Development Services
333 S. Meridian
Puyallup, WA 98371
Phone: 253-864-4165
www.cityofpuyallup.org

Plan Change Request

A plan change request is necessary for civil projects that propose substantial changes to the approved civil plans and requires additional review by City of Puyallup review staff. This application should be filled out completely and sent directly to the City Review Engineer assigned to the civil permit application via email.

Project Information

PCR 002

Site Address/ Parcel #: 707 39th Ave SE Permit #: PRCCP20231028

Owner: Wesley Homes -Kevin Anderson Email: kanderson@wesleyhomes.com

Design Engineer: Dan Balmelli Email: dbalmelli@barghausen.com

Contractor: Walsh Construction Company - Anthony Mizin Email: amizin@walshconstruction.com

Originator of the Request: ■ Owner ☐ Design Engineer ☐ Contractor ☐ City of Puyallup

- Does this request require a deviation from city standards? ☐ Yes ■ No
- If yes, submit an Alternative Method's Request via the CityView Portal instead of this form

➢ Indicate the development infrastructure being affected

☐ Road ■ Storm ■ Water ■ Sanitary ☐ Grading ☐ Erosion Control

➢ Specify the approved civil plans affected: C2, C5-C13

➢ Describe the change(s) being requested:

Building footprint revision to the New Care Center and revisions to associated grading and utilities surrounding the Care Center.

In addition, some minor adjustments to water and sewer utilities for the Brownstone are shown plus additional elevations for the north ramp walls.

➢ All signatures are required to process this request unless initiated by the City of Puyallup. Final approval/denial will be made by the City Review Engineer. All changes must be fully approved/denied prior to any work on the requested changes. Any work completed prior to approval is at the risk of the developer/contractor and may not be approved by the City.

Owner

Daniel K. Balmelli
Design Engineer

Contractor

City Inspector

City Reviewer

Approved w/ Conditions.
Approved/ Denied

CONDITIONS (Prior to Occupancy):
1) See markups on Civil and Landscape plans.
2) Provide confirmation that an approved oil/water separator was installed in the Brownstone parking garage under the Building Permit. Separator installation shall be certified by the Engineer-of-Record associated with the O/W design in accordance with City Standards 402.2.
3) Provide fully executed landscape easement between Wesley Homes and Lowes Corporation.

Date: 08/04/2025

COVER SHEET
FOR
PHASE 2 - WESLEY BRADLEY PARK

A PORTION OF THE SE1/4 OF THE SW1/4 OF SEC. 3, TWP. 19 NORTH, RGE. 4 EAST, W.M.
CITY OF PUYALLUP, PIERCE COUNTY WA

LEGAL DESCRIPTION

(PER FIRST AMERICAN TITLE INSURANCE COMPANY'S FILE NO. NCS-811513-WA1, DATED AUGUST 30, 2016 AT 7:30 A.M.)

PARCEL A:
REVISED PARCEL 2 OF CITY OF PUYALLUP BOUNDARY LINE ADJUSTMENT NO. 06-84-007, RECORDED AUGUST 18, 2006 UNDER RECORDING NO. 200608185003 AND AFFIDAVIT OF MINOR CORRECTION OF SURVEY RECORDED NOVEMBER 30, 2006 UNDER RECORDING NO. 200611300893, RECORDS OF PIERCE COUNTY, WASHINGTON.

PARCEL B:
A NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS CREATED BY INSTRUMENT RECORDED APRIL 26, 2007 UNDER RECORDING NO. 200704260812, IN PIERCE COUNTY, WASHINGTON.

HORIZONTAL DATUM (NAD 83/91)- BASIS OF BEARINGS
SOUTH 05°28'09" EAST, AS MEASURED BETWEEN W.S.D.O.T. MONUMENT ID 244 AND 4208.

VERTICAL DATUM – (NAVD 1988)

BENCHMARK: W.S.D.O.T. MONUMENT ID 244 (GP27512-17), BEING THE TOP OF A FOUND 3" BRASS DISK "1991 GP27512-17" ON NORTH SIDE OF MERIDIAN AVE., 30' EAST OF N.E. CORNER OF SR-512 OVERPASS
ELEV. = 409.93 US FEET

PROCEDURE / NARRATIVE
A FIELD TRAVERSE USING A "TOPCON QS" AND SPECTRA "FOCUS 30" TOTAL STATION, "TOPCON GR5" AND "TDS RANGER" DATA COLLECTOR SUPPLEMENTED WITH GPS AND FIELD NOTES WAS PERFORMED, ESTABLISHING THE ANGULAR, DISTANCE, BETWEEN THE MONUMENTS, PROPERTY LINES, AND TOPOGRAPHIC FEATURES AS SHOWN HEREON. THE RESULTING DATA MEETS OR OR EXCEEDS THE STANDARDS FOR LAND BOUNDARY SURVEYS AS SET FORTH IN WAC 332-130-090.

DATES OF SURVEYS:
FIELD SURVEY BY BARGHAUSEN CONSULTING ENGINEERS, INC. CONDUCTED IN MAY 2015 AND SEPTEMBER 2016.
ALL MONUMENTS SHOWN AS FOUND WERE VISITED IN 2015.

TAX ACCOUNT NUMBERS:
0419037014

CALCULATED AREA:
625,733.52± SQ. FT. (14.36± ACRES)

PROPERTY ADDRESS:
707 39TH AVE. S.E.
PUYALLUP, WA 98374

SURVEYORS NOTES:
1. UNDERGROUND UTILITIES AND FEATURES DEPICTED HEREON ARE BASED ON FIELD OBSERVATION, MARKINGS, DEVELOPMENT PLANS, AND/OR AVAILABLE RECORD DOCUMENTS ONLY. THE TRUE LOCATION, NATURE AND/OR EXISTENCE OF BELOW GROUND FEATURES, DETECTED OR UNDETECTED, SHOULD BE VERIFIED.
2. ALL DISTANCES ARE IN US FEET
3. NO BUILDINGS ARE WITHIN THE SURVEYED AREA
4. THERE WAS NO EVIDENCE OF CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS OBSERVED AT THE TIME OF THE FIELD SURVEY.
5. THERE WAS NO EVIDENCE OF SITE USE AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL WAS OBSERVED AT THE TIME OF THE FIELD SURVEY.
6. NO PARKING OR STRIPING WAS FOUND ON SITE.
7. FLAGGED WETLANDS SHOWN AS LOCATED IN THE FIELD IN 2015.
8. NO ZONING INFORMATION HAS BEEN PROVIDED AS OF OCTOBER 13, 2016

REFERENCE SURVEYS:
1. R.O.S., REC. NO. 8410300247
2. R.O.S., REC. NO. 8603170340
3. R.O.S., REC. NO. 8604080409
4. PUYALLUP BLA, REC. NO. 200608185003

ZONING: "CB" COMMUNITY BUSINESS.

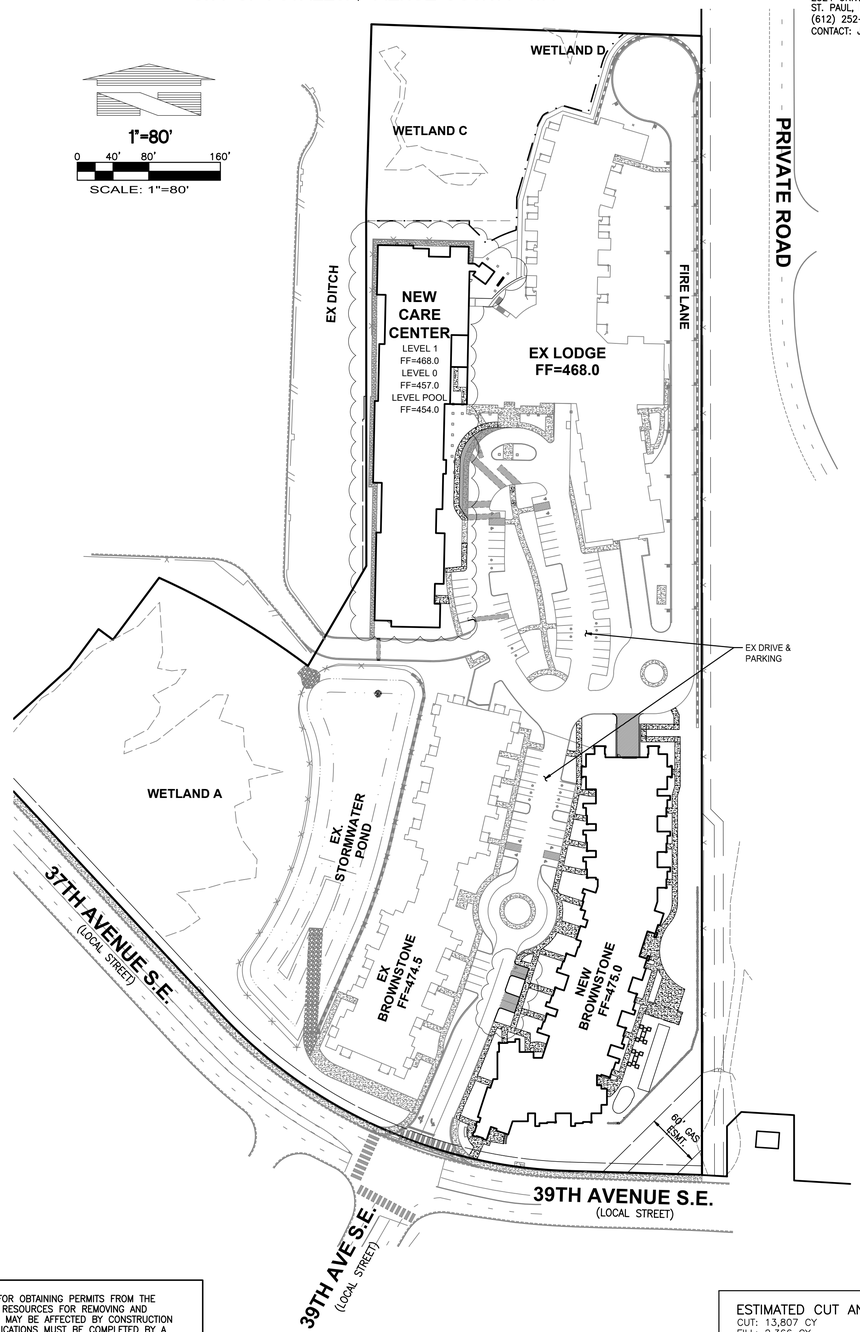
CONSTRUCTION SEQUENCE:

1. SCHEDULE AND ATTEND PRE-CONSTRUCTION MEETING WITH CITY OF PUYALLUP OFFICIALS.
2. FLAG ALL TREES TO REMAIN, CLEARING AND GRADING LIMITS FOR PROJECT AS SHOWN ON THE PLANS.
3. CONSTRUCT TEMPORARY CONSTRUCTION ENTRANCE.
4. INSTALL TEMPORARY FILTER FABRIC FENCE AND CB PROTECTION AS SHOWN ON PLANS.
5. REMOVE EXISTING SITE IMPROVEMENTS AS INDICATED ON PLANS.
6. CONSTRUCT INTERCEPTOR DITCHES WHERE SHOWN.
7. TIME LIMIT APPLIES TO ANY WORK PERFORMED IN THE CITY OF PUYALLUP. CONTRACTOR TO COORDINATE WITH CITY OFFICIAL FOR TIMING OF ANY CONSTRUCTION WITHIN ROW.
8. PROTECT ALL PROPERTIES ADJACENT TO THE PROJECT FROM SEDIMENT DEPOSITION.
9. NO RUNOFF IS TO LEAVE SITE WITHOUT TREATMENT.
10. CLEAR AND GRADE SITE AMEND E.S.C. FACILITIES AS REQUIRED.
11. WHEREVER CONSTRUCTION VEHICLES ACCESS ROUTE CROSSES PAVED ROADS, CARE MUST BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT (MUD) ONTO THE PAVED ROAD. IF SEDIMENT IS TRANSPORTED ONTO PAVED SURFACE, THE ROAD SHALL BE CLEANED IMMEDIATELY.
12. WITH EACH LAYER OF FILL MATERIAL, INTERCEPTOR DITCHES AND T.E.S.C. FACILITIES MUST BE GRADED AND MAINTAINED TO PROVIDE POSITIVE SLOPE FOR DRAINAGE TO DISCHARGE POINT.
13. INSTALL SANITARY SEWER, WATER, AND STORM SYSTEMS.
14. CONSTRUCT BUILDING.
15. CONSTRUCT RIGHT-OF-WAY IMPROVEMENTS.
16. ONCE THE INSTALLED SYSTEMS ARE TESTED AND APPROVED, COMMENCE SITE PAVING.
17. MAINTAIN T.E.S.C. FACILITIES UNTIL ALL RISK OF EROSION/SEDIMENTATION DRAINAGE HAS PASSED AND PERMANENT STORM DRAINAGE SYSTEM IS INSTALLED AND FUNCTIONAL. DO NOT CONVEY SEDIMENT-LADEN WATER INTO STORM DRAINAGE SYSTEM. REMOVE TEMPORARY EROSION & SEDIMENTATION CONTROL MEASURES UPON FINAL SITE STABILIZATION AND APPROVAL FROM THE CITY INSPECTOR.
18. COMPLETE INSPECTION/ PUNCHLIST

SHEET INDEX

GEOTECHNICAL NOTE:

1. DURING SITE GRADING AND BUILDING CONSTRUCTION THE GEOTECHNICAL ENGINEER OF RECORD OR HIS/HER REPRESENTATIVE WILL PERFORM BI-WEEKLY RECONNAISSANCE OF THE SLOPE AND ISSUE A FIELD REPORT REGARDING SITE CONDITIONS. THESE BI-WEEKLY SLOPE RECONS WILL CONTINUE UNTIL BUILDING SHELL CONSTRUCTION AND STORMWATER FACILITIES ARE COMPLETED AND FUNCTIONAL. POST BUILDING CONSTRUCTION SLOPE RECONS SHALL OCCUR ON A QUARTERLY BASIS FOR A PERIOD OF NO LESS THAN TWO YEARS. IF NO INSTABILITY OR EROSION ISSUES ARE PRESENT AT THAT TIME, MONITORING CAN BE TERMINATED.



OWNER/DEVELOPER

WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209
CONTACT: KEVIN ANDERSON

ENGINEER/SURVEYORS

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVENUE SOUTH
KENT, WA. 98032
(425) 251-6222
CONTACT: DAN BALMELLI, P.E. (ENGINEERING)
CONTACT: BRIAN GILLOOLY, P.L.S. (SURVEY)

ARCHITECT:

IN-SITE ARCHITECTS
2324 UNIVERSITY AVE. WEST, SUITE 105
ST. PAUL, MN 55114
(612) 252-4822
CONTACT: JILL KRANCE

APPROVED

BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE _____

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR 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 ENGINEERING SERVICES MANAGER.

PCR 002
PRCCP20231028

BCE GENERAL SITE NOTES:

1. THE CONTRACTOR SHALL OBTAIN AND HAVE AVAILABLE COPIES OF THE APPLICABLE GOVERNING AGENCY STANDARDS AT THE JOB SITE DURING THE RELATED CONSTRUCTION OPERATIONS.
2. CONTRACTOR SHALL ASSURE THAT ALL NECESSARY PERMITS HAVE BEEN OBTAINED PRIOR TO COMMENCING WORK.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION WHETHER SHOWN ON THESE PLANS OR NOT. UTILITIES OTHER THAN THOSE SHOWN MAY EXIST ON THIS SITE. ONLY THOSE UTILITIES WITH EVIDENCE OF THEIR INSTALLATION VISIBLE AT GROUND SURFACE OR SHOWN ON RECORD DRAWING PROVIDED BY OTHERS ARE SHOWN HEREON. EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY AND ARE SUBJECT TO A DEGREE OF UNKNOWN VARIATION. SOME UNDERGROUND LOCATIONS SHOWN HEREON MAY HAVE BEEN TAKEN FROM PUBLIC RECORDS. BARGHAUSEN CONSULTING ENGINEERS, INC. ASSUMES NO LIABILITY FOR THE ACCURACY OF PUBLIC RECORDS OR RECORDS OF OTHERS. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL CONSULT BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE APPROPRIATE UTILITIES INVOLVED PRIOR TO CONSTRUCTION.
6. INSPECTION OF SITE WORK WILL BE ACCOMPLISHED BY A REPRESENTATIVE OF THE GOVERNING JURISDICTION. INSPECTION OF PRIVATE FACILITIES WILL BE ACCOMPLISHED BY A REPRESENTATIVE OF THE OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE INSPECTOR 24 HOURS IN ADVANCE OF BACKFILLING ALL CONSTRUCTION.
7. PRIOR TO ANY CONSTRUCTION OR DEVELOPMENT ACTIVITY THE CONTRACTOR SHALL CONTACT THE AGENCY AND/OR UTILITY INSPECTION PERSONNEL AND ARRANGE ANY REQUIRED PRE-CONSTRUCTION MEETING(S). CONTRACTOR SHALL PROVIDE ONE WEEK MINIMUM ADVANCE NOTIFICATION TO OWNER, FIELD ENGINEER AND ENGINEER OF PRE-CONSTRUCTION MEETINGS.
8. THE CONTRACTOR IS RESPONSIBLE FOR WORKER AND SITE SAFETY AND SHALL COMPLY WITH THE LATEST OSHA STANDARDS AND REGULATIONS, OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR. ANY WORK WITHIN THE TRAVELED RIGHT-OF-WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE AT LEAST ONE FLAGGER FOR EACH LANE OF TRAFFIC AFFECTED.
10. PROTECTIVE MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT ALL ADJACENT PUBLIC AND PRIVATE PROPERTIES AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ALL EXISTING UTILITY SERVICES THAT ARE TO REMAIN OPERATIONAL WITHIN THE CONSTRUCTION AREA WHETHER SHOWN OR NOT SHOWN ON THE PLANS.
11. TWO (2) COPIES OF THESE APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS. ONE (1) SET WITH RECORDS OF AS-BUILT INFORMATION SHALL BE SUBMITTED TO BARGHAUSEN CONSULTING ENGINEERS, INC. AT COMPLETION OF PROJECT.
12. CONTRACTOR SHALL OBTAIN SERVICES OF A LICENSED LAND SURVEYOR TO STAKE HORIZONTAL CONTROL FOR ALL NEW IMPROVEMENTS. STAKING CONTROL SHALL BE TAKEN FROM ELECTRONIC PLAN FILES PROVIDED BY BARGHAUSEN CONSULTING ENGINEERS, INC.
13. CONTRACTOR SHALL REQUEST FROM BARGHAUSEN CONSULTING ENGINEERS, INC., PRIOR TO ANY CONSTRUCTION STAKING OR CONSTRUCTION WORK, A FORMAL CONSTRUCTION RELEASE PLAN SET OR SPECIFIC RELEASE IN WRITING. THE APPROVED AGENCY PERMIT DRAWINGS WILL NOT BE CONSIDERED CONSTRUCTION RELEASE PLANS BY BARGHAUSEN CONSULTING ENGINEERS, INC. UNLESS BARGHAUSEN CONSULTING ENGINEERS, INC. HAS GIVEN A FORMAL WRITTEN RELEASE OR ISSUED A CONSTRUCTION RELEASE PLAN SET.

