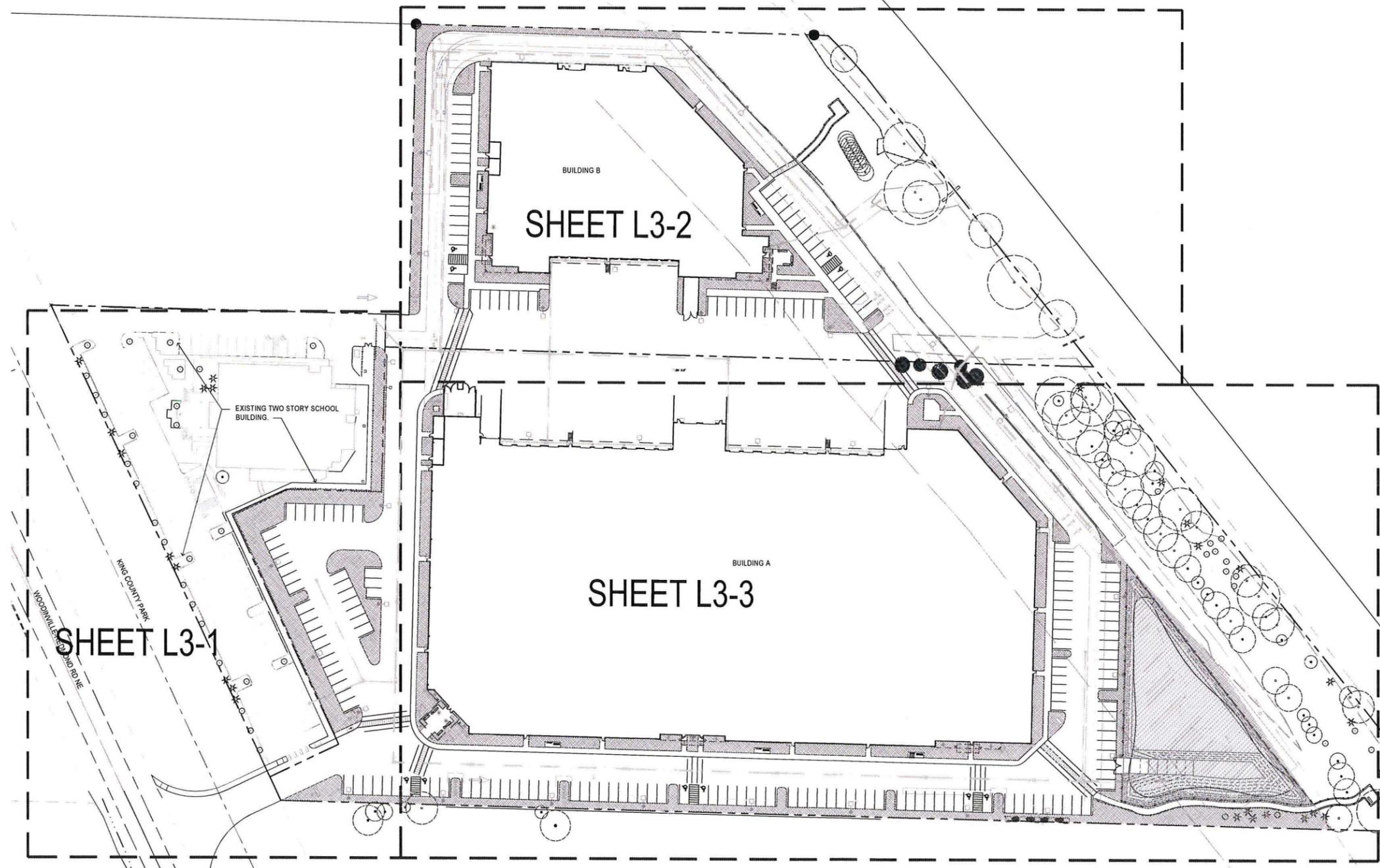
EXHIBIT 11
PAGE 8 OF 13



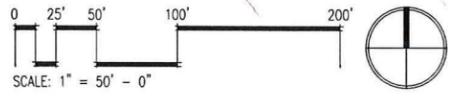
SHEET INDEX:

