

IRRIGATION PLAN & VALVE KEY

Taco Time
Azure Green Consulting Engineers
1115 E. Main Ave., Puyallup, WA

REVISION		
No.	Date	By
1	6 Dec 2023	KCL
2	9 Jan 2024	KBR
3	17 July 2024	KCL
4	18 Sept 2024	KBR

Scale 1" = 20'0"	Sheet No. IR-1
Designer SYF	of 2 Sheets
Project Manager KCL	
Checker KBR	
Date 17 July 2024	
Project CITY SUBMITTAL #4	
Project No. 22037	

VALVE KEY :

VALVE	SIZE	GPM
1A	1-1/4"	19.41
2A	1-1/4"	16.77
3A	1"	14.19
4A	1"	11.03
5A	1"	16.01
6A	1"	11.63
7A	1"	8.0
8A	1"	9.11
9A	1"	14.57
10A	1"	12.0
11A	1"	12.27
12A	1"	10.75
13A	1"	7.27
14A	1"	12.5
15A	1-1/4"	17.41
16A	1"	OPEN
17A	1"	OPEN
18A	1"	OPEN

CITY OF PUYALLUP
Planning Division
Approved Landscape Plan
(253) 864-4165

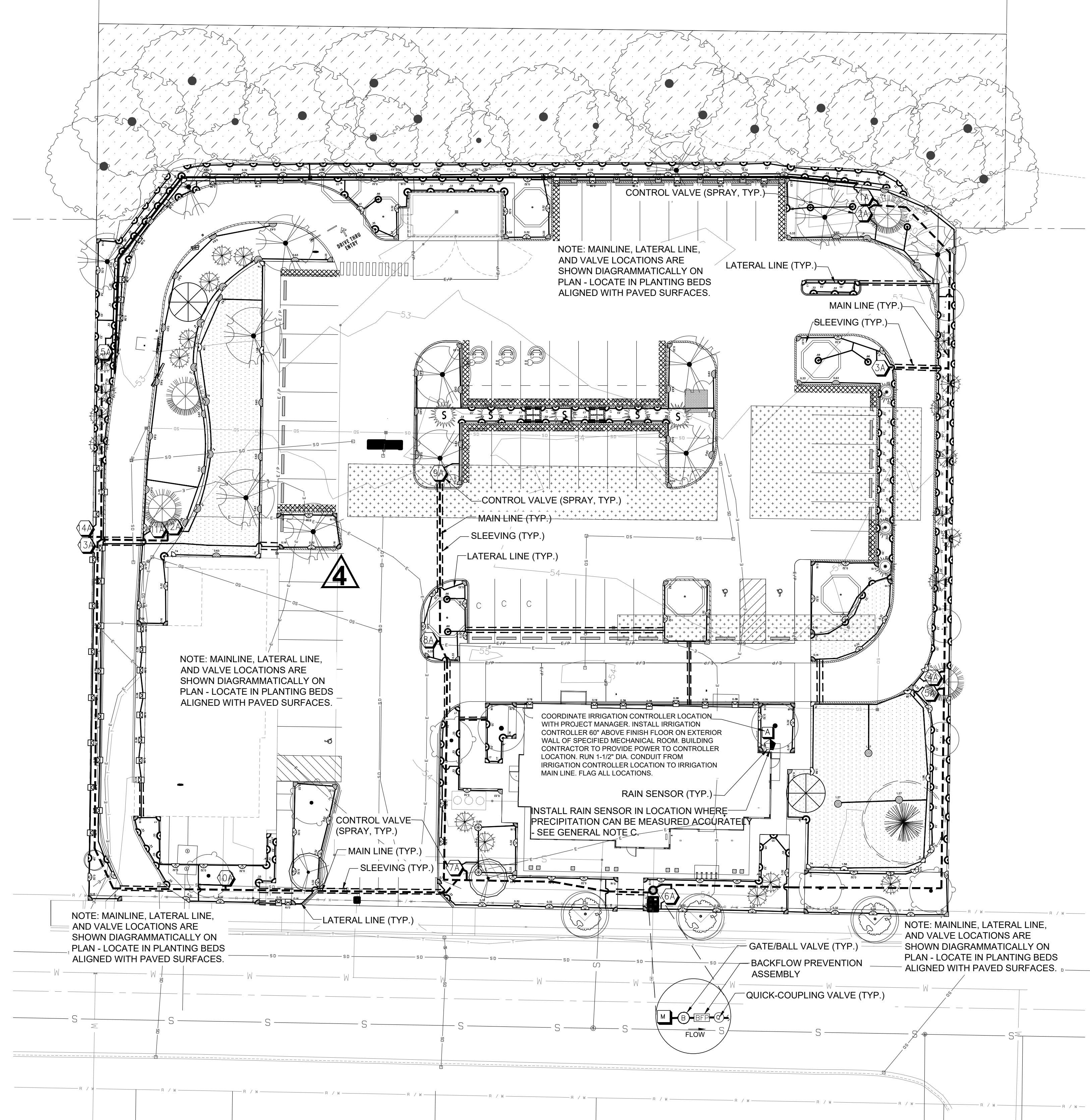
Staff: NComstock
Date: 12/09/2024

THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE. THE CITY IS NOT RESPONSIBLE FOR ERRORS OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE PLANNING DIRECTOR, DESIGNER, OR PROJECT PLANNER.

NOTE: If street trees are required, Call Planning Division for final inspection: (253) 864-4165 (Option 3) Root barriers are required around street trees in accordance with city standard detail. Top soil shall be installed in accordance with city standards - field verification required. Failure to install top soil and root barriers in accordance with the city standards may result in rejection of installation.

SIZE PIPING AS FOLLOWS:

0 - 8 GPM = 3/4" PIPE
9-16 GPM = 1" PIPE
17- 24 GPM = 1 1/4" PIPE
25 - 32 GPM = 1 1/2" PIPE
33 - 50 GPM = 2" PIPE



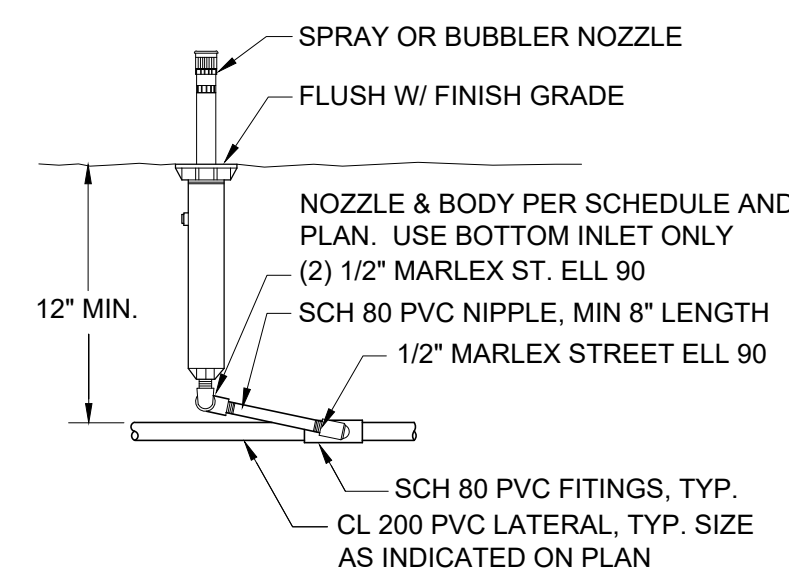
Irrigation Plan

HUNTER IRRIGATION EQUIPMENT SCHEDULE:

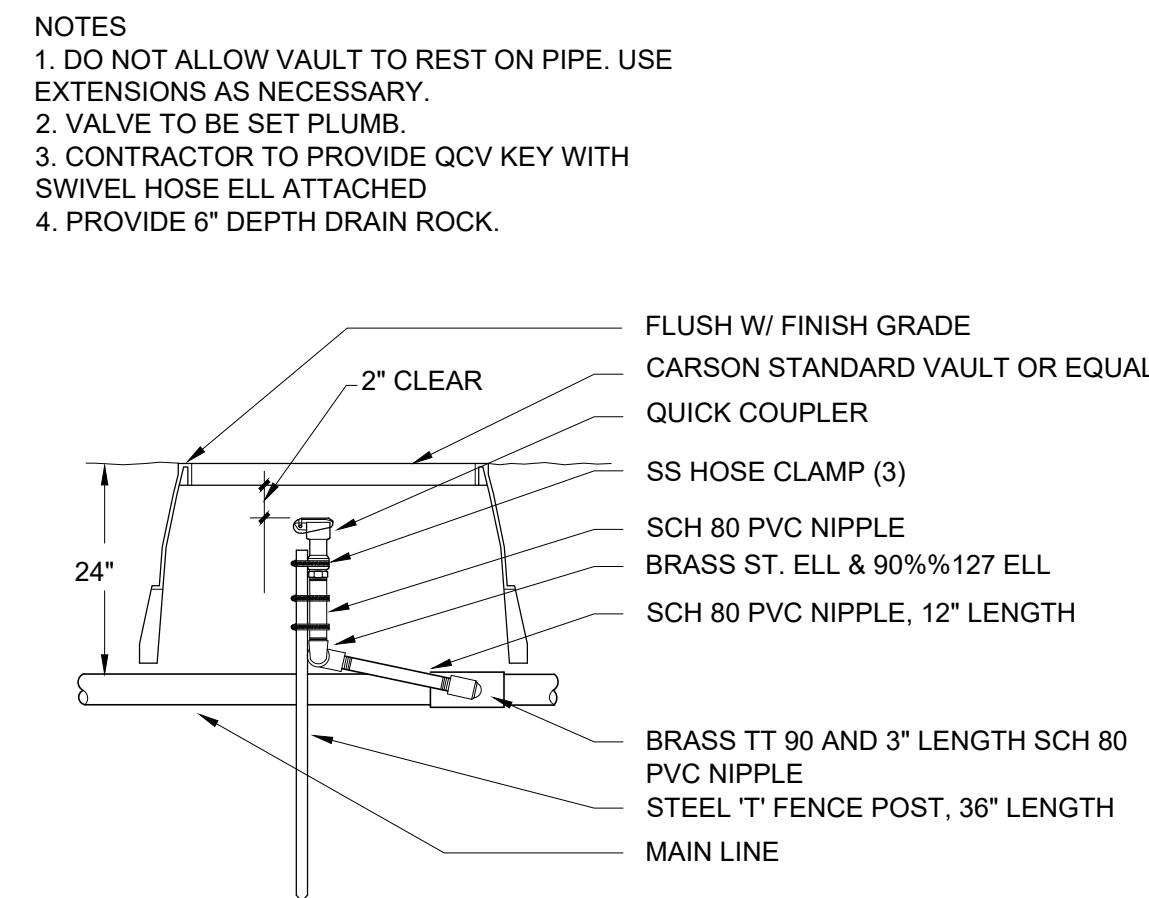
HUNTER IRRIGATION EQUIPMENT SHOWN IN SCHEDULE. TORO, RAINBIRD, WEATHERMATIC OR EQUIVALENT IRRIGATION EQUIPMENT MAYBE SUBSTITUTED, WITH LANDSCAPE ARCHITECT'S WRITTEN APPROVAL ONLY.