No.	Date	By	Ckd.	Appr.	Revision
3	06/17/25	LBP	CMV	CMV	BUILDING, WATER, STORM, AND GRADING REVISIONS

Title: COVER SHEET FOR CIVIL PLANS PHASE 2 - WESLEY BRADLEY PARK

For: WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

DANIEL K. BALMELLI — STATE OF WASHINGTON — 25672 — REGISTERED PROFESSIONAL ENGINEER
6/17/25

Scale: Horizontal 1" = 80' Vertical N/A

Designed CK. Drawn BGK. Checked CMV Approved DKB Date 6/17/25

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

Job Number 16718
Sheet C1 of C20

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LEGEND

	EXISTING	PROPOSED
CURB AND GUTTER		
BARRIER CURB		
CONCRETE		
ASPHALT		
PAINT STRIPING		
DIRECTIONAL ARROW		
SAWCUT		
BOLLARD	○	●
SIGN		
BUILDING LINE		
CONTOURS	432	432
WATER LINE	W	W
FIRE HYDRANT		
WATER METER		
WATER VALVE		
FIRE DEPARTMENT CONN.		
POST INDICATOR VALVE		
STORM LINE	SD	
CATCH BASIN TYPE 1	□	■
CATCH BASIN TYPE 2		
SANITARY SEWER LINE	SS	
SANITARY SEWER MANHOLE	○	●
CLEANOUT (AS NOTED)	○	•
POWER OVERHEAD	P (OH)	P(OH)
POWER UNDERGROUND	P (UG)	P(UG)
POWER METER		
UTILITY POLE		
JUNCTION BOX (TYPE 1,2,3)		
LUMINAIRE		
YARD LIGHT		
TELEPHONE	T(UG)	T
GAS	G	G
GAS METER		
GAS VALVE		

CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR OBTAINING PERMITS FROM THE WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES FOR REMOVING AND REPLACING ALL SURVEY MONUMENTATION THAT MAY BE AFFECTED BY CONSTRUCTION ACTIVITY, PURSUANT TO WAC 332-120. APPLICATIONS MUST BE COMPLETED BY A REGISTERED LAND SURVEYOR. APPLICATIONS FOR PERMITS TO REMOVE MONUMENTS MAY BE OBTAINED FROM THE WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES, OR BY CONTACTING THEIR OFFICE BY TELEPHONE AT (206) 902-1190.

WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES
PUBLIC LAND SURVEY OFFICE
1111 WASHINGTON STREET S.E.
P.O. BOX 47060
OLYMPIA, WASHINGTON 98504-7060

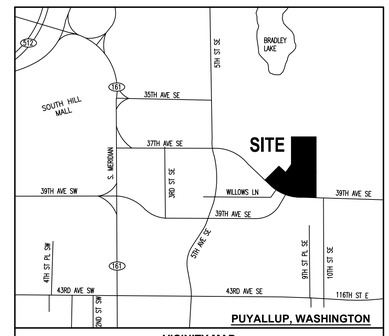
UPON COMPLETION OF CONSTRUCTION, ALL MONUMENTS DISPLACED, REMOVED, OR DESTROYED SHALL BE REPLACED BY A REGISTERED LAND SURVEYOR, AT THE COST AND AT THE DIRECTION OF THE CONTRACTOR, PURSUANT TO THESE REGULATIONS. THE APPROPRIATE FORMS FOR REPLACEMENT OF SAID MONUMENTATION SHALL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR.

UTILITY CONFLICT NOTE:

CAUTION:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE @ 1-800-424-5555 AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL CONSULT BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.

ESTIMATED CUT AND FILL QUANTITIES:
CUT: 13,807 CY
FILL: 2,366 CY
(QTYS. ARE FOR PERMITTING PURPOSES ONLY. CONTRACTOR SHALL VERIFY EXACT QTYS. BEFORE CONSTRUCTION.)

CALL BEFORE YOU DIG:
1-800-424-5555



VICINITY MAP
N.T.S.

PROPERTY ADDRESS:
707 39TH AVE. S.E. PUYALLUP, WA 98374

EXISTING SITE AND TESC PLAN NORTH
FOR
PHASE 2 - WESLEY BRADLEY PARK

1"=30'

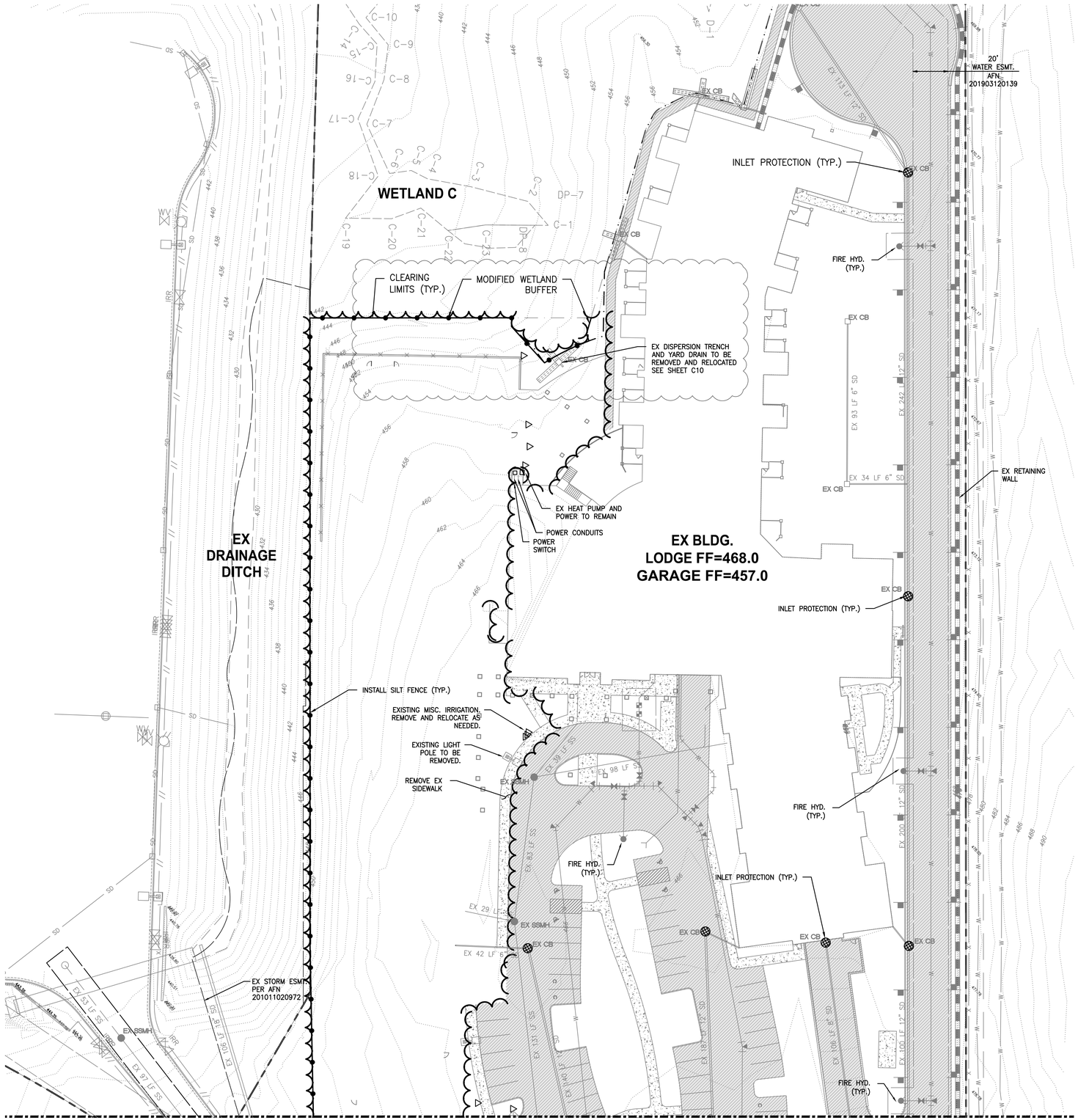
0 15 30 60

NOTES:

1. CONTRACTOR SHALL USE BAKER TANK FOR EROSION CONTROL, IF REQUIRED.
2. AT ANY TIME DURING CONSTRUCTION IT IS DETERMINED BY THE CITY THAT MUD AND DEBRIS ARE BEING TRACKED ONTO PUBLIC STREETS WITH INSUFFICIENT CLEANUP, ALL WORK SHALL CEASE ON THE PROJECT UNTIL THIS CONDITION IS CORRECTED. THE CONTRACTOR AND/OR THE OWNER SHALL IMMEDIATELY TAKE ALL STEPS NECESSARY TO PREVENT FUTURE TRACKING OF MUD AND DEBRIS INTO THE PUBLIC ROW, WHICH MAY INCLUDE THE INSTALLATION OF A WHEEL WASH FACILITY ON-SITE.
3. CONTRACTOR SHALL DESIGNATE A WASHINGTON DEPARTMENT OF ECOLOGY CERTIFIED EROSION AND SEDIMENT CONTROL LEAD PERSON, AND SHALL COMPLY WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED FOR THIS PROJECT.
4. SEDIMENT-LADEN RUNOFF SHALL NOT BE ALLOWED TO DISCHARGE BEYOND THE CONSTRUCTION LIMITS IN ACCORDANCE WITH THE PROJECT'S NPDES GENERAL STORMWATER PERMIT.

TESC LEGEND:

- CATCH BASIN PROTECTION
- SILT FENCE
- CLEARING LIMITS



MATCH LINE SEE SHEET C3

APPROVED

BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE _____

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR 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 ENGINEERING SERVICES MANAGER.

PCR 002
PRCCP20231028

No.	Date	By	Ckd.	Appr.	Revision
3	06/17/25	LBP	CMV	CMV	BUILDING, WATER, STORM, AND GRADING REVISIONS

Title: EXISTING SITE AND TESC PLAN NORTH FOR CIVIL PLANS PHASE 2 - WESLEY BRADLEY PARK

For: WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

DANIEL K. BALMELLI — STATE OF WASHINGTON — 25672 — REGISTERED PROFESSIONAL ENGINEER
6/17/25

Scale: Horizontal 1" = 30' Vertical N/A

Designed CK Drawn BGK Checked CMV Approved DKB Date 6/17/25

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

Job Number 16718

Sheet C2 of C20

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EXISTING SITE AND TESC PLAN SOUTH
FOR
PHASE 2 - WESLEY BRADLEY PARK

1"=30'

0 15 30 60

MATCH LINE SEE SHEET C2

MATCH LINE SEE SHEET C2

EX. CONTROL STRUCTURE
TYPE 2 CB – 72"
RIM=457.27
IE=451.0 (18" S, N / 12" W)

1 EXISTING STORMWATER POND TO BE USED AS DETENTION POND FOR PHASE 1 AND SEDIMENTATION FACILITY FOR PHASE 2 CONSTRUCTION.
1. ALL STORMWATER FROM THE EXISTING DEVELOPED SITE AND PHASE 2 CONSTRUCTION AREA SHALL BE TREATED
2. THE OUTLET ON THE POND SIDE SHALL BE PLUGGED WITH ONLY CLEAN WATER DISCHARGED DIRECTLY TO THE EXISTING CONTROL STRUCTURE. ALL DISCHARGES SHALL BE WITHIN THE TURBIDITY LIMITS AS SPECIFIED BY THE NPDES PERMIT.
3. TARGET DISCHARGE RATES SHALL BE IN THE RANGE OF 50 GPM TO 190 GPM AND UP TO 250 GPM ONLY DURING EXTREME RAIN EVENTS. NO DISCHARGE SHALL EXCEED 250 GPM AT ANY TIME.
4. THE EXISTING POND FACILITY AND CONVEYANCE SYSTEM SHALL BE CLEANED PRIOR TO PROJECT COMPLETION.

WETLAND A

DISCHARGE TREATED STORMWATER DIRECTLY INTO EXISTING CONTROL STRUCTURE

CELL #2

CELL #1

EX STORM POND
TOP POND = 459.00
MAX W.S. EL = 456.00
STATIC W.S. EL = 451.00
BOTTOM OF CELL 1 = 446.00
BOTTOM OF CELL 2 = VARIES (449.00-451.00)
DETENTION VOLUME PROVIDED =128,000 CF

EX STORM POND

EX RETAINING WALL

EX BROWNSTONE
FF=474.5
GARAGE
FF=463.5

INLET PROTECTION (TYP.)

TEMPORARY STORMWATER PUMP (TYP.)

TEMPORARY 6" STORMWATER PIPE FOR PUMP SYSTEM

TREATMENT DISCHARGE STORM LINE (TYP.)

CHITOSAN TREATMENT SYSTEM (TYP.)
TREATMENT TANK 21,000 GALLON
TREATMENT DRUM 21,000 GALLON
CONCRETE PAD
GENERATOR
MONITOR

97TH AVE SE
(LOCAL STREET)

39TH AVE S.E.
(LOCAL STREET)

INLET PROTECTION (TYP.)

EX RETAINING WALL

20' WATER ESMT. AFN 201903120139

WATER MARKER POST

FIRE HYD. (TYP.)

EXISTING LIGHT POLE TO BE REMOVED.

MISC POST

UTILITY STUB (ASSUMED SEWER) TOP=471.35' GND=471.34'

EXISTING SEWER SERVICE. TO BE RELOCATED.

POST W/ CAMERA

UTILITY STUB (ASSUMED SEWER) TOP=475.38' GND=471.89'

CLEARING LIMITS (TYP.)

UTILITY STUB (ASSUMED STORM) TOP=475.66' GND=472.42'

POST W/ CAMERA

EXISTING UNDERGROUND UTILITIES.

EXISTING LIGHT POLE TO BE REMOVED.

UTILITY STUB (ASSUMED WATER) TOP=473.46'

EXISTING GRAVEL SURFACE.

EXISTING LIGHT POLE TO BE REMOVED.

EXISTING SIGN (TYP.) TO BE REMOVED.

EXISTING POWER UTILITIES (TYP.) TO BE RELOCATED AS NEEDED.

EXISTING LIGHT POLE TO BE REMOVED.

SEWER STUB TOP=477.22' GND=482.72'

EXISTING SEWER SERVICE. TO BE RELOCATED.

INSTALL SILT FENCE (TYP.)

STORM STUB TOP=479.08' GND=474.80'

EXISTING STORM CONNECTION. TO BE RELOCATED.

FIRE HYD. (TYP.)

EXISTING WATER SERVICE CONNECTIONS.

EXISTING TREES TO BE REMOVED.

15' WATER ESMT. AFN 201611300412

EXISTING LIGHT POLE TO BE REMOVED.

EXISTING ASPHALT TO BE REMOVED.

TEL VAULT

PORTION OF EX WATER LINE TO BE RELOCATED.

TREE PROTECTION

EX POWER POLE *DO NOT DISTURB*

EX BERM TO BE REGRADED TO MEET SIGHT DISTANCE.

EXISTING TREES TO BE REMOVED.

EX BUS ROUTE REMOVED PER PIERCE TRANSIT.

60' GAS ESMT.

GAS MARKER POST (X2)

EX LIGHT POLE

EX MONUMENT SIGN

EX SIGNAL POLE

LIGHT JBOX

POWER VAULT

GAS BLOW OUT

GAS MARKER POST

LIGHT JBOX

LIGHT JBOX

CITY OF PUYALLUP UNDERGROUND UTILITY EASEMENT AFN: 8212010250

NOTES:

1. CONTRACTOR SHALL USE BAKER TANK FOR EROSION CONTROL, IF REQUIRED.
2. AT ANY TIME DURING CONSTRUCTION IT IS DETERMINED BY THE CITY THAT MUD AND DEBRIS ARE BEING TRACKED ONTO PUBLIC STREETS WITH INSUFFICIENT CLEANUP, ALL WORK SHALL CEASE ON THE PROJECT UNTIL THIS CONDITION IS CORRECTED. THE CONTRACTOR AND/OR THE OWNER SHALL IMMEDIATELY TAKE ALL STEPS NECESSARY TO PREVENT FUTURE TRACKING OF MUD AND DEBRIS INTO THE PUBLIC ROW, WHICH MAY INCLUDE THE INSTALLATION OF A WHEEL WASH FACILITY ON–SITE.
3. CONTRACTOR SHALL DESIGNATE A WASHINGTON DEPARTMENT OF ECOLOGY CERTIFIED EROSION AND SEDIMENT CONTROL LEAD PERSON, AND SHALL COMPLY WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED FOR THIS PROJECT.
4. SEDIMENT–LADEN RUNOFF SHALL NOT BE ALLOWED TO DISCHARGE BEYOND THE CONSTRUCTION LIMITS IN ACCORDANCE WITH THE PROJECT'S NPDES GENERAL STORMWATER PERMIT.

TESC LEGEND:

- CATCH BASIN PROTECTION
- SILT FENCE
- CLEARING LIMITS
- TREE PROTECTION FENCE

APPROVED

BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE _____

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR 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 ENGINEERING SERVICES MANAGER.

