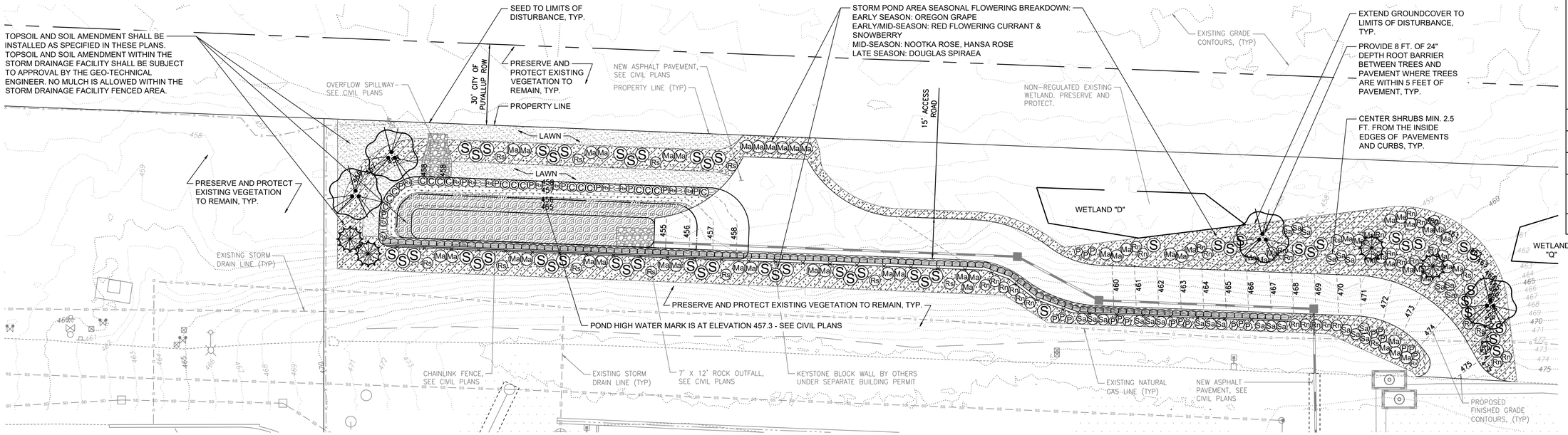
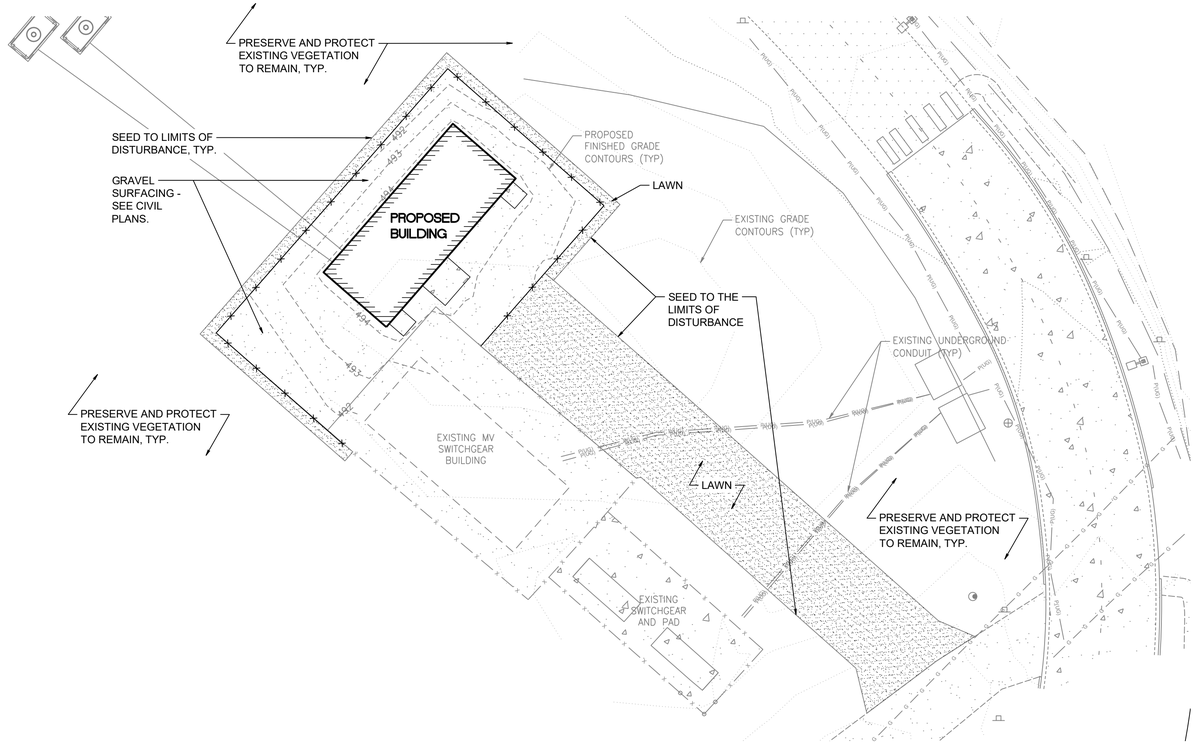
LANDSCAPE PLAN
FOR
CENTERIS VOLTAGE PARK

A PORTION OF THE NE 1/4, SE 1/4, NW 1/4 & SW 1/4, OF THE SE 1/4 OF SEC. 3,TWN. 19 N, RGE. 4 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON



VOLTAGE PARK - NORTH UTILITY YARD POND

SCALE: 1" = 20'



VOLTAGE PARK - SUB-STATION

SCALE: 1" = 20'

ALL PLANTED AREAS (NOT INCLUDING HYDROSEEDED AREAS OR WET AREA SEEDING IN STORM DRAINAGE POND): 9,507 SF
8" TOPSOIL MINIMUM DEPTH FOR THIS AREA = 235 CUBIC YARDS.

ALL SEEDED AREAS: 30,051 SF
8" TOPSOIL MINIMUM DEPTH FOR THIS AREA = 741 CUBIC YARDS.

TOTAL: 976 CY

CONTRACTOR SHALL SUBMIT DELIVERY SHEETS TO DEMONSTRATE COMPLIANCE WITH TOTAL AMOUNT OF TOPSOIL REQUIRED.

THIS LANDSCAPE PLAN WAS PREPARED WITHOUT THE BENEFIT OF AN ARBORISTS REPORT AND EXISTING TREE LOCATIONS / SIZES. IT IS RECOMMENDED THAT THE OWNER CONTRACT WITH AN ARBORIST PRIOR TO ANY CONSTRUCTION OR TREE REMOVAL TO:

* LOCATE AND IDENTIFY SIGNIFICANT AND HERITAGE TREES DIRECTLY IMPACTED BY PRPOSED CONSTRUCTION AND WITHIN 50 FEET OF THE EDGE OF THE CONSTRUCTION AREAS, AND TO
* STAKE LOCATIONS OF THE CRPZ OF THE SIGNIFICANT / HERITAGE TREES TO REMAIN.

CONSTRUCTION ACTIVITIES SHALL NOT DISTURB MORE THAN 50% OF THE CRPZ OF PRESERVED SIGNIFICANT TREES AND 75% OF THE CPRZ OF PRESERVED HERITAGE TREES.
NO CUT OR FILL GREATER THAN 4" SHALL OCCUR CLOSER TO THE TREE TRUCK THAN 1/2 OF THE CRPZ RADIUS.
A 4-6" LAYER OF HARD WOOD CHIP MULCH SHALL BE INSTALLED WITHIN THE CPRZ.
PROVIDE TEMPORARY IRRIGATION WITHIN THE CPRZ DURING CONSTRUCTION.

FOR ADDITIONAL REQUIREMENTS, SEE THE CITY'S ADOPTED VEGETATION MANAGEMENT STANDARDS

LANDSCAPE SHEET INDEX:

PROJECT DATA:

SITE ADDRESS:	1023 39TH AVENUE SE PUYALLUP, WA 98374-2121
PARCEL NUMBER: 0419034038	0419034036, 0419034037,
PARCEL SIZE:	61.28 ACRES & 15.77 ACRES
EXISTING USE:	BUSINESS PARK
ZONING DESIGNATION:	BUSINESS PARK (MP)
FEMA FLOODPLAIN:	ZONE X - AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN

GENERAL NOTES:

A. THIS PLAN SET FOR LANDSCAPE IMPROVEMENTS SHALL BE USED IN CONJUNCTION WITH THE FOLLOWING PLANS ALSO PREPARED FOR THIS PROJECT AND SITE:
* SITE SURVEY
* CIVIL ENGINEERING PLANS
* ARCHITECTURAL PLANS

IF DISCREPANCIES ARE FOUND BETWEEN THIS PLAN SET AND THOSE REFERENCED ABOVE, SUCH DISCREPANCIES SHALL BE COORDINATED WITH BARGHAUSEN CONSULTING ENGINEERS, INC. AND RESOLVED PRIOR TO CONSTRUCTION ACTIVITIES.

B. ALL PROPOSED PLANTINGS WILL BE IRRIGATED WITH A WATER-WISE AUTOMATIC IRRIGATION SYSTEM.

N

0 10' 20' 40'
SCALE: 1"=20'

APPROVED

BY_____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING

DATE_____

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.
FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE DEVELOPMENT ENGINEERING MANAGER.

No.	Date	By	Chkd.	Appr.	Revision
-	07/01/24	LRP	LP/JV	LRP	FIRST LANDSCAPE SUBMITTAL

Title: LANDSCAPE PLAN

CENTERIS VOLTAGE PARK

For: BENAROYA CAPITAL, LLC
CENTERIS DATA CENTERS
9675 SE 36TH ST, SUITE 115
MERCER ISLAND, WA 98040

STATE OF WASHINGTON
LAUREN R. PERRY
No 188 EXP. 2/18/25
LANDSCAPE ARCHITECT

Scale: Horizontal 1" = 20' Vertical N/A

Designed LRP Drawn LRP Checked LP/JV Approved LRP Date 07/01/24

Barghausen Consulting Engineers, Inc.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222 barghausen.com

Job Number 18111

Sheet L1 of 10

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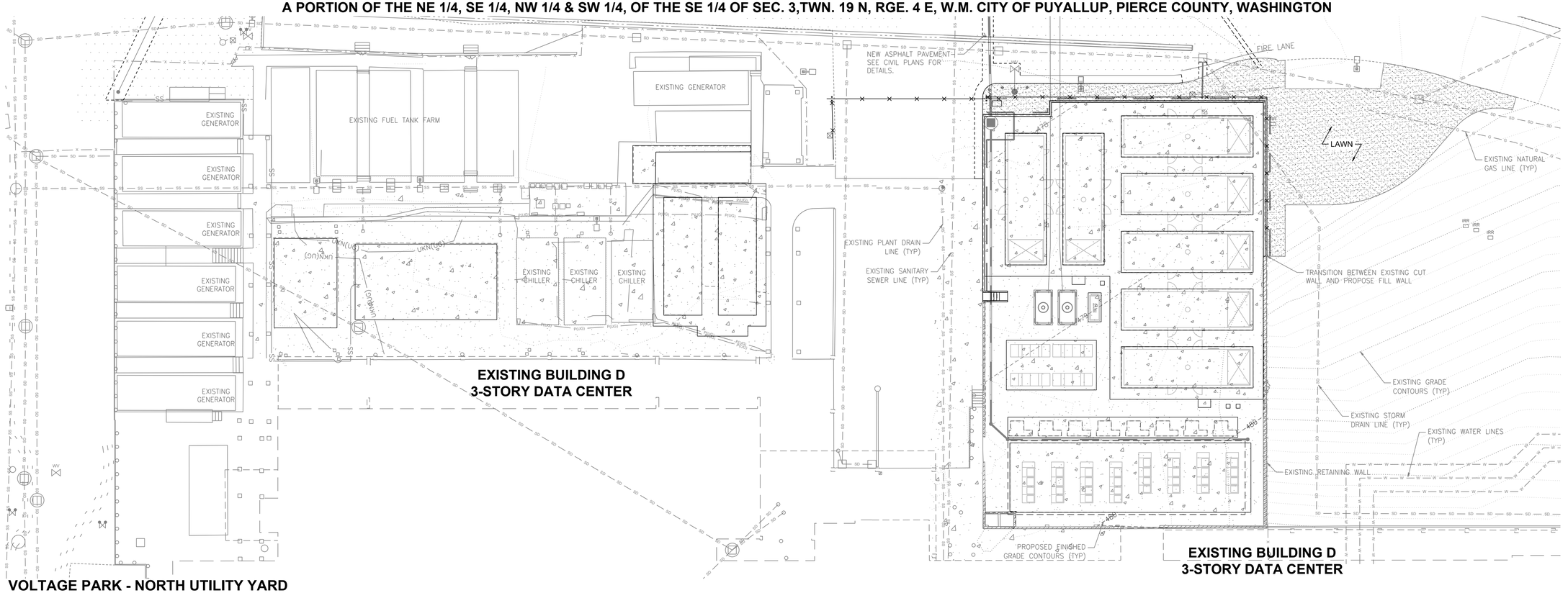
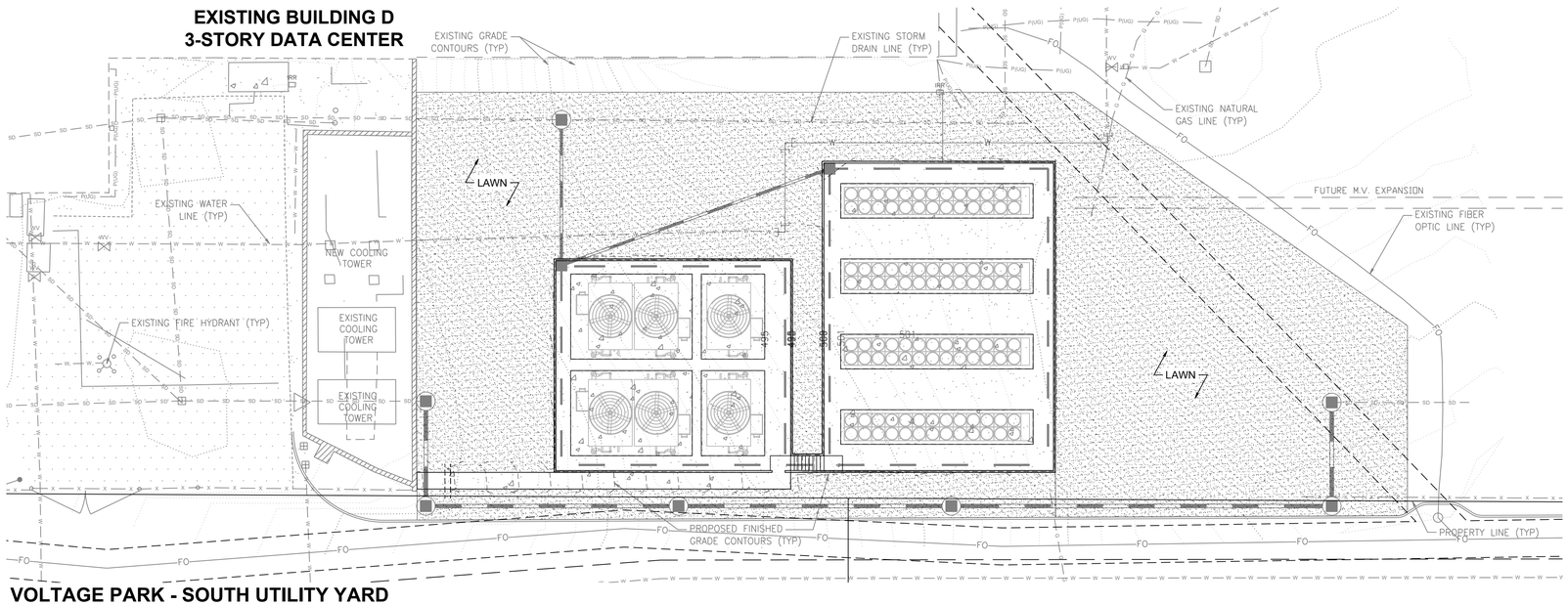
LANDSCAPE PLAN
FOR
CENTERIS VOLTAGE PARK
A PORTION OF THE NE 1/4, SE 1/4, NW 1/4 & SW 1/4, OF THE SE 1/4 OF SEC. 3,TWN. 19 N, RGE. 4 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON



VOLTAGE PARK - NORTH UTILITY YARD

SCALE: 1" = 20'



VOLTAGE PARK - SOUTH UTILITY YARD

SCALE: 1" = 20'

THIS LANDSCAPE PLAN WAS PREPARED WITHOUT THE BENEFIT OF AN ARBORISTS REPORT AND EXISTING TREE LOCATIONS / SIZES. IT IS RECOMMENDED THAT THE OWNER CONTRACT WITH AN ARBORIST PRIOR TO ANY CONSTRUCTION OR TREE REMOVAL TO:

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* STAKE LOCATIONS OF THE CRPZ OF THE SIGNIFICANT / HERITAGE TREES TO REMAIN.

CONSTRUCTION ACTIVITIES SHALL NOT DISTURB MORE THAN 50% OF THE CRPZ OF PRESERVED SIGNIFICANT TREES AND 75% OF THE CPRZ OF PRESERVED HERITAGE TREES.
NO CUT OR FILL GREATER THAN 4" SHALL OCCUR CLOSER TO THE TREE TRUCK THAN 1/2 OF THE CRPZ RADIUS.
A 4-6" LAYER OF HARD WOOD CHIP MULCH SHALL BE INSTALLED WITHIN THE CPRZ.
PROVIDE TEMPORARY IRRIGATION WITHIN THE CPRZ DURING CONSTRUCTION.