SYMBOL	DESCRIPTION	P.S.I.	RADIUS
	HUNTER MPLCS515, MPRCS515, MPSS530 STRIP ROTATOR HEAD, WITH MATCHED PRECIPITATION RATES	30	4'x28', 4'x14'
	HUNTER MP800SR ROTATOR, 6'-12' ADJUSTABLE ARC AND RADIUS NOZZLE, WITH MATCHED PRECIPITATION RATES	30	6'-12'
	HUNTER MP1000 ROTATOR, 12' ADJUSTABLE ARC AND RADIUS NOZZLE, WITH MATCHED PRECIPITATION RATES	30	12'
	HUNTER MP2000 ROTATOR, 17' & 18' ADJUSTABLE ARC AND RADIUS NOZZLE, WITH MATCHED PRECIPITATION RATES	30	17'-18'
	HUNTER MP3000 ROTATOR, 27' ADJUSTABLE ARC AND RADIUS NOZZLE, WITH MATCHED PRECIPITATION RATES	30	27'
	HUNTER MP CORNER ROTATOR, 12' RADIUS HEADS, ADJUSTABLE ARC NOZZLE, WITH MATCHED PRECIPITATION RATES	30	12'
	BRASS GATE VALVE - RuB Ball Valve - Model S95F43 (Round Handle) - SIZE TO FIT MAINLINE		
	BACKFLOW ASSEMBLY - FEBCO LF850 (SIZE TO MATCH METER)		
	AUTOMATIC CONTROL VALVE, HUNTER ICV, SEE VALVE KEY		
	1" WATER METER (BY OTHERS - COORDINATE POC WITH CONSTRUCTION MANAGER)		
	QUICK COUPLER - HUNTER HQ-44-LRC-AW		
	RAIN SENSOR - HUNTER RAIN-CLIK-WIRELESS RAIN SENSOR (WRC-INT) OR EQUAL, SEE GENERAL NOTE C		
	CONTROLLER - HUNTER I-CORE WITH DUAL (18- STATION EXTERIOR, WALL MOUNT, PLASTIC ENCLOSURE)		
	CLASS 200 PVC LATERAL LINE PIPING, SIZE PER PLAN		
	2" SCHEDULE 40 PVC MAIN LINE		
	CLASS 200 PVC SLEEVE 2X PIPE DIAMETER, 4" MIN.		
Not Shown	#14 AWG TYPE UF CONTROL WIRE, RED = SIGNAL, WHITE = COMMON, ORANGE= SPARE		

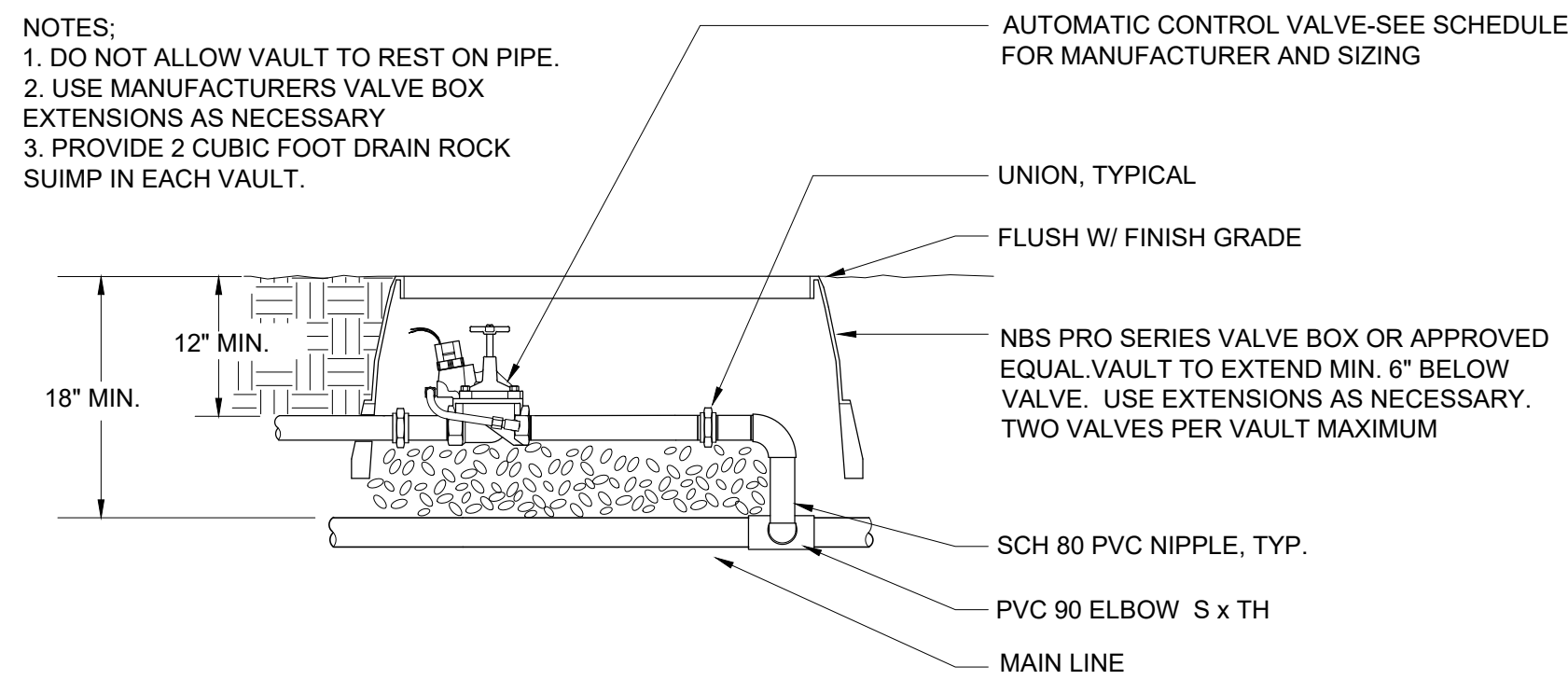
SPRAY DETAILS:



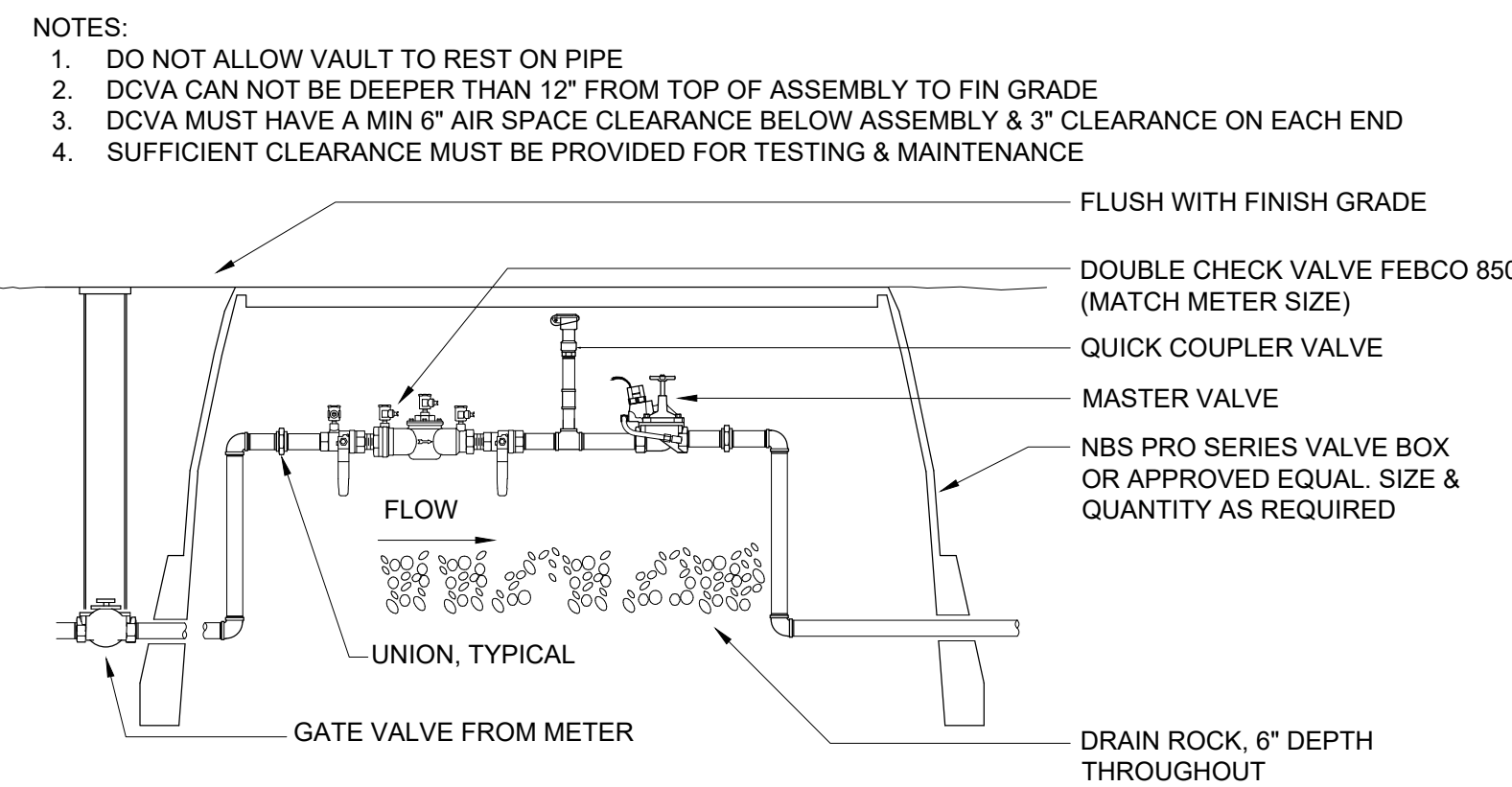
Pop-up Head
(Not To Scale)



Quick Coupler
(Not To Scale)



Control Valve Assembly
(Not To Scale)



Main Assembly
(Not To Scale)

IRRIGATION REQUIREMENTS:

GENERAL NOTES

A. IRRIGATION DESIGN ASSUMES 55 PSI STATIC WATER PRESSURE IS AVAILABLE ON SITE. VERIFY STATIC WATER PRESSURE IN FIELD PRIOR TO CONSTRUCTION. NOTIFY LANDSCAPE ARCHITECT IF STATIC WATER PRESSURE IS LESS THAN 55 PSI. IRRIGATION DESIGN IS BASED ON 30 PSI FOR SPRAY ZONES/25 PSI FOR DRIP ZONES.