PCR 002
PRCCP20231028

No.	Date	By	Ckd.	Appr.	Revision
3	06/17/25	LBP	CMV	CMV	BUILDING, WATER, STORM, AND GRADING REVISIONS

Title: EXISTING SITE AND TESC PLAN SOUTH FOR CIVIL PLANS PHASE 2 - WESLEY BRADLEY PARK

For: WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

DANIEL K. BALMELLI
STATE OF WASHINGTON
25672
REGISTERED
PROFESSIONAL ENGINEER
6/17/25

Scale: Horizontal 1" = 30' Vertical N/A

Designed CK Drawn BGK Checked CMV Approved DKB Date 6/17/25

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

Job Number 16718

Sheet C3 of C20

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TESC NOTES AND DETAILS
FOR
PHASE 2 - WESLEY BRADLEY PARK

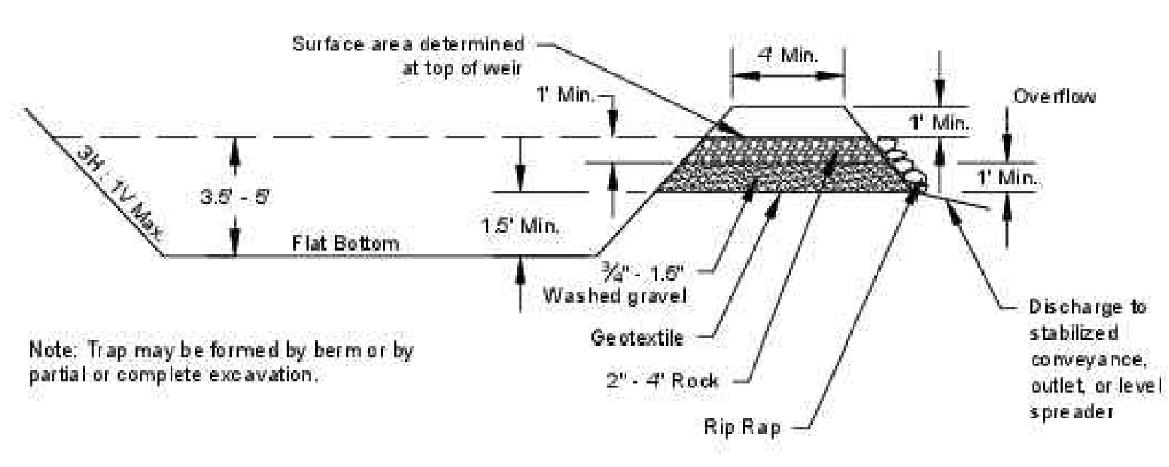
SOIL STABILIZATION AND REVEGETATION

EXPOSED AREAS AND SOIL STOCKPILES MUST BE STABILIZED ACCORDING TO THE FOLLOWING SCHEDULE:

1. FROM APRIL 1 TO OCTOBER 31 ALL DISTURBED AREAS AT FINAL GRADE AND ALL EXPOSED AREAS THAT ARE SCHEDULED TO REMAIN UNWORKED FOR MORE THAN 30 DAYS SHALL BE STABILIZED WITHIN 10 DAYS.

2. FROM NOVEMBER 1 TO MARCH 31 ALL EXPOSED SOILS AT FINAL GRADE SHALL BE STABILIZED IMMEDIATELY USING PERMANENT OR TEMPORARY MEASURES. EXPOSED SOILS WITH AN AREA GREATER THAN 5,000 SQUARE FEET THAT ARE SCHEDULED TO REMAIN UNWORKED FOR MORE THAN 24 HOURS AND EXPOSED AREAS OF LESS THAN 5,000 SQUARE FEET THAT WILL REMAIN UNWORKED FOR MORE THAN SEVEN (7) DAYS SHALL BE STABILIZED IMMEDIATELY.

ALL DISTURBED AREAS WHICH ARE NOT PLANNED TO BE CONSTRUCTED ON WITHIN 90 DAYS FROM TIME OF CLEARING AND GRADING SHALL BE REVEGETATED WITH THE NATIVE VEGETATION.

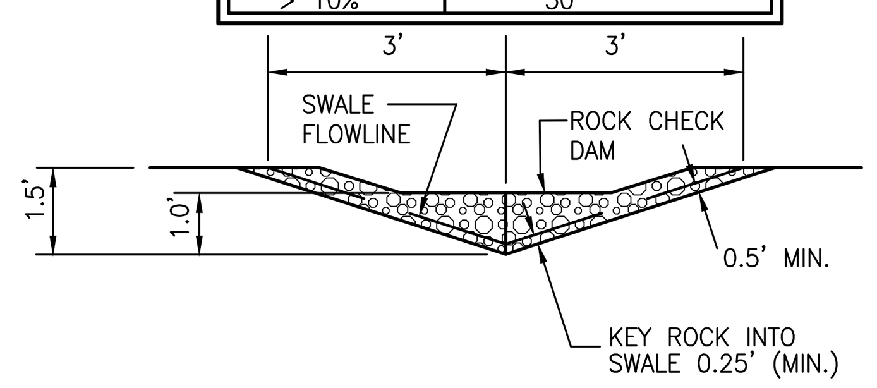


NOT TO SCALE

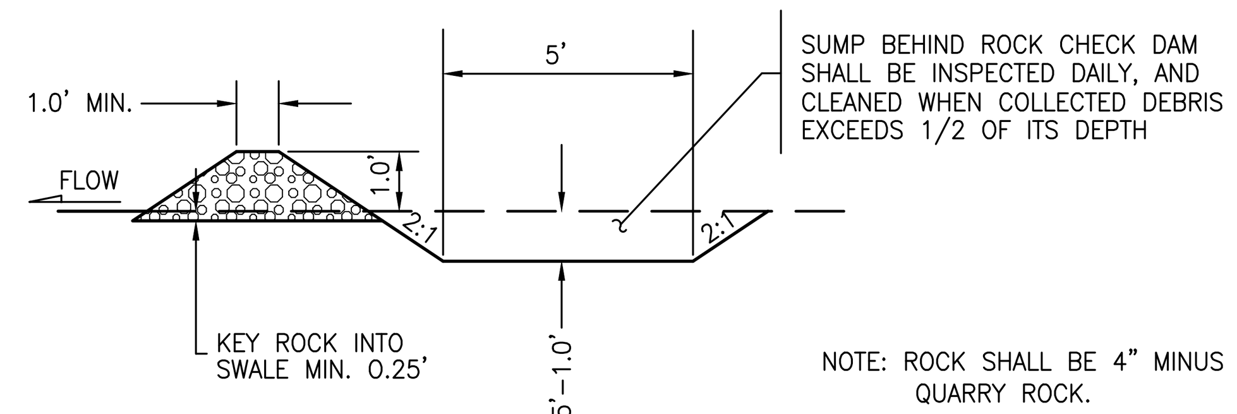
Figure II-4.2.16
Cross Section of Sediment Trap
Revised November 2015

DEPARTMENT OF ECOLOGY State of Washington

SWALE SLOPE	CHECK DAM SPACING
0% - 5%	150'
5% - 10%	100'
> 10%	50'



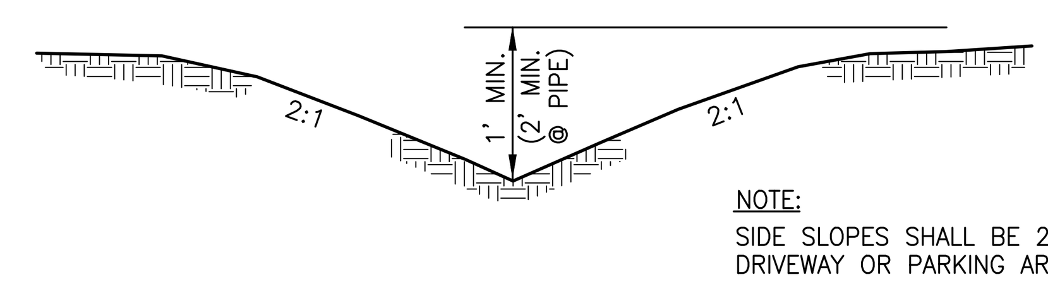
SWALE X-SECTION AT ROCK CHECK DAM



ROCK DAM X-SECTION

ROCK CHECK DAM DETAILS

NOT TO SCALE



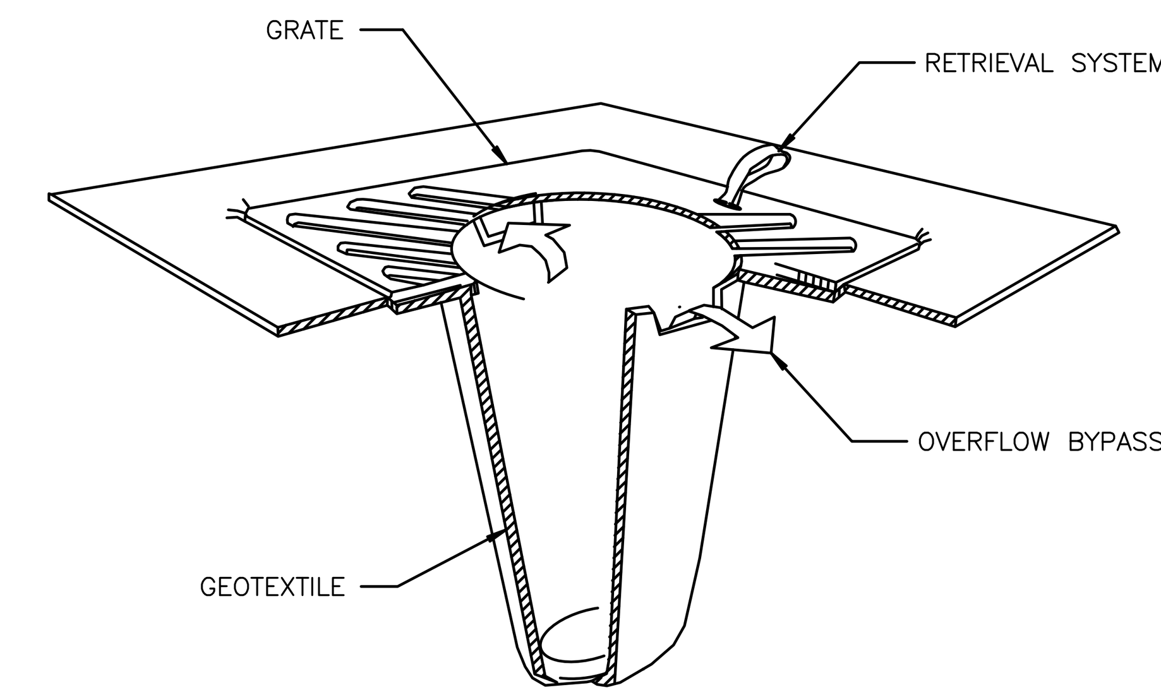
NOTE:
SIDE SLOPES SHALL BE 2% IN DRIVEWAY OR PARKING AREAS

TEMPORARY SWALE

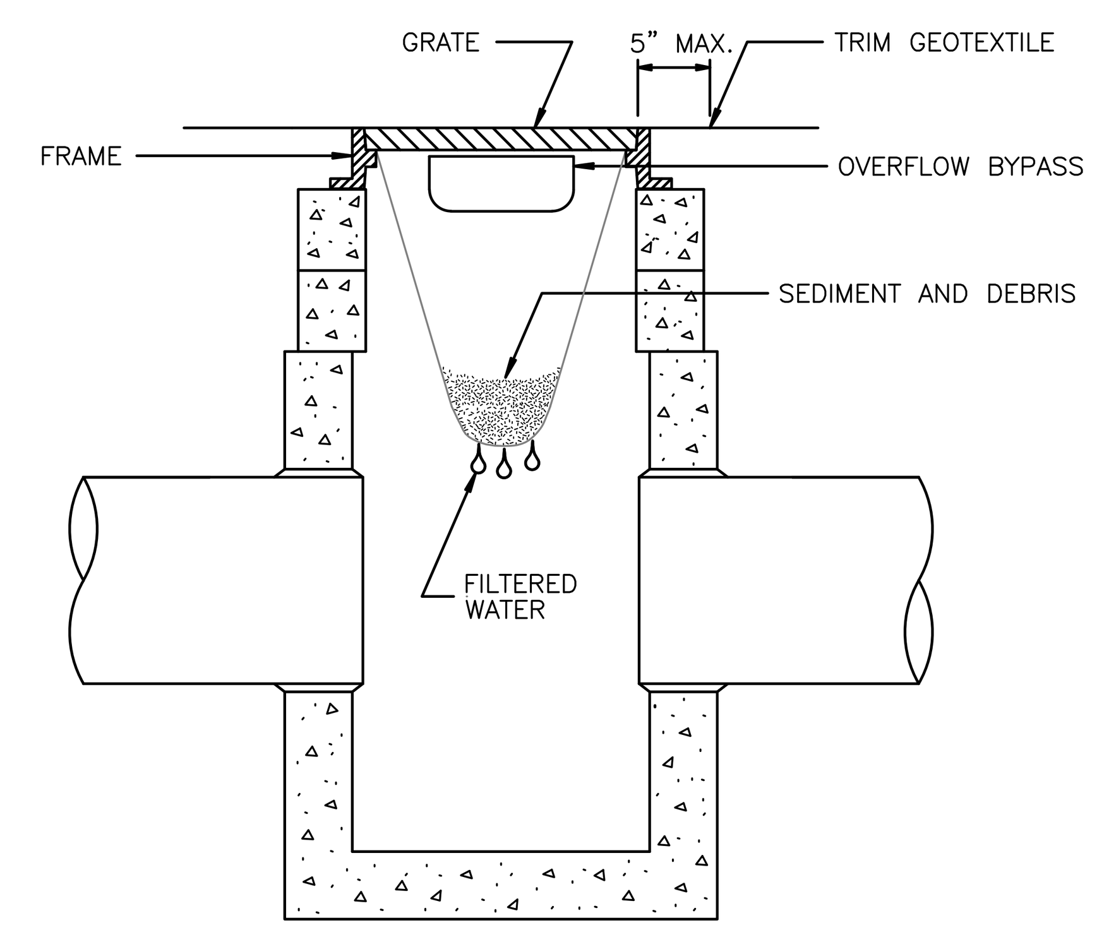
NOT TO SCALE

NOTES

1. PERFORM MAINTENANCE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION 8–01.3(15).
2. SIZE THE BELOW GRATE INLET DEVICE (BGID) FOR THE STORM WATER STRUCTURE IT WILL SERVICE.
3. THE BGID SHALL HAVE A BUILT–IN HIGH–FLOW RELIEF SYSTEM (OVERFLOW BYPASS).
4. THE RETRIEVAL SYSTEM MUST ALLOW REMOVAL OF THE BGID WITHOUT SPILLING THE COLLECTED MATERIAL.



ISOMETRIC VIEW
NOT TO SCALE

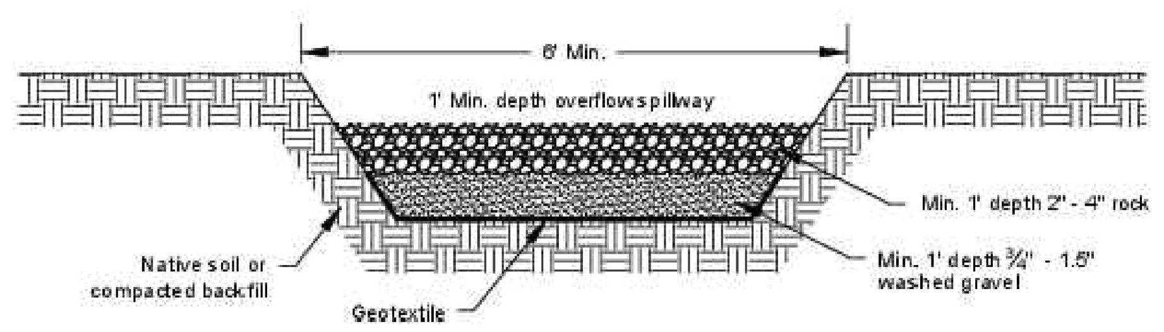


CROSS SECTION
NOT TO SCALE

STORM DRAIN INLET PROTECTION

PREFABRICATED BELOW GRATE INLET DEVICE DETAILS

WSDOT STANDARD PLAN I-7



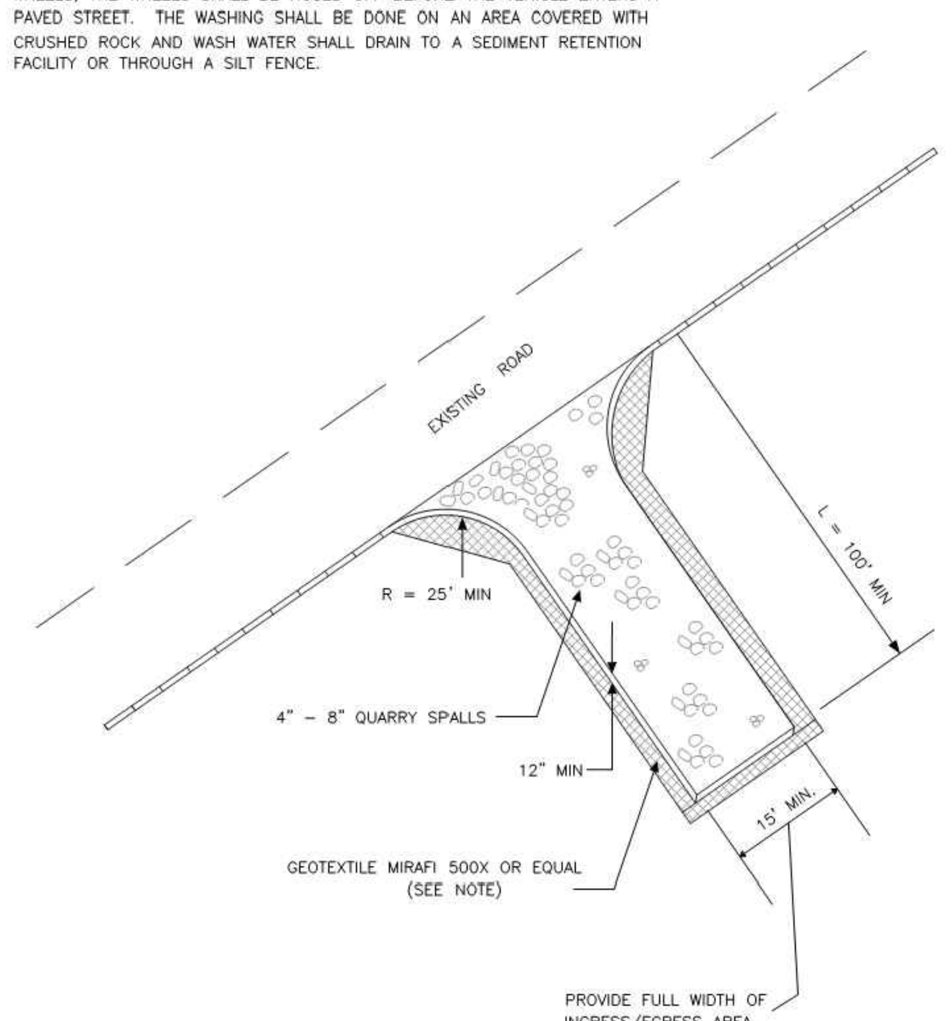
NOT TO SCALE

Figure II-4.2.17
Sediment Trap Outlet
Revised November 2015

DEPARTMENT OF ECOLOGY State of Washington

NOTE:

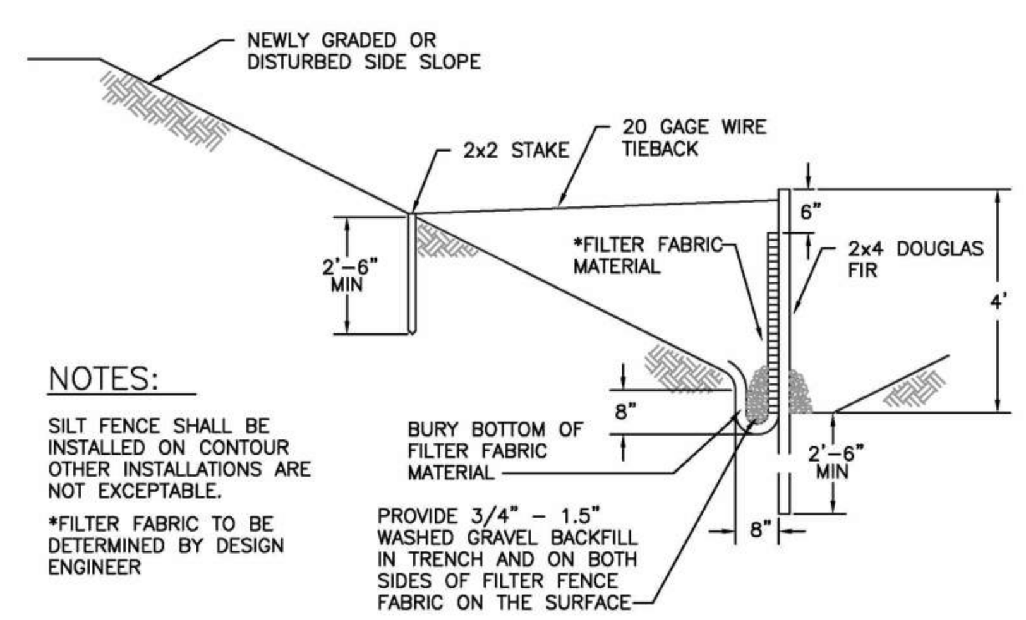
1. GEOTEXTILE MIRAFI 500 X OR APPROVED EQUAL SHALL BE PLACED UNDER THE ENTIRETY OF THE TEMPORARY ENTRANCE.
2. ADDITIONAL ROCK SHALL BE ADDED PERIODICALLY TO MAINTAIN PROPER FUNCTION OF THE PAD.
3. IF THE PAD DOES NOT ADEQUATELY REMOVE THE MUD FROM THE VEHICLE'S WHEELS, THE WHEELS SHALL BE HOSED OFF BEFORE THE VEHICLE ENTERS A PAVED STREET. THE WASHING SHALL BE DONE ON AN AREA COVERED WITH CRUSHED ROCK AND WASH WATER SHALL DRAIN TO A SEDIMENT RETENTION FACILITY OR THROUGH A SILT FENCE.



CITY OF PUYALLUP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

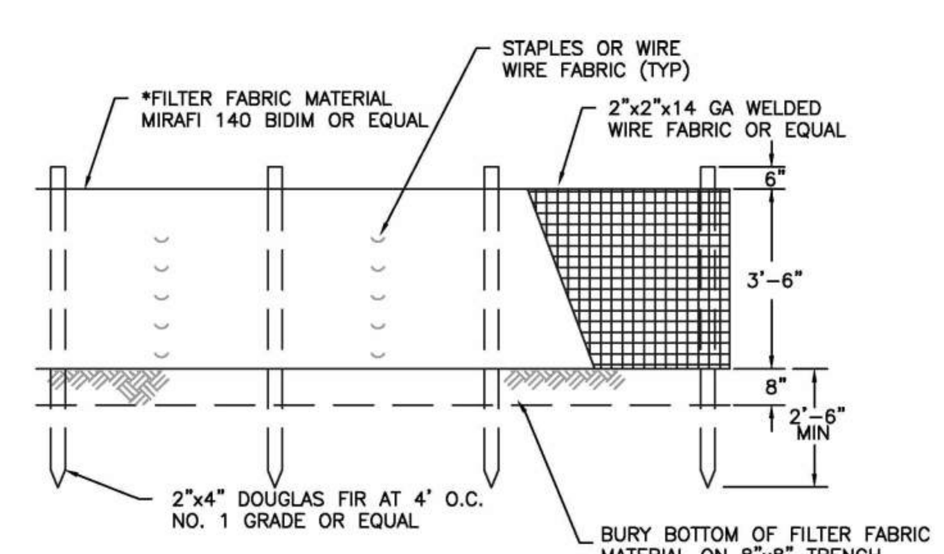
TEMPORARY CONSTRUCTION ENTRANCE

05.01.01



NOTES:
SILT FENCE SHALL BE INSTALLED ON CONTOUR OTHER INSTALLATIONS ARE NOT EXCEPTABLE.
*FILTER FABRIC TO BE DETERMINED BY DESIGN ENGINEER

TYPICAL CROSS SECTION



ELEVATION

CITY OF PUYALLUP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

SILTATION FENCE

02.03.02

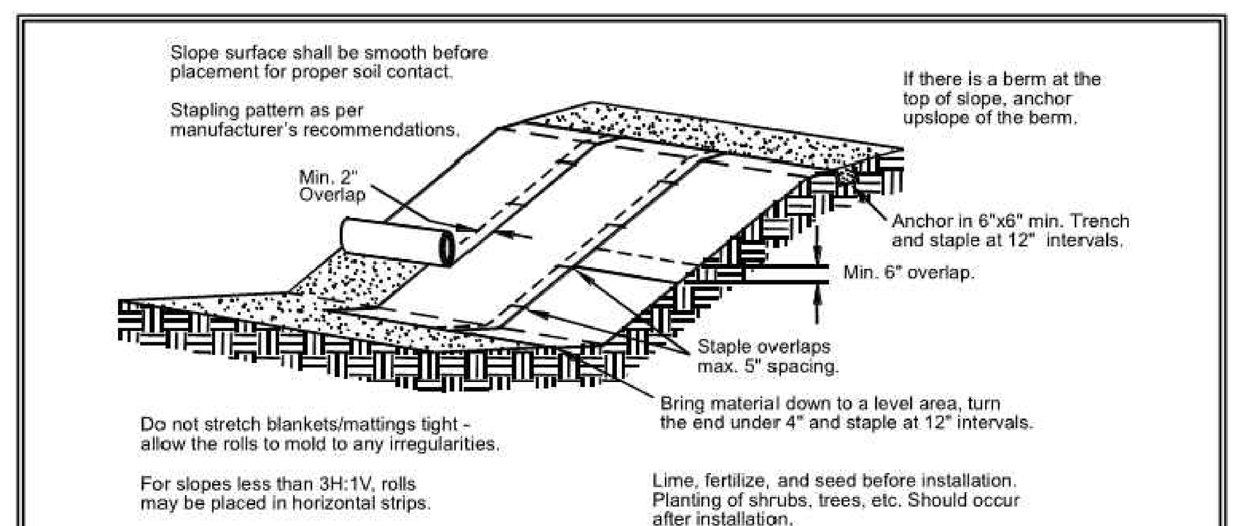


Figure 4.5 – Slope Installation

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BY ______________________
CITY OF PUYALLUP ENGINEERING SERVICES

DATE ______________________

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL DATE.
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FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

PCR 002
PRCCP20231028

No.	Date	By	Ckd.	Appr.	Revision
3	06/17/25	LRP	CMV	CMV	BUILDING, WATER, STORM, AND GRADING REVISIONS

Title: CONSTRUCTION NOTES FOR CIVIL PLANS PHASE 2 - WESLEY BRADLEY PARK

For: WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

DANIEL K. BALMELLI, STATE OF WASHINGTON, 25672, REGISTERED PROFESSIONAL ENGINEER, 6/17/25

Scale: Horizontal N/A, Vertical C4

Designed CK
Drawn BGK
Checked CMV
Approved DKB
Date 6/17/25

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

Job Number 16718

Sheet C4 of C20

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GRADING PLAN NORTH
FOR
PHASE 2 - WESLEY BRADLEY PARK

1"=30'

0 15 30 60

RETAINING WALL LEGEND:

[1] PROPOSED RETAINING WALL (TYP.) SEE BUILDING PERMIT #PRRWF202520002

TW=525.0 BW=500.0 (5.0)
- TOP OF WALL ELEV (TYP.)
- WALL HEIGHT (TYP.)
- BOTTOM OF WALL ELEV. AT EXPOSED FACE UNLESS OTHERWISE SPECIFIED (TYP.)

WETLAND C

(4.9) TW=456.88 BW=452.00

EX DISPERSION TRENCH TO BE REMOVED AND REPLACED WITH NEW 50' DISPERSION TRENCH SEE SHEET C16

CONCRETE WALL W/ HANDRAIL PER ARCHITECTURAL PLAN 50'

BUFFER ADDITION AREA=201 SF

456.6± ME

457.0± ME

EXISTING PATH

(6.0) TW=451.00 BW=445.01

[1] NEW RETAINING WALL

451.14

457.00 457.00

(4.9) TW=456.88 BW=452.00

BUFFER REDUCTION AREA=191 SF

NEW GRAVEL FIRE ACCESS PATH

(5.0) TW=452.87 BW=447.92

452.98

453.18

EX DRAINAGE DITCH

(0.9) TW=456.90 BW=456.00

457.0± ME

457.0± ME

(0.4) TW=450.06 BW=449.65

450.30

NEW BLDG LEVEL 1 FF=468.0 LEVEL 0 FF=457.0 LEVEL POOL FF=457.0

EX BLDG. LODGE FF=468.0 GARAGE FF=457.0

EX FIRE HYD. (TYP.)

EX RETAINING WALL

Provide copy of the executed easement.

450.00± ME

450.18

449.88± ME

2.5' LANDSCAPE EASEMENT

4' LANDSCAPE EASEMENT

450.00

468.00

NEW SIDEWALK SEE PRIVATE CONCRETE SIDEWALK SECTION SHEET C16 (TYP.)

NEW ASPHALT SEE GRADING SHEET C8.

449.78

449.90

449.68± ME

468.00

REMOVE EX SIDEWALK

EX SSMH

449.89± ME

450.80

450.70

468.00

EX STORM ESMT. PER AFN 201011020972

455.01± ME

EX SSMH

467.00

NEW SIDEWALK SEE PRIVATE CONCRETE SIDEWALK SECTION SHEET C16 (TYP.)

NEW GRAVEL FIRE ACCESS PATH

459.05 460.00

466.00

458.51± ME

458.94± ME

464.32± ME

MATCH EX GRADE AT BACK OF CURB (TYP)

20' WATER ESMT. AFN 201903120139

EX RETAINING WALL

MATCH LINE SEE SHEET C6

APPROVED

BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE _____

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PCR 002
PRCCP20231028

No.	Date	By	Ckd.	Appr.	Revision
3	06/17/25	LBP	CMV	CMV	BUILDING, WATER, STORM, AND GRADING REVISIONS

Title:
GRADING PLAN NORTH
FOR
CIVIL PLANS
PHASE 2 - WESLEY BRADLEY PARK

For:
WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

DANIEL K. BALMELLI — STATE OF WASHINGTON — 25672 — REGISTERED PROFESSIONAL ENGINEER
6/17/25

Scale: Horizontal 1" = 30' Vertical N/A

Designed CK Drawn BGK Checked CMV Approved DKB Date 6/17/25

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

Job Number 16718

Sheet C5 of C20

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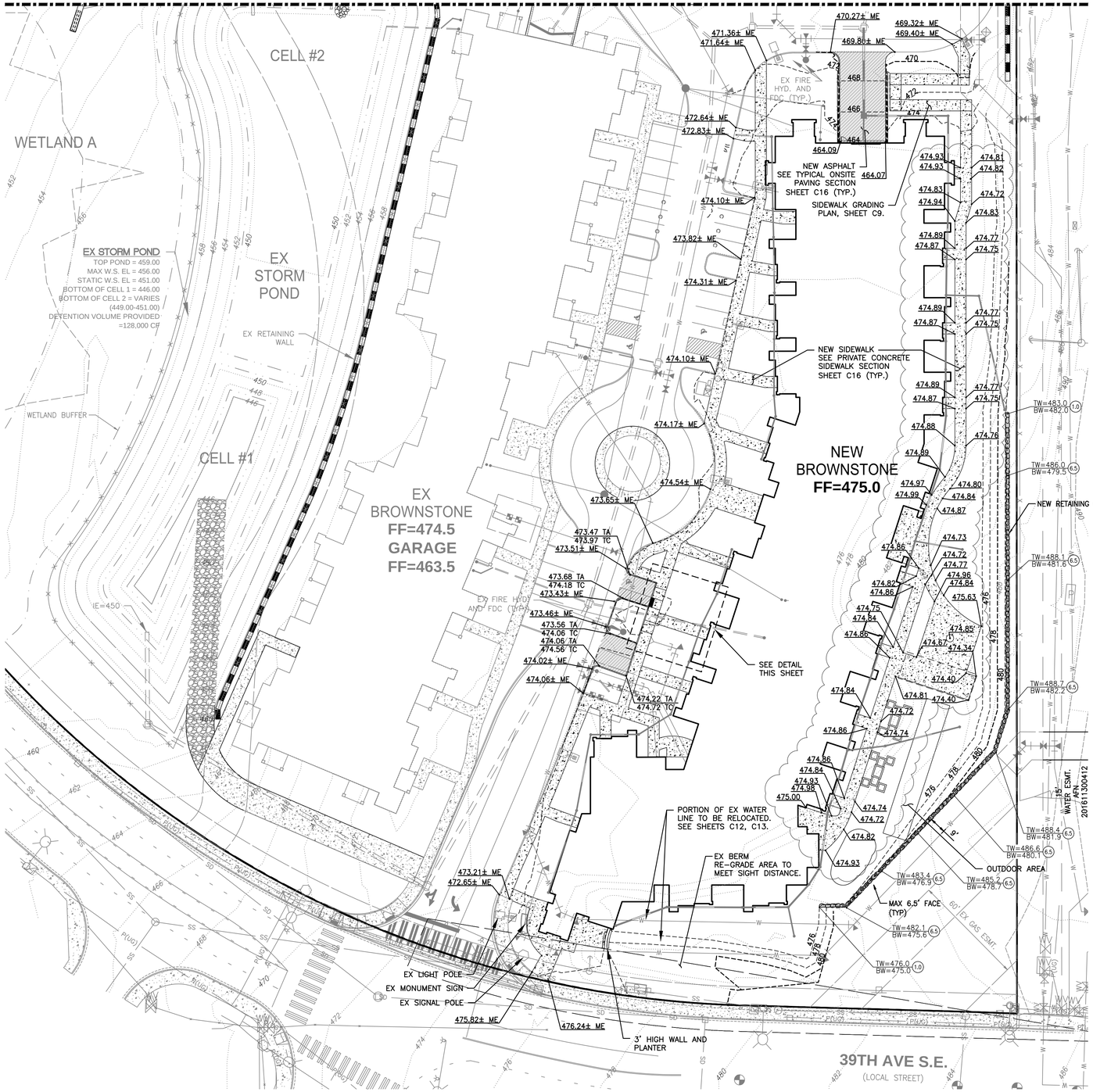
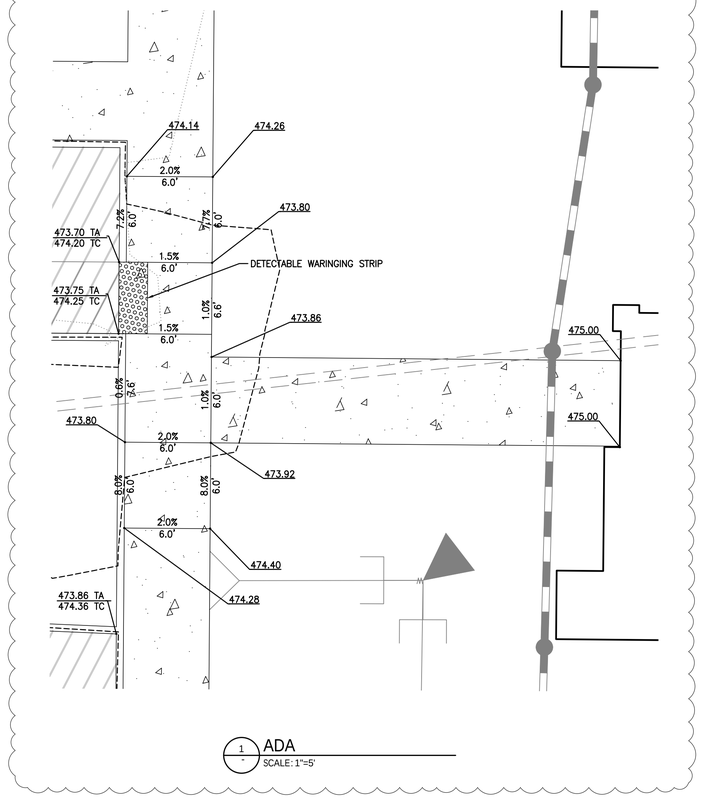
GRADING PLAN SOUTH
FOR
PHASE 2 - WESLEY BRADLEY PARK

1"=30'

0 15 30 60

MATCH LINE SEE SHEET C5





NOTES:

1. WALL DESIGN BY OTHERS.
2. MAINTAIN 5FT MIN SEPARATION BETWEEN RETAINING WALL COMPONENTS AND WATERMAIN

RETAINING WALL LEGEND:

1 PROPOSED LOCK + LOAD RETAINING WALL (TYP.) SEE BUILDING PERMIT #____

TOP OF WALL ELEV (TYP.)
WALL HEIGHT (TYP.)
TW=505.0 (6.0) BW=500.0
BOTTOM OF WALL ELEV. AT EXPOSED FACE UNLESS OTHERWISE SPECIFIED (TYP.)