FOR ADDITIONAL REQUIREMENTS, SEE THE CITY'S ADOPTED VEGETATION MANAGEMENT STANDARDS

N

0 10' 20' 40'

SCALE: 1"=20'

APPROVED

BY_____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING

DATE_____

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No.	Date	By	Ckd.	Appr.	Revision
-	07/01/24	LRP	LP/JV	LRP	FIRST LANDSCAPE SUBMITTAL

Title: LANDSCAPE PLAN

CENTERIS VOLTAGE PARK

For:
BENAROYA CAPITAL, LLC
CENTERIS DATA CENTERS
9675 SE 36TH ST, SUITE 115
MERCER ISLAND, WA 98040

STATE OF WASHINGTON
LAUREN R. PERRY
No 488 EXP 2/18/25
LANDSCAPE ARCHITECT

Scale: Horizontal 1" = 20' Vertical N/A

Designed LRP Drawn LRP Checked LP/JV Approved LRP Date 07/01/24

Barghausen Consulting Engineers, Inc.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222 **barghausen.com**

Job Number 18111

Sheet L2 of 10

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PLANT SCHEDULE & NOTES

FOR

CENTERIS VOLTAGE PARK

A PORTION OF THE NE 1/4, SE 1/4, NW 1/4 & SW 1/4, OF THE SE 1/4 OF SEC. 3,TWN. 19 N, RGE. 4 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON

PLANT SCHEDULE

SYMBOL	BOTANICAL / COMMON NAME	CONT.	SIZE	WATER USE	ORIGIN	QTY
DECIDUOUS TREES						
	ACER CIRCINATUM / VINE MAPLE NURSERY GROWN; BRANCHED AT FOUR TO FIVE FEET; 3 TO 5 STEM; STAKE FOR ONE FULL GROWING SEASON	B & B	1" CAL	LOW	NATIVE	4
EVERGREEN TREES						
	PSEUDOTSUGA MENZIESII 'FASTIGIATA' / FASTIGIATA DOUGLAS FIR	B & B	5`-6` MIN. HT.	LOW	NATIVE	4

SYMBOL	BOTANICAL / COMMON NAME	CONT.	WATER USE	ORIGIN	FOLIAGE	SPACING	QTY
SHRUBS							
C	CORNUS SANGUINEA 'MIDWINTER FIRE' / MIDWINTER FIRE BLOODTWIG DOGWOOD	2 GAL.	MEDIUM	NATIVE	DECIDUOUS	42" o.c.	17
Ma	MAHONIA AQUIFOLIUM / OREGON GRAPE	2 GAL.	LOW	NATIVE	EVERGREEN	54" o.c.	60
Rs	RIBES SANGUINEUM `KING EDWARD VII` / RED FLOWERING CURRANT	2 GAL.	LOW	NATIVE	EVERGREEN	48" o.c.	15
Rn	ROSA NUTKANA / NOOTKA ROSE	2 GAL.	MEDIUM	NATIVE	DECIDUOUS	48" o.c.	29
Rx	ROSA RUGOSA 'HANSA' / HANSA ROSE	2 GAL.	LOW	NATIVE	DECIDUOUS	36" o.c.	13
S	SPIRAEA DOUGLASII / WESTERN SPIREA	2 GAL.	MEDIUM	NATIVE	DECIDUOUS	60" o.c.	55
Sa	SYMPHORICARPOS ALBUS / COMMON WHITE SNOWBERRY	2 GAL.	LOW	NATIVE	DECIDUOUS	48" o.c.	25
FERNS							
P	POLYSTICHUM MUNITUM / WESTERN SWORD FERN	2 GAL.	LOW	NATIVE	EVERGREEN	36" o.c.	31
GROUND COVERS							
▨	ARCTOSTAPHYLOS UVA-URSI / KINNIKINNICK WELL ROOTED, MIN. 3 RUNNERES	1 GAL.	LOW	NATIVE	EVERGREEN	24" o.c.	1,477
▨	FRAGARIA CHILOENSIS / BEACH STRAWBERRY	1 GAL.	LOW	NATIVE	EVERGREEN	18" o.c.	40

LANDSCAPE LEGEND

SYM.	DESCRIPTION	QTY.
▨	EROSION CONTROL HYDROSEED SUNMARK SEEDS NATIVE EC MIX, OR APPROVED EQUAL. INSTALL PER MANUFACTURER`S RECOMMENDATIONS.	28,562 SF
▨	SW FACILITY POND SLOPES PLANTING SEE STORM WATER POND SLOPES PLANT SCHEDULE ON THIS SHEET	393 SF
▨	WET AREA HYDROSEED CONFORM TO REQUIREMENTS OF THE "STORMWATER DESIGN MANUAL FOR WESTERN WASHINGTON", JULY 2019 EDITION - BMP C120: TEMPORARY AND PERMANENT SEEDING.USE "WET AREA SEED MIX" PER DESIGN MANUAL SPECIFICATION, OR APPROVED EQUAL. INSTALL AND MAINTAIN THROUGH GUARANTEE PERIOD PER BMP C120. SOD WITH SIMILAR WET AREA SEED MIX MAY BE USED AS APPROVED. SUBMIT SEED MIX / SOD MIX INCLUDING HYDROSEED APPLICATION RATE AND HYDROSEED MULCH & TACKIFIER SPECIFICATIONS FOR APPROVAL.	1,571 SF

STORM WATER FACILITY - POND SLOPES PLANT SCHEDULE (xxxx SF AREA)

SYMBOL	BOTANICAL / COMMON NAMES	SIZE CONDITION	SPACING	REMARKS	QUANTITY
▨	STORMWATER POND LIVE STAKES (75%): (xxxx SF) SALIX LUCIDA / PACIFIC WILLOW SALIX SCOULERIANA / SCOULER WILLOW CORNUS STOLONIFERA / REDTWIG DOGWOOD	LIVE STAKE	3' O.C.	3' LENGTH MINIMUM. 2-3 STAKES PER HOLE, TRIANGULAR SPACING. 75% OF SQUARE FOOTAGE ALLOCATED TO LIVE STAKES	xxx OF EACH SPECIES. xxx TOTAL PLANTS
	STORMWATER POND CONTAINERIZED PLANTS (25%): (xxxx SF) CORNUS STOLONIFERA / REDTWIG DOGWOOD PHYSOCARPUS CAPITATUS / PACIFIC NINEBARK LONICERA INVOLUCRATA / TWINBERRY	1-GALLON	4' O.C.	FULL AND MATCHING. 25% OF SQUARE FOOTAGE ALLOCATED TO CONTAINER PLANTS	xxx OF EACH SPECIES. xxx TOTAL
	PREPARE SUB-GRADE WITHIN SW FACILITY PER CIVIL PLANS. PREPARE TOPSOIL WITHIN SW FACILITY PER THESE PLANS. DO NOT INSTALL ORGANIC MULCH BELOW HIGH WATER LEVEL. LANDSCAPE CONTRACTOR TO PROVIDE IRRIGATION (ABOVE-GROUND) AS NECESSARY IN ORDER TO ENSURE ESTABLISHMENT OF STAKES AND CONTAINER PLANTS				

PLANT SCHEDULE NOTES

1. ALL TREES SHALL BE FULL, WELL BRANCHED AND SYMMETRICAL WITH STRONG, STRAIGHT, UNCUT CENTRAL LEADER.
2. CONIFERS SHALL BE FULL TO BASE. DECIDUOUS TREES SHALL BE BRANCHED TO 5 FEET.
3. PRESERVE AND PROTECT ALL EXISTING TREES TO REMAIN PER CITY OF PUYALLUP TREE PROTECTION STANDARDS.
4. STAKE AND GUY ALL TREES FOR ONE GROWING SEASON.
5. REMOVE ALL WEEDS FROM PLANT ROOT BALLS AND CONTAINERS PRIOR TO PLANTING.
6. ALL GROUNDCOVERS SHALL BE WELL ROOTED WITH FULL TOP GROWTH, AND BE PLANTED WITH TRIANGULAR SPACING. VINE TYPE GROUNDCOVERS SHALL HAVE MINIMUM 3 RUNNERS. SEE DETAIL ON L4.
7. ALL SHRUBS TO BE WELL ROOTED, SYMMETRICAL, FULL AND BUSHY.
8. ALL FERNS SHALL BE WELL ROOTED, SYMMETRICAL, WITH FULL TOP GROWTH. ALL FERNS SHALL HAVE A MINIMUM OF 6 FRONDS.
9. PLANTS IN MORE THAN ONE ROW SHALL BE PLANTED WITH TRIANGULAR SPACING AS SHOWN.
10. ALL PLANTS SHALL BE NURSERY GROWN, NOT COLLECTED.
11. ALL SOILS SHALL BE AMENDED PER CITY OF PUYALLUP REQUIREMENTS.
12. SOIL AMENDMENT AND IMPORTED SOILS TO BE USED WITHIN THE STORMWATER FACILITY SHALL CONFORM TO CITY OF PUYALLUP REQUIREMENTS. OBTAIN APPROVAL FROM CIVIL ENGINEER PRIOR TO PROCEEDING. CONFIRM SUBGRADE IS AT THE CORRECT ELEVATION PRIOR TO INSTALLATION. USE AND DEPTH OF TOP-DRESSING MULCH WITHIN THE FACILITY MUST BE APPROVED BY THE CIVIL ENGINEER. IF MULCH IS APPLIED BELOW THE HIGH WATER MARK IN THE THE POND , IT MUST BE A NON-FLOATING TYPE.
13. APPLY 4" ORGANIC MULCH TO THE SURFACES OF ALL SHRUB / GROUNDCOVER AREAS EXCEPT WITHIN STORMWATER POND.
14. ALL PLANTS SHALL BE IRRIGATED WITH A WATER-WISE AUTOMATIC IRRIGATION SYSTEM. CONNECT TO EXISTING IRRIGATION SYSTEM.
15. EROSION CONTROL HYDROSEEDED AREAS DO NOT REQUIRE AUTOMATIC IRRIGATION. PROVIDE TEMPORARY IRRIGATION AS NEEDED UNTIL SEED IS ESTABLISHED.
16. MAINTAIN ALL NEW PLANTS AND LAWN IN A HEALTHY CONDITION THROUGH THE ONE YEAR GUARANTEE PERIOD.

SOIL AMENDMENT NOTES

ALL SOILS IN ALL LANDSCAPE INSTALLATIONS SHALL CONFORM TO THE FOLLOWING SOIL DEPTH AND QUALITY REQUIREMENTS. PLEASE REFER TO APPENDIX 20.9 FOR FURTHER INSTALLATION GUIDANCE:

A. A MINIMUM OF EIGHT (8) INCHES OF TOP SOIL, CONTAINING TEN PERCENT DRY WEIGHT IN PLANTING BEDS, AND 5% ORGANIC MATTER CONTENT IN TURF AREAS, AND A pH FROM 6.0 TO 8.0 OR MATCHING THE pH OF THE ORIGINAL UNDISTURBED SOIL. THE TOPSOIL LAYER SHALL HAVE A MINIMUM DEPTH OF EIGHT INCHES (8") EXCEPT WHERE TREE ROOTS LIMIT THE DEPTH OF INCORPORATION OF AMENDMENTS NEEDED TO MEET THE CRITERIA. SUBSOILS BELOW THE TOPSOIL LAYER SHOULD BE SCARIFIED AT LEAST 6 INCHES WITH SOME INCORPORATION OF THE UPPER MATERIAL TO AVOID STRATIFIED LAYERS, WHERE FEASIBLE. INSTALLATION OF THE EIGHT INCHES (8") OF TOPSOIL, AS DESCRIBED ABOVE, SHALL GENERALLY BE ACHIEVED BY PLACING FIVE INCHES (5") OF IMPORTED SANDY-LOAM SOIL INTO PLANNED LANDSCAPE AREAS (SUB-BASE SCARIFIED FOUR INCHES (4") WITH A THREE INCH (3") LAYER OF COMPOST TILLED INTO THE ENTIRE DEPTH.

B. FOR STREET TREES IN THE RIGHT OF WAY PLANTER STRIP, THE FOLLOWING STANDARDS SHALL APPLY IN RELATION TO SOIL DEPTH, SOIL AMENDMENTS AND INSTALLATION OF NEW STREET TREES. THE FOLLOWING NOTES SHALL BE SHOWN ON THE FACE OF THE PRELIMINARY AND FINAL LANDSCAPE PLAN SHEETS:

(1) FOR NEW CONSTRUCTION: IN AREAS WHERE A NEW PLANTER STRIP AND STREET TREE SHALL BE ESTABLISHED OR RECONSTRUCTED DUE TO A STREET CONSTRUCTION PROJECT, THE PLANTER STRIP AREA SHALL BE EXCAVATED TO A DEPTH OF 24" AND BACKFILLED FOLLOWING THE STANDARD ABOVE TO ACHIEVE A TOPSOIL MIX WITH 40 PERCENT COMPOST BY VOLUME. THE CONTRACTOR OR INSTALLER SHALL:

(1)1) REVIEW THE CITY STANDARD PLANTING DETAIL – ALL CONTRACTORS/INSTALLERS AREA REQUIRED TO FOLLOW CITY STANDARD #01.02.07 (FOR STREET TREE PLANTING) AND #01.02.03 (ROOT BARRIER INSTALLATION). THE CONTRACTOR/INSTALLER SHALL REVIEW THE PLANTING STANDARD DETAIL PRIOR TO INSTALLATION TO UNDERSTAND THE CITY'S REQUIREMENTS. FAILURE TO FOLLOW THE STANDARD MAY RESULT IN REJECTION OF THE WORK BY THE INSPECTOR AND/OR PLANNING DEPARTMENT.

(1)2) SCHEDULE A FIELD PRE-CONSTRUCTION MEETING – THE CONTRACTOR/INSTALLER SHALL CONTACT THE SITE INSPECTOR AND PLANNING DEPARTMENT 48 HOURS IN ADVANCE OF THE INSTALLATION OF STREET TREE(S) FOR A FIELD PRE-CONSTRUCTION MEETING ON-SITE TO REVIEW THE APPROVED PLAN SET AND CITY STANDARD DETAILS. IF STREET TREES ARE TO BE INSTALLED OVER A LONGER TIMELINE (SUCH AS A RESIDENTIAL PLAT WHERE TREES MAY BE INSTALLED OVER A MULTI-MONTH PERIOD OF TIME), THE CONTRACTOR/INSTALLER SHALL HOLD ONE CONSOLIDATED PRE-CON TO REVIEW PLANS. ALL STREET TREES SHALL BE INSPECTED AFTER PLANTING BY THE PLANNING DEPARTMENT.

(1)3) EXCAVATE ALL CONSTRUCTION MATERIALS – EXCAVATE ALL CONSTRUCTION MATERIALS, REMNANT SOIL, GRAVEL, PIT RUN, CONSTRUCTION DEBRIS, ETC. FROM THE PLANTER STRIP AREA TO A DEPTH OF 24" PRIOR TO PLANTING. DISCARD THIS MATERIAL AS THE PLACEMENT OF NEW COMPOST AMENDED TOP SOIL IS REQUIRED.

(1)4) PREPARE THE PLANTING STRIP – AFTER EXCAVATING ALL MATERIALS FROM THE PLANTER STRIP, SCARIFY AND RIP THE SUB-BASE WITH THE TEETH OF A BACKHOE BUCKET (OR OTHER MECHANICAL MEANS OR HAND TOOLS) TO A DEPTH OF 6" WITH MULTIPLE PASSES, 90-DEGREES TO EACH OTHER. PRIOR TO PLANTING THE TREE, RE-COMPACT THE TREE BASE WHERE THE STREET TREE WILL BE PLANTED TO AVOID SETTING OF THE ROOT BALL. AT THIS STAGE, IF THE TREE IS TO BE PLANTED WHEN THE PLANTER STRIP IS BACKFILLED WITH AMENDED TOPSOIL, THE CONTRACTOR/INSTALLER SHOULD MEASURE THE DEPTH OF THE ROOT BALL TO DETERMINE WHEN TO PLACE THE TREE IN THE PIT DURING THE BACKFILLING PROCESS. IF THE ROOTBALL OR ROOT MASS (IN THE CASE OF BARE ROOT TREES) IS LESS THAN 24", THE STREET TREE SHALL BE PLANTED IN A MANNER IN WHICH THE ROOT FLARE IS LEVEL WITH OR AT LEAST 1" ABOVE GRADE AT THE TIME OF FINISHED PLANTING. THE MAY REQUIRE THE ROOTBALL BE PLACED ON A COMPACTED SUB-BASE OF THE COMPOST AMENDED TOPSOIL AS BACKFILLING IS OCCURRING.

(1)5) INSTALL ROOT BARRIER PANELS WHERE TREES ARE CLOSER THAN 7 FEET FROM A CURB OR PAVEMENT – AT THIS STAGE THE CONTRACTOR/INSTALLER SHALL PLACE 24" DEEP ROOT BARRIER PANELS (UB-24) ALONG THE EDGE OF THE SIDEWALK AND CURB LINE FOR A TOTAL OF EIGHT FEET (8') OF LINEAL PROTECTION ALONG EITHER SIDE OF THE PLANTING AREA. THE PANELS SHALL BE INSTALLED PERPENDICULAR TO THE EDGE OF THE PLANTING AREA. THE PANELS SHALL BE INSTALLED PERPENDICULAR TO THE DGE OF PAVED SURFACE IN ACCORDANCE WITH THE MANUFACTURER'S STSANDARDS FOR A 'LINEAR' APPLICATION; THE ROOT BARRIER PANELS SHALL NOT BE INSTALLED IN THE PLANTING PIT AS A 'SURROUND' APPLICATION, UNLESS SPECIFIED ON THE FINAL LANDSCAPE PLANS. THE TOP OF THE ROOT BARRIER PANEL SHALL BE INSTALLED SUCH THAT ½" OF THE ROOT BARRIER IS ABOVE THE FINISHED GRADE.

(1)6) COMPOST AMENDED TOP SOILS REQUIRED – TOPSOIL SOURCE SHALL BE REVIEWED AND APPROVED DURING THE PRE-CONSTRUCTION MEETING; ALL TOPSOIL SHALL BE A TOP QUALITY SANDY-LOAM MIX, OR EQUIVALENT AS APPROVED BY THE PLANNING DEPARTMENT. THE TOPSOIL SHALL BE AMENDED ON SITE DURING INSTALLATION WITH COMPOST TO ACHIEVE A 40 PERCENT BY VOLUME TOPSOIL MIX IN THE RIGHT-OF-WAY PLANTER STRIP. IMPORTED TOPSOIL MAY BE USED BY THE CONTRACTOR IF DATA 'CUT SHEETS' ARE AVAILABLE FROM THE SUPPLIER CERTIFYING COMPOST AMENDMENT EQUALING 40 PERCENT BY VOLUME USING ONE OF THE APPROVED COMPOST SOURCES BELOW. COMPOST SHALL ONLY BE SOURCED FROM:

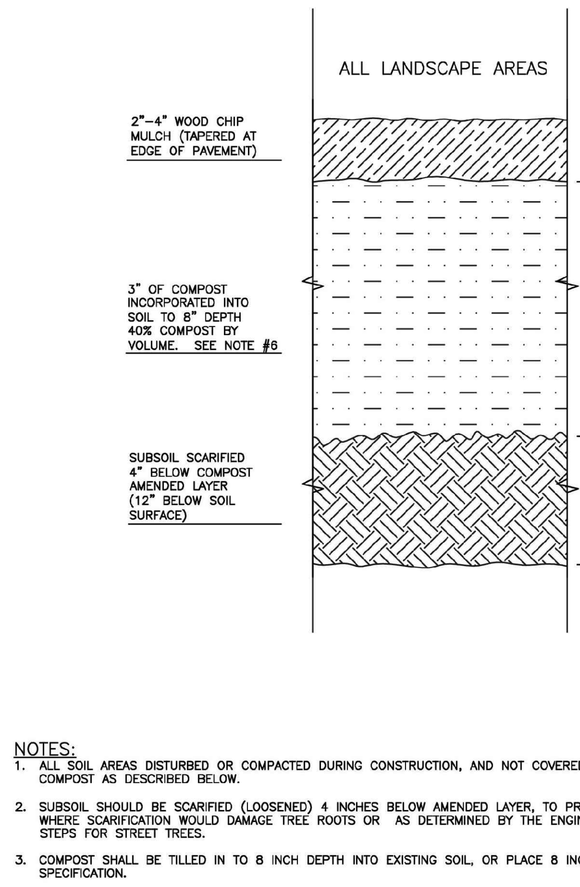
–CASCADE COMPOST (ALSO KNOWN AS PREP/LRI) (AVAILABLE THROUGH PIERCE COUNTY RECYCLING, COMPOSTING & DISPOSAL, 10308 SALES ROAD, TACOMA, WASHINGTON 98499, OR RETAIL/WHOLESALE LANDSCAPE MATERIAL SUPPLIERS)

–TAGRO COMPOST MIX (AVAILABLE THROUGH CITY OF TACOMA, 2201 EAST PORTLAND AVENUE, GATE 6, TACOMA, WA 98421, OR RETAIL/WHOLESALE LANDSCAPE MATERIAL SUPPLIERS)

–CEDAR GROVE COMPOST (AVAILABLE THROUGH CEDAR GROVE COMPOST, 17825 CEDAR GROVE ROAD SE, MAPLE VALLEY, 98038, OR RETAIL/WHOLESALE LANDSCAPE MATERIAL SUPPLIERS)

(1)7) INSTALL AND AMEND TOPSOILS – TO AVOID STRATIFIED LAYERS, FIRST PLACE SEVEN INCHES (7") OF APPROVED TOPSOIL IN THE PREPARED/SCARIFIED PLANTING STRIP AREA AND MECHANICALLY TILL IN FIVE INCHES (5") OF APPROVED COMPOST; FOLLOW THIS PROCEDURE TWICE TO ACHIEVE THE TOTAL 24" TOPSOIL DEPTH. FINISHED GRADE OF TOPSOIL SHOULD BE ½" BELOW THE EDGE OF SIDEWALK TO ALLOW THE ROOT BARRIER PANEL TO BE PROPERLY INSTALLED ABOVE FINISHED GRADE.

(1)8) INSTALL TREE STAKES AND FINISH MULCH – PLACEMENT OF FOUR INCHES (4") OF WOOD CHIP MULCH, WATER BASIN RINGS, TREE STAKING AND TEMPORARY IRRIGATION BAGS (WHERE REQUIRED) SHALL FOLLOW CITY STANDARD #01.02.07



NOTES:
1. ALL SOIL AREAS DISTURBED OR COMPACTED DURING CONSTRUCTION, AND NOT COVERED BY BUILDINGS OR PAVEMENT, SHALL BE AMENDED WITH COMPOST AS DESCRIBED BELOW.
2. SUBSOIL SHOULD BE SCARIFIED (LOOSENED) 4 INCHES BELOW AMENDED LAYER, TO PRODUCE 12-INCH DEPTH OF UN-COMPACTED SOIL, EXCEPT WHERE SCARIFICATION WOULD DAMAGE TREE ROOTS OR AS DETERMINED BY THE ENGINEER. SEE NOTE BELOW REGARDING PLANTING STEPS FOR STREET TREES.
3. COMPOST SHALL BE TILLED IN TO 8 INCH DEPTH INTO EXISTING SOIL, OR PLACE 8 INCHES OF COMPOST-AMENDED SOIL, PER SOIL SPECIFICATION.
4. PLANTING BEDS SHALL RECEIVE 3 INCHES OF COMPOST TILLED IN TO 8-INCH DEPTH, OR MAY SUBSTITUTE 8" OF IMPORTED SOIL CONTAINING 35-40% COMPOST BY VOLUME. MULCH AFTER PLANTING, WITH 4 INCHES OF ARBORIST WOOD CHIP MULCH OR APPROVED EQUAL (6" OF LOOSE WOOD CHIPS AT THE TIME OF PLANTING TO ALLOW SETTLING TO 4").
5. SETBACKS: TO PREVENT UNEVEN SETTLING, DO NOT COMPOST-AMEND SOILS WITHIN 3 FEET OF UTILITY INFRASTRUCTURES (POLES, VAULTS, METERS ETC.). WITHIN ONE FOOT OF PAVEMENT EDGE, CURBS AND SIDEWALKS SOIL SHOULD BE COMPACTED TO APPROXIMATELY 95% PROCTOR TO ENSURE A FIRM SURFACE.
6. SEE SECTION 8.2(B) OF THE VMS FOR SOIL AMENDMENT AND INSTRUCTION PROCEDURES FOR STREET TREE PLANTER STRIPS. ALL STREET TREE PLANTER STRIPS SHALL RECEIVE 40% COMPOST AMENDED SOIL TO THE FULL DEPTH OF THE STREET TREE ROOTBALL.