B. USE 4" POP-UP HEADS WITHIN ALL LAWN AREAS AND 6" POP-UP HEADS WITHIN ALL SHRUB AREAS. 12" POP-UP HEADS ARE OPTIONAL IN SHRUB BEDS WITH OWNERS REQUEST.

C. RAIN SENSOR TO BE INSTALLED ON SOUTH OR WEST SIDE OF BUILDING, AT A MINIMUM OF 8 FEET ABOVE GRADE WHERE SENSOR IS FREE FROM VANDALISM, TREE CANOPIES, BUILDING OVER HANGS OR OTHER STRUCTURAL / NATURAL RAIN IMPEDIMENTS. COORDINATE LOCATION WITH CONSTRUCTION MANAGER.

IRRIGATION NOTES

1. PLAN IS DIAGRAMMATIC. VERIFY LOCATION OF STRUCTURES, UTILITIES AND OTHER SITE ELEMENTS PRIOR TO COMMENCING WORK. NOTIFY PROJECT MANAGER OF ANY CONFLICTS.

2. CONTRACTOR TO TEST EXISTING WATER PRESSURE AN PROVIDE WRITTEN REPORT TO PROJECT MANAGER PRIOR TO COMMENCING WORK.

3. REVIEW ALL IRRIGATION DETAILS PRIOR TO COMMENCING WORK.

4. REFER TO EQUIPMENT SCHEDULE FOR ALL IRRIGATION HEAD TYPES AND EQUIPMENT.

5. PROVIDE 2 (TWO) SPARE WIRES FROM THE CONTROLLER TO THE FURTHEST VALVE LOCATIONS FOR FUTURE EXPANSION.

6. STAKE ALL VALVE BOX LOCATIONS FOR APPROVAL.

7. SET VALVE BOXES SQUARE TO ADJACENT BUILDING, CURB OR PAVING.

8. ALL IRRIGATION UNDER ROADS, WALKS, PARKING AREAS OR OTHER PAVED SURFACES SHALL BE SLEEVED. SLEEVES SHALL BE 2 (TWO) TIMES THE DIAMETER OF THE INSERTED PIPE OR AS INDICATED.

9. ALL PIPING IS DIAGRAMMATIC. PIPING SHOWN WITHIN PAVING OR ADJACENT / PARALLEL TO PLANTED AREAS ARE INTENDED TO BE PLACED WITHIN PLANTING BEDS WHERE POSSIBLE. ALL MATERIAL TO BE INSTALLED ON OWNER'S PROPERTY.

10. MAKE ANY AND ALL REQUIRED ADJUSTMENTS TO THE IRRIGATION PLAN TO ASSURE COMPLETE AN ADEQUATE COVERAGE WITH MINIMUM OVER SPRAY.

11. WHEN SLEEVING, PIPING OR HEAD LAYOUT IS REQUIRED IN R.O.W., CONTRACTOR TO COORDINATE LOCATION WITH THE PROJECT ENGINEER PRIOR TO CONSTRUCTION. INDICATE EXACT LOCATION OF SLEEVES AND PIPING ON THE AS-BUILT DRAWINGS.

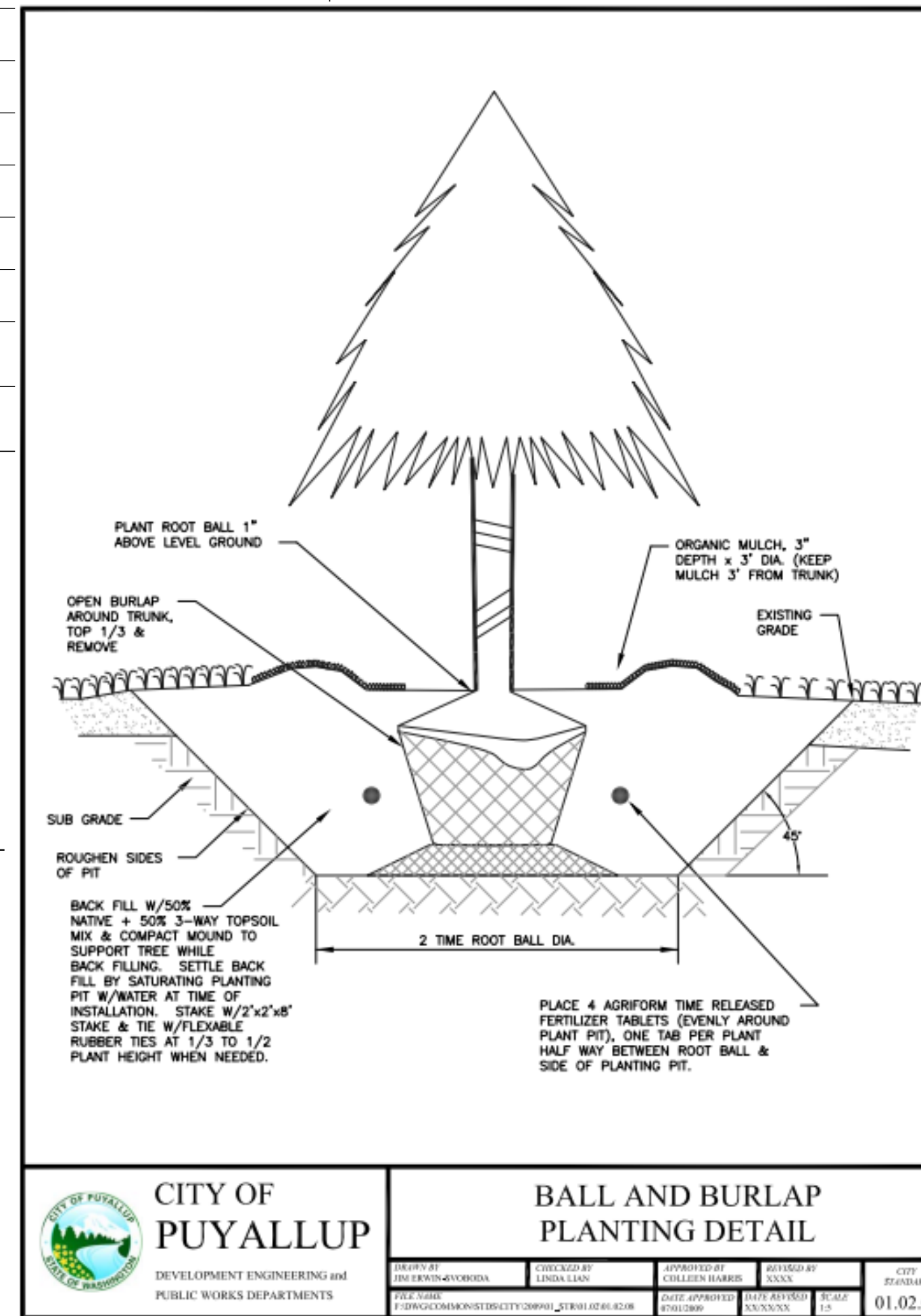
12. PLACE TRACE WIRE ON ALL IRRIGATION PIPING AT OWNER'S REQUEST.

13. LATERAL LINE SHALL HAVE MINIMUM 12" OF COVER AND MAINLINES A MINIMUM OF 18" COVER.

14. PROVIDE MANUAL DRAINS AT ALL LOW POINT ON THE MAIN LINE AND RECORD ACCURATELY ON AS-BUILT DRAWINGS.

15. LOCATE IRRIGATION BACK-FLOW PREVENTER DOWN-STREAM OF SITE WATER METER (WATER METER BY OTHERS). VERIFY LOCATION WITH PROJECT MANAGER PRIOR TO COMMENCING WORK.

16. COORDINATE LOCATION OF CONTROLLER WITH PROJECT MANAGER. INSTALL CONTROLLER AT 60" ABOVE (FINISH FLOOR / FINISH GRADE) ON EXTERIOR WALL OF (BUILDING). PROVIDE A 110 GFI POWER OUTLET AT CONTROLLER LOCATION FOR POWER SUPPLY. PROVIDE CONDUIT FROM IRRIGATION CONTROLLER LOCATION TO OUTSIDE PLANTING BED. FLAG ALL LOCATIONS.



CITY OF PUYALLUP DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS		BALL AND BURLAP PLANTING DETAIL	
DATE: 01.02.08	DESIGNED BY: KBR	CHECKED BY: KBR	DATE APPROVED: 01.02.08

BRADLEY DESIGN GROUP, INC.
LANDSCAPE ARCHITECTURE + SITE PLANNING

BDG

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Tacoma, WA 98407

location
455B St Helens Ave
Tacoma, WA 98402

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info@bradtree.com

STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT

Michael Bradley, Registered Professional Landscape Architect

IRRIGATION SCHEDULE, NOTES & DETAILS
 Taco Time
 Azure Green Consulting Engineers
 1115 E. Main Ave., Puyallup, WA

REVISION		
No.	Date	By
1	6 Dec 2023	KCL
3	17 July 2024	KCL

Scale: NTS	Sheet No. IR-2
Designer: SYF	
Project Manager: KCL	
Printer: KBR	
Date: 17 July 2024	of 2 Sheets
Project: CITY SUBMITTAL #4	
Project No: 22037	

PLANT SCHEDULE:

TREES - DECIDUOUS

	ACER CIRCINATUM / VINE MAPLE	1.5" CAL.	NATIVE	B&B, EVENLY BRANCHED
	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE' / SERVICEBERRY	1.5" CAL.	NATIVE	B&B, EVENLY BRANCHED
	CORNUS X 'RUTGAN' / STELLAR PINK DOGWOOD	2" CAL.		B&B, EVENLY BRANCHED
	GINKGO BILOBA 'AUTUMN GOLD' / AUTUMN GOLD GINKGO	2" CAL.		B&B, EVENLY BRANCHED
	NYSSA SYLVATICA 'WILDFIRE' / WILDFIRE BLACK TUPELO	2" CAL.		B&B, EVENLY BRANCHED
	PARROTIA PERSICA 'VANESSA' / VANESSA PERSIAN IRONWOOD	2" CAL.		B&B, EVENLY BRANCHED
	STEWARTIA PSEUDOCAMELLIA / JAPANESE STEWARTIA	2" CAL.		B&B, EVENLY BRANCHED
	34 TOTAL PLANTS	5 TOTAL NATIVE PLANTS		

TREES - EVERGREEN

	CHAMAECYPARIS NOOTKATENSIS 'PENDULA' / WEeping ALASKA CEDAR	7'-8" HT.	NATIVE	B&B, NURSERY GROWN
	CHAMAECYPARIS OBTUSA 'GRACILIS' / SLENDER HINOKI CYPRESS	6'-7" HT.		B&B, NURSERY GROWN
	JUNIPERUS SCOPULORUM 'WICHITA BLUE' / UPRIGHT JUNIPER	5'-6" HT.		B&B, NURSERY GROWN
	PINUS CONTORTA / SHORE PINE	6'-7" HT.	NATIVE	B&B, NURSERY GROWN
	33 TOTAL PLANTS	25 TOTAL NATIVE PLANTS		