APPROVED

BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE _____

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PCR 002
PRCCP20231028

No.	Date	By	Ckd.	Appr.	Revision
3	06/17/25	LBP	CMV	CMV	BUILDING, WATER, STORM, AND GRADING REVISIONS

Title: GRADING PLAN SOUTH FOR CIVIL PLANS PHASE 2 - WESLEY BRADLEY PARK

For: WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

DANIEL K. BALMELLI
STATE OF WASHINGTON
25672
REGISTERED
PROFESSIONAL ENGINEER
6/17/25

Scale: Horizontal 1" = 30' Vertical N/A

Designed CK Drawn BGK Checked CMV Approved DKB Date 7/15/25

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

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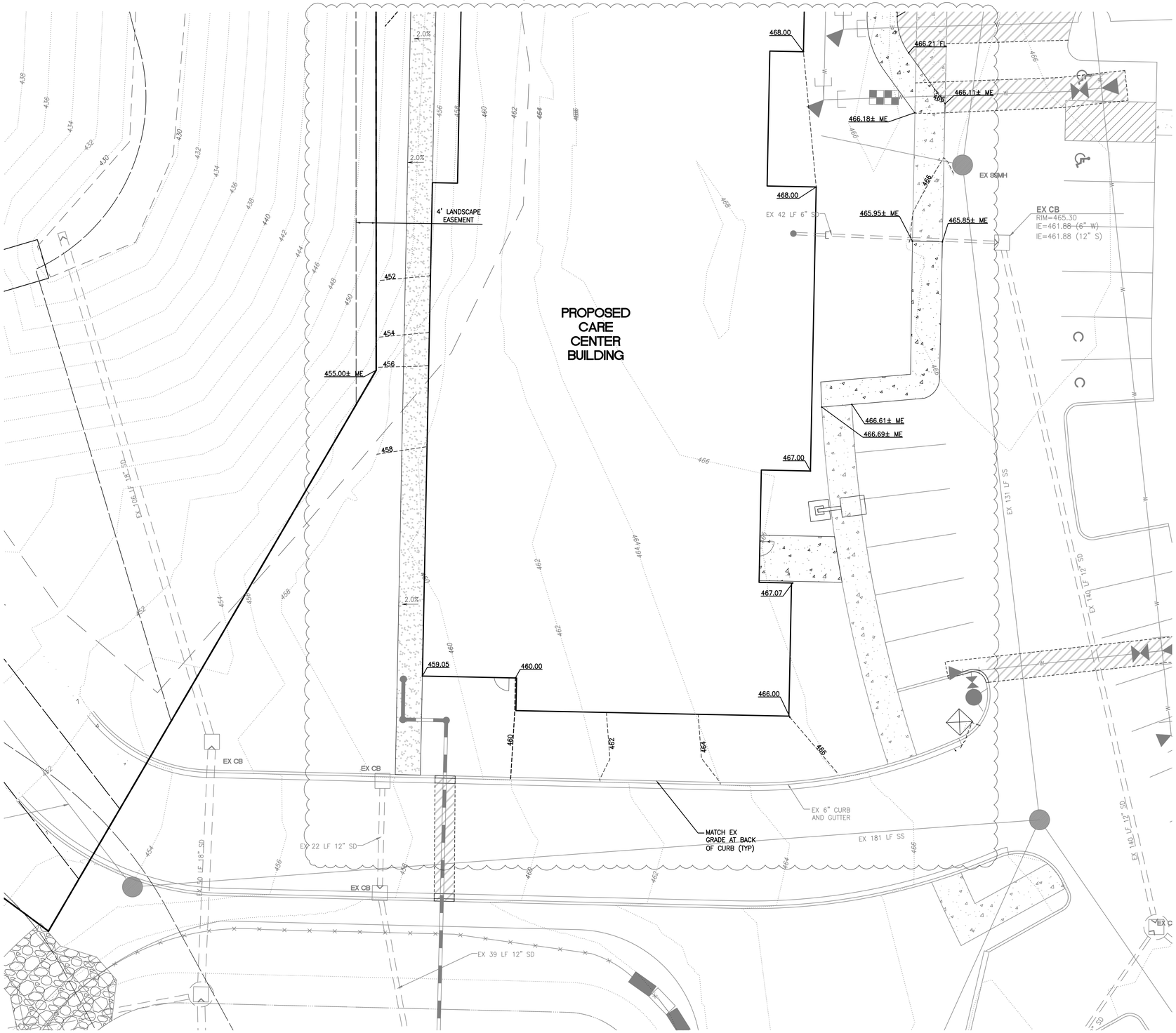
Job Number 16718

Sheet C6 of C20

GRADING PLAN - CARE CENTER SOUTH
FOR
PHASE 2 - WESLEY BRADLEY PARK

1"=10'

0 15 30 60



APPROVED

BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE _____

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL DATE.
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PCR 002
PRCCP20231028

No.	Date	By	Ckd.	Appr.	BUILDING, WATER, STORM, AND GRADING REVISIONS Revision
3	06/17/25	LBP	CMV	CMV	

Title: GRADING PLAN - CARE CENTER SOUTH FOR CIVIL PLANS PHASE 2 - WESLEY BRADLEY PARK

For: WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

STATE OF WASHINGTON DANIEL K. BALMELLI 25672 REGISTERED PROFESSIONAL ENGINEER
6/17/25

Scale: Horizontal 1" = 10' Vertical N/A

Designed CK Drawn BGK Checked CMV Approved DKB Date 6/17/25

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18215 72nd Avenue South
Kent, WA 98032
425.251.6222 barghausen.com

Job Number 16718

Sheet C7 of C20

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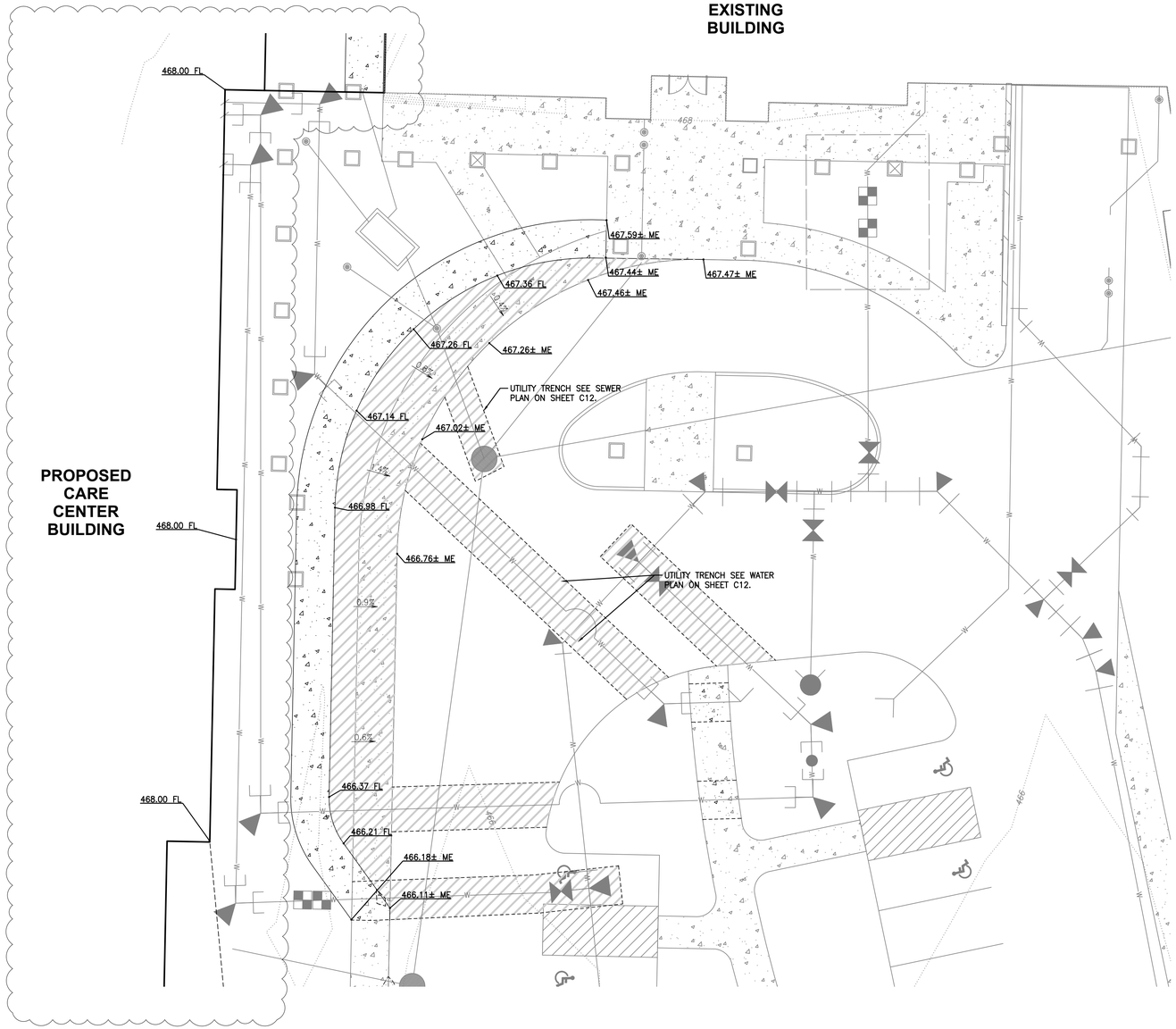
1"=10'

0 15 30 60

GRADING PLAN - CARE CENTER ENTRANCE PAVING
FOR
PHASE 2 - WESLEY BRADLEY PARK



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BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE _____

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PCR 002
PRCCP20231028

No.	Date	By	Ckd.	Appr.	Revision
3	06/17/25	LBP	CMV	CMV	BUILDING, WATER, STORM, AND GRADING REVISIONS

Title:
GRADING PLAN - CARE CENTER ENTRANCE PAVING
FOR
CIVIL PLANS
PHASE 2 - WESLEY BRADLEY PARK

For:
WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

STATE OF WASHINGTON
DANIEL K. BALMELLI
25672
REGISTERED PROFESSIONAL ENGINEER
6/17/25

Scale: Horizontal 1" = 10' Vertical N/A

Designed CK Drawn BGK Checked CMV Approved DKB Date 6/17/25

Barghausen Consulting Engineers, LLC.
18215 72nd Avenue South
Kent, WA 98032
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Job Number 16718

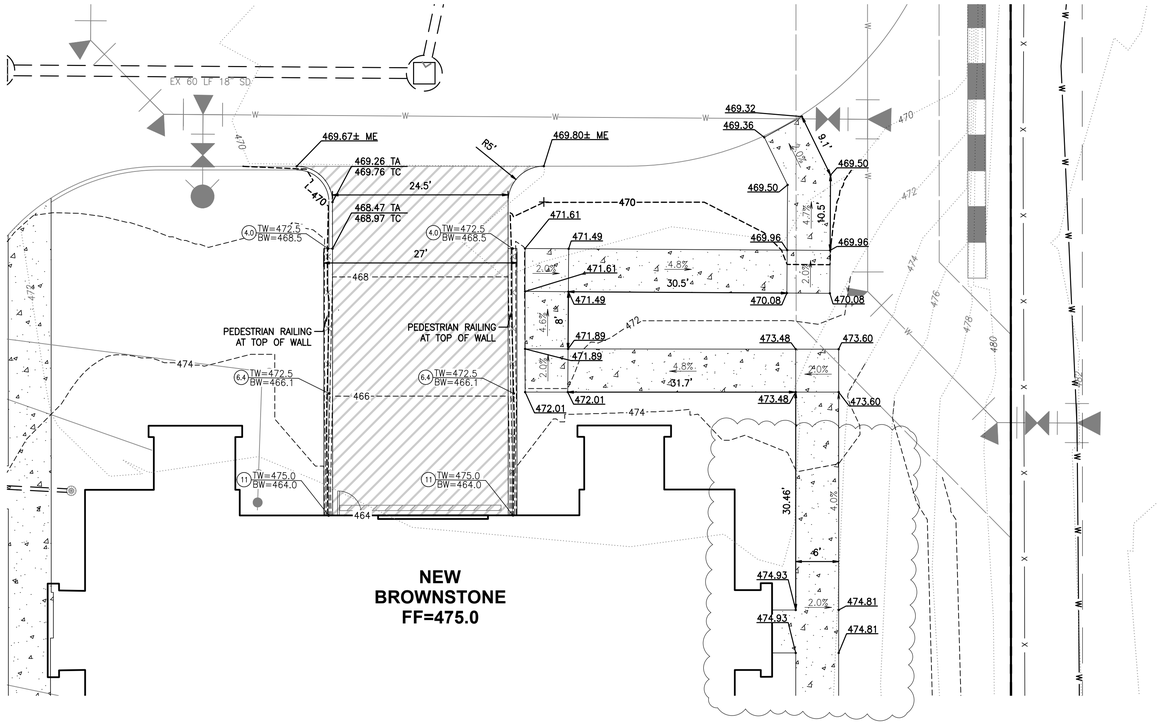
Sheet C8 of C20

P:\16000s\16718\engineering\Phase 2\16718-g3.dwg 5/6/2025 2:52 PM LPALMER

1"=10'

0 15 30 60

GRADING PLAN - BROWNSTONE NORTHEAST SIDEWALK
FOR
PHASE 2 - WESLEY BRADLEY PARK



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BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

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PCR 002
PRCCP20231028

No.	Date	By	Ckd.	Appr.	Revision
3	06/17/25	LBP	CMV	CMV	BUILDING, WATER, STORM, AND GRADING REVISIONS

Title: GRADING PLAN - BROWNSTONE NORTHEAST SIDEWALK FOR CIVIL PLANS PHASE 2 - WESLEY BRADLEY PARK

For: WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

DANIEL K. BALMELLI — STATE OF WASHINGTON — 25672 — REGISTERED PROFESSIONAL ENGINEER
6/17/25

Scale: Horizontal 1" = 10' Vertical N/A

Designed CK | Drawn BGK | Checked CMV | Approved DKB | Date 6/17/25

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

Job Number 16718

Sheet C9 of C20

P:\16000s\16718\engineering\Phase 2\16718-g3.dwg 5/6/2025 2:52 PM LPALMER

DRAINAGE PLAN NORTH
FOR
PHASE 2 - WESLEY BRADLEY PARK

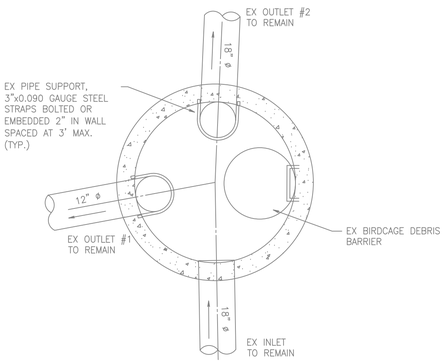
KEYNOTES:

1. NEW 8" PVC ROOF DRAIN COLLECTION SYSTEM @ 0.5% MIN. (TYP.)

NOTES:

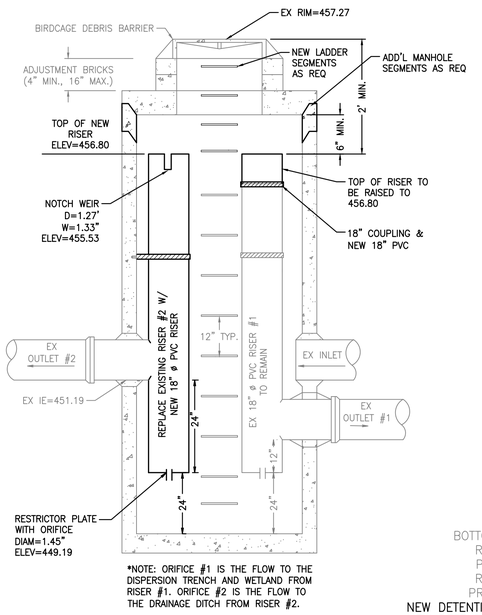
1. RELOCATE EX. SD UTILITY OUTSIDE OF BUILDING EXTENTS AND CAP.
2. All CATCH BASIN OFF-SETS ARE TO CENTER OF GRATE (NOT CENTER OF STRUCTURE)
3. PIPE MATERIAL SHALL CONFORM TO WSDOT STANDARD SPECIFICATION 9-05 AND CITY STANDARDS.