CITY OF PUYALLUP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

SOIL AMENDMENT AND DEPTH

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
LINDA LIAN	CHRIS BEALE	COLLEEN HARRIS	XXXX	01.02.08a
FILE NAME: F:\DWG\COMMON\STDS\CITYSTDS\STR\01.02.08		DATE APPROVED: 08/01/2015	DATE REVISED: XX/XX/XX	SCALE: 1:1

1 SOIL AMENDMENT AND DEPTH

NOT TO SCALE

CITY OF PUYALLUP MINIMUM SOIL REQUIREMENTS:

SOIL PREPARATION IN ALL DISTURBED AREAS WITH NEW LANDSCAPING SHALL CONFORM TO SPECIFICATIONS PROVIDED IN BMP T5.13 - THE "STORM WATER MANAGEMENT MANUAL OF WESTERN WASHINGTON", DEPARTMENT OF ECOLOGY, DATED AUGUST 2012, OR AS SUBSEQUENTLY AMENDED. COMPACTION OF LANDSCAPED AREAS FROM VEHICLES AND HEAVY EQUIPMENT SHALL BE AVOIDED AFTER TILLING.

SEE SHEETS L1, L2 AND L4 FOR ADDITIONAL PLANTING SPECIFICATIONS. CONFORM TO THE SPECIFICATIONS AND DRAWINGS IN THESE LANDSCAPE PLANS AND THE REQUIREMENTS OF CITY OF PUYALLUP VEGETATION MANAGEMENT STANDARDS (VMS). WHERE THERE IS A CONFLICT CONFORM TO THE MORE STRINGENT REQUIREMENTS.

APPROVED

BY________________
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING

DATE________________

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.
FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE DEVELOPMENT ENGINEERING MANAGER.

No.	Date	By	Ckd.	Appr.	Revision
-	07/01/24	LRP	LP/JV	LRP	FIRST LANDSCAPE SUBMITTAL

Title: PLANT SCHEDULE & NOTES
CENTERIS VOLTAGE PARK

For: BENAROYA CAPITAL, LLC
CENTERIS DATA CENTERS
9675 SE 36TH ST, SUITE 115
MERCER ISLAND, WA 98040

STATE OF WASHINGTON
LAUREN R. PERRY
NO. 488 EXP. 2/18/25
LANDSCAPE ARCHITECT
07/01/2024

Scale: Horizontal 1" = 20' Vertical N/A

Designed LRP
Drawn LRP
Checked LP/JV
Approved LRP
Date 07/01/24

Barghausen Consulting Engineers, Inc.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222
barghausen.com

Job Number 18111

Sheet L3 of 10

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LANDSCAPE NOTES
FOR
CENTERIS VOLTAGE PARK
A PORTION OF THE NE 1/4, SE 1/4, NW 1/4 & SW 1/4, OF THE SE 1/4 OF SEC. 3,TWN. 19 N, RGE. 4 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON

LANDSCAPE NOTES AND REQUIREMENTS

1. ALL LANDSCAPE WORK SHALL COMPLY WITH LOCAL JURISDICTIONAL REQUIREMENTS. IF THERE IS A CONFLICT BETWEEN JURISDICTIONAL REQUIREMENTS AND THE CONTRACT DOCUMENTS, CONSTRUCTION DRAWINGS, NOTES, DETAILS, OR ANY OTHER DOCUMENTATION FOR THE WORK TO BE UNDERTAKEN, THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING IMMEDIATELY FOR CLARIFICATION.
2. COORDINATE NOTES, DETAILS, AND DRAWINGS PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL REVIEW THE SITE AND CONSTRUCTION DOCUMENTS AND IMMEDIATELY REPORT DISCREPANCIES TO THE LANDSCAPE ARCHITECT.
3. CONTRACTOR SHALL BE SKILLED AND KNOWLEDGEABLE IN THE FIELD OF WORK AND HAVE A MINIMUM OF FIVE (5) YEARS OF EXPERIENCE INSTALLING SIMILAR WORK. CONTRACTOR SHALL BE LICENSED TO PERFORM THE WORK SPECIFIED WITHIN THE PRESIDING JURISDICTION.
4. CONTRACTOR TO FURNISH ALL MATERIALS, LABOR, EQUIPMENT, AND RELATED ITEMS NECESSARY TO ACCOMPLISH TOPSOIL, TREATMENT, AND PREPARATION OF SOIL, FINISH GRADE, PLACEMENT OF SPECIFIED PLANT MATERIALS, COMPOST, STAKING, MULCH, CLEAN-UP, DEBRIS REMOVAL, AND 90 DAYS MAINTENANCE PER TREE, SHRUB, AND OTHER WOODY PLANT MANAGEMENT - STANDARD PRACTICES, LATEST EDITION (ANSI A300).
5. CONTRACTOR SHALL CLEARLY MARK ALL PROPERTY LINES AND LIMITS OF WORK PRIOR TO BEGINNING ANY WORK.
6. CONTRACTOR SHALL USE FULL SIZE CONSTRUCTION DOCUMENTS IN THE FIELD AT ALL TIMES.
7. CONTRACTOR SHALL KEEP ALL PAVEMENT CLEAN AND WORK AREAS IN AN ORDERLY CONDITION. PROTECT LANDSCAPE WORK AND MATERIALS FROM DAMAGE DUE TO LANDSCAPE OPERATIONS AND TRESPASSERS. CONTRACTOR SHALL REPAIR AREAS DAMAGED DUE TO CONSTRUCTION INCLUDING DAMAGE TO EXISTING IRRIGATION SYSTEMS, IF PRESENT, TO MATCH CONDITIONS PRIOR TO THE START OF CONSTRUCTION. MAINTAIN LANDSCAPE PROTECTION DURING INSTALLATION AND MAINTENANCE PERIOD. TREAT, REPAIR, OR REPLACE DAMAGED LANDSCAPE WORK AS DIRECTED BY OWNER'S REPRESENTATIVE.
8. ALL LANDSCAPE MATERIALS AND FINISH GRADES ARE SUBJECT TO APPROVAL BY THE LANDSCAPE ARCHITECT.

SUBMITTALS

9. SUBMIT FIVE (5) COPIES OF THE FOLLOWING TO THE LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO THE START OF ANY WORK:
   A. DOCUMENTATION THAT ALL PLANT MATERIAL HAS BEEN ORDERED
   B. TOPSOIL ANALYSIS AND RECOMMENDED AMENDMENTS
   C. TREE STAKING AND GUYING MATERIALS
   D. ONE (1) QUART SIZE SAMPLES OF TOPSOIL AND MULCH
   E. PLANTING SCHEDULE INCLUDING DATES AND TIMES
   F. MAINTENANCE INSTRUCTIONS FOR ONE (1) FULL YEAR

UTILITIES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARITY WITH ALL UNDERGROUND UTILITIES, PIPES, AND STRUCTURES. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY COST INCURRED DUE TO DAMAGE OF SAID UTILITIES. VERIFY ALL UTILITY LOCATIONS, PADS, AND APPURTENANCES PRIOR TO CONSTRUCTION. DO NOT BLOCK ACCESS TO UTILITY STRUCTURES. REPORT DISCREPANCIES IMMEDIATELY TO LANDSCAPE ARCHITECT AND OWNER'S REP.
2. TREE LOCATIONS TO BE COORDINATED WITH EXISTING AND PROPOSED UNDERGROUND UTILITIES TO ACHIEVE SEPARATION PER JURISDICTIONAL REQUIREMENTS. IF NO JURISDICTIONAL REQUIREMENTS, ALL TREES TO BE LOCATED MIN 10 FT FROM ALL UNDERGROUND UTILITIES. VERIFY UTILITY LOCATIONS PRIOR TO PLANTING TREES. NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY IF PROPOSED TREE LOCATIONS CONFLICT WITH UTILITY LOCATIONS.

MAINTENANCE

1. CONTRACTOR TO PROVIDE OWNER'S REP WITH A SCOPE OF WORK AT TIME OF INITIAL PROJECT BID TO PROVIDE LANDSCAPE AND IRRIGATION MAINTENANCE FOR 90 DAYS FOLLOWING COMPLETION OF PROJECT (ACCEPTANCE) OF FACILITY BY OWNER'S REP. PLANTING MAINTENANCE TO INCLUDE WATERING, WEEDING, CULTIVATING, TIGHTENING, REPAIRING OF TREE GUYS AND/OR STAKES, RESETTING PLANTS TO PROPER GRADES OR POSITION, RE-ESTABLISHING SETTLED GRADES, AND MOWING LAWNS WEEKLY AFTER LAWN ESTABLISHMENT. HERBICIDE IS NOT RECOMMENDED FOR ONE YEAR FOLLOWING LANDSCAPE INSTALLATION.
2. CONTRACTOR SHALL GUARANTEE ALL LANDSCAPE AND PLANT MATERIAL FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE OF THE WORK BY OWNER'S REP. BEGIN MAINTENANCE IMMEDIATELY FOLLOWING INSTALLATION. MAINTAIN THE PLANTING AREAS FOR ONE (1) YEAR AFTER ACCEPTANCE OF INSTALLATION BY OWNER'S REP.
3. REPAIR ALL EXISTING PLANTING AREAS BY REMOVING INVASIVE SPECIES, PRUNING DEAD GROWTH, RE-ESTABLISHING FINISH GRADE, AND RE-MULCHING TO SPECIFIED DEPTH FOLLOWING RECOMMENDATIONS PER ANSI A300.
4. PLANT ESTABLISHMENT PROCEDURES INCLUDE WATERING, PROTECTION FROM INSECTS OR DISEASE, WEEDING, PRUNING, MOWING, AND OTHER ACTIVITIES AS REQUIRED AND AS IDENTIFIED IN NOTES.
5. CONTRACTOR TO REPLACE DEAD PLANTS AND PLANTS SHOWING LOSS OF 40 PERCENT OR MORE OF CANOPY AT NO ADDITIONAL COST TO OWNER. IMMEDIATELY REPLACE DEFECTIVE MATERIALS AS DETERMINED BY OWNER'S REP OR LANDSCAPE ARCHITECT WITH PLANT MATERIALS OF THE SAME SPECIES AT A SIZE TO MATCH EXISTING ADJACENT MATERIALS.
6. UPON COMPLETION OF THE WARRANTY/PLANT ESTABLISHMENT PERIOD, APPLY MULCH FOR A FINAL FINISHED DEPTH OF FOUR (4) INCHES OF MULCH.
7. ANTI-DESICCANT TO BE "WILT-PROOF," FORTY-EIGHT (48) HOURS PRIOR TO SHIPMENT TO SITE FROM JUNE 1ST THROUGH SEPTEMBER 30TH, THOROUGHLY ROOT WATER PLANTS PRIOR TO DELIVERY. PLANT MATERIAL DELIVERED TO SITE TO BE KEPT CONTINUALLY MOIST THROUGH INSTALLATION.
8. UPON COMPLETION OF THE WARRANTY PERIOD, SUBMIT A WRITTEN REQUEST FOR FINAL INSPECTION TO THE OWNER'S REP. CONTRACTOR TO REPLACE OR REPAIR DEFICIENT ITEMS NOTED IN THE INSPECTION. CONTRACTOR ATTENDANCE IS REQUIRED AT SECOND INSPECTION WITH OWNER'S REP. OWNER'S REP TO ISSUE NOTICE OF ACCEPTANCE TO THE CONTRACTOR WHEN ALL WORK IS COMPLETED AND ACCEPTED.

CITY OF PUYALLUP MINIMUM SOIL REQUIREMENTS:

SOIL PREPARATION IN ALL DISTURBED AREAS WITH NEW LANDSCAPING SHALL CONFORM TO SPECIFICATIONS PROVIDED IN BMP T5.13 - THE "STORM WATER MANAGEMENT MANUAL OF WESTERN WASHINGTON", DEPARTMENT OF ECOLOGY, DATED AUGUST 2012, OR AS SUBSEQUENTLY AMENDED. COMPACTION OF LANDSCAPED AREAS FROM VEHICLES AND HEAVY EQUIPMENT SHALL BE AVOIDED AFTER TILLING.

SOIL PREPARATION NOTES AND REQUIREMENTS

GENERAL REQUIREMENTS

1. CONTRACTOR SHALL SUPPLY ALL SOILS, COMPOST, MULCHES, AND RELATED MATERIALS. CONTRACTOR SHALL DETERMINE THE VOLUME OF MATERIALS REQUIRED PER THE INFORMATION ON PLANS, DETAILS, AND NOTED HERE-IN.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY NECESSARY WEED CONTROL RESULTING FROM CONTAMINATED OFF-SITE MATERIAL SOURCES.
3. ALL LANDSCAPE AREAS, AREAS OF BARE SOIL, AREAS IMPACTED BY VEHICULAR USE OF ANY KIND, OR STORAGE OF MATERIALS OUTSIDE OF THE CLEARING LIMITS SHALL RECEIVE FULL SUBGRADE PREPARATION, INCLUDING COMPOST AND AMENDMENTS.
4. CONTRACTOR SHALL ACCOMMODATE ANY FLUFF FACTOR OR SETTLING OF SOILS. DEPTHS SHOWN ARE MINIMUMS.
5. AFTER ROUGH GRADING AND PRIOR TO SOIL PREPARATION, CONTRACTOR SHALL SEND TWO (2) REPRESENTATIVE SOIL SAMPLES FROM LOCATIONS AS DIRECTED BY THE LANDSCAPE ARCHITECT TO TESTING LABORATORY FOR TEST #A05-2. SUBMIT RESULTS TO LANDSCAPE ARCHITECT FOR REVIEW. TESTS TO INCLUDE FERTILITY AND SUITABILITY ANALYSIS WITH WRITTEN RECOMMENDATIONS FOR SOIL AMENDMENT, FERTILIZER, CONDITIONERS, APPLICATIONS RATES, AND POST-CONSTRUCTION MAINTENANCE PROGRAM. TESTS TO BE CONTRACTED WITH AND PAID FOR BY THE CONTRACTOR.
6. SOIL AMENDMENTS AND FERTILIZER NOTED BELOW ARE TO BE USED FOR BID PRICE BASIS ONLY. SPECIFIC AMENDMENTS AND FERTILIZERS WILL BE MADE AFTER SOIL SAMPLES ARE LABORATORY TESTED BY THE CONTRACTOR. CONTRACTOR SHALL PROVIDE CHANGE ORDER FOR ADDITION OR REDUCTION OF MATERIALS REQUIRED OR NOT REQUIRED BY THE SOILS REPORT.

MATERIALS

7. TOPSOIL TO CONSIST OF EQUAL PARTS BY VOLUME SANDY LOAM, COMPOST, AND COARSE-WASHED SAND OR EQUIVALENT, PROCESSED THROUGH A 1/2" SIEVE. TOPSOIL SHALL NOT CONTAIN ANY RECYCLED MATERIAL, FOREIGN MATERIALS, OR ANY LISTED NOXIOUS AND NUISANCE WEEDS OF ANY CLASS DESIGNATED BY AUTHORIZED STATE OR COUNTY OFFICIALS. AT MINIMUM, TOPSOIL PRODUCTS BROUGHT ON SITE SHALL CONTAIN AMENDMENTS AS LISTED BELOW.
8. COMPOST PRODUCTS SHALL BE THE RESULT OF THE BIOLOGICAL DEGRADATION AND TRANSFORMATION OF ORGANIC MATERIALS UNDER CONTROLLED CONDITIONS DESIGNED TO PROMOTE AEROBIC DECOMPOSITION. COMPOST SHALL BE STABLE WITH REGARD TO OXYGEN CONSUMPTION AND CARBON DIOXIDE GENERATION. COMPOST SHALL BE MATURE WITH REGARD TO ITS SUITABILITY FOR SERVING AS A SOIL AMENDMENT. THE COMPOST SHALL HAVE A MOISTURE CONTENT THAT HAS NO VISIBLE FREE WATER OR DUST PRODUCED WHEN HANDLING THE MATERIAL.
   A. FINE COMPOST SHALL MEET THE FOLLOWING GRADATION:
      i. PERCENT PASSING 1" SIEVE SIZE: MIN 100%
      ii. PERCENT PASSING 5/8" SIEVE SIZE: MIN 90%, MAX 100%
      iii. PERCENT PASSING 1/4" SIEVE SIZE: MIN 75%, MAX 100%
   B. COARSE COMPOST SHALL MEET THE FOLLOWING GRADATION:
      i. PERCENT PASSING 2" SIEVE SIZE: MIN 100%
      ii. PERCENT PASSING 1" SIEVE SIZE: MIN 90%, MAX 100%
      iii. PERCENT PASSING 3/4" SIEVE SIZE: MIN 70%, MAX 100%
      iv. PERCENT PASSING 1/4" SIEVE SIZE: MIN 40%, MAX 60%
   C. MINIMUM ORGANIC MATTER OF COMPOST PRODUCTS SHALL BE 40% BY DRY WEIGHT.
   D. THE COMPOST PRODUCT SHALL ORIGINATE FROM ORGANIC WOOD WASTE, YARD DEBRIS, POST-CONSUMER FOOD WASTE, PRE-CONSUMER ANIMAL-BASED WASTES, AND/OR PRE-CONSUMER VEGETATIVE WASTE. THE CONTRACTOR SHALL PROVIDE A LIST OF COMPOST SOURCES BY PERCENTAGE IN THE FINAL COMPOST PRODUCT TO THE LANDSCAPE ARCHITECT.
9. ARBORIST CHIP MULCH SHALL BE COARSE GROUND WOOD CHIPS (APPROXIMATELY 1/2" TO 6" ALONG THE LONGEST DIMENSION) DERIVED FROM THE MECHANICAL GRINDING OR SHREDDING OF THE ABOVE-GROUND PORTIONS OF TREES. IT MAY CONTAIN WOOD, WOOD FIBER, BARK, BRANCHES, AND LEAVES; BUT IT MAY NOT CONTAIN VISIBLE AMOUNTS OF SOIL. IT SHALL BE FREE OF WEEDS AND WEED SEEDS INCLUDING, BUT NOT LIMITED TO, ANY LISTED NOXIOUS AND NUISANCE WEEDS OF ANY CLASS DESIGNATED BY AUTHORIZED STATE OR COUNTY OFFICIALS. IT MAY NOT CONTAIN MORE THAN 1/2 PERCENT BY WEIGHT OF MANUFACTURED INERT MATERIAL (PLASTIC, CONCRETE, CERAMICS, METAL, ETC.). WHEN TESTED, ARBORIST CHIP MULCH SHALL MEET THE FOLLOWING LOOSE VOLUME GRADATION:
   A. PERCENT PASSING 2" SIEVE SIZE: MAX 100%
   B. PERCENT PASSING 1" SIEVE SIZE: MAX 100%
   C. PERCENT PASSING 5/8" SIEVE SIZE: MAX 50%
   D. PERCENT PASSING 1/4" SIEVE SIZE: MAX 40%