L3-0	OVERALL IRRIGATION PLAN
L3-1	IRRIGATION PLAN
L3-2	IRRIGATION PLAN
L3-3	IRRIGATION PLAN

- NOTES:
1. ALL PROPOSED LANDSCAPE AREAS TO RECEIVE A FULLY AUTOMATIC UNDERGROUND IRRIGATION SYSTEM PER CITY OF WOODINVILLE MUNICIPAL CODE 21.15, 21.16, 21.24.
 2. ALL POP-UP SPRAY HEADS TO BE ADJUSTED TO MINIMIZE OVERSPRAY ONTO HARDSCAPE AREAS
 3. IRRIGATION CONTROLLER TO INCLUDE EVAPOTRANSPIRATION (ET) MANAGER COMPONENTS TO RECEIVE REAL-TIME WEATHER DATA FROM LOCAL WEATHER STATIONS.
 4. PROVIDE MOISTURE OR PRECIPITATION SENSORS.
 5. PROVIDE HEAD TO HEAD SPACING.
 6. PROVIDE PRESSURE REGULATING DEVICE.
 7. PROVIDE BACKFLOW PREVENTER.
 8. PROVIDE SEPARATE ZONES FOR LAWN AND SHRUBS.



1 OVERALL IRRIGATION PLAN
1" = 50'-0"



Brumbaugh & Associates

LandscapeArchitecture

600 North 85th Street, Suite 102
Seattle, WA 98103-3826
Telephone 206 782 3650
Facsimile 206 782 3675

OVERALL IRRIGATION PLAN

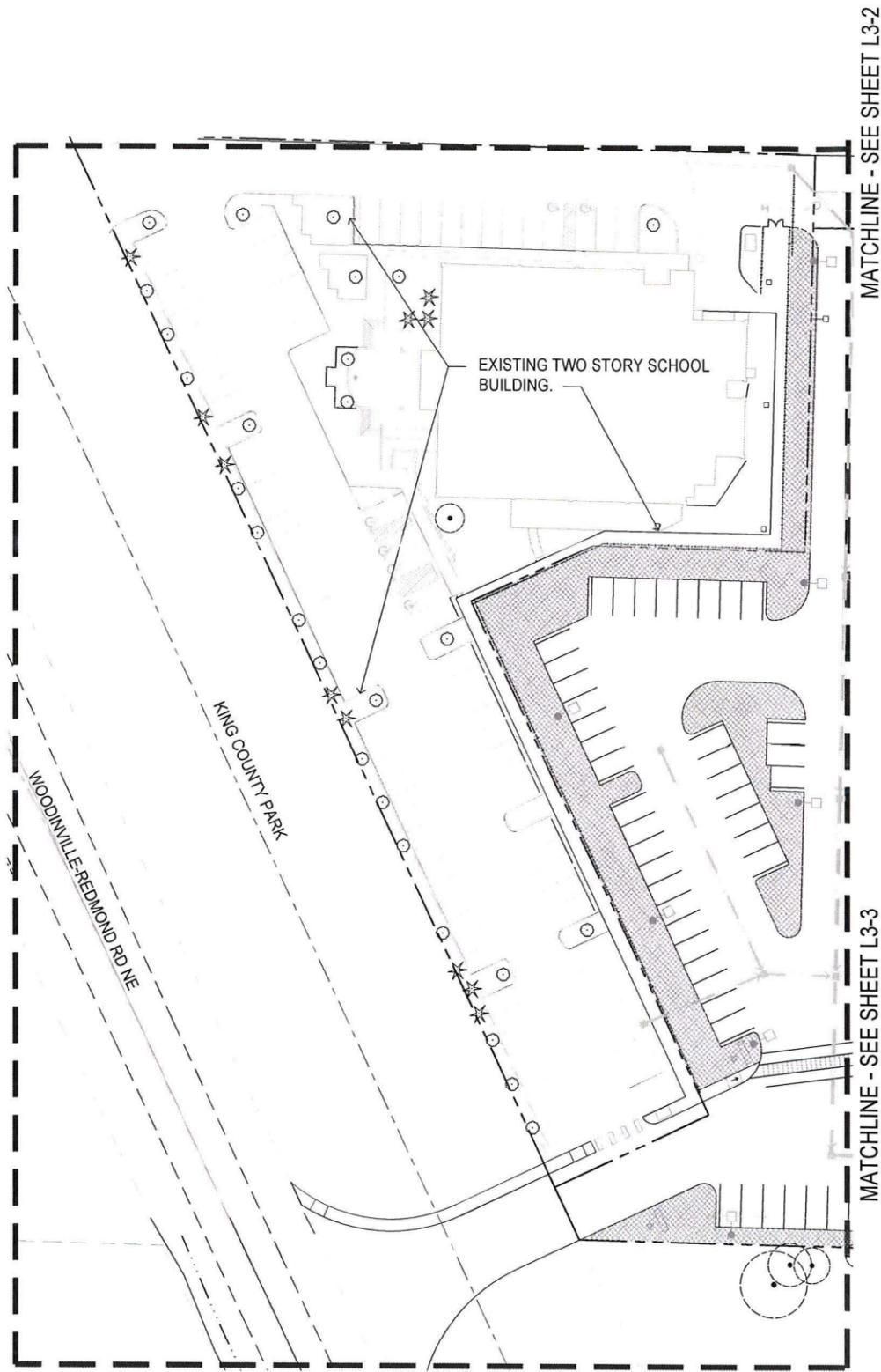
NEW BUILDING FOR
**THE RESERVE @ WOODINVILLE
WAREHOUSE BUILDING**
15902 WOODINVILLE - REDMOND ROAD NE
WOODINVILLE, WASHINGTON