CATCH BASINS
CB#3, RIM=445.00 IE=443.00 (8" SE) IE=443.00 (6" W)
CB#4, RIM=456.50
CO#7, RIM=454.32 IE=449.97 (8" SW)
CO#20, RIM=458.95 IE=452.17 (8" S)
CO#71, RIM=454.75 IE=447.45 (8" NE) IE=447.45 (8" NW)
CO#72, RIM=458.83 IE=452.06 (8" N) IE=452.06 (8" E)
CO#73, RIM=459.26 IE=451.95 (8" W) IE=451.95 (8" S)
CO#74, RIM=454.58 IE=443.90 (8" NE)
CO#76, RIM=453.17 IE=443.87 (8" SE) IE=443.87 (8" SW) IE=443.87 (8" NW)
CO#77, RIM=445.00 IE=443.00 (6" E)



PLAN VIEW

NOT TO SCALE



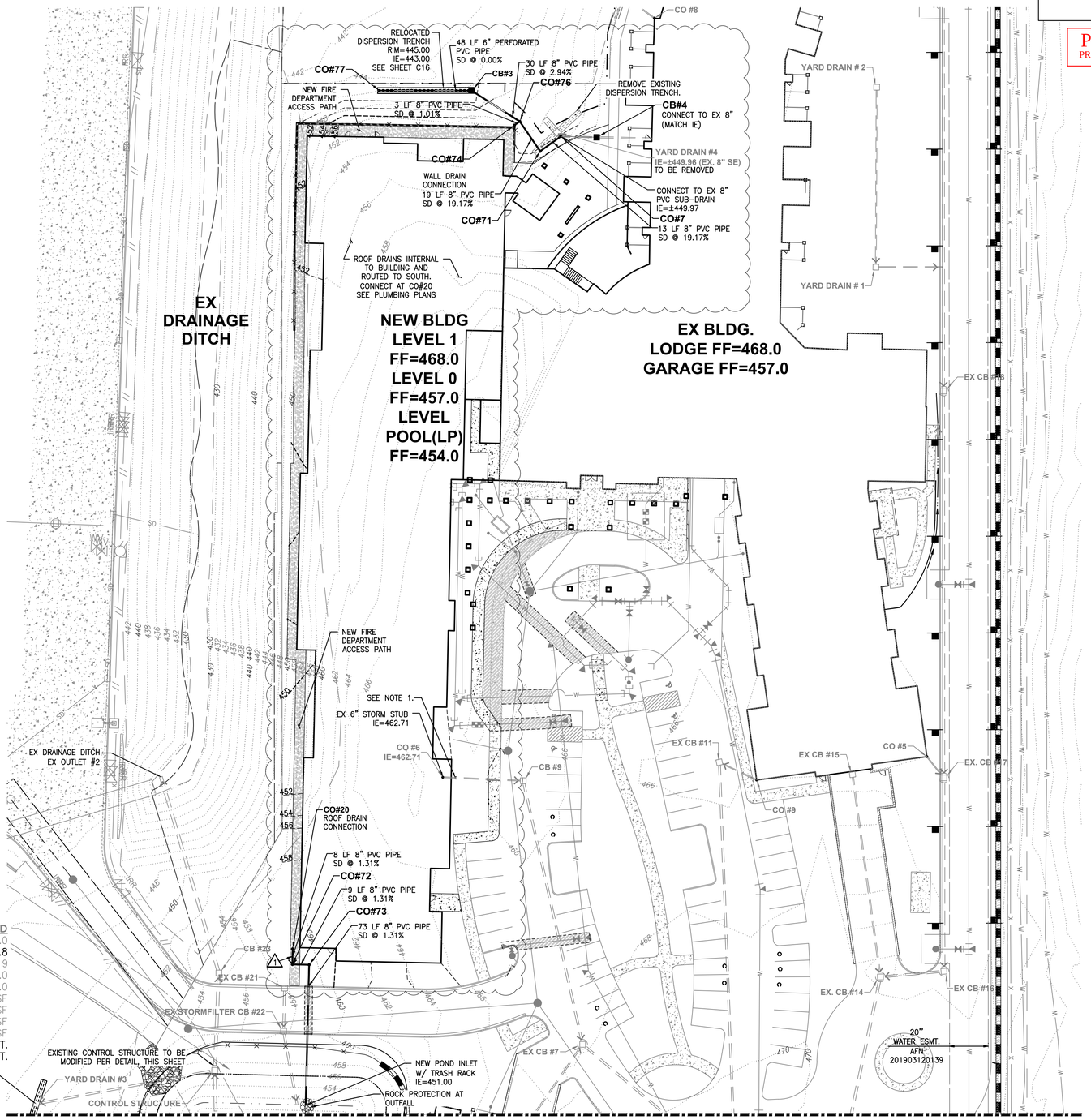
*NOTE: ORIFICE #1 IS THE FLOW TO THE DISPERSION TRENCH AND WETLAND FROM RISER #1. ORIFICE #2 IS THE FLOW TO THE DRAINAGE DITCH FROM RISER #2.

EX 72" FLOW CONTROL STRUCTURE

NOT TO SCALE

1"=30'

0 15 30 60



EX STORMWATER WETLAND/DETENTION POND
EX TOP POND = ±458.0
NEW MAX W.S. = 456.8
EX STATIC W.S. = 451.19
BOTTOM OF POND CELL 1 = 446.0
BOTTOM OF POND CELL 2 = VARIES 449.0-451.0
REQUIRED SURFACE AREA CELL 1 = 2,617 SF
PROVIDED SURFACE AREA CELL 1 = 7,013 SF
REQUIRED SURFACE AREA CELL 2 = 7,851 SF
PROVIDED SURFACE AREA CELL 2 = 11,526 SF
NEW DETENTION VOLUME REQUIRED = 139,697 ± CU. FT.
NEW DETENTION VOLUME PROVIDED = 152,482 ± CU. FT.

MATCH LINE SEE SHEET C11

APPROVED

BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE _____

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR 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 ENGINEERING SERVICES MANAGER.

PCR 002
PRCCP20231028

No.	Date	By	Ckd.	Appr.	BUILDING, WATER, STORM, AND GRADING REVISIONS Revision
3	06/17/25	LBP	CMV	CMV	

Title:
DRAINAGE PLAN NORTH
FOR
CIVIL PLANS
PHASE 2 - WESLEY BRADLEY PARK

For:
WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

DANIEL K. BALMELLI
STATE OF WASHINGTON
25672
REGISTERED PROFESSIONAL ENGINEER
6/17/25

Scale: Horizontal 1" = 30' Vertical N/A

Designed CK Drawn BDK Checked CMV Approved DKB Date 7/15/25

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

Job Number 16718

Sheet C10 of C20

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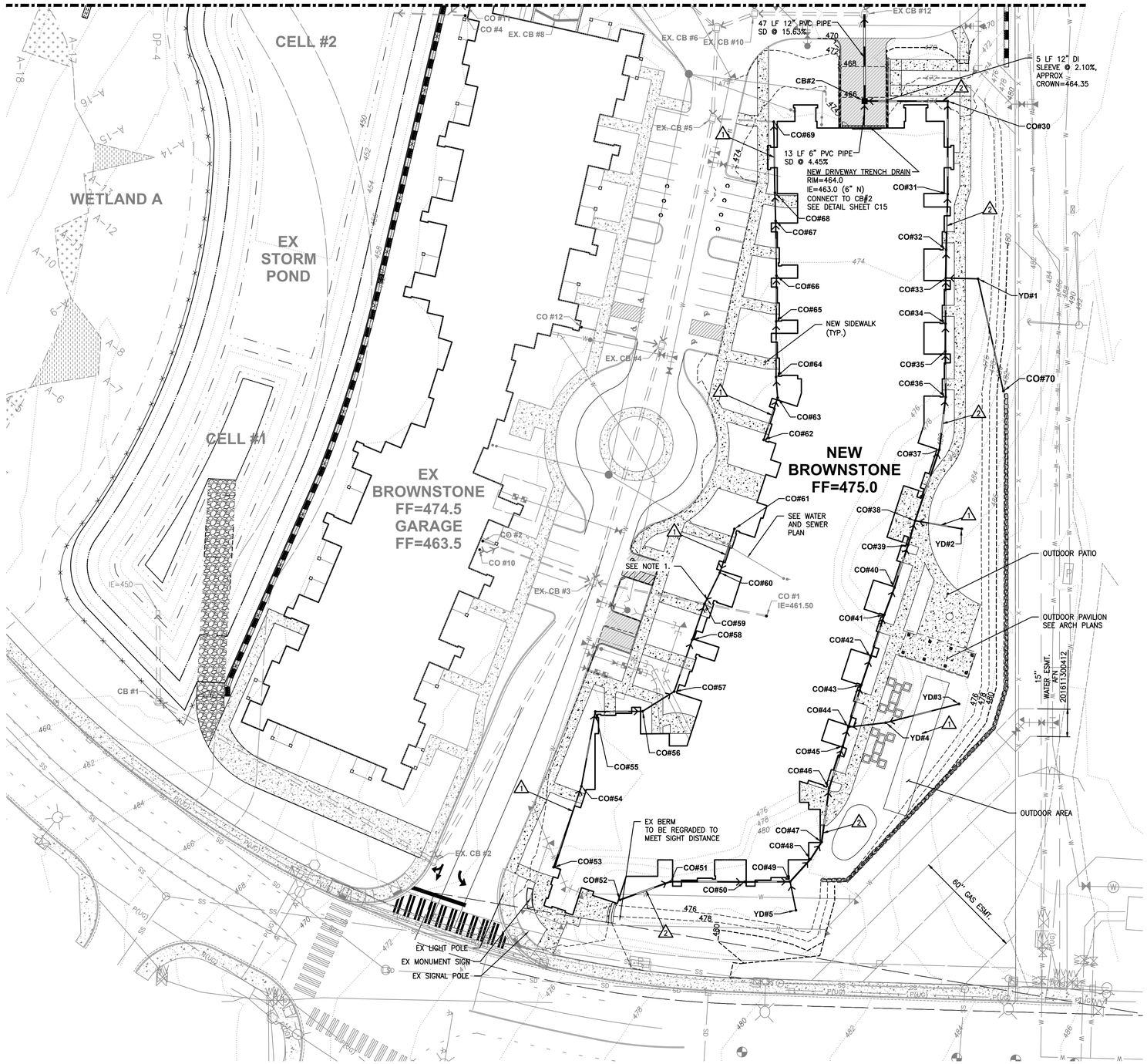
DRAINAGE PLAN SOUTH
FOR
PHASE 2 - WESLEY BRADLEY PARK

1"=30'

0 15 30 60

MATCH LINE SEE SHEET C10



KEYNOTES:

1. NEW 6" PVC ROOF DRAIN COLLECTION SYSTEM @ 0.5% MIN. (TYP.)
2. NEW 8" PVC ROOF DRAIN COLLECTION SYSTEM @ 0.5% MIN. (TYP.)

NOTES:

1. RELOCATE EX. UTILITY STUB TO NEW FACE OF BUILDING (CO#59). (CONNECT EX STORM DRAIN PIPE TO NEW ROOF DRAIN SYSTEM.)
2. All CATCH BASIN OFF-SETS ARE TO CENTER OF GRATE (NOT CENTER OF STRUCTURE)
3. PIPE MATERIAL SHALL CONFORM TO WSDOT STANDARD SPECIFICATION 9-05.
4. CONNECT NEW FOUNDATION DRAINS TO EXISTING STORM DRAIN SYSTEM.

CATCH BASINS
CB#2, RIM=465.76 IE=462.41 (6" S) IE=462.24 (8" E) IE=461.91 (12" N)
CO#30, RIM=473.55 IE=463.19 (8" S) IE=463.19 (8" W)
CO#31, RIM=474.50 IE=469.41 (8" S) IE=469.41 (8" N)
CO#32, RIM=474.50 IE=469.56 (8" S) IE=469.56 (8" N)
CO#33, RIM=474.50 IE=469.64 (8" S) IE=469.64 (6" E) IE=469.64 (8" N)
CO#34, RIM=474.50 IE=469.76 (8" S) IE=469.76 (8" N)
CO#35, RIM=474.50 IE=469.84 (8" S) IE=469.84 (8" N)
CO#36, RIM=474.50 IE=469.96 (8" S) IE=469.96 (8" N)
CO#37, RIM=474.50 IE=470.10 (8" S) IE=470.10 (8" N)
CO#38, RIM=474.99 IE=470.31 (8" S) IE=470.38 (6" E) IE=470.31 (8" N)
CO#39, RIM=474.50 IE=470.38 (8" S) IE=470.38 (8" N)
CO#40, RIM=474.50 IE=470.50 (8" S) IE=470.50 (8" N)
CO#41, RIM=474.50 IE=470.58 (8" S) IE=470.58 (8" N)
CO#42, RIM=474.50 IE=470.70 (8" S) IE=470.70 (8" N)
CO#43, RIM=474.50 IE=470.78 (8" S) IE=470.78 (8" N)
CO#44, RIM=474.50 IE=470.90 (8" S) IE=470.90 (6" E) IE=470.90 (8" N)
CO#45, RIM=474.50 IE=470.95 (8" S) IE=470.95 (8" N)
CO#46, RIM=474.50 IE=471.07 (8" S) IE=471.07 (8" N)
CO#47, RIM=474.50 IE=471.22 (8" SW) IE=471.22 (8" N)
CO#48, RIM=474.50 IE=471.28 (8" SW) IE=471.28 (8" NE)

CATCH BASINS
CO#49, RIM=474.50 IE=471.36 (8" W) IE=471.36 (6" S) IE=471.36 (8" NE)
CO#50, RIM=474.50 IE=471.48 (8" W) IE=471.48 (8" E)
CO#51, RIM=474.50 IE=471.68 (8" W) IE=471.68 (8" E)
CO#52, RIM=474.50 IE=471.83 (8" E)
CO#53, RIM=474.50 IE=472.00 (6" N)
CO#54, RIM=474.50 IE=471.77 (6" S) IE=471.77 (6" N)
CO#55, RIM=474.50 IE=471.56 (6" S) IE=471.56 (6" E)
CO#56, RIM=474.50 IE=471.43 (6" W) IE=471.43 (6" NE)
CO#57, RIM=474.50 IE=471.33 (6" SW) IE=471.33 (6" N)
CO#58, RIM=474.50 IE=471.18 (6" S) IE=471.18 (6" N)
CO#59, RIM=474.50 IE=458.12 (6" S) IE=458.12 (6" NE)
CO#60, RIM=474.50 IE=471.87 (6" N) IE=471.87 (6" SW)
CO#61, RIM=474.50 IE=472.00 (6" S)
CO#62, RIM=474.50 IE=472.00 (6" N)
CO#63, RIM=474.50 IE=471.88 (6" S) IE=471.88 (6" N)
CO#64, RIM=474.50 IE=471.82 (6" S) IE=471.82 (6" N)
CO#65, RIM=474.50 IE=471.67 (6" S) IE=471.67 (6" N)
CO#66, RIM=474.50 IE=471.55 (6" S) IE=471.55 (6" N)
CO#67, RIM=474.50 IE=471.40 (6" S) IE=471.40 (6" N)
CO#68, RIM=474.50 IE=471.32 (6" S) IE=471.32 (6" N)

CATCH BASINS
CO#69, RIM=474.50 IE=465.03 (6" S)
CO#70, RIM=481.69 IE=472.50 (6" N)
EX CB #12, RIM=469.30 IE=454.04 (15" N) IE=454.04 (18" W) IE=454.54 (12" S)
YD#1, RIM=474.76 IE=471.76 (6" S) IE=471.76 (6" W)
YD#2, RIM=474.50 IE=471.50 (6" W)
YD#3, RIM=474.32 IE=471.65 (6" W)
YD#4, RIM=474.68 IE=471.00 (6" E) IE=471.00 (6" W)
YD#5, RIM=474.00 IE=471.61 (6" N)

APPROVED

BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE _____

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL DATE.
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PCR 002
PRCCP20231028

No.	Date	By	Ckd.	Appr.	Revision
3	06/17/25	LBP	CMV	CMV	BUILDING, WATER, STORM, AND GRADING REVISIONS

Title: DRAINAGE PLAN SOUTH FOR CIVIL PLANS PHASE 2 - WESLEY BRADLEY PARK

For: WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

DANIEL K. BALMELLI — STATE OF WASHINGTON — 25672 — REGISTERED PROFESSIONAL ENGINEER
6/17/25

Scale: Horizontal 1" = 30' Vertical N/A

Designed CK Drawn BGK Checked CMV Approved DKB Date 6/17/25

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

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Job Number 16718

Sheet C11 of C20

1"=30'

0 15 30 60

WATER AND SEWER PLAN NORTH
FOR
PHASE 2 - WESLEY BRADLEY PARK

APPROVED

BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE _____

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL DATE.
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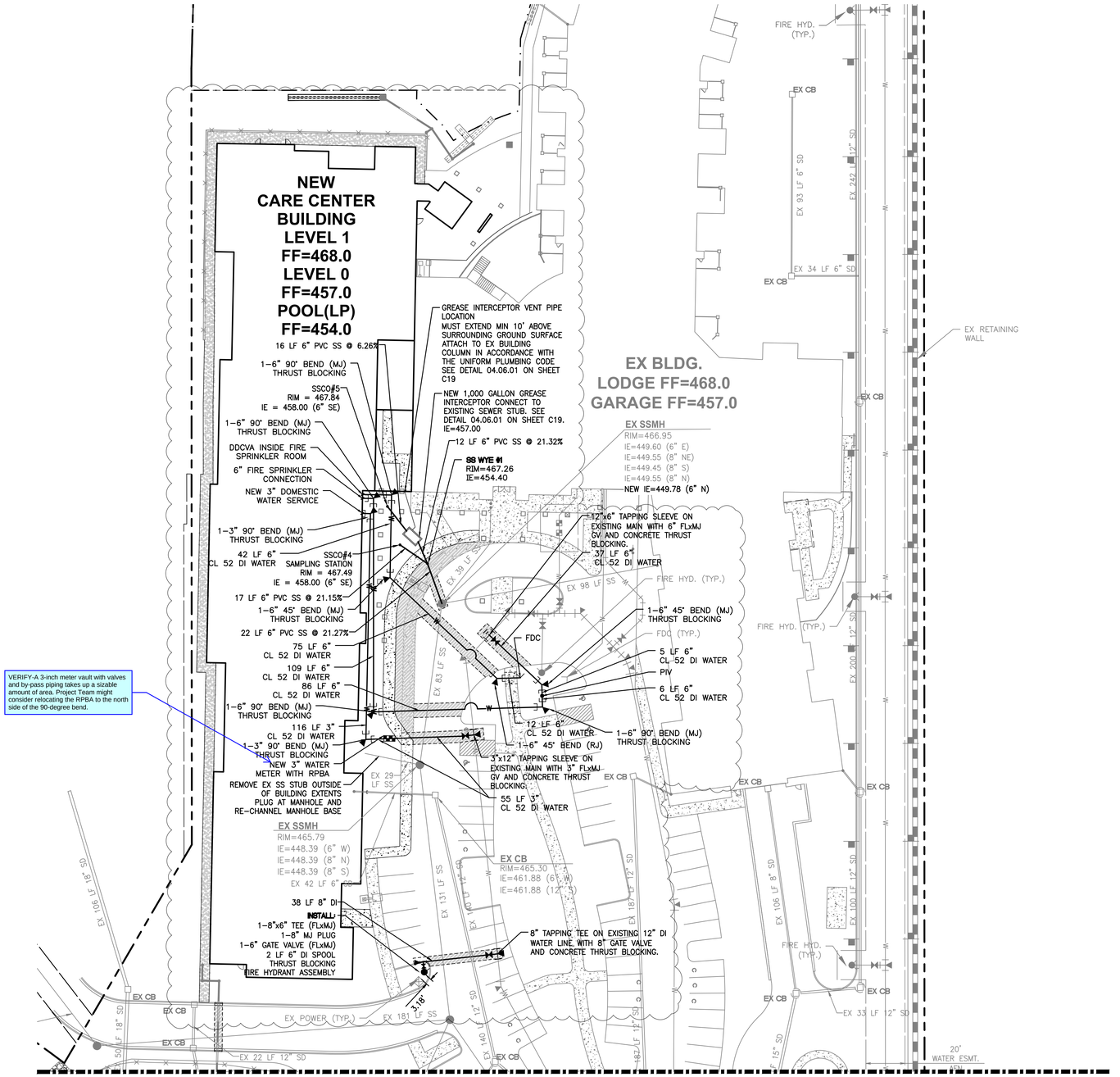
PCR 002
PRCCP20231028

NOTES:
1. ALL 12" VALVES TO BE BUTTERFLY VALVES PER CITY STANDARDS.
2. NO TREES TO BE PLANTED WITHIN 5 FEET OF THE WATER MAIN.
3. ALL FDCs SHALL BE LOCATED WITHIN 15 FEET OF THE ADJACENT FIRE HYDRANT, BUT NOT LESS THAN 10 FEET.
4. MINIMUM 3FT CLEARANCE BETWEEN FH, FDC, AND PIV.