SOIL AMENDMENTS

10. FERTILIZER SHALL BE A STANDARD COMMERCIAL GRADE OF ORGANIC FERTILIZER. IT MAY BE SEPARATE OR IN A MIXTURE CONTAINING THE PERCENTAGE OF TOTAL NITROGEN, AVAILABLE PHOSPHORIC ACID, AND WATER-SOLUBLE POTASH OR SULFUR IN THE AMOUNTS RECOMMENDED IN THE SOILS REPORT. ALL FERTILIZERS SHALL BE FURNISHED IN STANDARD UNOPENED CONTAINERS WITH WEIGHT, NAME OF PLANT NUTRIENTS, AND MANUFACTURER'S GUARANTEED STATEMENT OF ANALYSIS CLEARLY MARKED, ALL IN ACCORDANCE WITH STATE AND FEDERAL LAWS.
11. TOPSOIL TO INCLUDE THE FOLLOWING AMENDMENTS AS NECESSARY PER 1,000 SQUARE FT. ALL AMENDMENTS TO BE THOROUGHLY MIXED PRIOR TO INCORPORATION INTO SUBGRADE:
    A. SIX (6) CUBIC YARDS ORGANIC FINE COMPOST.
    B. THIRTY (30) POUNDS NITROFORM (38-0-0)
    C. FIVE (5) POUNDS AMMONIUM SULFATE
    D. FORTY (40) POUNDS CALCIUM CARBONATE LIMESTONE
    E. FORTY (40) POUNDS DOLOMITE LIMESTONE
    F. FIVE (5) OUNCES BORON (AS BORAX)

SUBGRADE PREPARATION

12. ESTABLISH SUBGRADE ELEVATIONS THAT WILL ACCOMMODATE TOPSOIL, AMENDMENT, AND MULCH DEPTHS. SUBGRADE PREPARATION FOR PLANTING AND LAWN AREAS SHALL BE AS FOLLOWS, UON:
    A. RIP SUB-GRADE TO A DEPTH OF SIX (6) INCHES.
    B. REMOVE COBBLES, ROCKS, CONCRETE, ASPHALT, AND OTHER DEBRIS OVER TWO (2) INCHES IN DIAMETER FOR PLANTING AND BIORETENTION AREAS AND ONE-HALF (1/2) INCH DIAMETER FOR LAWN AREAS.
13. ERADICATE ANY SURFACE VEGETATION ROOTED IN THE SUBGRADE PRIOR TO SUBGRADE PREPARATION.
14. THOROUGHLY SCARIFY AND RIP ALL LANDSCAPE SUB-GRADES THAT HAVE BECOME COMPACTED TO A DEPTH OF TWELVE (12) INCHES WITH MULTIPLE PASSES, 90 DEGREES TO EACH OTHER. SCARIFY AREAS INACCESSIBLE TO MECHANIZED EQUIPMENT AND AROUND EXISTING PLANTINGS NOTED TO REMAIN WITH HAND TOOLS.
15. VERIFY THAT ALL SOIL CONTAMINANTS (INCLUDING, BUT NOT LIMITED TO, PAINT, SEALANTS, SOLVENTS, OILS, GREASES, CONCRETE/ASPHALT SPOILS, ETC.) HAVE BEEN SATISFACTORILY REMOVED FROM ALL PLANTING AREAS. REMOVE ANY ASPHALT EXTENDING BEYOND SIX (6) INCHES FROM CURBS INTO ADJACENT LANDSCAPES. DO NOT BEGIN WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED AND APPROVED BY OWNER'S REPRESENTATIVE.
16. CONTRACTOR SHALL PLACE TOPSOIL WITH AMENDMENTS ON PREPARED SUBGRADE PER DETAILS.
17. MOISTEN PREPARED AREAS BEFORE PLANTING IF SOIL IS DRY. WATER THOROUGHLY AND ALLOW SURFACE TO DRY BEFORE PLANTING. DO NOT CREATE MUDDY SOIL.

18. ALL SOILS IN ALL LANDSCAPE INSTALLATIONS SHALL CONFORM TO THE FOLLOWING SOIL DEPTH AND QUALITY REQUIREMENTS. PLEASE REFER TO APPENDIX 20.9 FOR FURTHER INSTALLATION GUIDANCE: A MINIMUM OF EIGHT (8) INCHES OF TOP SOIL, CONTAINING TEN PERCENT DRY WEIGHT IN PLANTING BEDS, AND 5% ORGANIC MATTER CONTENT IN TURF AREAS, AND A PH FROM 6.0 TO 8.0 OR MATCHING THE PH OF THE ORIGINAL UNDISTURBED SOIL. THE TOPSOIL LAYER SHALL HAVE A MINIMUM DEPTH OF EIGHT INCHES (8") EXCEPT WHERE TREE ROOTS LIMIT THE DEPTH OF INCORPORATION OF AMENDMENTS NEEDED TO MEET THE CRITERIA. SUBSOILS BELOW THE TOPSOIL LAYER SHOULD BE SCARIFIED AT LEAST SIX (6) INCHES WITH SOME INCORPORATION OF THE UPPER MATERIAL TO AVOID STRATIFIED LAYERS, WHERE FEASIBLE. INSTALLATION OF THE EIGHT INCHES (8") OF TOP SOIL, AS DESCRIBED ABOVE, SHALL GENERALLY BE ACHIEVED BY PLACING FIVE INCHES (5") OF IMPORTED SANDY-LOAM TOP SOIL INTO PLANNED LANDSCAPE AREAS (SUB-BASE SCARIFIED FOUR INCHES (4") WITH A THREE INCH (3") LAYER OF COMPOST TILLED INTO THE ENTIRE DEPTH.

FINAL GRADING AND MULCHING

19. ALL FINISH GRADES TO BE SMOOTH, EVEN GRADES AND LIGHTLY COMPACTED, AS SHOWN ON THE PLAN AND DETAILS. PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS AND STRUCTURES. SEE GRADING PLANS FOR FINAL ELEVATIONS.
20. ALL LANDSCAPE AREAS NOT COVERED BY LAWN AND/OR SEED SHALL RECEIVE FOUR (4) INCHES OF MULCH. FINELY GRADE MULCH AWAY FROM TREE TRUNKS AND SHRUB STEMS. DO NOT PLACE MULCH DIRECTLY AGAINST TREE TRUNKS OR STEMS.

NOTES

1. ZONE: LIMITED MANUFACTURING (ML)
2. FIVE PERCENT OF PAVEMENT SHALL BE LANDSCAPED:
   2.1. 44,880 SF PAVEMENT X 5 PERCENT = 2,244 SF LANDSCAPING REQUIRED
3. PERIMETER LANDSCAPING REQUIRED. THE PERIMETER OF ALL SITES SHALL BE LANDSCAPED THE FULL DEPTH OF THE REQUIRED SETBACKS FOR THE SUBJECT SITE, OR 12 FEET, WHICHEVER IS LESS; HOWEVER, IN NO EVENT SHALL A PERIMETER LANDSCAPING BUFFER BE SMALLER THAN SIX FEET.
4. STORM WATER CONTROL FACILITIES. OPEN STORM DETENTION/RETENTION PONDS AND SWALES THAT ARE VISIBLE FROM PUBLIC RIGHTS-OF-WAY OR FROM COMMON AREAS (E.G., COURTYARDS, PLAZAS) SHALL BE LANDSCAPED AND MAINTAINED AS FOLLOWS:
   4.1. FACILITIES REQUIRING SECURITY FENCING SHALL INCLUDE VEGETATION AROUND THE OUTER PERIMETER OF THE FENCE SUFFICIENT TO PROVIDE FULL SCREENING OF FENCING MATERIALS (EXCEPT ACCESS GATES) WITHIN THREE YEARS OF INSTALLATION. THE AREA WITHIN THE FENCE SHALL NOT BE LOCATED IN, OR BE CONSIDERED PART OF, REQUIRED LANDSCAPED AREAS.
   4.2. FACILITIES NOT REQUIRING SECURITY FENCING MAY BE INCLUDED IN ANY REQUIRED LANDSCAPED AREA, PROVIDED THEY DO NOT ENCROACH INTO REQUIRED BUFFER AREAS NOR DIMINISH REQUIRED SCREENING. THEY SHALL GRADED IN A MANNER THAT ALLOWS SAFE ACCESS TO THE WATER'S EDGE, AND SHALL BE DESIGNED TO PROVIDE VISUAL AMENITY TO THE SITE, INCLUDING: (I) A CURVILINEAR CONFIGURATION THAT PROVIDES A MORE NATURAL POND-LIKE APPEARANCE; AND (II) SUBSTANTIVE VEGETATION TYPICALLY FOUND IN AND NEAR NATURAL PONDS OR WETLANDS. IF A NARROW LINEAR BIO-SWALES IS USED, IT MAY BE PLANTED IN LAWN USING A SEED MIXTURE APPROPRIATE FOR WET CONDITIONS; PROVIDED, THAT ALL OTHER PLANT MATERIALS OTHERWISE REQUIRED IN THE AREA OF THE BIO-SWALES ARE INCORPORATED INTO A PLANTING AREA IMMEDIATELY AROUND THE BIO-SWALES AND WITHIN THE REQUIRED LANDSCAPE AREA.
   4.3. ALL VEGETATION IN STORM WATER CONTROL FACILITIES SHALL BE REGULARLY MAINTAINED. LAWN AREAS SHALL BE MAINTAINED IN A GROWING CONDITION AND REGULARLY MOWED. STORM WATER FACILITIES SHALL BE KEPT FREE OF WEEDS, DEBRIS AND SEDIMENT.
   4.4. STORM WATER FACILITIES PERMITTED ON OR AFTER JANUARY 1, 2017, SHALL BE MAINTAINED CONSISTENT WITH THE OPERATIONS AND MAINTENANCE MANUAL FOR THE FACILITY AND WITH THE REQUIREMENTS OF CHAPTER 21.10 PMC.
5. ALL LANDSCAPE INSTALLATIONS SHALL CONFORM TO THE CITY OF PUYALLUP VEGETATION MANAGEMENT STANDARDS, LATEST EDITION.

PLANTING NOTES AND REQUIREMENTS

1. TREES, WHIPS, SHRUBS, GROUND COVERS, CUTTINGS, LIVE STAKES, LIVE POLES, RHIZOMES, TUBERS, ROOTSTOCK, AND SEEDLINGS WILL HEREINAFTER BE REFERRED TO COLLECTIVELY AS "PLANTS" OR "PLANT MATERIAL".
2. THE CONTRACTOR SHALL ENSURE ADEQUATE AND PROPER CARE OF ALL PLANT MATERIAL AND WORK DONE ON THIS PROJECT UNTIL ALL PLANT ESTABLISHMENT PERIODS REQUIRED BY THE CONTRACT ARE COMPLETE OR UNTIL PHYSICAL COMPLETION OF THE PROJECT, WHICHEVER IS LAST. EXISTING VEGETATION SHALL NOT BE DISTURBED UNLESS REQUIRED BY THE CONTRACT OR APPROVED BY THE ENGINEER. CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING TREES, UON.
3. ADEQUATE AND PROPER CARE SHALL INCLUDE, BUT IS NOT LIMITED TO, KEEPING ALL PLANT MATERIAL IN A HEALTHY GROWING CONDITION BY WATERING, CULTIVATING, PRUNING, AND SPRAYING. PLANT MATERIAL CROWNS, RUNNERS, AND BRANCHES SHALL BE KEPT FREE OF MULCH AT ALL TIMES. THIS WORK SHALL INCLUDE KEEPING THE PLANTED AND SEEDED AREAS FREE FROM INSECT INFESTATION, WEEDS, OR UNWANTED VEGETATION, LITTER, AND OTHER DEBRIS ALONG WITH RETAINING THE FINISHED GRADES AND MULCH IN A NEAT AND UNIFORM CONDITION.
4. THE CONTRACTOR SHALL HAVE SOLE RESPONSIBILITY FOR THE MAINTENANCE AND APPEARANCE OF THE LANDSCAPE. THE CONTRACTOR SHALL CONTROL WEED AND PEST SPECIES WITHIN THE PROJECT AREA USING INTEGRATED PEST MANAGEMENT PRINCIPLES CONSISTING OF MECHANICAL, BIOLOGICAL, AND CHEMICAL CONTROLS AS DESIGNATED OR APPROVED BY THE ENGINEER OR LANDSCAPE ARCHITECT. THOSE WEEDS SPECIFIED AS NOXIOUS BY THE STATE DEPARTMENT OF AGRICULTURE, THE LOCAL WEED DISTRICT, OR THE COUNTY NOXIOUS WEED CONTROL BOARD, AND OTHER SPECIES IDENTIFIED BY THE CONTRACTING AGENCY, SHALL BE CONTROLLED ON THE PROJECT. GRASS GROWING WITHIN THE MULCH RING OF A PLANT SHALL BE CONSIDERED A WEED AND BE CONTROLLED ON THE PROJECT.
5. PRECON MEETING BETWEEN GENERAL CONTRACTOR, LANDSCAPE CONTRACTOR, AND OWNER'S REP REQUIRED PRIOR TO COMMENCEMENT OF PLANTING OPERATIONS TO REVIEW CONDITIONS AND IDENTIFY COORDINATION REQUIREMENTS.

PLANT MATERIAL

6. SEE PLANT SCHEDULE FOR SPECIES AND QUANTITIES OF PLANT MATERIAL. ALL PLANT MATERIAL SHALL BE NURSERY GROWN (NOT FIELD COLLECTED) AND SHALL BE CONTAINERIZED OR BALLED AND BURLAPPED. PLANT MATERIAL SHALL BE FROM A SINGLE NURSERY SOURCE FOR EACH SPECIFIED SPECIES/HYBRID. NURSERY SOURCES SHALL BE THOSE LOCATED IN THE SAME REGION AS THE JOB SITE.
7. NO SUBSTITUTION OF PLANT MATERIAL, SPECIES, OR VARIETY SHALL BE PERMITTED UNLESS WRITTEN EVIDENCE OF LACK OF PLANT MATERIAL IS SUBMITTED TO THE OWNER'S REP FROM TWO (2) QUALIFIED PLANT BROKERAGE OFFICES. SUBSTITUTIONS THAT ARE PERMITTED ARE TO BE IN WRITING FROM THE LANDSCAPE ARCHITECT. THE SPECIFIED SIZE, SPECIES, AND NEAREST VARIETY, AS APPROVED, SHALL BE FURNISHED. SUBSTITUTIONS MAY REQUIRE SUBMITTAL OF A REVISED LANDSCAPE PLAN FOR CITY APPROVAL.
8. PLANT MATERIAL SHALL COMPLY WITH STATE AND FEDERAL LAWS FOR DISEASE INSPECTION. PLANTS TO BE FULLY ALIVE, VIGOROUS, AND WELL-FORMED WITH WELL-DEVELOPED FIBROUS ROOT SYSTEMS. ROOT BALLS OF PLANTS TO BE SOLID AND FIRMLY HELD TOGETHER, SECURELY CONTAINED AND PROTECTED FROM INJURY AND DESICCATION. PLANTS DETERMINED BY OWNER'S REP TO HAVE DAMAGE, DEFORMITIES OF STEM, BRANCHES, OR ROOTS, LACK SYMMETRY, HAVE MULTIPLE LEADERS OR "Y" CROTCHES LESS THAN 30 DEGREES IN TREES, OR DO NOT MEET MINIMUM STANDARDS OF (AAN) AMERICAN STANDARDS FOR NURSERY STOCK, LATEST EDITION (ANSI Z60.1), WILL BE REJECTED.
9. SPECIFIED PLANT CONTAINER SIZE, HEIGHT, OR CALIPER IS THE MINIMUM ACCEPTABLE SIZE FOR ALL PLANT MATERIAL. MEASUREMENTS, CALIPER, BRANCHING, GRADING QUALITY, AND BALLING AND BURLAPPING MATERIAL SHALL CONFORM TO MINIMUM STANDARDS OF ANSI Z60.1, LATEST EDITION. PRUNE PLANTS RECEIVED FROM THE NURSERY ONLY UPON AUTHORIZATION BY THE LANDSCAPE ARCHITECT.
10. SEED MIXES TO BE COMMERCIALLY PREPARED AND SUPPLIED IN SEALED CONTAINERS. THE LABELS SHALL SHOW: COMMON AND BOTANICAL NAMES OF SEED, LOT NUMBER, NET WEIGHT, POUNDS OF PURE LIVE SEE (PLS) IN THE MIX, AND ORIGIN OF SEED.
11. HYDROSEED SPECIES AND SEEDING RATES TO BE DETERMINED. QUANTITIES FOR TACKIFIER, MULCH, FERTILIZER, AND ANY NEEDED NURSE SEED TO BE DETERMINED. OWNER'S REP TO PROVIDE SITE CONSTRUCTION AND HYDROSEED SCHEDULE TO LANDSCAPE ARCHITECT PRIOR TO INSTALLATION IN ORDER TO DEVELOP OVERALL SEEDING STRATEGY AND TO SPECIFY CORRECT QUANTITIES OF MATERIALS RELATED TO THE INSTALLATION OF HYDROSEED AND ASSOCIATED PRODUCTS AND MATERIALS. APPLY HYDROSEED PER MANUFACTURER'S AND SEED SUPPLIER'S RECOMMENDATIONS.
12. SOD GRASS: CONTRACTOR SHALL SUBMIT AVAILABLE SOD GRASS MIXTURES ON THE CURRENT MARKET TO THE LANDSCAPE ARCHITECT FOR SELECTION AND APPROVAL. THE SOD SHALL BE FIELD GROWN, ONE CALENDAR YEAR OR OLDER, HAVE A WELL-DEVELOPED ROOT STRUCTURE, AND BE FREE OF ALL WEEDS, DISEASE, AND INSECT DAMAGE. PRIOR TO CUTTING, THE SOD SHALL BE GREEN, IN AN ACTIVE AND VIGOROUS STATE OF GROWTH, AND MOWED TO A HEIGHT NOT EXCEEDING ONE (1) INCH. THE SOD SHALL BE CUT WITH A MINIMUM OF ONE (1) INCH OF SOIL ADHERING.
13. ROOT BARRIER: 24 INCH DEPTH UB-24 AS MANUFACTURED BY DEEP ROOT, OR APPROVED EQUAL; "LINEAR" APPLICATION (NOT "SURROUND" APPLICATION.

INSTALLATION

14. PLANT MATERIAL SHALL BE DELIVERED AFTER PREPARATION OF PLANTING AREAS HAS BEEN COMPLETED AND SHALL BE INSTALLED IMMEDIATELY. IF INSTALLATION IS DELAYED MORE THAN 6 HOURS AFTER DELIVERY, SET MATERIAL IN SHADE, PROTECT FOR WEATHER AND MECHANICAL DAMAGE, AND KEEP ROOT BALLS MOIST BY COVERING WITH MULCH, BURLAP, OR OTHER ACCEPTABLE MEANS OF RETAINING MOISTURE.
15. CONTRACTOR SHALL INSTALL PLANT MATERIALS ONLY AFTER ALL OTHER CONSTRUCTION OPERATIONS THAT CONFLICT HAVE BEEN COMPLETED. IF AN IRRIGATION SYSTEM IS TO BE INSTALLED, PLANT MATERIALS SHALL BE INSTALLED AFTER THE IRRIGATION SYSTEM HAS BEEN INSTALLED, TESTED, AND APPROVED BY THE OWNER'S REP.
16. PRIOR TO INSTALLATION, ALL PLANT MATERIAL SHALL BE APPROVED BY THE OWNER'S REP AT THE TIME OF DELIVERY TO THE SITE FOR CONFORMANCE WITH THE REQUIREMENTS OF THE PLANT SCHEDULE, PLANT SPECIFICATIONS, AND STORAGE AND HANDLING REQUIREMENTS. CONTRACTOR SHALL PROVIDE A MINIMUM OF TWO (2) WEEKS OF NOTICE PRIOR TO DELIVERY TO THE OWNER'S REP.
17. HANDLE PLANTS WITH CARE. DO NOT DAMAGE OR BREAK ROOT SYSTEM, BARK, OR BRANCHES. REPAIR AND/OR REPLACE ITEMS DAMAGED AS A RESULT OF WORK OR WORK THAT IS NOT IN COMPLIANCE WITH PLANS AND NOTES AS DIRECTED BY OWNER'S REP AT NO ADDITIONAL COST TO THE OWNER.
18. ARRANGE TREES AND SHRUBS ON SITE IN PROPOSED LOCATIONS PER PLANS. LAYOUT OF PLANTING AREAS AND PLACEMENT OF TREES, SHRUBS, AND GROUNDCOVERS SHALL BE APPROVED BY THE OWNER'S REP PRIOR TO INSTALLATION. UTILITY CLEARANCES FOR PLANT MATERIALS SHALL BE:
    a. GROUNDCOVER SHALL BE LOCATED MIN 24 INCHES FROM FIRE HYDRANTS AND UTILITY VAULTS.
    b. SHRUBS SHALL BE LOCATED MIN 3 FEET FROM BUILDING WALLS AND MIN 8 FEET FROM FIRE HYDRANTS AND UTILITY VAULTS.
    c. TREE TRUNKS SHALL BE LOCATED MIN 15 FEET FROM BUILDING WALLS AND STREET LIGHTS, MIN 10 FEET FROM UNDERGROUND UTILITIES, AND MIN 3 FEET FROM EDGE OF PLANTING AREA.
    d. TREE LOCATIONS MAY BE ADJUSTED TO ACCOMMODATE UTILITIES, BUILDING ENTRANCES, OR WINDOWS. ADJUSTMENTS GREATER THAN 15' OC MUST BE APPROVED BY LANDSCAPE ARCHITECT.
18. INSTALL ROOT BARRIER PER MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS ALONG THE EDGE OF THE SIDEWALK AND CURB LINE IN LOCATIONS INDICATED ON THE PLAN. HOLD TOP OF ROOT BARRIER $\frac{1}{2}$" ABOVE FINISHED GRADE OF TOPSOIL.
19. TREES SHALL BE INSTALLED FIRST; SHRUBS SECOND; AND GROUNDCOVERS THIRD. EXCAVATE PIT, PLANT, AND STAKE OR GUY AS CALLED OUT AND DETAILED. EXCAVATE PITS FOR GROUNDCOVERS TO A MIN 3 INCHES BELOW AND TWICE THE ROOT BALL DIA. WATER THOROUGHLY AND TAKE CARE TO ENSURE THAT ROOT CROWNS ARE AT PROPER GRADE AS DETAILED. ALL PLANT MATERIAL AND SUPPORTS TO STAND VERTICAL.
20. CONTRACTOR SHALL BACKFILL PLANTING PITS WITH PLANTING SOIL AS DEFINED IN SOIL PREPARATION NOTES. SETTLE PLANTING SOIL USING WATER ONLY. MECHANICAL COMPACTION IS NOT PERMITTED.
21. TREES SHALL BE STAKED OR GUYED PER DETAILS WITHIN TWENTY-FOUR (24) HOURS OF INSTALLATION. STAKES TO BE MIN 8 FEET LENGTH LODGEPOLE PINE STAKES WITH 2 INCH DIAMETER. GUY MATERIAL TO BE ONE (1) INCH WIDE POLYETHYLENE CHAIN LOCK TYPE TIES OR 3/8 INCH DIAMETER RUBBER. WIRE IS NOT PERMITTED.
22. LABEL AT LEAST ONE (1) TREE, SHRUB, AND GROUNDCOVER OF EACH VARIETY WITH A SECURELY ATTACHED, WATERPROOF TAG BEARING LEGIBLE DESIGNATION OF BOTANICAL AND COMMON NAMES.