SHRUBS

	BERBERIS THUNBERGII 'ORANGE ROCKET' / ORANGE ROCKET BARBERRY	2 GAL. CONTAINER		FULL FOLIAGE, 24" O.C.
	BERBERIS THUNBERGII 'ROSE GLOW' / ROSE GLOW JAPANESE BARBERRY	2 GAL. CONTAINER		FULL FOLIAGE, 36" O.C.
	CHOISYA TERNATA 'SUNDACE' / SUNDANCE MEXICAN ORANGE	5 GAL. CONTAINER		FULL FOLIAGE, 36" O.C.
	CHOISYA TERNATA 'AZTEC PEARL' / AZTEC PEARL MEXICAN ORANGE	5 GAL. CONTAINER		FULL FOLIAGE, 36" O.C.
	CISTUS X HYBRIDUS / WHITE ROCKROSE	5 GAL. CONTAINER		FULL FOLIAGE, 42" O.C.
	CORYLUS CORNUTA CALIFORNICA / WESTERN HAZELNUT	2 GAL. CONTAINER	NATIVE	FULL FOLIAGE, 36" O.C.
	COTINUS COGGYGRIA 'ROYAL PURPLE' / ROYAL PURPLE SMOKE TREE	5 GAL. CONTAINER		FULL FOLIAGE, AS SHOWN
	JUNIPERUS SQUAMATA 'BLUE STAR' / BLUE STAR JUNIPER	1 GAL. CONTAINER		FULL FOLIAGE, 24" O.C.
	LONICERA PILEATA / BOX-LEAF HONEYSUCKLE	3 GAL. CONTAINER		FULL FOLIAGE, 36" O.C.
	MAHONIA NERVOSA / LONGLEAF MAHONIA	2 GAL. CONTAINER	NATIVE	FULL FOLIAGE, 36" O.C.
	MYRICA CALIFORNICA / PACIFIC WAX MYRTLE	5 GAL. CONTAINER	NATIVE	FULL FOLIAGE, 48" O.C.
	NANDINA DOMESTICA 'GULF STREAM' / DWARF HEAVENLY BAMBOO	3 GAL. CONTAINER		FULL FOLIAGE, 36" O.C.
	OSMANTHUS DELAVAYI / DELAVAY OSMANTHUS	5 GAL. CONTAINER		FULL FOLIAGE, 36" O.C.
	PHILADELPHUS LEWISII / MOCK ORANGE	2 GAL. CONTAINER	NATIVE	FULL FOLIAGE, 36" O.C.
	PHYSCARPUS OPULIFOLIUS 'MINDIA' / COPPERTINA NINEBARK	5 GAL. CONTAINER		FULL FOLIAGE, 48" O.C.
	POLYSTICHUM MUNITUM / WESTERN SWORD FERN	1 GAL. CONTAINER	NATIVE	FULL FOLIAGE, 36" O.C.
	RIBES SANGUINEUM 'KING EDWARD VII' / RED FLOWERING CURRANT	2 GAL. CONTAINER	NATIVE	FULL FOLIAGE, 36" O.C.
	ROSA NUTKANA / NOOTKA ROSE	2 GAL. CONTAINER	NATIVE	FULL FOLIAGE, 36" O.C.
	ROSA RUGOSA 'PURPLE PAVEMENT' / DWARF PURPLE PAVEMENT ROSE	3 GAL. CONTAINER		FULL FOLIAGE, 36" O.C.
	VACCINIUM OVATUM / EVERGREEN HUCKLEBERRY	2 GAL. CONTAINER	NATIVE	FULL FOLIAGE, 36" O.C.
	VIBURNUM TINUS 'SPRING BOUQUET' / SPRING BOUQUET VIBURNUM	5 GAL. CONTAINER		FULL FOLIAGE, 36" O.C.
	YUCCA FILAMENTOSA 'COLORGUARD' / COLORGUARD YUCCA	5 GAL. CONTAINER		FULL FOLIAGE, 36" O.C.
	1,158 TOTAL PLANTS	408 TOTAL NATIVE PLANTS		

GRASSES, PERENNIALS & GROUNDCOVERS

	135 HAKONECHLOA MACRA 'AUREOLA' / GOLDEN JAPANESE FOREST GRASS	1 GAL. CONTAINER		18" O.C.
	69 MISCANTHUS SINENSIS 'ADAGIO' / ADAGIO MAIDEN GRASS	1 GAL. CONTAINER		18" O.C.
	56 NEPETA X FAASSENII 'WALKER'S LOW' / WALKER'S LOW CATMINT	1 GAL. CONTAINER		36" O.C.
	111 PENNISETUM ALOPECUROIDES 'HAMELN' / WHITE FOUNTAIN GRASS	1 GAL. CONTAINER		24" O.C.
	99 SEDUM 'AUTUMN JOY' / AUTUMN JOY SEDUM	1 GAL. CONTAINER		24" O.C.
	1,840 FRAGARIA CHILOENSIS / SAND STRAWBERRY	1 GAL. CONTAINER	NATIVE	24" O.C.

4,105 SF LAWN - SEED OR SOD Seed or Sod per Owner's request

3,535 TOTAL PLANTS 2,278 (65% TOTAL NATIVE PLANTS)
TOTAL LANDSCAPE AREA = 17,519 SF

SITE AREA CALCULATIONS:

TOTAL LANDSCAPE AREA PROVIDED = 17,519 SF
TOTAL ESTIMATED TOPSOIL REQUIRED (8" Depth) 430 CY
TOTAL ESTIMATED MULCH REQUIRED (4" Depth) 165 CY

CITY OF PUYALLUP
 Planning Division
 Approved Landscape Plan
 (253) 864-4165

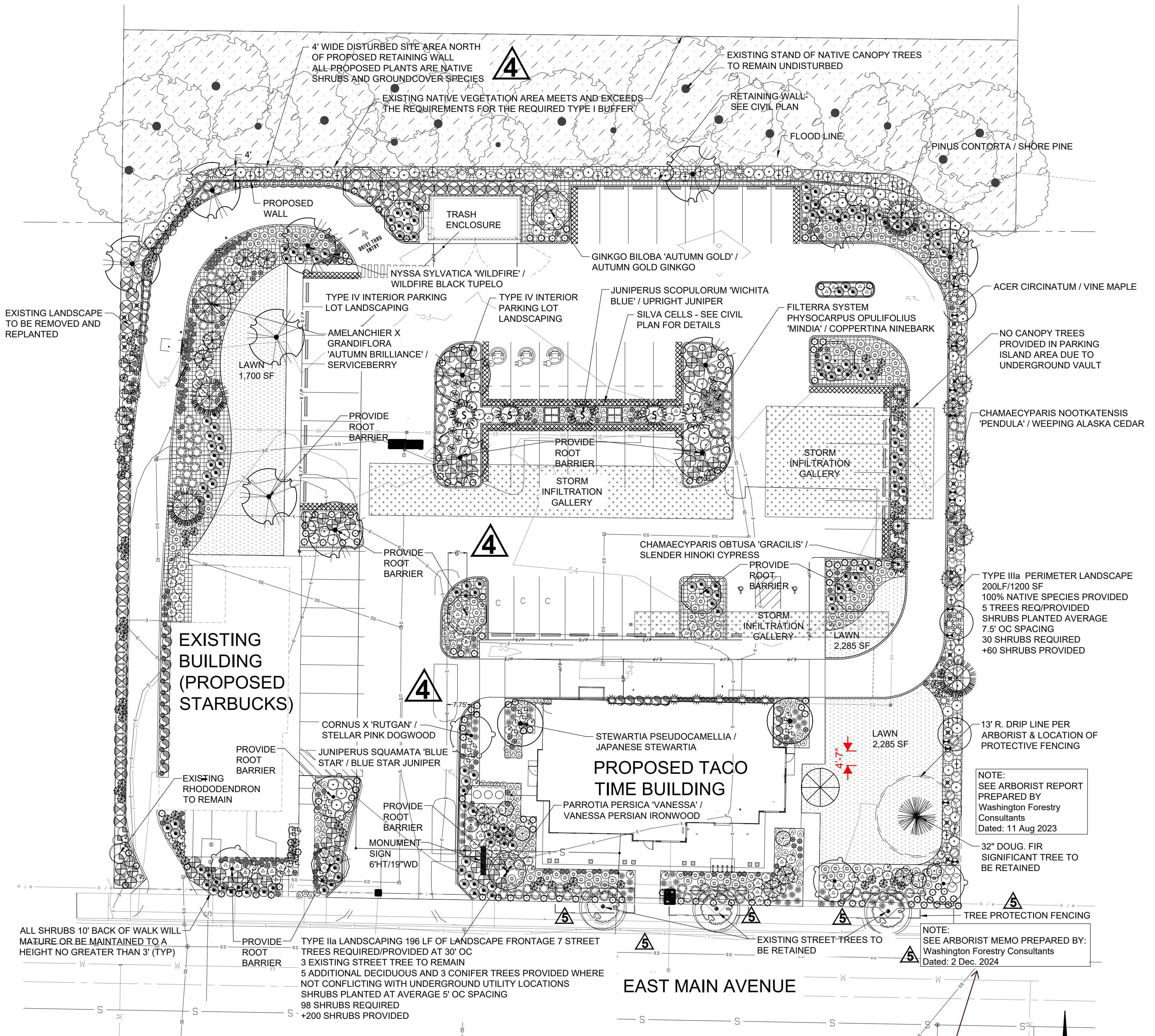
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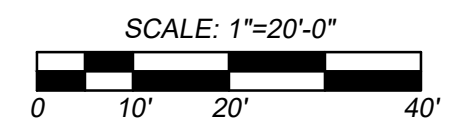
NOTE: If street trees are required, Call Planning Division for final inspection: (253) 864-4165 (Option 3)
 Root barriers are required around street trees in accordance with city standard detail. Top soil shall be installed in accordance with city standards - field verification required. Failure to install top soil and root barriers in accordance with the city standards may result in rejection of installation.

CITY OF PUYALLUP REQUIREMENTS:

1. PROVIDE ROOT BARRIER WHERE PROPOSED TREES ARE WITHIN 10 LF OF SEWER AND STORM PIPES OR STORM INFILTRATION GALLERIES
2. TREES MUST BE NO CLOSER THAN 3' FROM ALL PIPES



- Tree protection fencing should be placed at the back of sidewalk and extend back as far as possible from sidewalk, minimum of 6 feet.
 - Fencing should extend between trees 1 & 2 to protect as much of the root protection zone as possible.
 - A minimum of 6 feet on each side should be protected if the entire area cannot be fenced off.