UTILITY CONFLICT
NOTE: CAUTION:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE @ 1-800-424-5555 AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL CONSULT BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.



MATCH LINE SEE SHEET C13

No.	Date	By	Ckd.	Appr.	Revision
3	06/17/25	LBP	CMV	CMV	BUILDING, WATER, STORM, AND GRADING REVISIONS

Title: WATER AND SEWER PLAN NORTH FOR CIVIL PLANS PHASE 2 - WESLEY BRADLEY PARK

For: WESLEY HOMES 815 SOUTH 216TH STREET DES MOINES, WA 98190 (206) 870-1209

DANIEL K. BALMELLI — STATE OF WASHINGTON — 25672 — REGISTERED PROFESSIONAL ENGINEER — 6/17/25

Scale: Horizontal 1" = 30' Vertical N/A

Designed CK Drawn BGK Checked CMV Approved DKB Date 6/17/25

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

Job Number 16718

Sheet C12 of C20

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WATER AND SEWER PLAN SOUTH
FOR
PHASE 2 - WESLEY BRADLEY PARK

1"=30'

0 15 30 60

APPROVED

BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE _____

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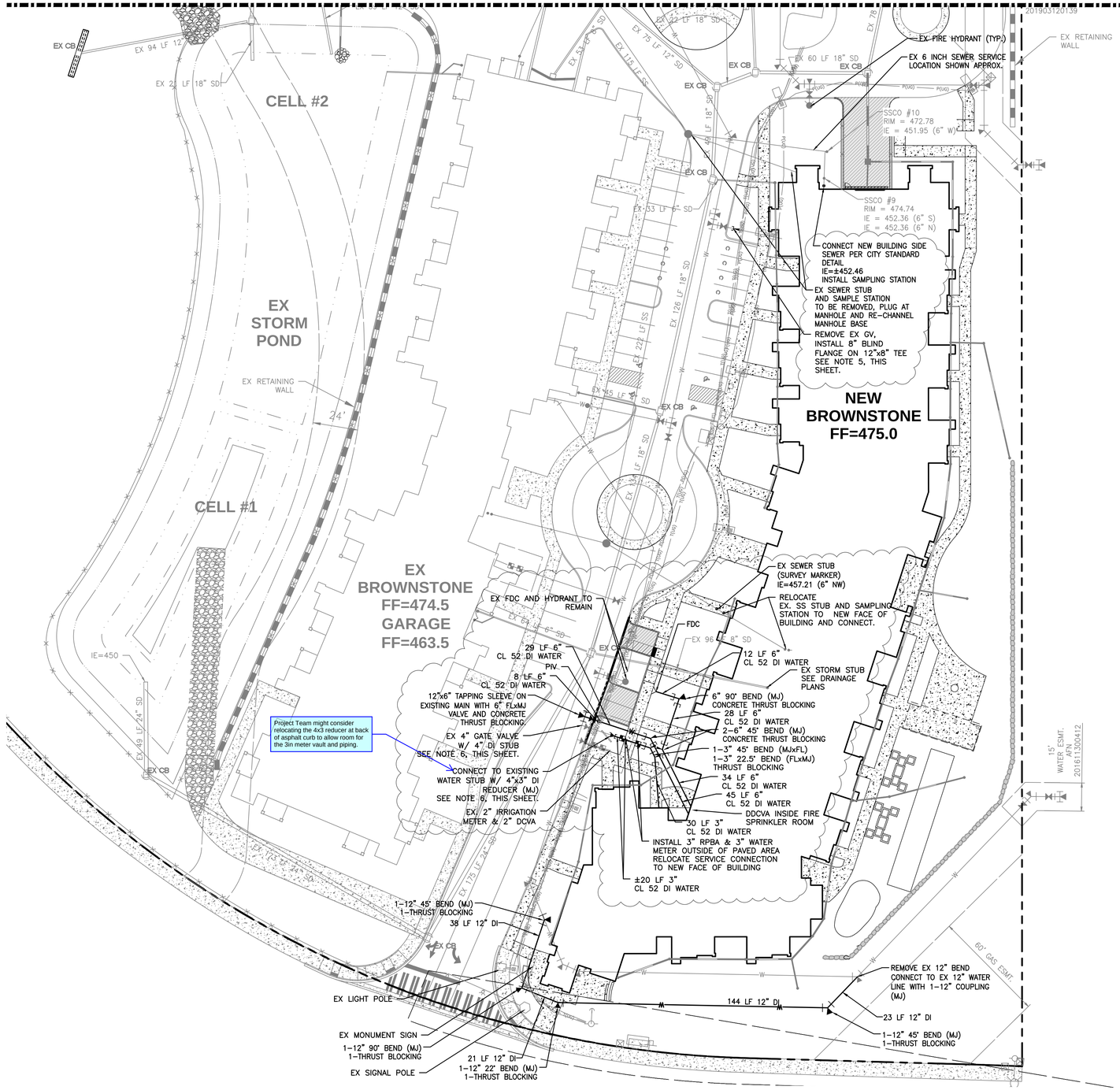
PCR 002
PRCCP20231028

MATCH LINE SEE SHEET C12



SPECIAL NOTES:

⚠ CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF EXISTING SEWER SERVICE. CONTRACTOR SHALL VERIFY A SERVICE CONNECTION CAN BE MADE TO THE PROPOSED GREASE INTERCEPTOR. NOTIFY ENGINEER IF CONFLICT EXISTS.

NOTES:

1. ALL 12" VALVES TO BE BUTTERFLY VALVES PER CITY STANDARDS.
2. NO TREES TO BE PLANTED WITHIN 5 FEET OF THE WATER MAIN.
3. MAINTAIN 5FT MIN SEPARATION BETWEEN RETAINING WALL COMPONENTS AND WATERMAIN
4. EX SEWER SERVICE SHOWN APPROX.
5. CONTRACTOR TO SCHEDULE WATERMAN SHUTDOWN WITH WATER DISTRICT TO ABANDON PORTION OF WATERMAIN
6. CONTRACTOR TO VERIFY LOCATION AND SIZE OF EXISTING WATER STUB
7. MINIMUM 3FT CLEARANCE BETWEEN FH, FDC, AND PIV.

UTILITY CONFLICT NOTE: CAUTION:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE @ 1-800-424-5555 AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL CONSULT BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.

No.	Date	By	Ckd.	Appr.	Revision
3	06/17/25	LBP	CMV	CMV	BUILDING, WATER, STORM, AND GRADING REVISIONS

Title: WATER AND SEWER PLAN SOUTH FOR CIVIL PLANS PHASE 2 - WESLEY BRADLEY PARK

For: WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

STATE OF WASHINGTON DANIEL K. BALMELLI 25672 REGISTERED PROFESSIONAL ENGINEER
6/17/25

Scale: Horizontal 1" = 30' Vertical N/A

Designed CK Drawn BGK Checked CMV Approved DKB Date 7/15/25

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

Job Number 16718

Sheet C13 of C20

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CONSTRUCTION NOTES

GENERAL NOTES:

1. ALL WORK IN CITY RIGHT–OF–WAY REQUIRES A PERMIT FROM THE CITY OF PUYALLUP. PRIOR TO ANY WORK COMMENCING, THE GENERAL CONTRACTOR SHALL ARRANGE FOR A PRECONSTRUCTION MEETING AT THE DEVELOPMENT SERVICES CENTER TO BE ATTENDED BY ALL CONTRACTORS THAT WILL PERFORM WORK SHOWN ON THE APPROVED ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES AT (253–841–5568) TO SCHEDULE THE MEETING. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN SET OF APPROVED PLANS AT THE MEETING.

2. AFTER COMPLETION OF ALL ITEMS SHOWN ON THESE PLANS AND BEFORE ACCEPTANCE OF THE PROJECT THE CONTRACTOR SHALL OBTAIN A "PUNCH LIST" PREPARED BY THE CITY'S INSPECTOR DETAILING REMAINING ITEMS OF WORK TO BE COMPLETED. ALL ITEMS OF WORK SHOWN ON THESE PLANS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE WATER SYSTEM AND PROVISION OF SANITARY SEWER SERVICE.

3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS"), WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER, LATEST EDITION, UNLESS SUPERSEDED OR AMENDED BY THE CITY OF PUYALLUP CITY STANDARDS FOR PUBLIC WORKS ENGINEERING AND CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "CITY STANDARDS").

4. A COPY OF THESE APPROVED PLANS AND APPLICABLE CITY DEVELOPER SPECIFICATIONS AND DETAILS SHALL BE ON SITE DURING CONSTRUCTION.

5. ANY REVISIONS MADE TO THESE PLANS MUST BE REVIEWED AND APPROVED BY THE DEVELOPER'S ENGINEER AND THE CITY PRIOR TO ANY IMPLEMENTATION IN THE FIELD. THE CITY SHALL NOT BE RESPONSIBLE FOR ANY ERRORS AND/OR OMISSIONS ON THESE PLANS.

6. THE CONTRACTOR SHALL HAVE ALL UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. CALL (811) AT LEAST TWO WORKING DAYS IN ADVANCE. THE OWNER AND HIS/HER ENGINEER SHALL BE CONTACTED IMMEDIATELY IF A CONFLICT EXISTS.

7. ANY STRUCTURE AND/OR OBSTRUCTION THAT REQUIRES REMOVAL OR RELOCATION RELATING TO THIS PROJECT SHALL BE DONE SO AT THE DEVELOPER'S EXPENSE.

8. LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE TRUE ELEVATIONS AND LOCATIONS OF HIDDEN UTILITIES. ALL VISIBLE ITEMS SHALL BE THE ENGINEER'S RESPONSIBILITY.

9. THE CONTRACTOR SHALL INSTALL, REPLACE, OR RELOCATE ALL SIGNS, AS SHOWN ON THE PLANS OR AS AFFECTED BY CONSTRUCTION, PER CITY STANDARDS.

10. POWER, STREET LIGHT, CABLE, AND TELEPHONE LINES SHALL BE IN A TRENCH LOCATED WITHIN A 10–FOOT UTILITY EASEMENT ADJACENT TO PUBLIC RIGHT–OF–WAY. RIGHT–OF–WAY CROSSINGS SHALL HAVE A MINIMUM HORIZONTAL SEPARATION FROM OTHER UTILITIES (SEWER, WATER, AND STORM) OF 5 FEET.

11. ALL CONSTRUCTION SURVEYING FOR EXTENSIONS OF PUBLIC FACILITIES SHALL BE DONE UNDER THE DIRECTION OF A WASHINGTON STATE LICENSED LAND SURVEYOR OR A WASHINGTON STATE LICENSED PROFESSIONAL CIVIL ENGINEER.

12. DURING CONSTRUCTION, ALL PUBLIC STREETS ADJACENT TO THIS PROJECT SHALL BE KEPT CLEAN OF ALL MATERIAL DEPOSITS RESULTING FROM ON–SITE CONSTRUCTION, AND EXISTING STRUCTURES SHALL BE PROTECTED AS DIRECTED BY THE CITY.

13. CERTIFIED RECORD DRAWINGS ARE REQUIRED PRIOR TO PROJECT ACCEPTANCE.

14. A NPDES STORMWATER GENERAL PERMIT MAY BE REQUIRED BY THE DEPARTMENT OF ECOLOGY FOR THIS PROJECT. FOR INFORMATION CONTACT THE DEPARTMENT OF ECOLOGY, SOUTHWEST REGION OFFICE AT (360)407–6300.

15. ANY DISTURBANCE OR DAMAGE TO CRITICAL AREAS AND ASSOCIATED BUFFERS, OR SIGNIFICANT TREES DESIGNATED FOR PRESERVATION AND PROTECTION SHALL BE MITIGATED IN ACCORDANCE WITH A MITIGATION PLAN REVIEWED AND APPROVED BY THE CITY'S PLANNING DIVISION. PREPARATION AND IMPLEMENTATION OF THE MITIGATION PLAN SHALL BE AT THE DEVELOPER'S EXPENSE.

STORMWATER NOTES:

1. ALL WORK IN CITY RIGHT–OF–WAY REQUIRES A PERMIT FROM THE CITY OF PUYALLUP. PRIOR TO ANY WORK COMMENCING, THE GENERAL CONTRACTOR SHALL ARRANGE FOR A PRECONSTRUCTION MEETING AT THE DEVELOPMENT SERVICES CENTER TO BE ATTENDED BY ALL CONTRACTORS THAT WILL PERFORM WORK SHOWN ON THE ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES TO SCHEDULE THE MEETING (253) 841–5568. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN APPROVED SET OF PLANS AT THE MEETING.

2. AFTER COMPLETION OF ALL ITEMS SHOWN ON THESE PLANS AND BEFORE ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL OBTAIN A "PUNCH LIST" PREPARED BY THE CITY'S INSPECTOR DETAILING REMAINING ITEMS OF WORK TO BE COMPLETED. ALL ITEMS OF WORK SHOWN ON THESE PLANS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE WATER SYSTEM AND PROVISION OF SANITARY SEWER SERVICE.

3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS"), WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER, LATEST EDITION, UNLESS SUPERSEDED OR AMENDED BY THE CITY OF PUYALLUP CITY STANDARDS FOR PUBLIC WORKS ENGINEERING AND CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "CITY STANDARDS").

4. A COPY OF THESE APPROVED PLANS AND APPLICABLE CITY DEVELOPER SPECIFICATIONS AND DETAILS SHALL BE ON SITE DURING CONSTRUCTION.

5. ANY REVISIONS MADE TO THESE PLANS MUST BE REVIEWED AND APPROVED BY THE DEVELOPER'S ENGINEER AND THE ENGINEERING SERVICES STAFF PRIOR TO ANY IMPLEMENTATION IN THE FIELD. THE CITY SHALL NOT BE RESPONSIBLE FOR ANY ERRORS AND/OR OMISSIONS ON THESE PLANS.

6. THE CONTRACTOR SHALL HAVE ALL UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. CALL (811) AT LEAST TWO WORKING DAYS IN ADVANCE. THE OWNER AND HIS/HER ENGINEER SHALL BE CONTACTED IMMEDIATELY IF A CONFLICT EXISTS.

7. ANY STRUCTURE AND/OR OBSTRUCTION WHICH REQUIRE REMOVAL OR RELOCATION RELATING TO THIS PROJECT, SHALL BE DONE SO AT THE DEVELOPER'S EXPENSE.

8. DURING CONSTRUCTION, ALL EXISTING AND NEWLY INSTALLED DRAINAGE STRUCTURES SHALL BE PROTECTED FROM SEDIMENTS.

9. ALL STORM MANHOLES SHALL CONFORM TO CITY STANDARD DETAIL NO. 02.01.01. FLOW CONTROL MANHOLE/OIL WATER SEPARATOR SHALL CONFORM TO CITY STANDARD DETAIL NO. 02.01.06 AND 02.01.07.

10. MANHOLE RING AND COVER SHALL CONFORM TO CITY STANDARD DETAIL 06.01.02.

11. CATCH BASINS TYPE I SHALL CONFORM TO CITY STANDARD DETAIL NO.02.01.02 AND 02.01.03 AND SHALL BE USED ONLY FOR DEPTHS LESS THAN 5 FEET FROM TOP OF THE GRATE TO THE INVERT OF THE STORM PIPE.

12. CATCH BASINS TYPE II SHALL CONFORM TO CITY STANDARD DETAIL NO.02.01.04 AND SHALL BE USED FOR DEPTHS GREATER THAN 5 FEET FROM TOP OF THE GRATE TO THE INVERT OF THE STORM PIPE.
CITY OF PUYALLUP – CITY STANDARDS STORM REVISED 08/2024
200–22

13. CAST IRON OR DUCTILE IRON FRAME AND GRATE SHALL CONFORM TO CITY STANDARD DETAIL NO.02.01.05. GRATE SHALL BE MARKED WITH "DRAINS TO STREAM". SOLID CATCH BASIN LIDS (SQUARE UNLESS NOTED AS ROUND) SHALL CONFORM TO WSDOT STANDARD PLAN B–30.20–04 (OLYMPIC FOUNDRY NO. SM60 OR EQUAL). VANED GRATES SHALL CONFORM TO WSDOT STANDARD PLAN B–30.30–03 (OLYMPIC FOUNDRY NO. SM60V OR EQUAL).

14. STORMWATER PIPE SHALL BE ONLY PVC, CONCRETE, DUCTILE IRON, OR DUAL WALLED POLYPROPYLENE PIPE.

A. THE USE OF ANY OTHER TYPE SHALL BE REVIEWED AND APPROVED BY THE ENGINEERING SERVICES STAFF PRIOR TO INSTALLATION.

B. PVC PIPE SHALL BE PER ASTM D3034, SDR 35 FOR PIPE SIZE 15–INCH AND SMALLER AND F679 FOR PIPE SIZES 18 TO 27 INCH. MINIMUM COVER ON PVC PIPE SHALL BE 3.0 FEET.