APPROVED

BY____________________
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING

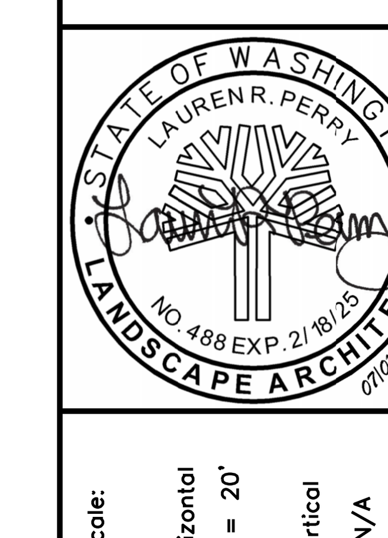
DATE____________________

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.
FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE DEVELOPMENT ENGINEERING MANAGER.

No.	Date	By	Ckd.	Appr.	Revision
-	07/01/24	LRP	LP/JV	LRP	FIRST LANDSCAPE SUBMITTAL

Title: LANDSCAPE NOTES
CENTERIS VOLTAGE PARK

For: BENAROYA CAPITAL, LLC
CENTERIS DATA CENTERS
9675 SE 36TH ST, SUITE 115
MERCER ISLAND, WA 98040



Scale: Horizontal 1" = 20' Vertical N/A

Designed LRP
Drawn LRP
Checked LP/JV
Approved LRP
Date 07/01/24

Barghausen Consulting Engineers, Inc.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222
barghausen.com

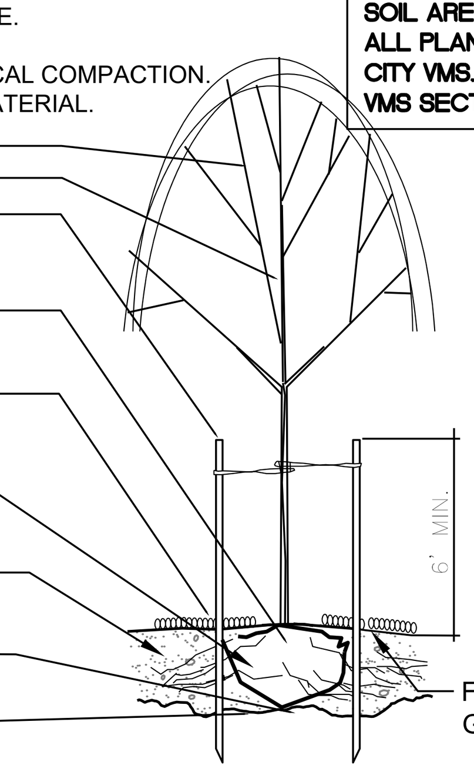
Job Number 18111

Sheet L4 of 10

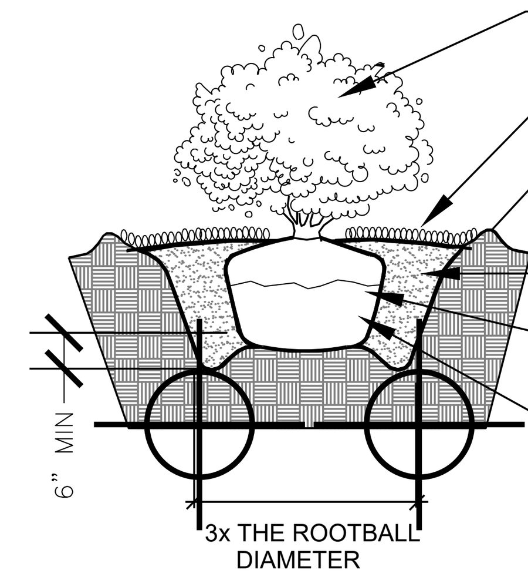
LANDSCAPE DETAILS
FOR
CENTERIS VOLTAGE PARK
A PORTION OF THE NE 1/4, SE 1/4, NW 1/4 & SW 1/4, OF THE SE 1/4 OF SEC. 3,TWN. 19 N, RGE. 4 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON

NOTES
1. KEEP ROOTBALL MOIST AND PROTECTED AT ALL TIMES.
2. HOLD CROWN OF ROOTBALL AT OR JUST ABOVE FINISH GRADE.
3. PROTECT TRUNK AND LIMBS FROM INJURY.
4. BACKFILL TO BE SETTLED USING WATER ONLY - NO MECHANICAL COMPACTION.
5. REMOVE ALL WRAP, TIES & CONTAINERS, REGARDLESS OF MATERIAL.

A MINIMUM OF 4 INCHES OF MULCH AND 8 INCHES OF COMPOST AMENDED SOIL ARE REQUIRED IN ALL PLANT BEDS PER CITY VMS. INSTALL PER VMS SECTION 8, 2A.



1 DECIDUOUS TREE PLANTING AND STAKING
NOT TO SCALE



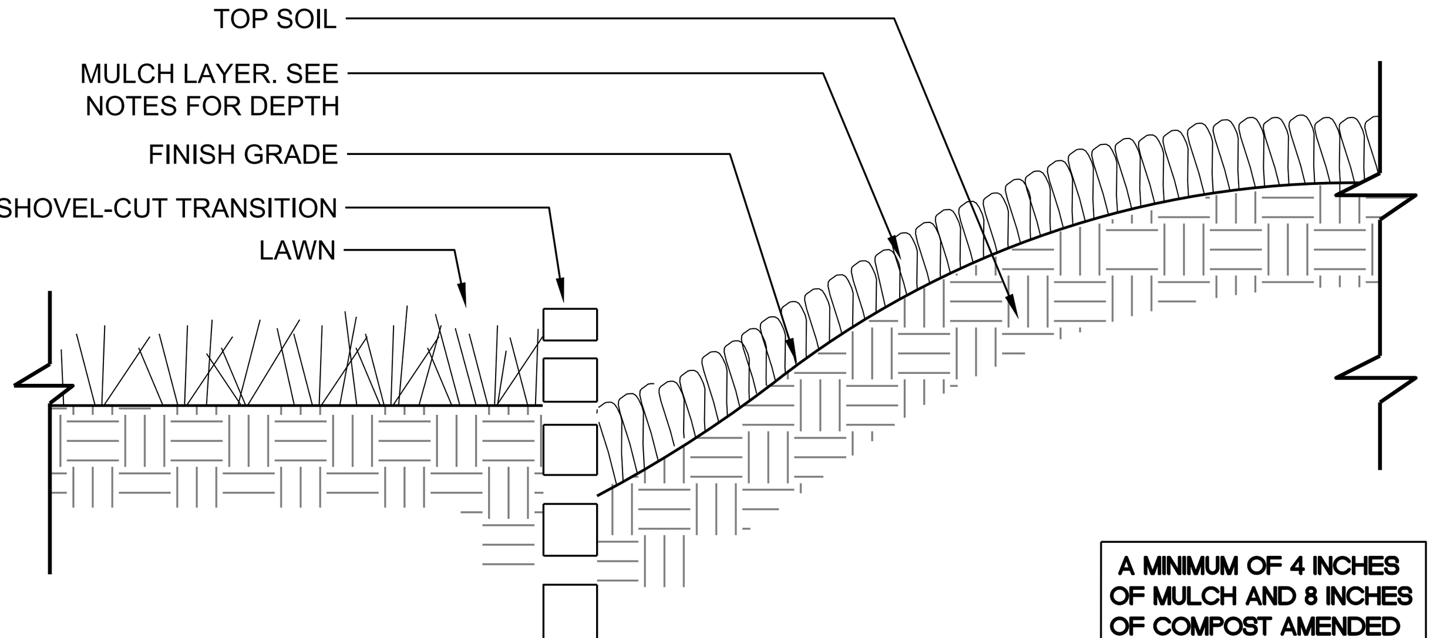
NOTE:

APPLY ADDITIONAL 4 OZ. 8-32-16 FERTILIZER INTO TOP 2" OF PLANTING SOIL.

PLANT SHRUB HIGH ENOUGH TO ALLOW POSITIVE DRAINAGE AWAY FROM ROOTBALL. ROUGHEN ALL SURFACES OF PIT.

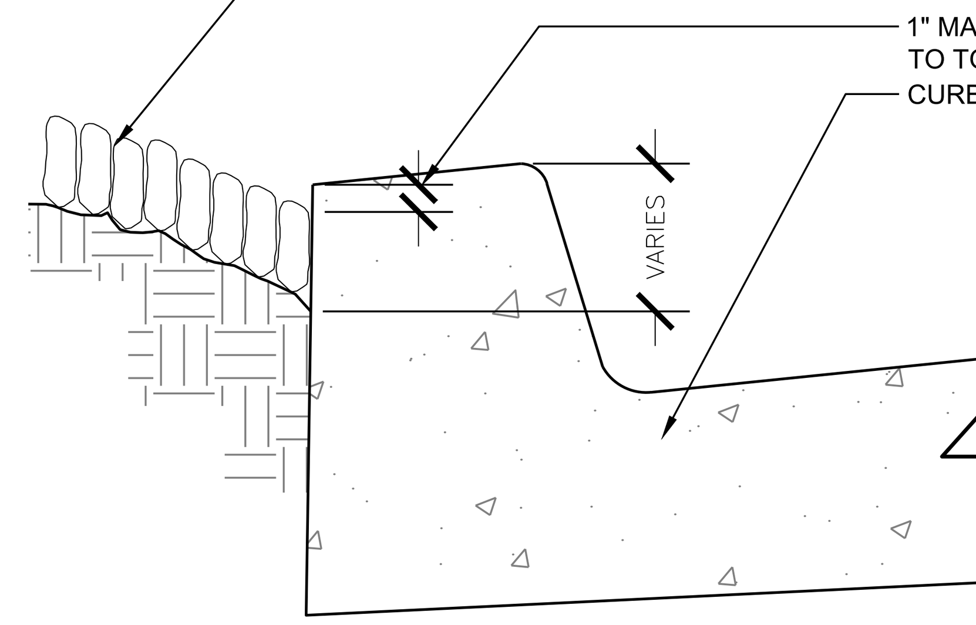
A MINIMUM OF 4 INCHES OF MULCH AND 8 INCHES OF COMPOST AMENDED SOIL ARE REQUIRED IN ALL PLANT BEDS PER CITY VMS. INSTALL PER VMS SECTION 8, 2A.

2 SHRUB PLANTING
NTS



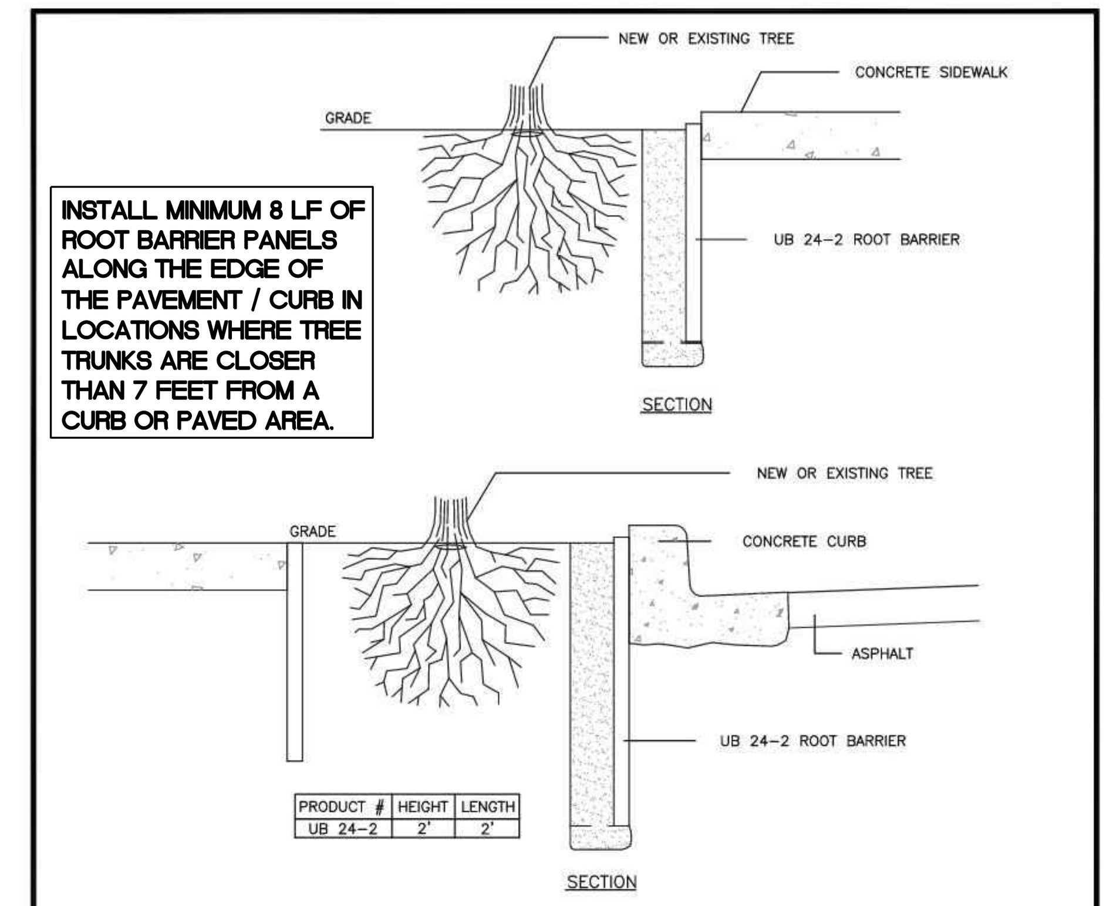
A MINIMUM OF 4 INCHES OF MULCH AND 8 INCHES OF COMPOST AMENDED SOIL ARE REQUIRED IN ALL PLANT BEDS PER CITY VMS. INSTALL PER VMS SECTION 8, 2A.

5 SHRUB BED AREA ADJACENT TO SEEDED AREA
NOT TO SCALE



A MINIMUM OF 4 INCHES OF MULCH AND 8 INCHES OF COMPOST AMENDED SOIL ARE REQUIRED IN ALL PLANT BEDS PER CITY VMS. INSTALL PER VMS SECTION 8, 2A.

6 MULCH AT CURB
NOT TO SCALE



INSTALL MINIMUM 8 LF OF ROOT BARRIER PANELS ALONG THE EDGE OF THE PAVEMENT / CURB IN LOCATIONS WHERE TREE TRUNKS ARE CLOSER THAN 7 FEET FROM A CURB OR PAVED AREA.

PRODUCT #	HEIGHT	LENGTH
UB 24-2	2'	2'

NOTES:
1. ROOT BARRIERS SHALL BE REQUIRED IN ALL STREET TREE PLANTING INSTALLATIONS WHETHER NEW OR EXISTING, WHEN STREET TREES ARE INSTALLED IN RIGHT-OF-WAY OR IN A PLANTING EASEMENT*.
2. ROOT BARRIERS USED SHALL BE DeepRoot ROOT BARRIERS OR EQUIVALENT.
3. UB – 24 SHALL BE USED
4. ROOT BARRIERS SHALL BE INSTALLED IF REQUIRED BY THE CITY.
5. INSTALLATION OF ROOT BARRIERS TO BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
6. THE PANEL SHALL BE INSTALLED SO THE VERTICAL RIBS FACE THE ROOTS OF THE TREE. A MINIMUM OF FOUR (4) PANELS SHALL BE INSTALLED ON EACH SIDE OF ROOT BALL FOR 8' OF PROTECTION.
7. FOR PRODUCT INFORMATION VISIT:
http://www.deeproot.com/template.php?sec=products&nav=treeRoot&content=rb_app&sub=2&lsel=1

*"PLANTING EASEMENT" SHALL MEAN THAT PORTION OF LAND MADE AVAILABLE AS A PUBLIC EASEMENT FOR THE PURPOSE OF PLANTING AND MAINTAINING CITY STREET TREES. ALL STREET TREES PLANTED WITHIN A PLANTING EASEMENT SHALL BE PLANTED WITHIN THREE FEET OF RIGHT-OF-WAY.