LANCE MUELLER & ASSOCIATES
ARCHITECTS
130 LAKESIDE • SUITE 250 • SEATTLE, WA 98122 • (206) 325-2553

sheet
L3-0

2012-3800V	job no.	2017/01/14	date
1/11/14/1/14	drawn	1/11/14/1/14	date
1/11/14/1/14	checked	1/11/14/1/14	date
1/11/14/1/14	revision	1/11/14/1/14	date

STATE OF WASHINGTON
LANDSCAPE ARCHITECT
LANCE MUELLER & ASSOCIATES
130 LAKESIDE, SUITE 250
SEATTLE, WA 98122
CORPORATE NO. 458



1 PARTIAL IRRIGATION PLAN
1" = 30'-0"

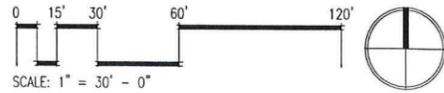


EXHIBIT 11
PAGE 9 OF 13

KEY	
	POP-UP SPRAY HEADS
	POP-UP ROTORS

SHEET INDEX:	
L3-0	OVERALL IRRIGATION PLAN
L3-1	IRRIGATION PLAN
L3-2	IRRIGATION PLAN
L3-3	IRRIGATION PLAN

- NOTES:
1. ALL PROPOSED LANDSCAPE AREAS TO RECEIVE A FULLY AUTOMATIC UNDERGROUND IRRIGATION SYSTEM PER CITY OF WOODINVILLE MUNICIPAL CODE 21.15, 21.16, 21.24.
 2. ALL POP-UP SPRAY HEADS TO BE ADJUSTED TO MINIMIZE OVERSPRAY ONTO HARDSCAPE AREAS
 3. IRRIGATION CONTROLLER TO INCLUDE EVAPOTRANSPIRATION (ET) MANAGER COMPONENTS TO RECEIVE REAL-TIME WEATHER DATA FROM LOCAL WEATHER STATIONS.
 4. PROVIDE MOISTURE OR PRECIPITATION SENSORS.
 5. PROVIDE HEAD TO HEAD SPACING.
 6. PROVIDE PRESSURE REGULATING DEVICE.
 7. PROVIDE BACKFLOW PREVENTER.
 8. PROVIDE SEPARATE ZONES FOR LAWN AND SHRUBS.