LANDSCAPE PLAN & SCHEDULE

Taco Time
 Azure Green Consulting Engineers
 1115 E. Main Ave., Puyallup, WA

BRADLEY DESIGN GROUP, INC.
 LANDSCAPE ARCHITECTURE + SITE PLANNING

BDG

mail
 4330 N Lexington St
 Tacoma, WA 98407

location
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STATE OF WASHINGTON
 REGISTERED
 LANDSCAPE ARCHITECT

Bradley Design Group, Inc.
 12/15/2024

REVISION		
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2	9 Jan 2024	KBR
3	17 July 2024	KBR
4	18 Sept 2024	KBR
5	2 Dec 2024	KBR

Task: 1"=20'0"
 Designer: MFW
 Project Manager: MFW
 Checker: KBR
 Date: 28 JULY 2023
 City: CITY SUBMITTAL #4
 Project No: 22017

Sheet No. **L-1**
 of 3 Sheets

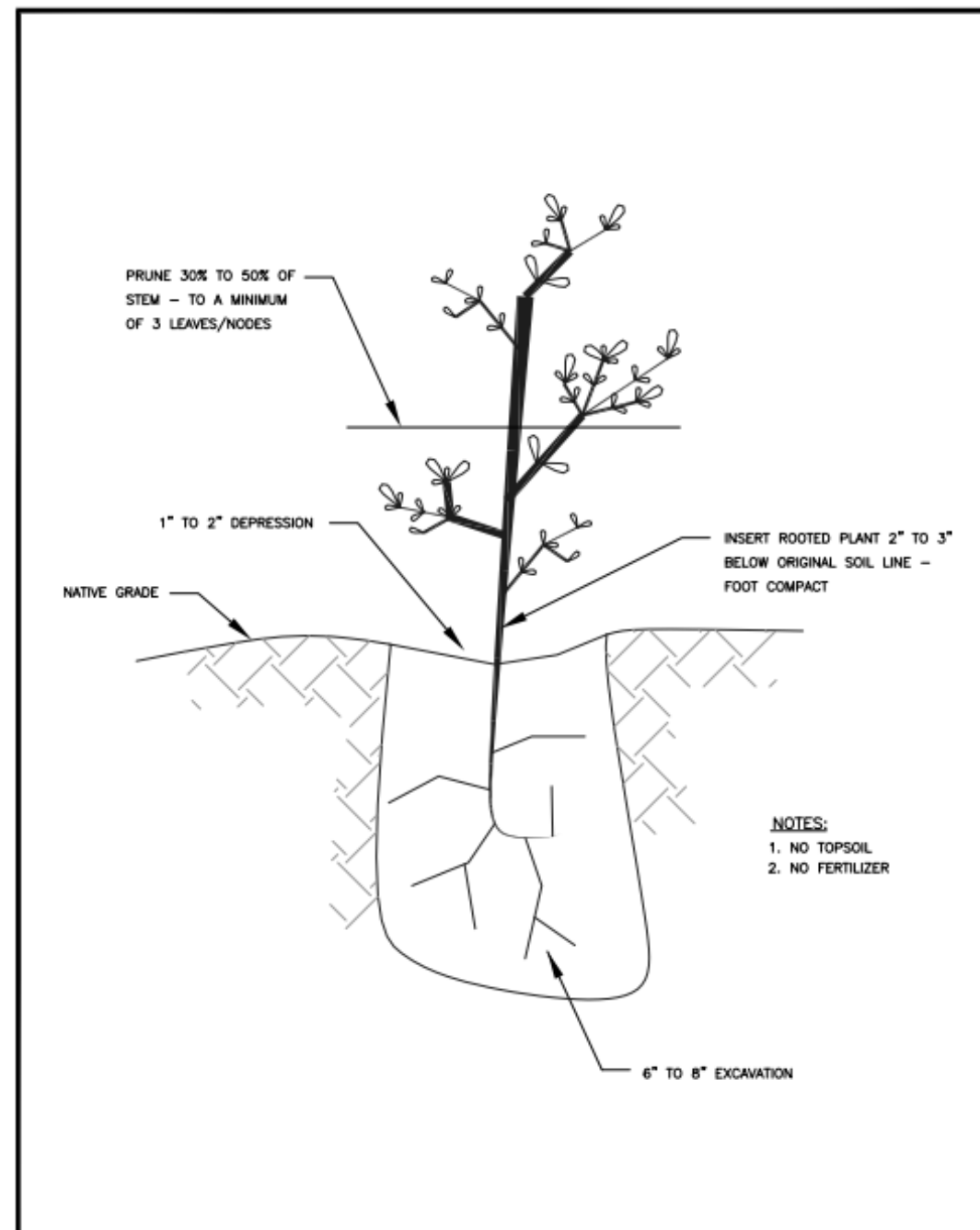
LANDSCAPE NOTES AND REQUIREMENTS:

GENERAL NOTES:

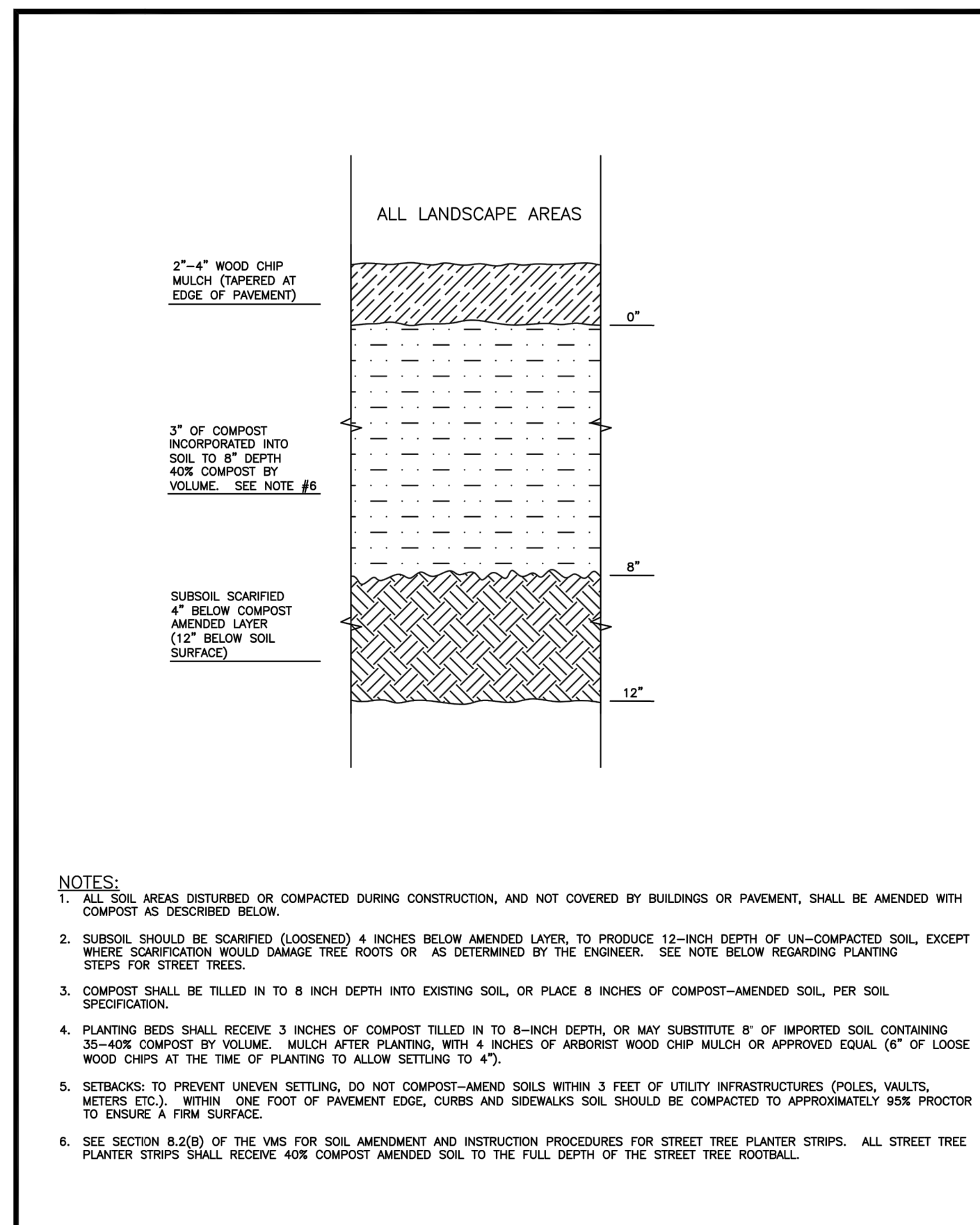
- Plant material list submittal: within 30 calendar days after receipt of the notice to proceed, landscape contractor shall submit a complete list of materials proposed to be furnished and installed demonstrating conformance with the requirements specified. Include the name, addresses and telephone numbers of all plant material suppliers and growers.
 - Documentation shall also include suppliers name, contact person, address, telephone number, botanical and common name, plant size and size of container or ball.
 - Contractor shall provide a signed statement from the plant suppliers who have furnished the plant materials identifying the plant materials being supplied by botanical and common names, plant size and stating that all of the plants supplied by them are in healthy growing conditions meeting the American Standard for Nursery Stock (ANSI Z60.1).
 - Submit a project installation schedule, coordinated with the proposed soil amending and planting schedule to the landscape architect or owner for approval at least 30 calendar days prior to start of work under this section.
- Substitutions of plant materials will not be permitted unless authorized in writing by the landscape architect or owner. If proof is submitted that any plant specified is not obtainable, a proposal will be considered for use of the nearest equivalent size and or variety. Such proof shall be substantiated and submitted in writing to the landscape architect or owner at least 30 days prior to start of work under this section. These provisions shall not relieve contractor of the responsibility of obtaining specified materials in advance if special growing conditions or other arrangements must be made in order to supply specified materials.
- Plants shall be subject to inspection and approval by landscape architect or owner for conformance to specifications upon delivery to the project site. Such approval shall not impair the subsequent right of inspection and rejection during progress of the work. Contractor shall give landscape architect 48 hours advance notice when plants will be delivered to the site for inspection. Inspection of plant materials shall take place within 24 hours of delivery to the site.
- Coordinate work with other trades as required.
- Locate all underground utilities prior to commencing work to avoid damage to buried pipes and cables.
- Provide protection for all property, persons, work in progress, structures, utilities, walls, curbs and paved surfaces from potential damage arising from this work. The contractor shall pay for any such damage at no additional cost to the owner. Unfinished and completed work shall be protected from erosion or trespassing, and proper safeguards shall be erected to protect the public from injury or danger.