CITY OF PUYALLUP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

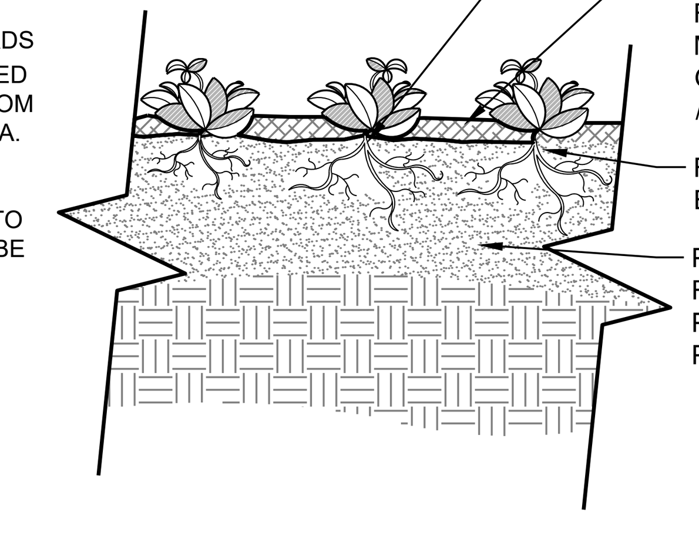
ROOT BARRIER DETAIL

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
JIM ERWIN-SVOBODA	CHRIS BEALE	COLLEEN HARRIS	LINDA LIAN	01.02.03
FILE NAME F:\DWG\COMMON\STDS\CITY\2009\01_STR\01.02\01.02.03		DATE APPROVED 07/01/2009	DATE REVISED 08/01/2015	SCALE 1:1

7 ROOT BARRIER
NOT TO SCALE

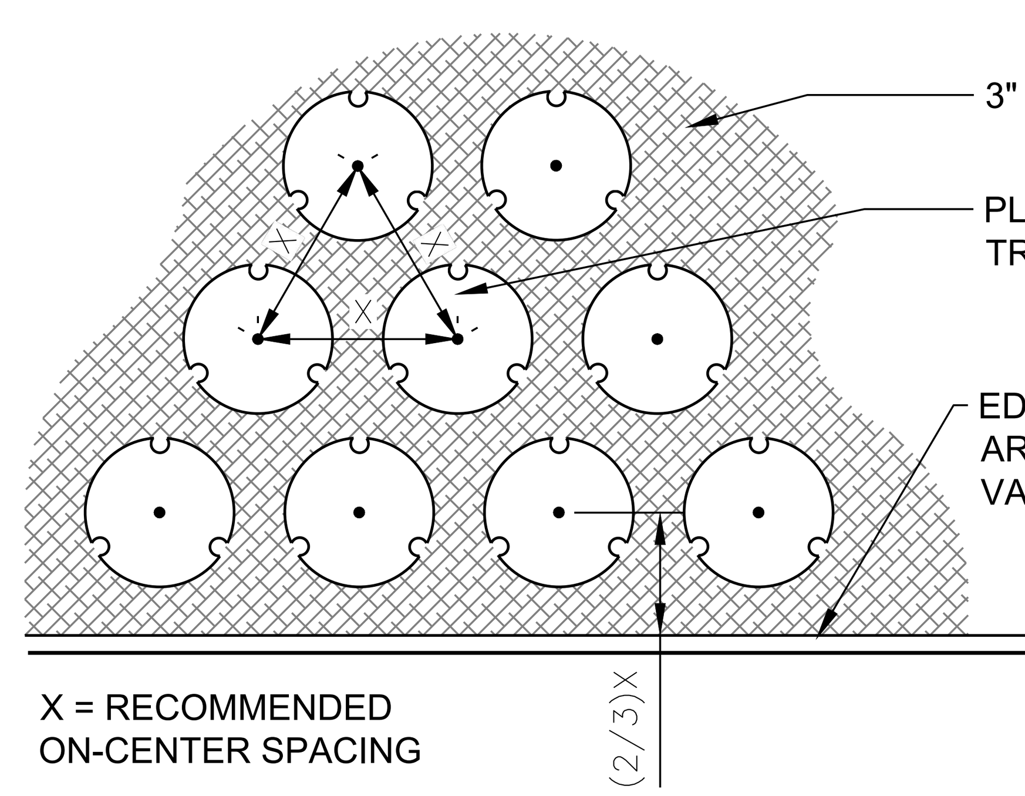
NOTES

1. SEE PLANT SCHEDULE FOR GROUNDCOVER SPECIES, SIZE, AND SPACING.
2. REMOVE CONTAINER AND WORK ROOTS FREE OF SOIL.
3. HOLD PLANTS TWO-THIRDS (2/3) OF THE RECOMMENDED O.C. PLANT SPACING FROM EDGE OF PLANTING AREA.
4. SETTLE SOIL AROUND ROOT BALL OF EACH GROUNDCOVER PRIOR TO MULCHING. SOIL SHALL BE SETTLED USING WATER ONLY.
5. DO NOT PLANT IN WET CONDITIONS. PROVIDE DRAINAGE FROM EACH PLANTING PIT IF NECESSARY.
6. ALL PLANTS SHALL BE INSTALLED PRIOR TO MULCHING.



A MINIMUM OF 4 INCHES OF MULCH AND 8 INCHES OF COMPOST AMENDED SOIL ARE REQUIRED IN ALL PLANT BEDS PER CITY VMS. INSTALL PER VMS SECTION 8, 2A.

3 GROUNDCOVER PLANTING
3/4" = 1'-0"



X = RECOMMENDED ON-CENTER SPACING

4 PLANT SPACING
1" = 1'-0"

APPROVED

BY____________
CITY OF PUYALLUP DEVELOPMENT ENGINEERING

DATE____________

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
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FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE DEVELOPMENT ENGINEERING MANAGER.

No.	Date	By	Ckd.	Appr.	Revision
-	07/01/24	LRP	LP/JV	LRP	FIRST LANDSCAPE SUBMITTAL

Title: LANDSCAPE DETAILS
CENTERIS VOLTAGE PARK

For: BENAROYA CAPITAL, LLC
CENTERIS DATA CENTERS
9675 SE 36TH ST, SUITE 115
MERCER ISLAND, WA 98040

STATE OF WASHINGTON · LAUREN R. PERRY · NO. 488 EXP. 2/18/25 · LANDSCAPE ARCHITECT
07/01/2024

Scale: Horizontal 1" = 20' Vertical N/A

Designed LRP
Drawn LRP
Checked LP/JV
Approved LRP
Date 07/01/24

Barghausen Consulting Engineers, Inc.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222
barghausen.com

Job Number 18111
Sheet L5 of 10

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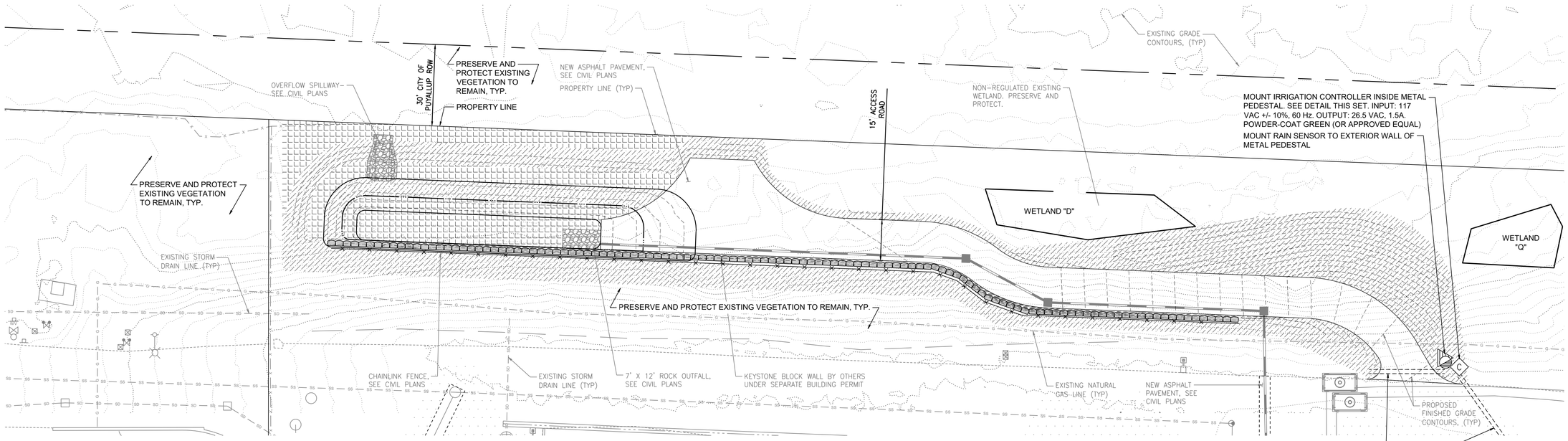
IRRIGATION PLAN

FOR

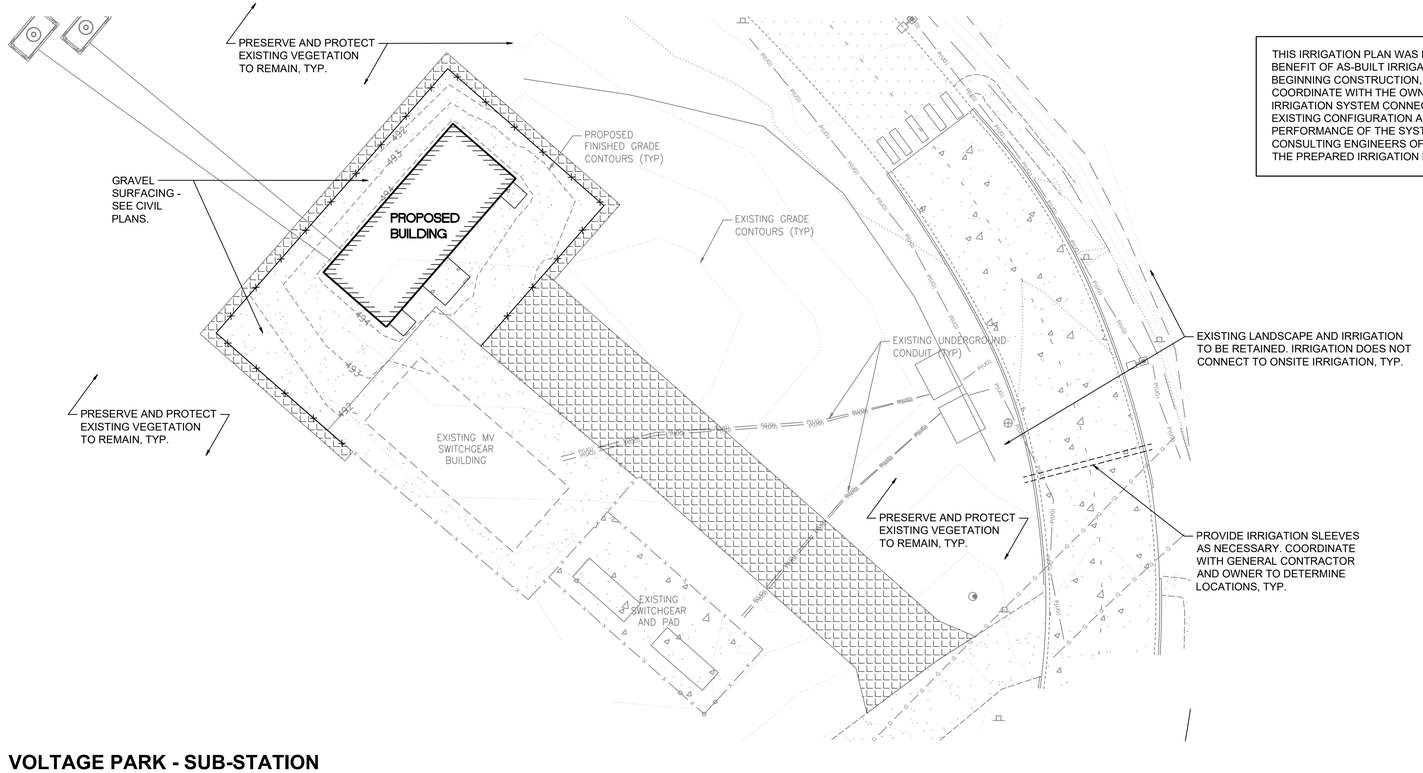
CENTERIS VOLTAGE PARK

A PORTION OF THE NE 1/4, SE 1/4, NW 1/4 & SW 1/4, OF THE SE 1/4 OF SEC. 3,TWN. 19 N, RGE. 4 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON



VOLTAGE PARK - NORTH UTILITY YARD POND

SCALE: 1" = 20'



VOLTAGE PARK - SUB-STATION

SCALE: 1" = 20'

THIS IRRIGATION PLAN WAS PREPARED WITHOUT THE BENEFIT OF AS-BUILT IRRIGATION PLANS. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO VERIFY EXISTING IRRIGATION SYSTEM CONNECTION LOCATIONS, EXISTING CONFIGURATION AND EQUIPMENT AND PERFORMANCE OF THE SYSTEM. NOTIFY BARGHAUSEN CONSULTING ENGINEERS OF ANY DISCREPANCIES WITH THE PREPARED IRRIGATION PLAN IN THIS DRAWING SET.

N

0 10' 20' 40'

SCALE: 1"=20'

APPROVED

BY_____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING

DATE_____

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
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No.	Date	By	Ckd.	Revision
-	07/01/24	LRP	LP/JV	FIRST LANDSCAPE SUBMITTAL
			LRP	Appr.

Title: IRRIGATION PLAN

CENTERIS VOLTAGE PARK

For:
BENAROYA CAPITAL, LLC
CENTERIS DATA CENTERS
9675 SE 36TH ST, SUITE 115
MERCER ISLAND, WA 98040

STATE OF WASHINGTON
LAUREN R. PERRY
NO 488 EXP. 2/18/25
LANDSCAPE ARCHITECT

Scale: Horizontal 1" = 20' Vertical N/A

Designed LRP Drawn LRP Checked LP/JV Approved LRP Date 07/01/24

Barghausen Consulting Engineers, Inc.
18215 72nd Avenue South
Kent, WA 98032
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Job Number 18111

Sheet L6 of 10

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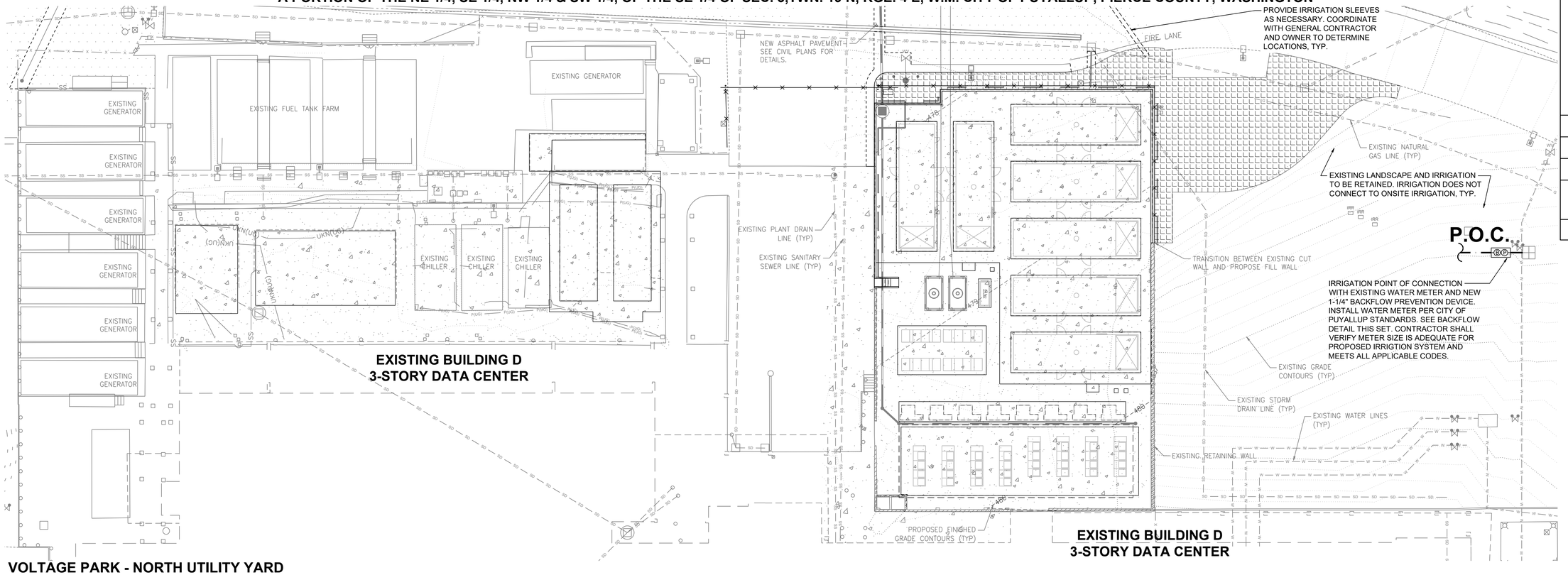
IRRIGATION PLAN

FOR

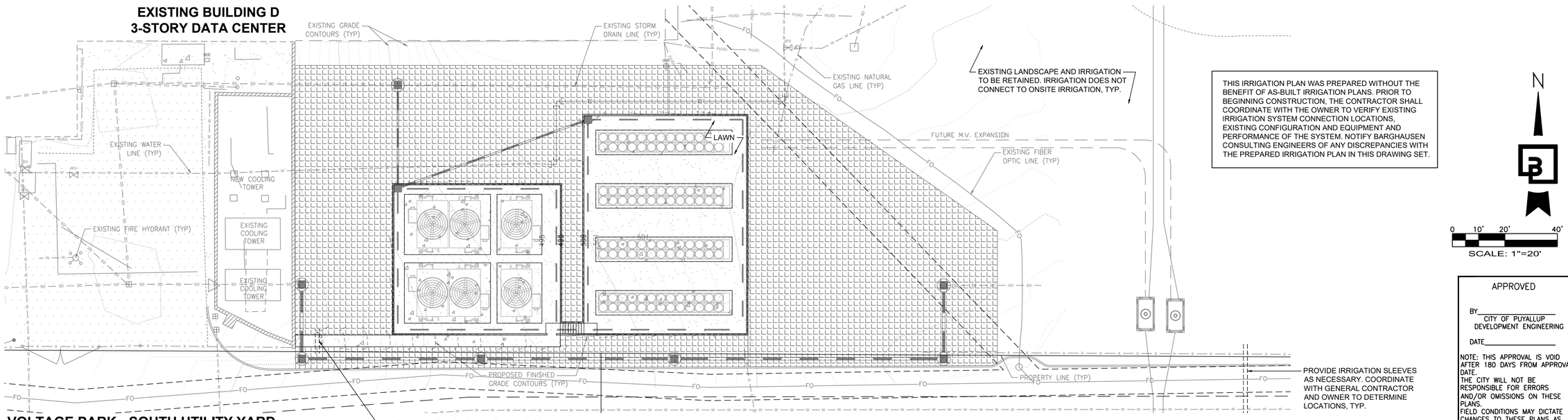
CENTERIS VOLTAGE PARK

A PORTION OF THE NE 1/4, SE 1/4, NW 1/4 & SW 1/4, OF THE SE 1/4 OF SEC. 3,TWN. 19 N, RGE. 4 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON



VOLTAGE PARK - NORTH UTILITY YARD

SCALE: 1" = 20'



VOLTAGE PARK - SOUTH UTILITY YARD

SCALE: 1" = 20'

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N

0 10' 20' 40'

SCALE: 1"=20'

APPROVED

BY_____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING

DATE_____

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
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No.	Date	By	Ckd.	Appr.	Revision
-	07/01/24	LRP	LP/JV	LRP	FIRST LANDSCAPE SUBMITTAL

Title: IRRIGATION PLAN

CENTERIS VOLTAGE PARK

For:
BENAROYA CAPITAL, LLC
CENTERIS DATA CENTERS
9675 SE 36TH ST, SUITE 115
MERCER ISLAND, WA 98040

STATE OF WASHINGTON
LAUREN R. PERRY
No 488 EXP 2/18/25
LANDSCAPE ARCHITECT
07/01/2024

Scale: Horizontal 1" = 20' Vertical N/A

Designed LRP
Drawn LRP
Checked LP/JV
Approved LRP
Date 07/01/24

Barghausen Consulting Engineers, Inc.
18215 72nd Avenue South
Kent, WA 98032
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Job Number 18111

Sheet L7 of 10

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IRRIGATION NOTES & DETAILS
FOR
CENTERIS VOLTAGE PARK

A PORTION OF THE NE 1/4, SE 1/4, NW 1/4 & SW 1/4, OF THE SE 1/4 OF SEC. 3,TWN. 19 N, RGE. 4 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON

LANDSCAPE IRRIGATION NOTES

1. GENERAL CONTRACTOR AND LANDSCAPE CONTRACTOR TO COORDINATE:
   - A) INSTALLATION OF 110V ELECTRICAL SERVICE FROM ELECTRICAL SOURCE TO AUTOMATIC CONTROLLER, INCLUDING WIRE HOOK-UP INTO MOUNTED CONTROLLER. IRRIGATION CONTRACTOR WILL MOUNT CONTROLLER PER DESIGN AND COORDINATE WITH GENERAL CONTRACTOR.
   - B) INSTALLATION OF IRRIGATION/SERVICE METER AND STUB TO IRRIGATION POINT OF CONNECTION, PER UTILITY PLAN(S). PROVIDE STANDARD THREADED STUB-OUT WITH THREADED CAP ON DISCHARGE SIDE OF METER. STUB-OUT TO BE INSTALLED APPROXIMATELY 18 INCHES BELOW FINISH GRADE.
   - C) VERIFICATION OF STATIC WATER PRESSURE AT POINT-OF-CONNECTION (P.O.C.) CONTRACTOR SHALL NOTIFY OWNER AND BARGHAUSEN CONSULTING ENGINEERS, INC., OF ANY VARIATION IN STATIC PRESSURE OVER 5 PSI GREATER/LESS THAN DESIGN PRESSURE.
   - D) INSTALLATION OF SLEEVING.
2. PROVIDE ALL LABOR, MATERIALS, TRANSPORTATION, AND SERVICES NECESSARY TO FURNISH AND INSTALL A COMPLETE IRRIGATION SYSTEM AS INDICATED ON THE DRAWINGS AND/OR NOTES. PROVIDE A ONE (1) YEAR WARRANTY/GUARANTEE FROM FINAL ACCEPTANCE AGAINST ALL DEFECTS IN MATERIALS, EQUIPMENT, AND WORKMANSHIP.
3. COORDINATE IRRIGATION INSTALLATION WITH GENERAL CONTRACTOR, ELECTRICAL CONTRACTOR, LANDSCAPE CONTRACTOR, OWNER, ARCHITECT, AND LANDSCAPE ARCHITECT.
4. LANDSCAPE CONTRACTOR TO TEST AVAILABLE WATER PRESSURE PRIOR TO BEGINNING ANY WORK. PROVIDE WRITTEN TEST RESULTS TO LANDSCAPE ARCHITECT.
5. ALL WORK PER LOCAL CODE. INSTALLATION PER MANUFACTURER'S WRITTEN SPECIFICATIONS.
6. CONTRACTOR TO OBTAIN AND PAY FOR ALL PERMITS, FEES, AND REQUIRED CITY INSPECTIONS.
7. SUBMITTALS:
   - A) SUBMIT FIVE (5) COPIES OF EACH ITEM LISTED BELOW FOR LANDSCAPE ARCHITECT'S REVIEW AND APPROVAL,
   - B) PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED,
   - C) CONTROL WIRING PATH DIAGRAM,
   - D) "AS-BUILT" DRAWINGS.
   - E) OPERATION AND MAINTENANCE MANUALS.
8. PROVIDE AND KEEP UP TO DATE A COMPLETE "AS-BUILT" RECORD SET OF PRINTS WHICH ARE TO BE CORRECTED DAILY AND SHOW EVERY CHANGE FROM THE ORIGINAL DRAWINGS AND NOTES AND EXACT "AS-BUILT" LOCATIONS, SIZES AND KIND OF EQUIPMENT. THIS SET OF DRAWINGS. ARE TO BE KEPT ON SITE AND ARE TO BE USED ONLY AS THE RECORD SET. ALL WORK IS TO BE NEAT AND LEGIBLE ANNOTATIONS THEREON DAILY AS THE WORK PROCEEDS, SHOWING WORK AS ACTUALLY INSTALLED.
   DIMENSION FORM TWO (2) PERMANENT POINTS OF REFERENCE, BUILDING CORNERS, WALKS, OR ROAD INTERSECTIONS, ETC., THE LOCATION OF THE FOLLOWING:
   - A) CONNECTION TO WATER LINES (P.O.C.),
   - B) CONNECTIONS TO ELECTRICAL POWER,
   - C) GATE VALVE, QUICK COUPLERS, AND REMOTE CONTROL VALVE,
   - D) ROUTING OF MAINLINE (DIMENSION MAXIMUM 100' ALONG ROUTING),
   - E) ROUTING OF CONTROL WIRING,
   - F) OTHER RELATED EQUIPMENT AS DIRECTED BY THE LANDSCAPE ARCHITECT.
9. PREPARE AND PROVIDE PRIOR TO COMPLETION OF CONSTRUCTION, A THREE RING BINDER CONTAINING THE FOLLOWING INFORMATION:
   - A) INDEX SHEET STATING CONTRACTOR'S ADDRESS, TELEPHONE NUMBER, FAX, E-MAIL AND A, LIST OF EQUIPMENT WITH NAME AND ADDRESS OF LOCAL MANUFACTURER'S REPRESENTATIVES,
   - B) CATALOG AND PARTS SHEETS ON EVERY MATERIAL AND EQUIPMENT INSTALLED UNDER THIS, CONTRACT,
   - C) GUARANTEE STATEMENT,
   - D) COMPLETE OPERATING AND MAINTENANCE INSTRUCTIONS ON ALL MAJOR EQUIPMENT.
   - E) CONSTRUCTION DETAILS FROM THE PROJECT,
   - F) COMPLETE TROUBLE-SHOOTING GUIDE TO COMMON IRRIGATION PROBLEMS,
   - G) WINTERIZATION AND SPRING START-UP PROCEDURES,
   - H) CHART OF APPROXIMATE WATERING TIMES FOR SPRING, SUMMER, AND FALL,
   - I) A COPY OF THE "AS-BUILT" DRAWINGS AND CONTROLLER CHART.
10. ALL VALVES TO BE PLACED IN "CARSON" GRADE LEVEL BOXES WITH BOLT-LOCK LIDS (OR APPROVED EQUIVALENT). SET BOXES 2 INCHES HIGHER THAN FINISH GRADE IN MULCH AREAS AND FLUSH WITH FINISH GRADE IN LAWN AREAS. JUMBO BOX FOR CHECK VALVE, 10" ROUND BOX FOR GATE/QUICK COUPLER/WIRE SPLICES, AND 12" STANDARD FOR CONTROL VALVES. PROVIDE BOX EXTENSIONS AS REQUIRED.
11. MAINLINE PIPE TO BE BURIED WITH 18" COVER, LATERALS 12" COVER, AND SLEEVES 24" COVER BELOW FINISH GRADE. NO ROCK OR DEBRIS TO BE BACKFILLED OVER PIPE.
12. HEAD AND LINE POSITIONING IS DIAGRAMMATIC ON PLAN. ADJUST IN FIELD AS NECESSARY FOR 100 PERCENT COVERAGE. VALVES TO BE POSITIONED ADJACENT TO PAVEMENT/CURBS, IN SHRUB BEDS WHERE POSSIBLE.
13. FAMILIARIZE OWNERS FACILITY OPERATOR WITH IRRIGATION SYSTEM FUNCTION, CONTROLLER PROGRAMMING, SYSTEM OPERATION AND MAINTENANCE REQUIREMENTS.
14. SPRINKLERS ON RISERS WILL NOT BE ALLOWED UNLESS NOTED ON PLANS.
15. RADIUS REDUCTION TO BE MADE BY USE OF PRESSURE ADJUSTMENT, SCREENS, AND/OR ALTERNATE NOZZLES. IN-NOZZLE ADJUSTMENT IS LIMITED TO 10 PERCENT FOR SPRAY HEADS AND PER MANUFACTURER'S LIMITS FOR OTHER SPRINKLERS. SPRINKLER SPACING NOT EXCEED 60% OF THE DIAMETER OF THE PUBLISHED DATA.
16. ALL CONTROL WIRE SPLICES TO BE MADE AT VALVE BOXES WITH WATER TIGHT ELECTRICAL SPLICES, 3M, SCOTT'S LOCK SEAL TACK 3576-78, OR EQUIVALENT.
17. EACH VALVE BOX TO CONTAIN A MINIMUM OF 1 DECODER, CONNECTED TO JACKETED HUNTER IDWIRE1 (14 GUAGE), RECOMMENDED FOR WIRE PATH LENGTH UP TO 10,000 FT OR HUNTER IDWIRE (12 GUAGE) FOR WIRE PATH LENGTH BEYONE 10,000 FT UP TO 15,000 FEET. THESE MAXIMUM WIRE PATH LENGTHS ARE FOR ACTIVATING UP TO 225 HUNTER DECODERS, 6 P/MV AND UP TO 6 SENSOR DECODERS. AVOID RUNNING POWER CABLES AND DECODER PATH IN PARALLEL. ALL WIRE PATHS AND ITS BRANCHES SHOULD BE ENDED WITH PROPER GROUNDING. NEW CONSTRUCTION CAN RELY ON EXISTING WIRE PATH BY TIEING ON AND EXTENDING OUT TO SERVICE NEW CONSTRUCTION, UP TO A MAXIMUM 225 VALVES.
18. ALL ELECTRICAL EQUIPMENT TO BE U.L. TESTED AND APPROVED, AND BEAR THE U.L. LABEL.
19. CROSS CONNECTION PROTECTION INSPECTION REQUIRED. THE BACKFLOW DEVICE TO BE TESTED UPON THE ORIGINAL INSTALLATION. THE TESTING TO BE PERFORMED BY A PERSON HOLDING A CURRENT CERTIFICATE AS A BACKFLOW TESTER. THE TEST REPORT TO BE SUBMITTED TO THE LOCAL WATER DISTRICT, OR PURVEYOR, AND OWNER WITH A COPY TO BARGHAUSEN CONSULTING ENGINEERS, INC. CONTRACTOR TO INCLUDE TESTING IN THE SCOPE OF WORK. OWNER IS RESPONSIBLE FOR ANNUAL INSPECTIONS AFTER THE INTIAL INSPECTION.
20. CONTRACTOR TO PROVIDE SYSTEM WINTERIZATION/SPRING SERVICE WHEN INSTALLATION HAS BEEN COMPLETED WITHIN 90 DAYS OF NOVEMBER 1 FOR WINTERIZATION, OR MAY 15 FOR SPRING SERVICE. SERVICE TO BE PERFORMED AS NEAR AS PRACTICAL TO THE ABOVE DATES, OR AS FREEZE/PRECIPITATION CONDITIONS DETERMINE SERVICE NEED.
21. IRRIGATION SCHEDULING:
    THE IRRIGATION CONTROLLER CONTAINS A WATER BUDGET FEATURE. PERIODIC (WEEKLY) ADJUSTMENT OF THE WATER SCHEDULE IS INTENDED TO BE MADE VIA BUDGET ADJUSTMENT. RE-ADJUST WATERING DAYS AT 100 PERCENT BUDGET WHEN ADJUSTMENT EXCEEDS 30%. SET CONTROLLER FOR HIGHEST ETo WATER SCHEDULE, BASED ON PUBLISHED LOCAL EVAPOTRANSPIRATION DATA. SYSTEM HAS BEEN DESIGNED FOR 50 TO 80 PERCENT DISTRIBUTION UNIFORMITY. LAWN ZONES SHOULD BE SCHEDULED FOR 100 PERCENT REPLACEMENT FACTOR ON A TYPICAL MINIMUM 3-DAY CYCLE. SHRUB ZONES SHOULD BE PROGRAMMED AT 40 TO 70 PERCENT OF THE MONTHLY LAWN WATER REQUIREMENT ON A ONCE PER WEEK CYCLE. ALL WATERING IN EXCESS OF THE LOCAL ETo ("FIELD RECHARGE") TO BE COMPLETED DURING THE CONSTRUCTION PHASE WHILE THE CONTRACTOR IS ON THE JOB SITE. OVER WATERING OF LANDSCAPE DUE TO CONTROLLER SCHEDULING TO BE GROUNDS FOR CONTRACTOR TO REPAIR ANY RESULTANT DAMAGES AT CONTRACTOR'S OWN EXPENSE.
22. SUBSTITUTION OF IRRIGATION MATERIAL/EQUIPMENT TO BE MADE ONLY UPON WRITTEN APPROVAL OF OWNER'S REPRESENTATIVE.
23. ALL ZONES TO PASS A MINIMUM DISTRIBUTION UNIFORMITY OF 62 PERCENT, AS TESTED THROUGH AN IRRIGATION ASSOCIATION CERTIFIED WATER AUDIT.
24. CLEANUP AND PROTECTION: DURING IRRIGATION WORK, KEEP ALL PAVEMENT CLEAN AND WORK AREAS IN AN ORDERLY CONDITION. PROTECT IRRIGATION WORK AND MATERIALS FROM DAMAGE DUE TO LANDSCAPE AND IRRIGATION OPERATIONS AND TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIOD. TREAT, REPAIR, OR REPLACE DAMAGE LANDSCAPE AND IRRIGATION WORK AS DIRECTED BY THE OWNER.
25. PRIOR TO BACKFILLING IRRIGATION TRENCHES, LANDSCAPE CONTRACTOR SHALL CONDUCT A WATER PRESSURE AND COVERAGE TEST IN THE PRESENCE OF THE LANDSCAPE ARCHITECT. LANDSCAPE CONTRACTOR TO GIVE 3 (THREE) WORKING DAYS NOTICE PRIOR TO TEST.

IRRIGATION SCHEDULE

DESCRIPTION

DRIP IRRIGATION:

HUNTER LANDSCAPE DRIPLINE COMPONENTS
HDL-06-12-250-CV SUB-SURFACE DRIPLINE TUBING 0.6 GPH PRESSURE COMPENSATING EMITTERS WITH CHECK VALVE AT 12" ON-CENTER SPACING - ALL TUBING SHALL BE INSTALLED ON GRADE W/ 9" WIRE STAKES FOUR (4) FEET ON-CENTER; VERIFY THE LAYOUT AND 18" ON-CENTER SPACING IN THE FIELD PRIOR TO STARTING WORK. INSTALL ALL COMPONENTS PER MANUF. SPECIFICATIONS.
USE HUNTER PLD-LOC FITTINGS FOR CONNECTION BETWEEN PVC LATERAL LINES AND INLINE DRIP TUBING

SPRINKLER HEADS:

HUNTER MP ROTATOR WITH PRO-SPRAY POP-UP BODY AND CV DRAIN CHECK VALVE, 4" LAWN, 6" SHRUB

SYMBOL	NOZZLE	PSI	GPM	RADIUS
	HUNTER-6Q and 6H H, Q SERIES	30	0.98, 0.51	6'
	HUNTER-1000 8-15 F, TH, TT, H, Q SERIES	35	0.65, 0.48, 0.37, 0.32, 0.16	8'
	HUNTER-1000 8-15 F, TH, TT, H, Q SERIES	35	0.65, 0.48, 0.37, 0.32, 0.16	10'
	HUNTER-1000 8-15 F, TH, TT, H, Q SERIES	35	0.65, 0.48, 0.37, 0.32, 0.16	12'
	HUNTER-2000 13-21 F, TQ, TT, H, Q SERIES	30	1.29, 0.95, 0.74, 0.63, 0.33	15'
	HUNTER ES515, SS530 SERIES	35	1.41, 0.65	5'x30' 5'x15'

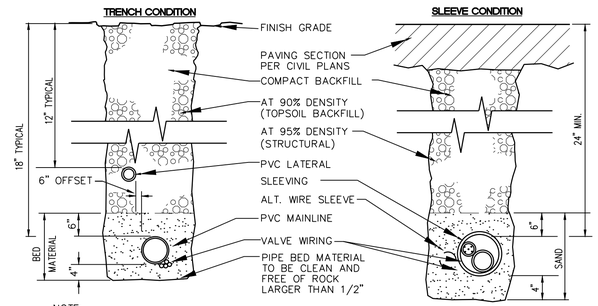
DESCRIPTION

- SPRAY IRRIGATION: HUNTER ICV 101/151G REMOTE CONTROL VALVE, IN VALVE BOX, ONE VALVE PER BOX MAXIMUM 2 VALVES PER BOX
- DRIP IRRIGATION: ICZ-101/151-XL REMOTE CONTROL DRIP ZONE KIT WITH FILTER AND PRESSURE REGULATOR MAXIMUM 2 VALVES PER BOX
- HUNTER SOLAR SYNC WIRE RAIN SENSOR COMBO
- HUNTER PRO-C CONTROLLER 3 TO 15 STATIONS, (HARDWIRE CONNECTION); PROVIDE GROUND AND BATTERIES PER MANUFACTURER'S SPECIFICATIONS
- P.O.C. — WILKINS 950 XLT- 1-1/4" DOUBLE CHECK VALVE (STATE APPROVED); TEST AND CERTIFICATION BY LICENSED BACKFLOW TESTER
  WILKINS 850 - BALL VALVE, SIZE TO MATCH PIPE
  CARSON INDUSTRIES #1730 (TWO AT P.O.C.) GRADE LEVEL VAULT WITH BOLT LOCK LID
- PLASTIC BALL VALVE, MATCH LINE SIZE, IN VALVE BOX
- HUNTER HQ-33DLRC 3/4" QUICK COUPLING VALVE, IN VALVE BOX, PROVIDE TWO KEYS AND SWIVELS
- MAINLINE - SCH 40 PVC (18" COVER); SIZE PER PLAN, 2" SIZE MINIMUM
- LATERAL - SCH 40 PVC (12" COVER); SIZE PER PLAN, 3/4" SIZE MINIMUM
- SLEEVE - SCH 40 PVC; 24" MINIMUM COVER AT VEHICLE CROSSINGS AND 18" MINIMUM COVER IN LANDSCAPE AREAS, 6" SIZE WHERE IRRIGATION MAINLINE TRAVELS THROUGH PIPE. 4" SIZE WHERE ONLY LATERALS TRAVEL THROUGH PIPE

IRRIGATION SHOWN DIAGRAMATICALLY FOR PLAN CLARITY. COMMON TRENCH AND PLACE EQUIPMENT IN LANDSCAPE; MANIFOLD GROUPED VALVES IN ADJACENT SHRUB AREAS WHERE FEASIBLE.

SCH 40 PIPE SIZING CHART

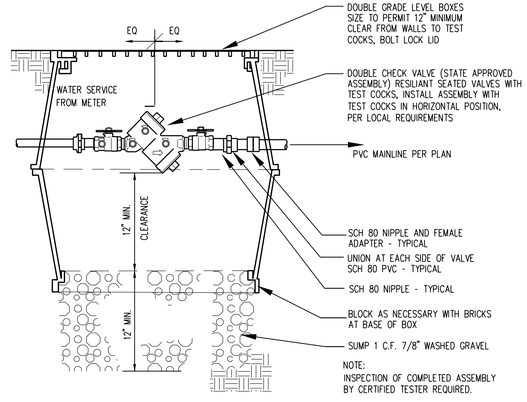
PIPE SIZE	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	
FLOW GPM	1-8	8.1-13	13.1-23	23.1-32	32.1-53	53.1-74	GPM (MAX.)



NOTE:
DIMENSIONS ARE MIN. CLEARANCES.
ALL IRRIGATION SLEEVING TRENCH BACKFILL MATERIAL SHALL BE CLASS "B" OR BETTER (MAX. OF 10% PASSING NO.40 SCREEN) AND BE COMPACTED TO MIN. 95% OPTIMUM DENSITY PER ASTM D-1557-70 (MODIFIED PROCTOR)

SLEEVE/TRENCHING DETAIL

NOT TO SCALE



CHECK VALVE ASSEMBLY DETAIL

NOT TO SCALE

APPROVED

BY_____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING

DATE_____

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
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No.	Date	By	Chkd.	Appr.	Revision
-	07/01/24	LRP	LP/JV	LRP	FIRST LANDSCAPE SUBMITTAL

Title: IRRIGATION NOTES & DETAILS

CENTERIS VOLTAGE PARK

For: BENAROYA CAPITAL, LLC
CENTERIS DATA CENTERS
9675 SE 36TH ST, SUITE 115
MERCER ISLAND, WA 98040

STATE OF WASHINGTON · LAUREN R. PERRY · NO. 188 EXP. 2/19/25 · LANDSCAPE ARCHITECT

Scale: Horizontal 1" = 20' Vertical N/A

Designed LRP Drawn LRP Checked LP/JV Approved LRP Date 07/01/24

Barghausen Consulting Engineers, Inc.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222
barghausen.com

Job Number 18111

Sheet L8 of 10

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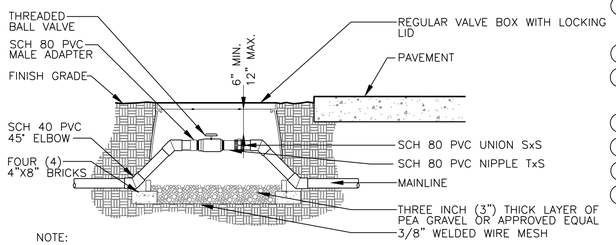
IRRIGATION DETAILS

FOR

CENTERIS VOLTAGE PARK

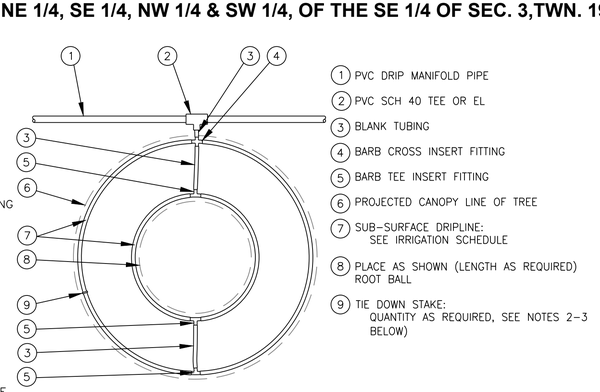
A PORTION OF THE NE 1/4, SE 1/4, NW 1/4 & SW 1/4, OF THE SE 1/4 OF SEC. 3,TWN. 19 N, RGE. 4 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON



NOTE:
1. LOCATE VALVE BOXES IN PLANTING AREAS.
2. WRAP VALVE BOX WITH A MINIMUM OF 3 MIL THICK PLASTIC AND SECURE IT USING DUCT TAPE OR ELECTRICAL TAPE.
3. ALL THREADED CONNECTIONS TO BE MADE USING TEFLON TAPE.
4. ALL CHANGES IN ELEVATION SHALL BE MADE USING SCH 40 PVC 45° ELBOWS.