Brumbaugh & Associates

LandscapeArchitecture

600 North 85th Street, Suite 102
Seattle, WA 98103-3826
Telephone 206 782 3650
Facsimile 206 782 3675

STATE OF WASHINGTON LANDSCAPE ARCHITECT MARK T. BRUMBAUGH CERTIFICATE NO. 498	2012-3890W job no.	JANUARY 14, 2016 date
	PTH/MW/JW drawn	SEPA / SHORELINE PERMIT RESUBMITTA 8.08.2016 SEPA / SHORELINE PERMIT RESUBMITTA 8.11.2016 SEPA / SHORELINE PERMIT RESUBMITTA 01.14.2016 checked
NEW BUILDING FOR THE RESERVE @ WOODINVILLE WAREHOUSE BUILDING 15902 WOODINVILLE - REDMOND ROAD NE WOODINVILLE, WASHINGTON		
IRRIGATION PLAN LANCE MUELLER & ASSOCIATES ARCHITECTS 130 LAKESIDE • SUITE 250 • SEATTLE, WA 98122 • (206) 325-2553	sheet L3-1	

m:\drawings\2012\2012-38\ba\l3-0_1rrigation_plan.dwg

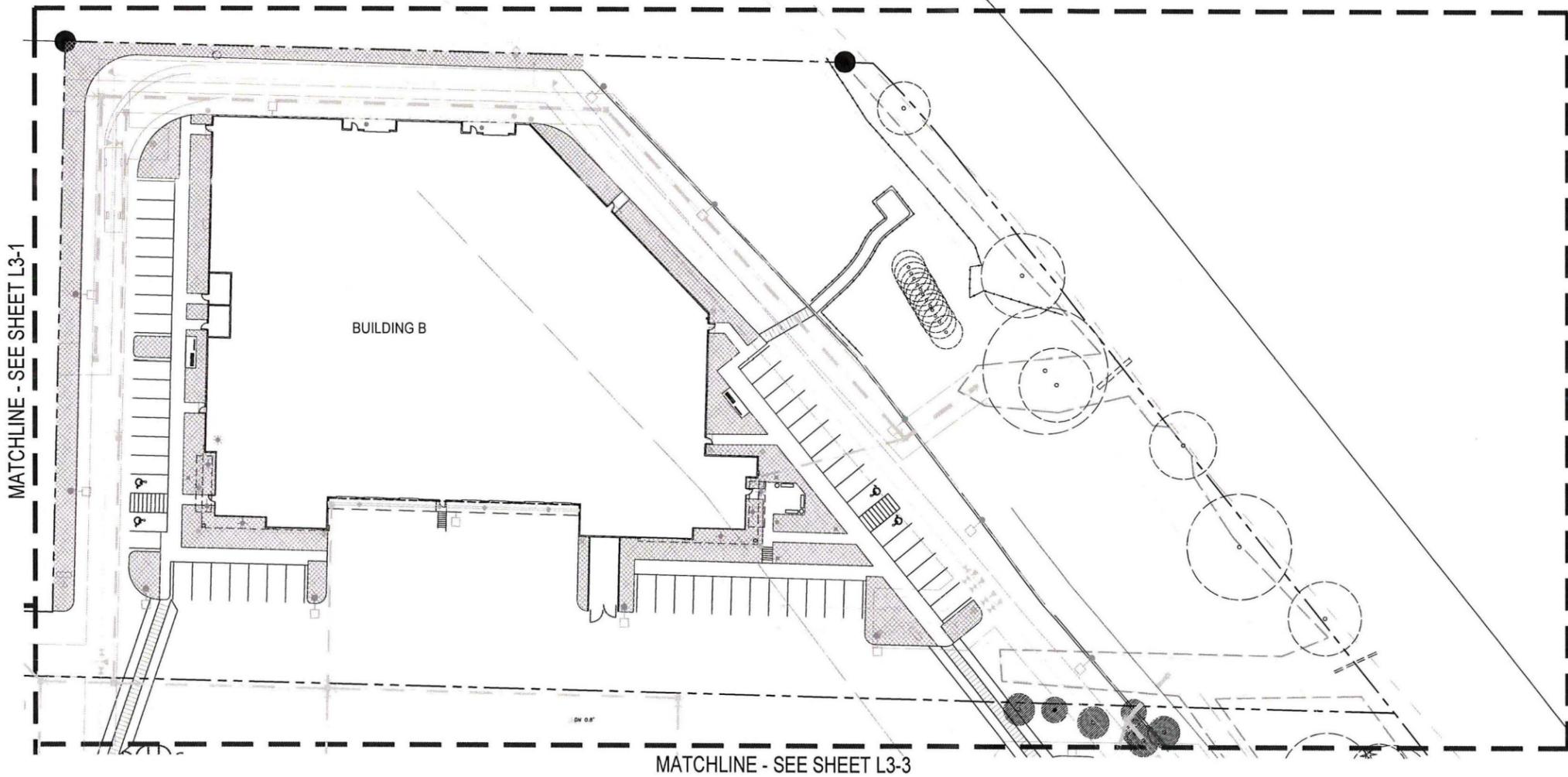
EXHIBIT 11
PAGE 10 OF 13

KEY	
	POP-UP SPRAY HEADS
	POP-UP ROTORS

SHEET INDEX:

L3-0	OVERALL IRRIGATION PLAN
L3-1	IRRIGATION PLAN
L3-2	IRRIGATION PLAN
L3-3	IRRIGATION PLAN

- NOTES:
1. ALL PROPOSED LANDSCAPE AREAS TO RECEIVE A FULLY AUTOMATIC UNDERGROUND IRRIGATION SYSTEM PER CITY OF WOODINVILLE MUNICIPAL CODE 21.15, 21.16, 21.24.
 2. ALL POP-UP SPRAY HEADS TO BE ADJUSTED TO MINIMIZE OVERSPRAY ONTO HARDSCAPE AREAS
 3. IRRIGATION CONTROLLER TO INCLUDE EVAPOTRANSPIRATION (ET) MANAGER COMPONENTS TO RECEIVE REAL-TIME WEATHER DATA FROM LOCAL WEATHER STATIONS.
 4. PROVIDE MOISTURE OR PRECIPITATION SENSORS.
 5. PROVIDE HEAD TO HEAD SPACING.
 6. PROVIDE PRESSURE REGULATING DEVICE.
 7. PROVIDE BACKFLOW PREVENTER.
 8. PROVIDE SEPARATE ZONES FOR LAWN AND SHRUBS.



1 PARTIAL IRRIGATION PLAN
1" = 30'-0"



job no.	date	revision	no.
2012-3890DW			
HT/MW/JW			
WV			
checked			
DATE	2016		
	JANUARY 14, 2016		



NEW BUILDING FOR
THE RESERVE @ WOODINVILLE
WAREHOUSE BUILDING
 15902 WOODINVILLE - REDMOND ROAD NE
 WOODINVILLE, WASHINGTON

LANCIE MUELLER & ASSOCIATES
 ARCHITECTS
 130 LAKESIDE • SUITE 250 • SEATTLE, WA 98122 • (206) 325-2553

Brumbaugh & Associates
 LandscapeArchitecture
 600 North 85th Street, Suite 102
 Seattle, WA 98103-3826
 Telephone 206 782 3650
 Facsimile 206 782 3675

IRRIGATION PLAN
 sheet
L3-2

EXHIBIT 11
PAGE 13 OF 13

SECTION 328400 - IRRIGATION

PART 1 - GENERAL

1.1 SUMMARY

A. Furnish all labor, materials, equipment and related items necessary to install an operating, automatically controlled irrigation system. This Section includes saw cutting and patching, piping, sleeving, valves, quick couplers, sprinklers, specialties, satellite controller, and wiring for automatic control irrigation system.

1.2 DEFINITIONS

A. Lateral Piping: Downstream from control valves to sprinklers, specialties, and drain valves. Piping is under pressure during flow.
B. Mainline Piping: Downstream from point of connection to water distribution piping to, and including, control valves. Piping is under water-distribution-system pressure.

1.3 SUBMITTALS

A. Product Data: Include pressure ratings, rated capacities, and settings of selected models for the following:
1. Control valves.
2. Sprinklers.
3. Irrigation specialties.
4. Controller.
B. Record Drawings: Prior to the final acceptance of work, provide the landscape architect with a set of clearly marked drawings showing the actual location of all irrigation equipment and any deviations from the design plans. Indicate the actual number of heads per zone and G.P.M. Correct and update record drawings daily during the work. Place a laminated control chart and color coded zone map in the controller cabinet.
C. Field quality-control test reports including results of pressure testing.
D. Operation and maintenance data.
E. Written verification that existing pressure and flow at the meter location is sufficient to operate the irrigation system as designed.

1.4 QUALITY ASSURANCE

A. Work to be completed by a Washington State licensed Landscape Contractor with a minimum of 10 years of similar size and scope irrigation systems.

1.5 WARRANTY

A. Guarantee all materials and workmanship for a period of one year from the time of final acceptance. Immediately repair or replace any defective or deficient system components. Warranty does not apply to work or damage done to the system by others after final acceptance.