ADDITIONAL CITY OF PUYALLUP SOIL AMENDMENT AND DEPTH NOTES

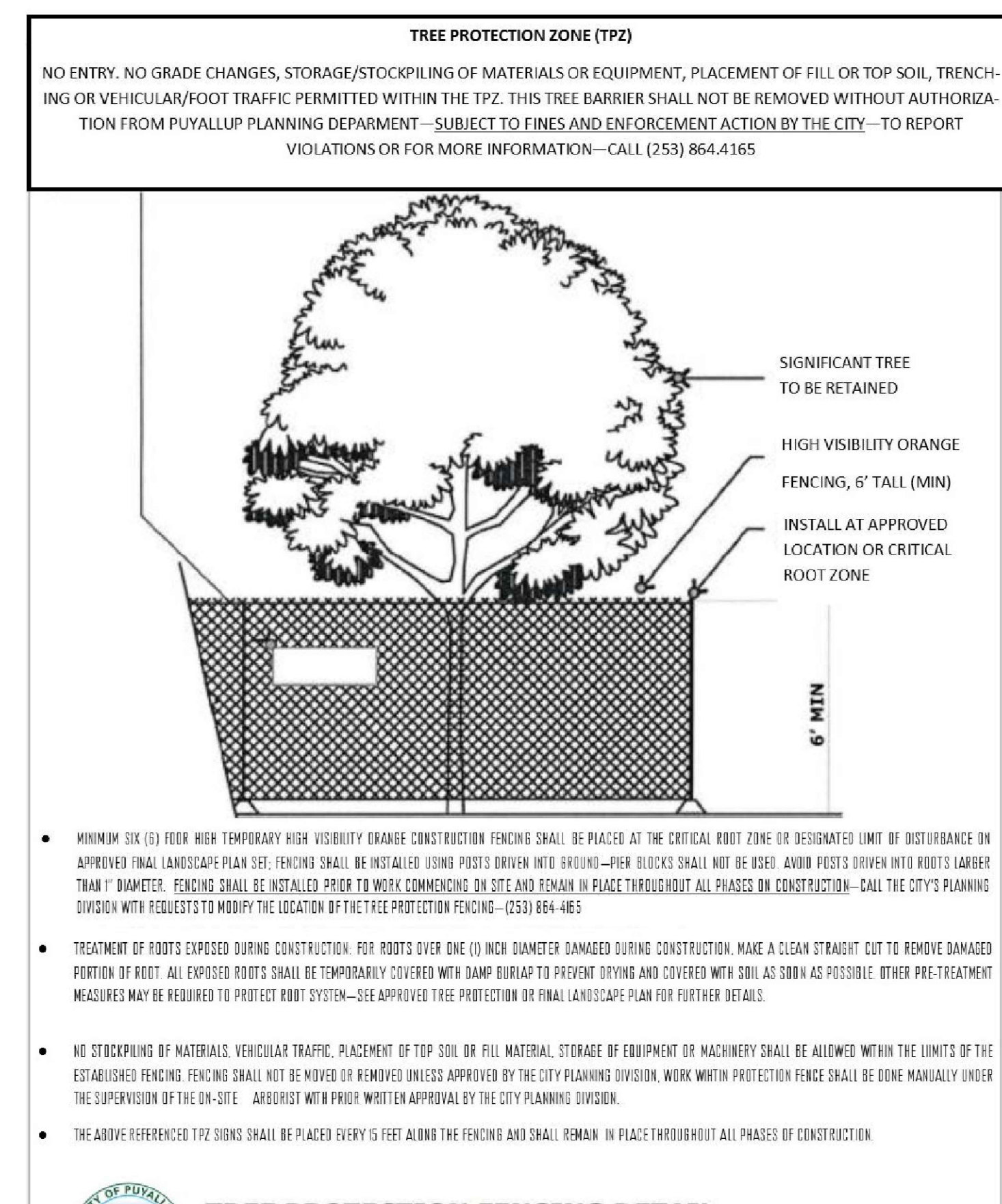
- ALL SOIL AREAS DISTURBED OR COMPACTED DURING CONSTRUCTION, AND NOT COVERED BY BUILDINGS OR PAVEMENT, SHALL BE AMENDED WITH COMPOST AS DESCRIBED BELOW.
- SUBSOIL SHOULD BE SCARIFIED (LOOSENED) 4 INCHES BELOW AMENDED LAYER, TO PRODUCE 12-INCH DEPTH OF UNCOMPACTED SOIL, EXCEPT WHERE SCARIFICATION WOULD DAMAGE TREE ROOTS OR AS DETERMINED BY THE ENGINEER. SEE NOTE BELOW REGARDING PLANTING STEPS FOR STREET TREES.
- COMPOST SHALL BE TILLED IN TO 8 INCH DEPTH INTO EXISTING SOIL, OR PLACE 8 INCHES OF COMPOST-AMENDED SOIL, PER SOIL SPECIFICATION.
- 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").
- 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.
- 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% COMPACT AMENDED SOIL TO THE FULL DEPTH OF THE STREET TREE ROOTBALL.



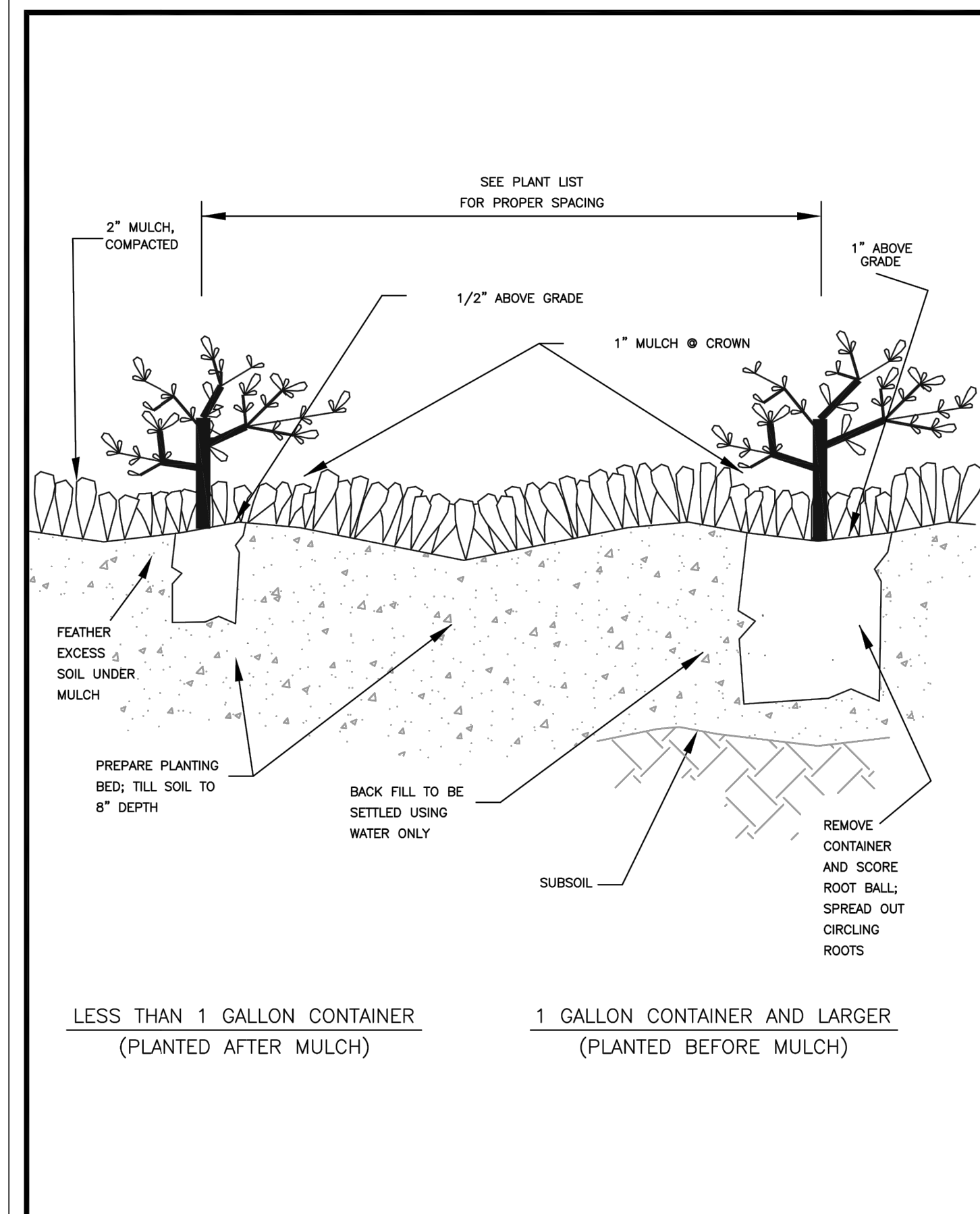
CITY OF PUYALLUP		ROOTED CUTTING/OFFSET/SEEDLING DETAIL	
DESIGNED BY	DATE APPROVED	CHECKED BY	DATE APPROVED
LEWIS LAM	01/01/2024	CHRIS BEALE	01/01/2024
FILE NAME	SCALE	CITY	STATUS
P:\WORK\COMMON\STREETCTV\STR001.DWG	1:1	01.01.2024	01.01.06