BALL VALVE DETAIL

NOT TO SCALE

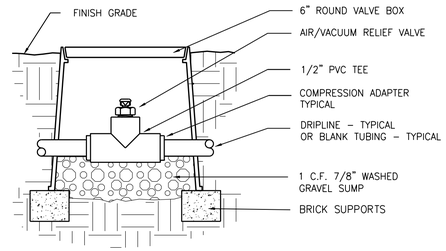


1. PVC DRIP MANIFOLD PIPE
2. PVC SCH 40 TEE OR EL
3. BLANK TUBING
4. BARB CROSS INSERT FITTING
5. BARB TEE INSERT FITTING
6. PROJECTED CANOPY LINE OF TREE
7. SUB-SURFACE DRIPLINE: SEE IRRIGATION SCHEDULE
8. PLACE AS SHOWN (LENGTH AS REQUIRED) ROOT BALL
9. TIE DOWN STAKE: QUANTITY AS REQUIRED, SEE NOTES 2-3 BELOW)

NOTES:
1. DISTANCE BETWEEN LATERAL RINGS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, AND TREE CANOPY. SEE MANUFACTURER DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACINGS.
2. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.
3. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE-DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.

DRIPLINE AROUND TREE

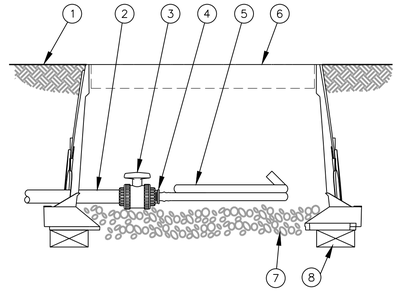
NOT TO SCALE



NOTE:
AIR/VACUUM RELIEF VALVE CANNOT BE CONNECTED LOWER THAN DRIPLINE LATERALS. FOR USE ON ZONES OF 7 GPM OR LESS ONLY (PLUMBED TO TUBING).

1/2" AIR/VACUUM RELIEF VALVE DETAIL

NOT TO SCALE

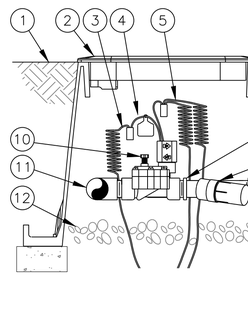


FINISH GRADE
PVC DRIP MANIFOLD PIPE
PVC 1" X 3/4" TRUE UNION BALL VALVE
EASY FIT MALE X BARB ADAPTER: RAIN BIRD XFF-MA-075

5. SUB-SURFACE DRIPLINE: RAIN BIRD XF SERIES BLANK TUBING
6. 12-INCH VALVE BOX WITH COVER: RAIN BIRD VB-STD
7. 3-INCH MINIMUM DEPTH OF 3/4" WASHED GRAVEL
8. BRICK (1 OF 2)

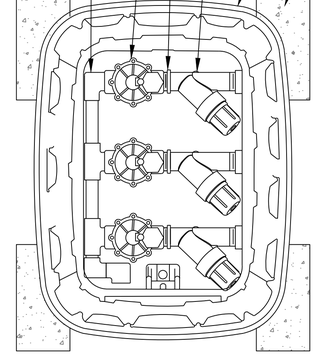
FLUSH POINT WITH BALL VALVE

NOT TO SCALE

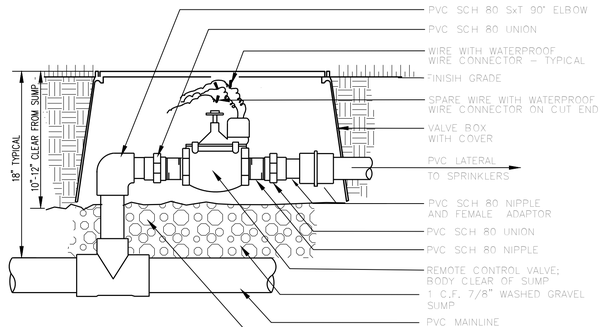


SIDE VIEW

1. FINISH GRADE
2. STANDARD VALVE BOX WITH COVER:
3. WATERPROOF CONNECTION:
4. VALVE ID TAG
5. 30-INCH LINEAR LENGTH OF WIRE, COILED
6. 1" X ¾" REDUCING COUPLING
7. PRESSURE REGULATING FILTER:
8. LATERAL PIPE
9. PVC SCH 40 FEMALE ADAPTOR OR REDUCER
10. REMOTE CONTROL VALVE:
11. PVC SCH 40 TEE OR ELL TO MANIFOLD
12. 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
13. MANIFOLD PIPE AND FITTINGS
14. MINIMUM FOUR (4) 4"x8" BRICKS



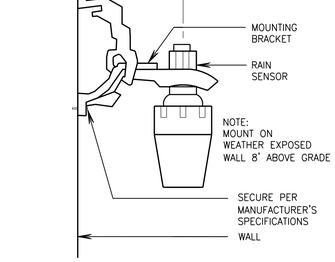
TOP VIEW



NOTE:
MANUFACTURER'S LIMITS PREVAIL FOR INSTALLATION AND ADJUSTMENTS.
PROVIDE SWING JOINT RISERS AT WALKS AND CURBS. 24" FLEXIBLE RISERS ACCEPTABLE ELSEWHERE.

POP-UP RISER ASSEMBLY

NOT TO SCALE



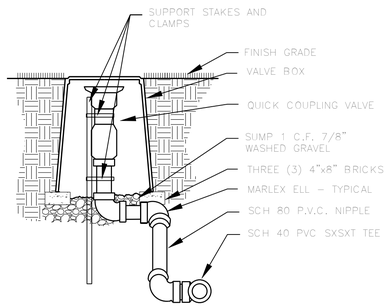
RAIN SENSOR DETAIL

NOT TO SCALE

NOTE:
ONE VALVE PER BOX.
PROVIDE EXTRA COILS (18") OF EACH WIRE IN VALVE BOX.
COMPACT SOIL AROUND VALVE BOX.
USE TEFLON OR FLOWABLE SEALANT IN ALL THREADED FITTINGS, PER MANUFACTURES SPEC'S.

REMOTE CONTROL VALVE ASSEMBLY

NOT TO SCALE

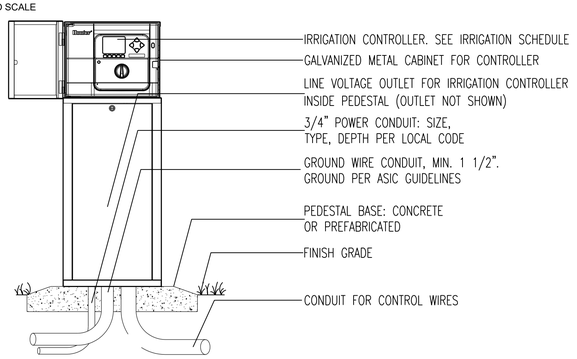


QUICK COUPLING VALVE DETAIL

NOT TO SCALE

DRIP IRRIGATION VALVE

NOT TO SCALE



IRRIGATION CONTROLLER - PEDESTAL MOUNT

NOT TO SCALE

APPROVED

BY_____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING

DATE_____

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No.	Date	By	Chkd.	Appr.	Revision
-	07/01/24	LRP	LP/JV	LRP	FIRST LANDSCAPE SUBMITTAL

Title: IRRIGATION DETAILS

CENTERIS VOLTAGE PARK

For: BENAROYA CAPITAL, LLC
CENTERIS DATA CENTERS
9675 SE 36TH ST, SUITE 115
MERCER ISLAND, WA 98040

STATE OF WASHINGTON
LAUREN R. PERRY
No. 488 EXP. 2/18/25
LANDSCAPE ARCHITECT

Scale: Horizontal 1" = 20' Vertical N/A

Designed LRP Drawn LRP Checked LP/JV Approved LRP Date 07/01/24

Barghausen Consulting Engineers, Inc.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222 **barghausen.com**

Job Number 18111

Sheet L9 of 10

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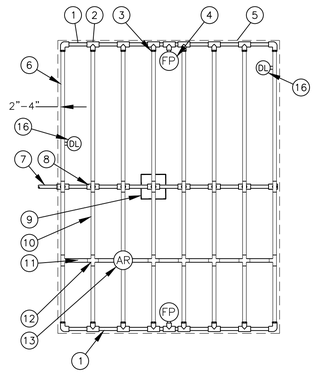
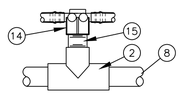
IRRIGATION DETAILS
FOR
CENTERIS VOLTAGE PARK

A PORTION OF THE NE 1/4, SE 1/4, NW 1/4 & SW 1/4, OF THE SE 1/4 OF SEC. 3,TWN. 19 N, RGE. 4 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON



1. PVC EXHAUST HEADER
2. PVC SCH 40 TEE OR EL (TYPICAL)
3. BARB X MALE FITTING
4. FLUSH POINT (TYPICAL) SEE DETAIL
5. PERIMETER OF AREA
6. PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"-4" FROM PERIMETER OF AREA
7. PVC SUPPLY PIPE FROM CONTROL ZONE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
8. PVC SUPPLY MANIFOLD
9. CONNECTION FROM SUPPLY MANIFOLD TO DRIPLINE (TYPICAL)– SEE INSET A
10. SUB-SURFACE DRIPLINE
11. BLANK TUBING
12. BARB X BARB INSERT TEE OR CROSS:
13. ½" AIR RELIEF VALVE
14. BARB X FEMALE FITTING:
15. ¾" PVC NIPPLE, LENGTH AS NECESSARY
16. DRIPLINE INDICATOR. SEE DETAIL FOR ADDITIONAL INFORMATION



INSET A

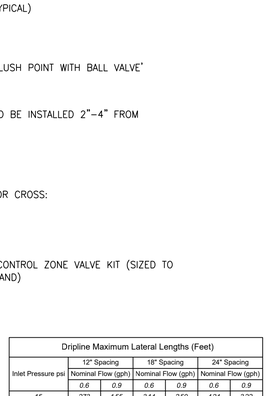
Dripline Maximum Lateral Lengths (Feet)

Inlet Pressure psi	12" Spacing Nominal Flow (gph)		18" Spacing Nominal Flow (gph)		24" Spacing Nominal Flow (gph)	
	0.6	0.9	0.6	0.9	0.6	0.9
15	273	155	314	250	424	322
20	318	169	353	294	508	368
30	360	230	413	350	586	414
40	395	255	465	402	652	474
50	417	285	528	420	720	488
60	460	290	596	455	780	514

NOTES:
1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE IRRIGATION SCHEDULE FOR SPACING.
2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH SHOWN IN THE ACCOMPANYING TABLE.
3. AIR RELIEF VALVE TO BE INSTALLED AT HIGH POINT OF AREA.
4. WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.

DRIPLINE CENTER FEED LAYOUT

NOT TO SCALE



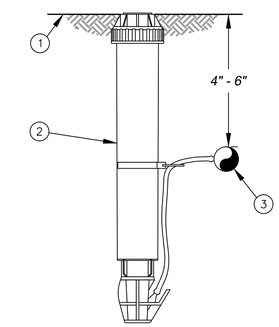
NOTES:
- DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACINGS.
- LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH SHOWN IN THE ACCOMPANYING TABLE.
- AIR RELIEF VALVE TO BE INSTALLED AT HIGH POINT OF AREA.
- WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.

1. PVC EXHAUST HEADER
2. PVC SCH 40 TEE OR EL (TYPICAL)
3. BARB X MALE FITTING:
4. FLUSH POINT (TYPICAL) SEE RAIN BIRD DETAIL 'FLUSH POINT WITH BALL VALVE'
5. PERIMETER OF AREA
6. PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"-4" FROM PERIMETER OF AREA
7. SUB-SURFACE DRIPLINE
8. BLANK TUBING
9. BARB X BARB INSERT TEE OR CROSS:
10. ½" AIR RELIEF VALVE
11. PVC SUPPLY HEADER
12. PVC DRIP MANIFOLD FROM CONTROL ZONE VALVE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
13. PVC SCH 40 RISER PIPE
14. DRIPLINE INDICATOR. SEE DETAIL FOR ADDT'L INFO

Dripline Maximum Lateral Lengths (Feet)						
Inlet Pressure psi	12" Spacing Nominal Flow (gph)		18" Spacing Nominal Flow (gph)		24" Spacing Nominal Flow (gph)	
	0.6	0.9	0.6	0.9	0.6	0.9
15	273	155	314	250	424	322
20	318	169	353	294	508	368
30	360	230	413	350	586	414
40	395	255	465	402	652	474
50	417	285	528	420	720	488
60	460	290	596	455	780	514

DRIPLINE END FEED LAYOUT

NOT TO SCALE

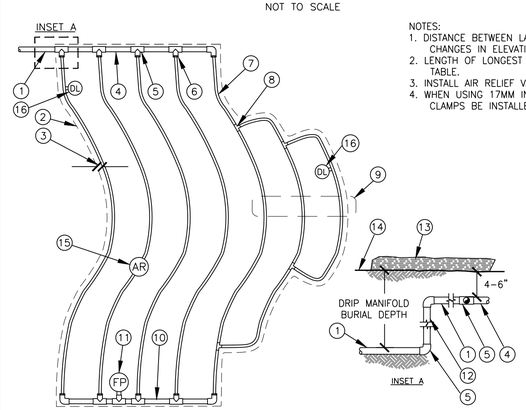


1. FINISH GRADE/TURF
2. OPERATION INDICATOR
3. SUB-SURFACE DRIPLINE: SEE IRRIGATION SCHEDULE

NOTE:
1. INSERT BARB TRANSFER FITTING DIRECTLY INTO DRIPLINE TUBING.
2. VAN NOZZLE MAY BE SET TO CLOSED, OR IF IT IS DESIRED TO SEE SPRAY FROM THE NOZZLE, SET THE ARC TO ¼ PATTERN. THE FLOW FROM THE NOZZLE, 0.3 GPM, SHOULD BE ACCOUNTED FOR IN THE SYSTEM DESIGN.

DRIP IRRIGATION DRIPLINE INDICATOR

NOT TO SCALE

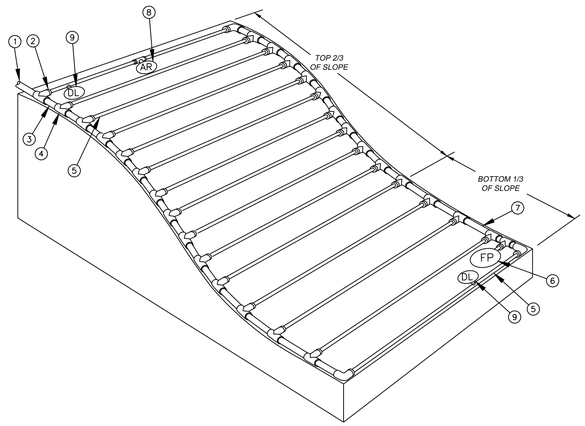


NOTES:
1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE INSTALLATION SPECIFICATIONS FOR SPACING
2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM SPACING SHOWN IN THE ACCOMPANYING TABLE.
3. INSTALL AIR RELIEF VALVE AT HIGH POINTS IN DRIP LATERAL.
4. WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.

1. PVC SUPPLY PIPE FROM RAIN BIRD CONTROL ZONE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
2. PERIMETER OF AREA
3. PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"-4" FROM PERIMETER OF AREA
4. PVC SUPPLY MANIFOLD
5. PVC SCH 40 TEE OR EL (TYPICAL)
6. BARB X MALE FITTING
7. SUB-SURFACE DRIPLINE: SEE IRRIGATION SCHEDULE
8. ARB X BARB INSERT TEE
9. TOTAL LENGTH OF SELECTED DRIPLINE SHOULD NOT EXCEED LENGTH SHOWN IN TABLE
10. PVC FLUSH HEADER
11. FLUSH POINT: SEE DETAIL
12. PVC RISER PIPE
13. TURF OR MULCH
14. FINISH GRADE
15. 1/2" AIR RELIEF VALVE: SEE DETAIL
16. DRIPLINE INDICATOR. SEE DETAIL FOR ADDT'L INFO

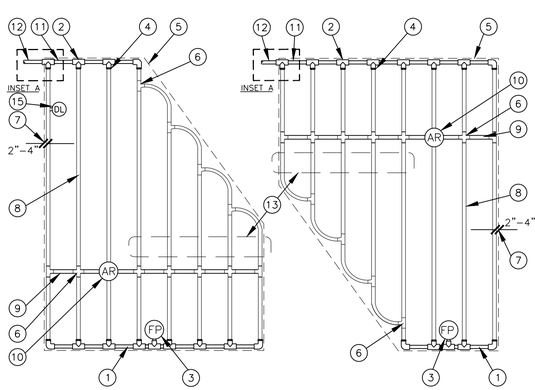
DRIPLINE ODD CURVES LAYOUT

NOT TO SCALE



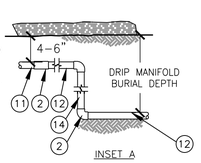
DRIPLINE SLOPED LAYOUT

NOT TO SCALE



1. PVC EXHAUST HEADER
2. PVC SCH 40 TEE OR EL (TYPICAL)
3. FLUSH POINT (TYPICAL) SEE DETAIL
4. BARB X MALE FITTING
5. PERIMETER OF AREA
6. BARB X BARB INSERT TEE OR CROSS
7. PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"-4" FROM PERIMETER OF AREA
8. SUB-SURFACE DRIPLINE: SEE IRRIGATION SCHEDULE
9. BLANK TUBING
10. ½" AIR RELIEF VALVE: SEE DETAIL
11. PVC SUPPLY MANIFOLD
12. PVC SUPPLY PIPE FROM CONTROL ZONE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
13. TOTAL LENGTH OF SELECTED DRIPLINE SHOULD NOT EXCEED LENGTH SHOWN IN TABLE
14. PVC SCH 40 RISER PIPE
15. DRIPLINE INDICATOR. SEE DETAIL FOR ADDT'L INFO

NOTES:
- DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE MANUFACTURER DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACINGS.
- LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH SHOWN IN THE ACCOMPANYING TABLE.
- AIR RELIEF VALVE TO BE INSTALLED AT HIGH POINT OF AREA.
- WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.



DRIPLINE IRREGULAR SHAPED LAYOUT

NOT TO SCALE

1. PVC EXHAUST HEADER
2. PVC SCH 40 TEE OR EL (TYPICAL)
3. FLUSH POINT (TYPICAL) SEE DETAIL
4. BARB X MALE FITTING
5. PERIMETER OF AREA
6. BARB X BARB INSERT TEE OR CROSS
7. PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"-4" FROM PERIMETER OF AREA
8. SUB-SURFACE DRIPLINE: SEE IRRIGATION SCHEDULE
9. BLANK TUBING
10. ½" AIR RELIEF VALVE: SEE DETAIL
11. PVC SUPPLY MANIFOLD
12. PVC SUPPLY PIPE FROM CONTROL ZONE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
13. TOTAL LENGTH OF SELECTED DRIPLINE SHOULD NOT EXCEED LENGTH SHOWN IN TABLE
14. PVC SCH 40 RISER PIPE
15. DRIPLINE INDICATOR. SEE DETAIL FOR ADDT'L INFO

NOTES:
- DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE MANUFACTURER DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACINGS.
- LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH SHOWN IN THE ACCOMPANYING TABLE.
- AIR RELIEF VALVE TO BE INSTALLED AT HIGH POINT OF AREA.
- WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.

APPROVED

BY_____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING

DATE_____

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.
FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE DEVELOPMENT ENGINEERING MANAGER.

No.	Date	By	Ckd.	Appr.	Revision
-	07/01/24	LRP	LP/JV	LRP	FIRST LANDSCAPE SUBMITTAL

Title: IRRIGATION DETAILS

CENTERIS VOLTAGE PARK

For: BENAROYA CAPITAL, LLC
CENTERIS DATA CENTERS
9675 SE 36TH ST, SUITE 115
MERCER ISLAND, WA 98040

STATE OF WASHINGTON
LAUREN R. PERRY
NO. 488 EXP. 2/18/25
LANDSCAPE ARCHITECT

Scale: Horizontal 1" = 20' Vertical N/A

Designed LRP Drawn LRP Checked LP/JV Approved LRP Date 07/01/24

Barghausen Consulting Engineers, Inc.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222 **barghausen.com**

Job Number 18111

Sheet L10 of 10

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