PART 2 - PRODUCTS

2.1 IRRIGATION METER

A. Utilize new 1-1/2" meter. See civil plans and specifications.

2.2 BACKFLOW PREVENTION DEVICE

A. As required by the City of Woodinville Public Works department sized to match the irrigation meter.

2.3 PIPES, TUBES, AND FITTINGS

A. PVC Pipe: ASTM D 1785, PVC 1120 compound, Schedule 40 for all mainline piping and Class 200 for all lateral piping.
1. PVC Socket Fittings, Schedule 40, ASTM D 2466.
2. Threaded Fittings, Schedule 40, ASTM D 2466
B. Sleeving: ASTM D 1785, PVC 1120 compound, Schedule 40.
C. Flexible Poly Pipe: 1/2-inch diameter polyethylene tubing, thick walled, as manufactured by Rain Bird or approved equivalent.
D. PVC Solvent Cement: Weld-on plastic pipe cement.
E. PVC Primer and Cleaner: Weld-on primer P-70 PUC/CPUC purple primer
F. Teflon Tape Sealer: 1/2 inch wide for use at threaded joints.

2.4 VALVES AND ACCESSORIES

A. Plastic Automatic Control Valves: Rain Bird PEB series globe valve with molded-plastic body, normally closed, diaphragm type with manual flow adjustment, and operated by 24-V ac solenoid.
B. Quick-Couplers: Rain Bird 44 DLRC 1 inch bronze, two piece construction quick coupler valve. Provide two keys with hose swivel ends.
C. Valve Boxes: Box and cover, with open bottom and openings for piping, designed for installing flush with grade. Include size as required for valves and service.
1. Control Valves: Carson 11" x 17" Standard 12" deep box with green snapping lock lid.
2. Quick Couplers and Gate Valves: Carson 10" Round with green snapping lock lid.
D. Drainage Backfill: Unfractured rock, 100 percent passing 1-1/2-inch square sieve and 0 percent passing 1/4-inch sieve.

2.5 CONTROL WIRE

A. #14 UF direct burial wire. White common wire, red valve impulse wire, orange stub-out wire, with a fourth color of wire provided as a spare.
B. Splices: Watertight electrical splices with 3M, Scott's Lock Seal Tack 3576-78, Pen-Tite PVC socket, or Rain Bird ST-03 with PT-S5 sealer.
C. Electrical Tape: Black plastic, 1/2-inch, all weather type.

2.6 SPRINKLERS

A. Description: Rain Bird plastic sprinkler heads as indicated on the Drawings.
1. Pop-up, Spray Sprinklers: Fixed & rotating patterns, with screw-type flow adjustment and stainless-steel retraction spring.

2.7 RISERS

A. Schedule 80 PVC with the same IPS as the sprinkler base. Refer to details on Drawings.
B. Pop-up type rotors to be on PVC triple swing risers, pop-up type spray sprinklers to be on swing pipe risers. Refer to details on Drawings.

2.8 CONTROLLERS

A. Controllers: Rain Bird ESP-LXME Modular Series with zone capacity as indicated on Drawings. Supply with ET Manager Cartridge and RSD-BEx Rain Sensor.
B. Valves: Electric Solenoid, normally open, hydraulic tubing, including required fittings and accessories.
C. Wire Conductors: Color coded.

PART 3 - EXECUTION

3.1 VERIFICATION

A. Verify that installation conditions are satisfactory to receive work of this Section and have been approved by Landscape Architect. Do not begin work until unsatisfactory conditions are corrected. Beginning work constitutes Contractor's acceptance of conditions as satisfactory.
B. Verify in writing to Landscape Architect that adequate gallonage and pressure is available to properly operate the irrigation system prior to installation. Provide Landscape Architect with pressure readings at each meter location prior to installation of irrigation system.

3.2 PREPARATION

A. PROTECTION
1. Protect work, adjacent property, public, visitors, and workers. Be responsible for any damage or injury arising from this Contract. Take reasonable care to discourage vandalism. Confine work to areas designated. Do not disturb areas outside the project limits.
2. Furnish and maintain all warning signs, shoring, barricades, warning lanterns, etc., as required by federal, state, and local ordinances.