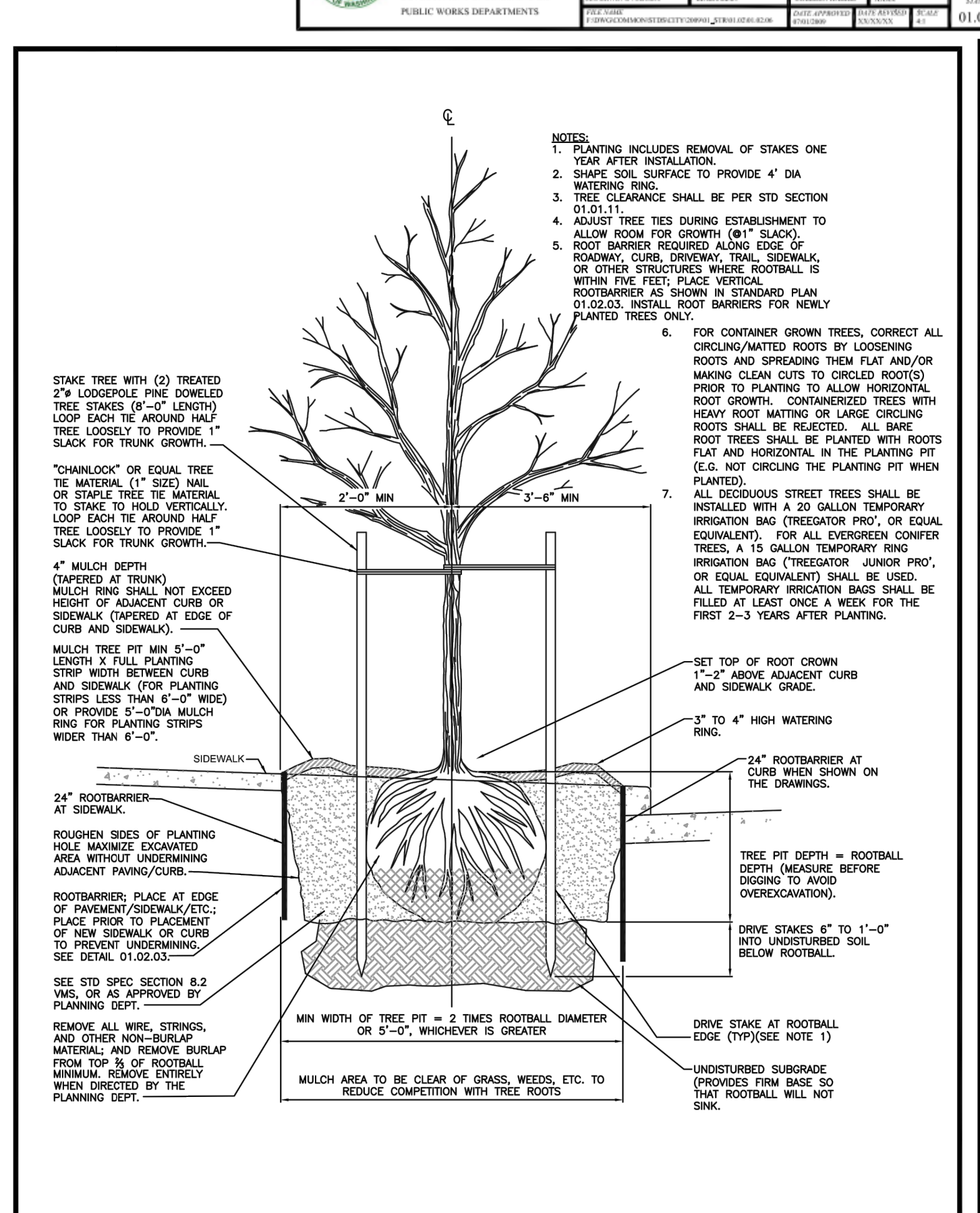
CITY OF PUYALLUP		SOIL AMENDMENT AND DEPTH	
DESIGNED BY	DATE APPROVED	CHECKED BY	DATE APPROVED
LEWIS LAM	01/01/2024	CHRIS BEALE	01/01/2024
FILE NAME	SCALE	CITY	STATUS
P:\WORK\COMMON\STREETCTV\STR001.DWG	1:1	01.01.2024	01.01.08a



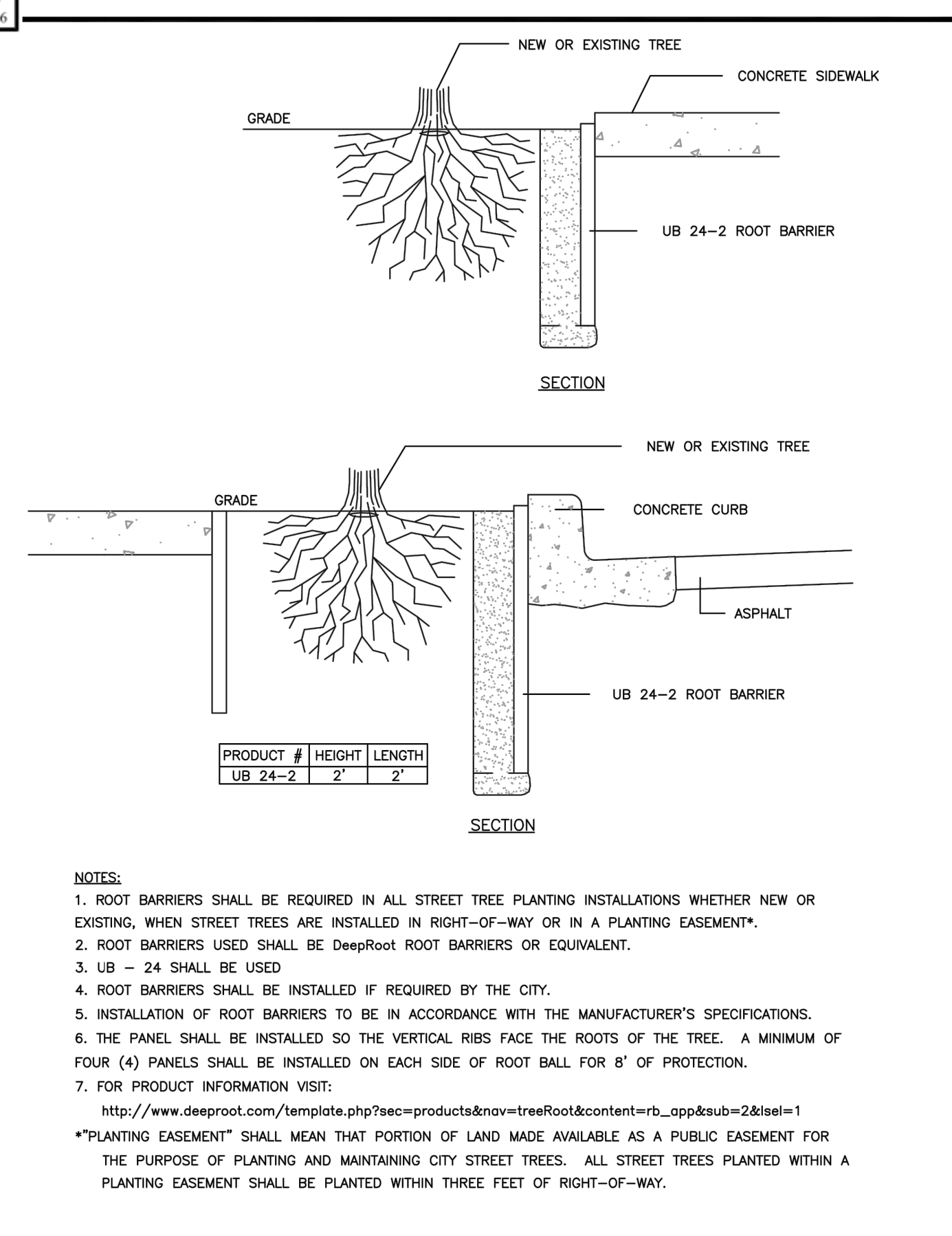
CITY OF PUYALLUP		TREE PROTECTION FENCING DETAIL (for public and private trees)	
DESIGNED BY	DATE APPROVED	CHECKED BY	DATE APPROVED
LEWIS LAM	01/01/2024	CHRIS BEALE	01/01/2024
FILE NAME	SCALE	CITY	STATUS
P:\WORK\COMMON\STREETCTV\STR001.DWG	1:1	01.01.2024	01.01.08a



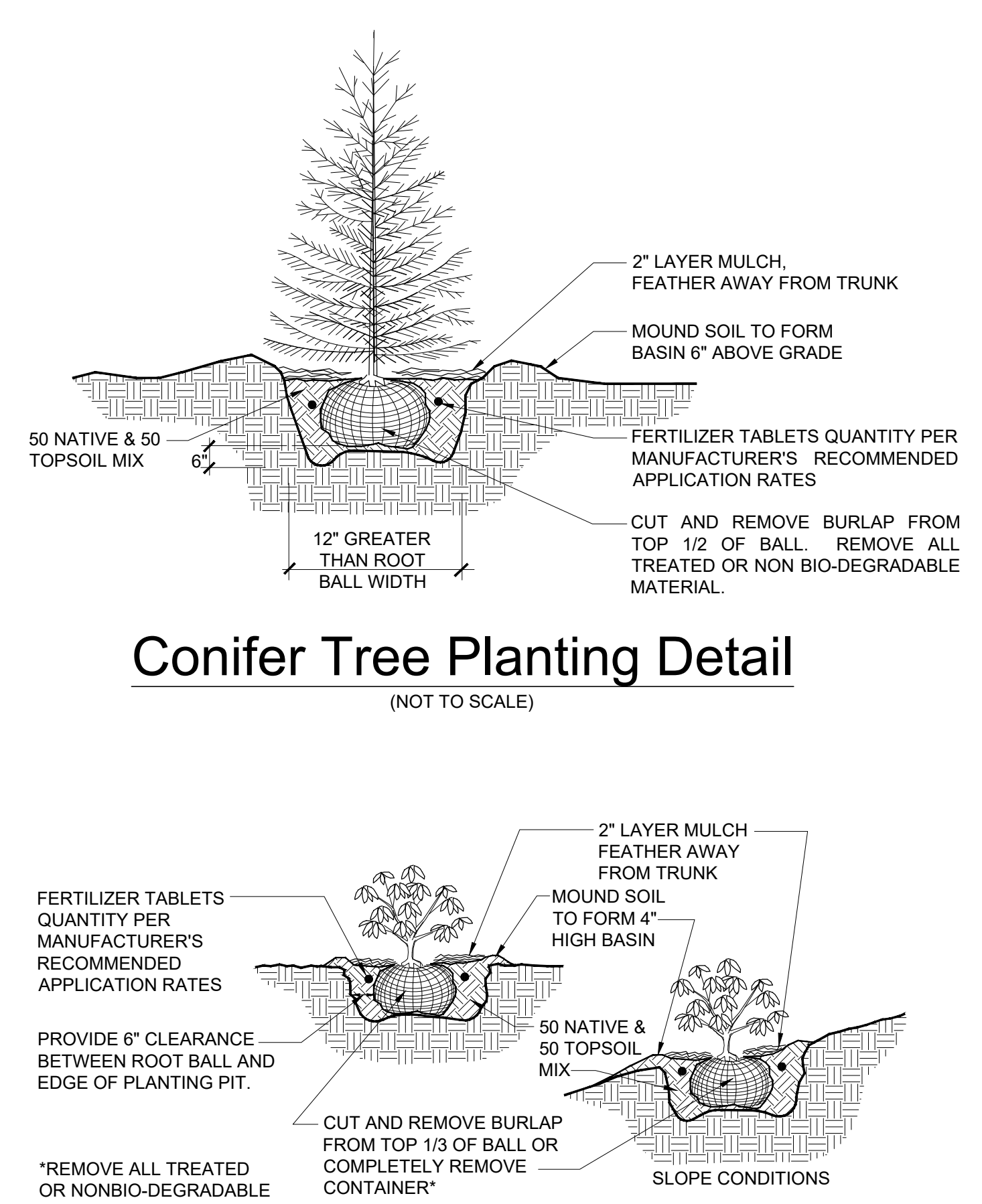
CITY OF PUYALLUP		GROUND COVER PLANTING DETAIL	
DESIGNED BY	DATE APPROVED	CHECKED BY	DATE APPROVED
LEWIS LAM	01/01/2024	CHRIS BEALE	01/01/2024
FILE NAME	SCALE	CITY	STATUS
P:\WORK\COMMON\STREETCTV\STR001.DWG	1:1	01.01.2024	01.01.05