B. LAYOUT

1. Layout work as accurately as possible to Drawings. Drawings are diagrammatic to the extent that swing joints, offsets, and all fittings are not shown.
2. Alterations and changes in the layout may be expected in order to conform to ground conditions and to obtain full and adequate coverage of water.
3. Where piping is shown to be under paved areas, but run parallel and adjacent to planting areas, intention is to install piping in planting areas. Do not install directly over another line in same trench.
4. Provide for dewatering of trenches as required to keep trenches dry until backfilling.

C. Provide a separate impulse wire and common wire to each master control valve.

3.3 BACKFLOW DEVICES

A. Install backflow device at each meter location indicated on Drawings, in accordance with manufacturer's written specifications and all applicable codes and ordinances.
B. Provide sufficient clearance for servicing below backflow device and related equipment. Clean out all soil from valve box to 12 inches below the device. Use box extensions from finish grade to 12 inches below the device allow for gravel sump as indicated on Drawings. Provide positive drainage away from the box.

3.4 TRENCHING

A. Provide straight trenches without abrupt grade changes. Trench bottoms shall be flat and free of any rock or debris larger than 1-inch. Dig trenches wide enough to allow a minimum of 3 inches between parallel pipes lines. Trenches shall be of sufficient depth to allow for 18 inches of cover over sprinkler mainlines, 12 inches of cover over sprinkler laterals, and 4 inches of cover over dip tubing lines. Where piping is installed over the garage, lateral lines shall have a minimum cover of 8 inches.
B. Compact backfill to 95% per ASTM D-1557.

3.5 SLEEVING

A. Install sleeves under all paved surfaces and through all walls as required to facilitate installation of the irrigation work indicated on Drawings. Trenches shall be of sufficient depth to allow for 24 inches of cover over sleeving.
B. Sleeves a minimum of twice the insert pipe diameter. Wire sleeves to be a minimum of 2-inch in diameter.
C. Extend sleeves a minimum of 12 inches beyond the edge of curbs, walks, walls and/or other paved surfaces. Cap and identify sleeve ends above grade.
D. Plug ends of sleeves around inserted pipe and/or wire to prevent soil from entering ends.
E. Compact backfill to 95% per ASTM D-1557.
F. Saw out and patch when complete any sleeves under existing paving.

3.6 PIPE AND FITTINGS

A. Install pipe per manufacturer's written specifications and with pipe labeling side visible in trench.
B. Transport and store pipe on a flat and even surface.
C. Seal all threaded joints with Teflon tape. No PVC pipe to be threaded or connected to a threaded fitting without an adapter.
D. Keep pipe free from dirt or debris at all times. Cover ends of pipe when not in progress of installation.
E. Snake pipe from side to side of trench bottom to allow for expansion and contraction.
F. Connect pipe using two-step solvent weld process. Do not move or handle pipe for a minimum of 15 minutes while solvent welds are curing. No water shall be permitted in pipe until a period of at least 10 hours has elapsed for solvent weld setting and curing. The joints shall be allowed to cure at least 24 hours before pressure is applied to the system.

3.7 SPRINKLERS

A. Install heads per locations indicated on Drawings. Attach heads as detailed on Drawings.
B. Set heads perpendicular to finish elevation and 2 inches from edge of head to curbs, headers, walks and paved surfaces, 12 inches from building walls, and 18 inches from building windows unless otherwise noted.

3.8 RISERS

A. Minimum riser size equal IPS of the sprinkler heads or quick couplers. Install risers as detailed on Drawings.

3.9 CONTROL WIRING

A. Wiring between controllers and remote control valves shall comply with latest edition of the National Electrical Code.
B. Install control wires in continuous runs and tape wires in bundles at 5-foot intervals. Tape bundles to the bottom of mainline at 10-foot intervals.
C. Splices will be permitted only at junction boxes, valves boxes, or at control equipment. Provide a 2-foot loop of excess control wire at each splice. Encapsulate all splices with approved water proof connectors. Show all splices on Record Drawings.
D. Provide a 24-inch loop of excess control wire at each valve box.
E. All wire splices to be made with approved waterproof direct bury connectors.
F. Provide a separate color-coded common wire and control wire from the master valve to the satellite controller. If more than one satellite controller is assigned to the same master valve, provide a separate color-coded common and control wire from each additional satellite controller to the master satellite.