CITY OF PUYALLUP		STREET TREE PLANTING IN PLANTING STRIP	
DESIGNED BY	DATE APPROVED	CHECKED BY	DATE APPROVED
LEWIS LAM	01/01/2024	CHRIS BEALE	01/01/2024
FILE NAME	SCALE	CITY	STATUS
P:\WORK\COMMON\STREETCTV\STR001.DWG	1:1	01.01.2024	01.01.07



CITY OF PUYALLUP		ROOT BARRIER DETAIL	
DESIGNED BY	DATE APPROVED	CHECKED BY	DATE APPROVED
LEWIS LAM	01/01/2024	CHRIS BEALE	01/01/2024
FILE NAME	SCALE	CITY	STATUS
P:\WORK\COMMON\STREETCTV\STR001.DWG	1:1	01.01.2024	01.01.03



CITY OF PUYALLUP		SHRUB PLANTING DETAIL (NOT TO SCALE)	
DESIGNED BY	DATE APPROVED	CHECKED BY	DATE APPROVED
LEWIS LAM	01/01/2024	CHRIS BEALE	01/01/2024
FILE NAME	SCALE	CITY	STATUS
P:\WORK\COMMON\STREETCTV\STR001.DWG	1:1	01.01.2024	01.01.03

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STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT

Bradley Design Group, Inc.
01/01/2024

LANDSCAPE NOTES & DETAILS

Taco Time

Azure Green Consulting Engineers

1115 E. Main Ave., Puyallup, WA

REVISION		
No.	Date	By
1	6 Dec 2023	KBR
3	17 July 2024	KBR
Task: 1" = 20'0"		
Designer:	MFW	Sheet No. L-2
Project Manager:	MFW	of 3 Sheets
Planner:	KBR	
Date:	28 JULY 2023	
Project:	CITY SUBMITTAL #4	
Project No.:	22017	

CITY OF PUYALLUP LANDSCAPE NOTES AND REQUIREMENTS:

- D. All groundcover materials required by this document and/or Title 20 of the Puyallup Municipal Code shall be no smaller than one (1) gallon in size, unless otherwise specified.
- F. Coniferous evergreen trees shall be a minimum of 5 to 6 feet in height.
- G. Any material not specifically listed shall meet current AAN standards and be of appropriate size to satisfy the intent of this document and/or the PMC.

7.3 Native plant materials
A minimum of 25 percent of the shrubs and ground covers used in projects under the requirements of the PMC and the VMS shall be native to the Puget Sound region.

- 7.4 Non-vegetative Landscape Material**
- A. Bark, mulch, gravel or other non-vegetative material shall only be used in conjunction with ground cover plantings to assist growth and maintenance or to visually complement plant material. Non-vegetative material is not a substitute for and should not appear to be visually dominate over plant material.
 - B. All non-vegetative ground cover material shall be generally free of foreign material and not detract from the overall design intent of the plan or these policies.
 - C. All non-vegetative material, site furnishings and built structures shall meet all applicable codes and be installed in a safe and professional manner.

8.0 LANDSCAPE INSTALLATION STANDARDS:

- 8.1. General Installation Standards**
- A. All work shall be performed and completed in a professional manner. All public rights-of-ways shall be cleared of all mud and debris at the completion of every work day. All on-site storage and work areas shall be maintained in a safe and hazard free condition.
 - B. All final landscape plans shall indicate the method of planting and tree staking when applicable. Staking shall only be used where demonstrated to be necessary. Newly planted trees installed in very loose soil or extremely windy locations shall be staked for one full growing season to minimize tree movement. The tree shall be secured to the stakes with a loose attachment that will allow the tree to grow without injury. The stake will be placed in such a manner that there will be no limb or bark damage. The stake shall not penetrate the root ball and be placed on the lee side of the prevailing winds. All stakes and attachment material will be removed by the contractor or property owner at the completion of the first full growing season.
 - C. In parking areas, trees and shrubs shall be planted at least two and one-half feet from the inside edge of the curb or wheel stop, where vehicles may overhang planted areas. Ground cover vegetation should be installed on a regular spaced grid pattern including the over hang area.

8.2 Soil Quantity and Quality Standards
Purpose and Definition
Naturally occurring (undisturbed) soil and vegetation provide important stormwater functions including: water infiltration; nutrient, sediment, and pollutant adsorption; sediment

- o **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)
 - o **TAGRO Compost Mix** (available through City of Tacoma, 2201 E. Portland Avenue, Gate 6, Tacoma, WA, 98421, or retail/wholesale landscape material suppliers)
 - o **Cedar Grove Compost** (available through Cedar Grove Compost, 17825 Cedar Grove Road S.E., Maple Valley, 98038, or retail/wholesale landscape material suppliers)
 - **Install and amend top soils** - To avoid stratified layers, first place seven inches (7") of approved top soil 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" top soil depth. Finished grade of top soil should be 1/2" below the edge of sidewalk to allow the root barrier panel to be properly installed above finished grade.
 - **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.
- (2) **For street trees to be planted in existing right-of-way planter strips:** In a planter strip which already exists and a new street tree shall be installed, the following procedures shall be followed to achieve a top soil mix with 40 percent compost by volume:
- **Excavate soil** - Excavate existing soil to a depth of 24" (or equal to the root ball depth, whichever is greater) and width of 8' (or three times (3X) wider than the root ball or root mass, whichever is greater). Stockpile excavated soil on a tarp away from the street and storm water catch basins.
 - **Prepare the planting strip** - After excavating all materials from the planter strip, scarify and rip the sub-base (by 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 top soil, 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 root ball 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. This may require the root ball be placed on a compacted sub-base of the compost amended top soil as backfilling is occurring.

and pollutant biofiltration; water interflow storage and transmission; and pollutant decomposition. These functions are largely lost when development strips away native soil and vegetation and replaces it with minimal topsoil and sod. Not only are these important stormwater functions lost, but such landscapes themselves become pollution-generating pervious surfaces due to increased use of pesticides, fertilizers and other landscaping and household/industrial chemicals, the concentration of pet wastes, and pollutants that accompany roadside litter. Establishing soil quality and depth regains greater stormwater functions in the post-development landscape, provides increased treatment of pollutants and sediments that result from development and habitation, and minimizes the need for some landscaping chemicals, thus reducing pollution through prevention.

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 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).
- 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 top soil mix with 40 percent compost by volume. The contractor or installer shall:
 - **Review the city standard planting detail** - All contractors/installers are required to following city standard #01.02.07 (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.
 - **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

- **Install root barrier panels** - 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 paved surface in accordance with the manufacturer's standards 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 3/4" of the root barrier is above the finished grade.
- **Compost amended top soils required** - The top soil shall be amended on site during installation with compost to achieve a 40 percent by volume top soil mix in the right-of-way planter strip. Imported top soil may be used by the contractor/installer 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:
 - o **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)
 - o **TAGRO Compost Mix** (available through City of Tacoma, 2201 E. Portland Avenue, Gate 6, Tacoma, WA, 98421, or retail/wholesale landscape material suppliers)
 - o **Cedar Grove Compost** (available through Cedar Grove Compost, 17825 Cedar Grove Road S.E., Maple Valley, 98038, or retail/wholesale landscape material suppliers)
- **Install and amend top soils** - To avoid stratified layers, first place seven inches (7") of approved top soil 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" top soil depth. Finished grade of top soil should be 1/2" below the edge of sidewalk to allow the root barrier panel to be properly installed above finished grade.
- **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.

B. The project landscape architect shall utilize one of the design methods outlined in appendix 20.9 in incorporating this standard. The landscape architect shall estimate total top soil and compost import volumes and specify the top soil and compost source during the final landscape plan review. A top soil delivery ticket(s), invoice(s) or other physical proof that the correct quantity and quality of top soil was delivered shall be provided at the time of final inspection.

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.

- **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.
- **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 top soil, 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 root ball 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. This may require the root ball be placed on a compacted sub-base of the compost amended top soil as backfilling is occurring.
- **Install root barrier panels** - 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 paved surface in accordance with the manufacturer's standards 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 3/4" of the root barrier is above the finished grade.
- **Compost amended top soils required** - Top soil source shall be reviewed and approved during the pre-construction meeting; all top soil shall be a top quality sandy-loam mix, or equivalent as approved by the Planning Department. The top soil shall be amended on site during installation with compost to achieve a 40 percent by volume top soil mix in the right-of-way planter strip. Imported top soil 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:

8.3 Mulching
In an effort to minimize water use, reduce costs and use of chemicals for maintenance, all planting areas shall be mulched with a uniform four (4") inch layer of organic compost mulch or wood chips over a properly cleaned, amended and graded subsurface. Four inches of mulch in planting areas shall be maintained through the life of the project. Herbicides shall not be used in the mulch ring area for street trees; see city standard #01.02.07 for street tree mulch application and dimensions.

9.0 GUARDING AGAINST DAMAGE:

9.1 Vegetation Protection
Any person, firm or corporation engaged in the construction, alteration or repair of any street, sidewalk, parking area, building or portion thereof, prior to starting of any such activity, shall place proper guards or temporary fences to ensure the protection of adjacent existing vegetation from all damage or injury. This shall include the restriction on stacking, storing, stockpiling, or the accumulation of goods or material in the area defined as the Critical Root Zone. See appendix 20.10 for tree protection on construction and development sites best management practices. See appendix 20.5 for standard detail for protection of all trees (public, private)

In developing a tree protection plan, the applicant shall consult a certified arborist, with a certification in Tree Risk Assessment (TRAQ). All vegetation scheduled or conditioned to be retained during development or construction actions shall be assessed by a certified arborist in accordance with industry accepted arboricultural standards as well as the standards contained in appendix 20.10. The project arborist shall integrate any and all applicable protection and pre-conditioning measures outlined in appendix 20.10.

9.2 Excavation in Root Zone
To avoid damaging the health and stability of any existing tree which is to be retained, all root structures one (1) inch in diameter or greater found within the upper 24 inches of soil, should not be cut. All roots over two inches in diameter should be tunneled under. Use of pneumatic air tools to remove soil around existing root system is preferred. As last resort, if roots are to be cut, they should be cut cleanly. All exposed/cut roots shall be immediately covered with wet burlap, wet hog fuel/wood chips/sawdust or damp soil or compost to prevent desiccation. No ripping or tearing of the root structure shall be allowed. At no time shall the amount of root disturbance pose a danger to the general health or stability of the tree.

9.3 Violation - Penalty for Damage
Penalties for damage to vegetation covered by this document shall follow the appropriate PMC Section(s) including 11.28 or 20.95.

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REGISTERED
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Bradley Design Group, Inc.
Landscape Architect

CITY OF PUYALLUP LANDSCAPE NOTES

Taco Time

Azure Green Consulting Engineers
1115 E. Main Ave., Puyallup, WA

REVISION		
No.	Date	By

Title: AS INDICATED

Designer: MFW

Project Manager: MFW

Reviewer: KBR

Date: 17 JULY 2024

Sheet No. **L-3** of 3 Sheets

Project: CITY SUBMITTAL #4

Project No. 22017