3.11 CONTROLLERS

A. Provide 120V power to the controllers.
B. Contact Rainbird representative to activate ET manager account.
Contact: Andy Looney (425) 501-7428 Cell alooney@rainbird.com

3.12 REMOTE CONTROL VALVES

A. Install valves in approximate locations indicated on Drawings maintaining a minimum 12-inch spacing from paved surfaces. Group valves where possible in planting beds and in an orderly fashion.
B. Install gravel sump and valve box as detailed on Drawings.

3.13 QUICK COUPLING VALVES

A. Install quick coupling valves with swing joints in approximate locations indicated on Drawings.
B. Install gravel sump and valve box as detailed on Drawings.

3.14 FLUSHING

A. Flush all mainlines once prior to the installation of valves, and again after the installation of valves and prior to pressure testing.
B. Flush all lateral lines prior to the installation of sprinkler nozzles.

3.15 PRESSURE TEST

A. To be valid, all tests must be performed under the observation of Landscape Architect.
B. Submit verbal request for review to Landscape Architect at least 48 hours prior to anticipated testing. Do not request testing until satisfied that work will pass test.
C. Purge all air, cap, and pressurize entire mainline to 100 PSI for a period of 1 hour without introduction of additional service or pumping pressure. Lines, which show loss of pressure exceeding 5 PSI as the end of specified test period, will be rejected.
D. Purge all air from laterals and cap all risers. Open valves and bring system to line pressure. Lateral lines will be visually reviewed. Piping and fittings, which show visible leakage, will be rejected. Leakage of temporary caps on risers is acceptable.
E. All rejected systems or portions of system to be repaired, corrected, and retested until approval is given. Do not request retest until satisfied that system will pass testing.

3.16 BACKFILLING

A. Upon completion of pressure test backfill all trenches and compact to 85%(95% for sleeve trenches).
B. Backfill to be free of all rocks, sod, sticks, and debris.
C. All trenches to be thoroughly water settled.
D. Trenches to be backfilled uniform flush with the surrounding grade, raked, and rolled with a roller weighing minimum 90 lbs. per linear foot.

3.17 PERFORMANCE TESTS

A. Upon completion of system installation, operate system in the presence of Landscape Architect. Landscape Architect may request that up to five percent (5%) of the total nozzles be substituted, as appropriate to site conditions, at no additional cost to the Contract.

3.18 RESTORATION AND CLEAN UP

A. Restore all landscape areas to original conditional prior to beginning work.
B. Repair any damage to plant material.
C. Remove all roots, rocks, and debris from the site.
D. Sweep and wash clean all buildings, walls, walks, pavement, parking lots, signage, and lighting.

3.19 FINAL ACCEPTANCE

A. Final Acceptance of the irrigation work in this Section will be made by Landscape Architect and/or Owner after a review to determine 100 percent completion of the Contract work and all punch list items. The date of final acceptance will constitute the beginning of the one-year guarantee period and the beginning of the 30-day required maintenance period. All work and punch list items to be completed along with submittal of signed and approved sprinkler/plumbing/electrical permits as applicable to the work, prior to Final Acceptance.
B. After final review conduct a training and orientation session for Owner covering the operation, adjustment, and maintenance of the irrigation system. The Record Drawings and Operations and Maintenance Manual will be reviewed and all features explained. Notify Owner in writing 2 weeks prior to the training and orientation session. Date and time will be subject to approval of Owner.

END OF SECTION

2013-28920V Job No.	PT/AMV / JV Drawn	DATE JANUARY 14, 2016	NO.	DATE	REVISION
STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT  MARK R. BRUMBAUGH CERTIFICATE NO. 458					
NEW BUILDING FOR THE RESERVE @ WOODINVILLE WAREHOUSE BUILDING 15902 WOODINVILLE - REDMOND ROAD NE WOODINVILLE, WASHINGTON					
BRUMBAUGH & ASSOCIATES LANDSCAPE ARCHITECTURE 130 LAKESIDE • SUITE 250 • SEATTLE, WA 98122 • (206) 325-2553					
sheet L3-5					

Brumbaugh & Associates
Landscape Architecture

600 North 85th Street, Suite 102
Seattle, WA 98103-3826
Telephone 206 782 3650
Facsimile 206 782 3675