C. CONCRETE PIPE SHALL CONFORM TO THE WSDOT STANDARD SPECIFICATIONS FOR CONCRETE UNDERDRAIN PIPE. MINIMUM COVER ON CONCRETE PIPE SHALL NOT LESS THAN 3.0 FEET.

D. DUCTILE IRON PIPE SHALL BE CLASS 50, CONFORMING TO AWWA C151. MINIMUM COVER ON DUCTILE IRON PIPE SHALL BE 1.0 FOOT.

E. POLYPROPYLENE PIPE (PP) SHALL BE DUAL WALLED, HAVE A SMOOTH INTERIOR AND EXTERIOR CORRUGATIONS AND MEET WSDOT 9–05.24(1). 12–INCH THROUGH 30–INCH PIPE SHALL MEET OR EXCEED ASTM F2736 AND AASHTO M330, TYPE S, OR TYPE D. 36–INCH THROUGH 60–INCH PIPE SHALL MEET OR EXCEED ASTM F2881 AND AASHTO M330, TYPE S, OR TYPE D. TESTING SHALL BE PER ASTM F1417. MINIMUM COVER OVER POLYPROPYLENE PIPE SHALL BE 3–FEET.

15. TRENCHING, BEDDING, AND BACKFILL FOR PIPE SHALL CONFORM TO CITY STANDARD DETAIL NO. 06.01.01.

16. STORM PIPE SHALL BE A MINIMUM OF 10 FEET AWAY FROM BUILDING FOUNDATIONS AND/OR ROOF LINES.

17. ALL STORM PIPE SHALL BE TESTED AND INSPECTED FOR ACCEPTANCE AS OUTLINED IN SECTION 209 OF THE CITY OF PUYALLUP STORMWATER MANAGEMENT STANDARDS.

18. ALL TEMPORARY SEDIMENTATION AND EROSION CONTROL MEASURES, AND PROTECTIVE MEASURES FOR CRITICAL AREAS AND SIGNIFICANT TREES SHALL BE INSTALLED PRIOR TO INITIATING ANY CONSTRUCTION ACTIVITIES.

19. REGISTRATION IS REQUIRED FOR ALL CLASS V UIC WELLS WITHIN PUBLIC DRAINAGE TRACTS OR PUBLIC RIGHTOF–WAY AND MUST BE SUBMITTED SIXTY (60) DAYS PRIOR TO WELL CONSTRUCTION. A COPY OF THE ONLINE REGISTRATION SHALL BE SUBMITTED TO THE CITY PRIOR TO CONSTRUCTION.

WATER SYSTEM NOTES:

1. ALL WORK IN CITY RIGHT–OF–WAY REQUIRES A PERMIT FROM THE CITY OF PUYALLUP. PRIOR TO ANY WORK COMMENCING, THE GENERAL CONTRACTOR SHALL ARRANGE FOR A PRECONSTRUCTION MEETING AT THE DEVELOPMENT SERVICES CENTER TO BE ATTENDED BY ALL CONTRACTORS THAT WILL PERFORM WORK SHOWN ON THE ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES TO SCHEDULE THE MEETING (253) 841–5568. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN APPROVED SET OF PLANS AT THE MEETING.

2. AFTER COMPLETION OF ALL ITEMS SHOWN ON THESE PLANS AND BEFORE ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL OBTAIN A "PUNCH LIST" PREPARED BY THE CITY'S INSPECTOR DETAILING REMAINING ITEMS OF WORK TO BE COMPLETED. ALL ITEMS OF WORK SHOWN ON THESE PLANS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE WATER SYSTEM AND PROVISION OF SANITARY SEWER SERVICE.

3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS"), WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER, LATEST EDITION, UNLESS SUPERSEDED OR AMENDED BY THE CITY OF PUYALLUP CITY STANDARDS FOR PUBLIC WORKS ENGINEERING AND CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "CITY STANDARDS"), OR AS DIRECTED BY FRUITLAND MUTUAL WATER COMPANY (FMWC), VALLEY WATER (VW), OR TACOMA CITY WATER (TCW) IS THE PURVEYOR.

4. A COPY OF THESE APPROVED PLANS AND APPLICABLE CITY DEVELOPER SPECIFICATIONS AND DETAILS SHALL BE ON SITE DURING CONSTRUCTION.

5. ANY REVISIONS MADE TO THESE PLANS MUST BE REVIEWED AND APPROVED BY THE DEVELOPER'S ENGINEER, THE ENGINEERING SERVICES STAFF, AND THE FMWC, VW OR TCW WHEN SERVED BY THAT PURVEYOR, PRIOR TO ANY IMPLEMENTATION IN THE FIELD. THE CITY SHALL NOT BE RESPONSIBLE FOR ANY ERRORS AND/OR OMISSIONS ON THESE PLANS.

6. THE CONTRACTOR SHALL HAVE ALL UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. CALL (811) AT LEAST TWO WORKING DAYS IN ADVANCE. THE OWNER AND HIS/HER ENGINEER SHALL BE CONTACTED IMMEDIATELY IF A CONFLICT EXISTS.

7. ANY STRUCTURE AND/OR OBSTRUCTION WHICH REQUIRES REMOVAL OR RELOCATION RELATING TO THIS PROJECT SHALL BE DONE SO AT THE DEVELOPER'S EXPENSE.

8. BACTERIOLOGICAL (COLIFORM AND IRON BACTERIA) TEST SAMPLES WILL BE TAKEN BY THE CITY (OR FMWC, VW OR TCW WHEN SERVED BY THAT PURVEYOR) AND PAID FOR BY THE CONTRACTOR, EXCEPT FOR CAPITAL IMPROVEMENT PROJECTS (CIP) WHICH SHALL BE PAID FOR BY THE CITY.

9. WATER MAINS SHALL HAVE A MINIMUM COVER OF 36 INCHES FROM PAVED FINAL GRADE IN IMPROVED RIGHT–OF–WAY AND IMPROVED EASEMENTS, AND A MINIMUM OF 48 INCHES IN UNIMPROVED RIGHT–OFWAY AND UNIMPROVED EASEMENTS.

10. PIPE FOR WATER MAINS SHALL BE DUCTILE IRON CONFORMING TO SECTION 7–09 OF THE STANDARD SPECIFICATIONS, CLASS 52 WITH TYTON OR APPROVED EQUAL JOINTS. PIPE SHALL BE CEMENT LINED IN ACCORDANCE WITH A.S.A. SPECIFICATION A 21.4–1964.

11. CONNECTIONS TO EXISTING WATER MAINS TYPICALLY SHALL BE WET TAPS THROUGH A TAPPING TEE AND TAPPING VALVE AND SHALL BE MADE BY A CITY APPROVED CONTRACTOR. THE TAPPING SLEEVE SHALL BE ROMAC SST ALL STAINLESS STEEL TAPPING SLEEVE OR APPROVED EQUAL. A TWO–PIECE EPOXY COATED OR DUCTILE IRON TAPPING SLEEVE MAY BE USED ON DUCTILE IRON PIPE, WHEN THE TAP IS SMALLER THAN THE WATER MAIN SIZE I.E. 6–INCH TAP ON 8–INCH PIPE. THE CITY (OR FMWC, VW OR TCW WHEN SERVED BY THAT PURVEYOR) SHALL APPROVE THE TIME AND LOCATION FOR THESE CONNECTIONS.

12. ALL WATER MAINS AND APPURTENANCES SHALL BE HYDROSTATICALLY TESTED AT 200 PSI IN ACCORDANCE WITH STANDARD SPECIFICATION 7–09.3(23). PRESSURE TESTING SHALL NOT BE PERFORMED UNTIL SATISFACTORY PURITY SAMPLES HAVE BEEN RECEIVED, EXCEPT WHEN NEW WATER MAINS ARE INSTALLED INDEPENDENTLY FROM THE WATER SYSTEM PIPING.

13. FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH CITY STANDARD DETAIL 03.05.01 AND AS DIRECTED BY THE CITY OF PUYALLUP FIRE CODE OFFICIAL.

14. VALVE MARKER POSTS SHALL BE INSTALLED WHERE VALVE BOXES ARE HIDDEN FROM VIEW OR IN UNPAVED AREAS THE INSTALLATION SHALL BE IN ACCORDANCE WITH CITY STANDARD DETAIL 03.01.02.

15. RESILIENT SEATED WEDGE GATE VALVES SHALL BE USED FOR 10–INCH MAINS AND SMALLER. BUTTERFLY VALVES SHALL BE USED FOR MAINS GREATER THAN 10 INCHES.

16. PIPE FITTING FOR WATER MAINS SHALL BE DUCTILE IRON AND SHALL BE MECHANICAL JOINT CONFORMING TO AWWA SPECIFICATION C111–72.

17. WATER MAIN PIPE AND SERVICE CONNECTIONS SHALL BE A MINIMUM OF 10 FEET AWAY FROM BUILDING FOUNDATIONS AND/OR ROOF LINES.

18. WHERE A WATER MAIN CROSSES THE NORTHWEST GAS PIPELINE, THE WATER LINE SHALL BE CASED WITH PVC PIPE A MINIMUM OF 10 FEET BEYOND EACH SIDE OF THE GAS LINE EASEMENT. CONTACT WILLIAMS NORTHWEST PIPELINE BEFORE THE CROSSING IS MADE.

19. TRENCHING, BEDDING, AND BACKFILL FOR WATER MAINS SHALL BE INSTALLED IN ACCORDANCE WITH CITY STANDARD DETAIL 06.01.01.

20. ALL COMMERCIAL AND INDUSTRIAL DEVELOPMENTS, IRRIGATION SYSTEMS, AND MULTI–FAMILY WATER SERVICE CONNECTIONS SHALL BE PROTECTED BY A DOUBLE CHECK VALVE ASSEMBLY OR A REDUCED PRESSURE BACKFLOW ASSEMBLY AS DIRECTED BY THE CITY (OR FMWC, VW OR TCW WHEN SERVED BY THAT PURVEYOR) CONFORMING TO CITY STANDARD DETAILS 03.04.01, 03.04.02, AND 03.04.03.

21. ANY LEAD JOINT FITTING DISTURBED DURING CONSTRUCTION SHALL BE REPLACED WITH A MECHANICAL JOINT FITTING AT THE CONTRACTOR'S EXPENSE.

22. HYDRAULIC FIRE FLOW MODELING SHALL BE REQUIRED FOR FORMAL PLATS WITHIN OR TO BE ANNEXED INTO THE CITY OF PUYALLUP'S WATER SERVICE AREA. THE DEVELOPER SHALL BE RESPONSIBLE TO APPLY FOR A HYDRAULIC MODEL PERMIT PRIOR TO PLAT REVIEW. THE HYDRAULIC MODELING CRITERIA IS BASED ON THE PROJECTED WATER DEMAND WHILE MAINTAINING A MINIMUM SYSTEM PRESSURE OF 20 POUNDS PER SQUARE INCH (PSI) AND A MAXIMUM VELOCITY OF 10 FEET PER SECOND.

23. WHEN USING A FIRE HYDRANT FOR NON–FIREFIGHTING PURPOSES, A CITY HYDRANT METER MUST BE USED. COORDINATE THE ACQUISITION OF THE HYDRANT METER WITH THE CITY'S UTILITY BILLING DIVISION AT PUYALLUP CITY HALL. A CITY APPROVED BACKFLOW PROTECTION ASSEMBLY SHALL BE INSTALLED BY THE PERSON REQUESTING USE OF A FIRE HYDRANT. THE ASSEMBLY SHALL BE ACCOMPANIED BY A CURRENT BACKFLOW ASSEMBLY TEST REPORT. THE TEST REPORT SHALL BE AVAILABLE AT THE SITE FOR THE DURATION OF THE HYDRANT USE.

24. SHOULD A BREAK OCCUR ON ANY CITY WATER MAIN, THE CONTRACTOR SHALL FOLLOW THE CITY'S ADOPTED "WATER MAIN BREAK PROCEDURE" ISSUED TO THEM AT THE PRE–CONSTRUCTION MEETING AND NOTIFY THOSE CONNECTED TO THE SYSTEM IN THE IMPACTED AREA AS OUTLINED IN THE PROCEDURE.

25. WATER MAIN REPAIRS (REFERENCES: AWWA C651–14 AND WSDOT STANDARD SPECIFICATION SECTION 7–09)
(NOTE: A PLANNED WATER MAIN REPAIR SHALL BE APPROVED BY THE CITY INSPECTOR AND/OR WATER DIVISION SUPERVISOR PRIOR TO COMMENCING WORK.)

a. REPAIR WITHOUT DEPRESSURIZATION – SMALL LEAKS SHALL BE REPAIRED USING REPAIR BANDS WHILE MAINTAINING POSITIVE PRESSURE IN THE WATER MAIN. VALVES SURROUNDING THE LEAK WILL BE PARTIALLY SHUT BY THE CITY WATER DEPARTMENT TO REDUCE THE FLOW AND PRESSURE TO THE AREA. BLOWOFFS AND HYDRANTS IN THE REDUCED PRESSURE AREA MAY BE OPENED AS NEEDED TO FURTHER REDUCE THE PRESSURE. THE WATER MAIN TRENCH SHALL BE OVER–EXCAVATED TO ALLOW WATER IN THE TRENCH TO BE PUMPED OUT AND MAINTAINED BELOW THE LEVEL OF THE WATER MAIN. THE REPAIR SHALL BE COMPLETED WITH THE WATER MAIN PRESSURE REMAINING POSITIVE. AFTER THE REPAIR IS MADE, THE SYSTEM SHALL BE FULLY PRESSURIZED AND A VISUAL LEAK INSPECTION WILL BE COMPLETED. THE WATER MAIN IN THE AFFECTED AREA SHALL BE FLUSHED TO ACHIEVE THREE PIPE VOLUMES PULLED FROM THE PIPE (DISTANCE MEASURED FROM VALVE OPENED FOR FLUSHING TO THE EXIT HYDRANT OR BLOWOFF).

b. REPAIR/CUT–IN WITH DEPRESSURIZATION – TRENCH SHALL BE OVER EXCAVATED AND DEWATERED BELOW THE WATER MAIN. FLUSH WATER FROM PIPE FROM EACH DIRECTION UNTIL IT RUNS CLEAR. IMMEDIATELY PRIOR TO INSTALLATION OF A NEW PIPE SECTION FOR REPAIR OR CUT IN TEE, ALL NEW FITTINGS AND PIPE SPOOLS SHALL BE SWABBED WITH A FIVE PERCENT (5%) CHLORINE SOLUTION (MINIMUM). THE INTERIOR OF THE EXISTING PIPE SHALL BE SWABBED WITH A FIVE PERCENT (5%) CHLORINE SOLUTION AT LEAST 6 FEET IN EACH DIRECTION FROM EXPOSED CUT ENDS. THE WATER MAIN IN THE AFFECTED AREA SHALL BE FLUSHED TO ACHIEVE THREE PIPE VOLUMES PULLED FROM THE PIPE (DISTANCE MEASURED FROM THE VALVE OPENED FOR FLUSHING TO THE EXIT HYDRANT OR BLOWOFF). CUSTOMERS SHALL BE NOTIFIED AFTER THE WATER MAIN IS FLUSHED AND REPAIRS HAVE BEEN COMPLETED, AS OUTLINED IN THE "WATER MAIN BREAK PROCEDURE."

26. NEW WATER MAIN INSTALLATION:

a. EACH NEW WATER MAIN SECTION SHALL BE DELIVERED, STACKED AND STORED ONSITE WITH ENDS PLUGGED. THE PLUGS SHALL REMAIN IN THE PIPE UNTIL EACH PARTICULAR SECTION IS INSTALLED. NATIONAL SANITATION FOUNDATION (NSF) APPROVED SIXTY–FIVE PERCENT (65%) CALCIUM HYPOCHLORITE SHALL BE ADDED TO THE UPSTREAM END OF EACH PIPE SECTION, AND AT EACH HYDRANT TEE IN THE AMOUNT GIVEN IN THE TABLE BELOW (OR PER APPROVED MANUFACTURER SPECIFICATIONS). THE MINIMUM AMOUNT OF CALCIUM HYPOCHLORITE ADDED SHOULD BE SUFFICIENT TO ACHIEVE A 50 MG/L CONCENTRATION WITHIN THE IMPACTED AREA.

65% Calcium Hypochlorite Addition per Pipe Section

Pipe Diameter (Inches)	Pipe Volume per 18 feet (gal)	5-gram tablets per pipe section	Hypochlorite Granules		Maximum Fill Rate (gpm)_
			Ounces per 500 feet	Teaspoons per 18 feet	
4	35	1	1.7	0.2	40
6	53	1	3.8	0.4	90
8	70	2	6.7	0.7	150
12	106	4	15.1	1.4	350
16	141	6	27	2.5	600

b. NEW WATER MAINS SHALL BE FILLED USING AN APPROVED BACKFLOW PREVENTION ASSEMBLY. THE WATER MAIN SHALL BE FILLED FROM THE LOWER ELEVATION END SO THAT AS THE WATER MAIN IS FILLED, THE CHORINE IS CONTACTED, DISSOLVED AND SPREAD RELATIVELY UNIFORM THROUGH THE LENGTH OF THE NEW WATER MAIN. THE FILL RATE SHALL BE MINIMIZED SO THAT THE VELOCITY OF THE WATER IS LESS THAN 1 FT/SEC (SEE TABLE ABOVE). SUCCESSFUL PRESSURE TEST AND BACTERIOLOGICAL TESTS SHALL BE COMPLETED AND PROVIDED TO THE CITY PRIOR TO ANY NEW MATER MAIN CONNECTION TO THE EXISTING WATER SYSTEM.

c. THE CHLORINATED WATER WILL BE ALLOWED TO REMAIN IN CONTACT WITH THE NEW WATER MAIN SYSTEM FOR 24 TO 72 HOURS. AFTER 24 HOURS, WATER MAY BE ADDED TO THE WATER MAIN FOR THE PURPOSES OF PRESSURE TESTING. THE WATER IN THE MAIN USED FOR PRESSURE TESTING MUST REMAIN IN THE WATER MAIN UNTIL PRESSURE TEST IS COMPLETED. IF NECESSARY, LIQUID CHLORINE SHALL BE INJECTED INTO THE WATER MAIN WITH FILL WATER TO MAINTAIN A CONCENTRATION IN THE WATER MAIN ABOVE 50 MG/L. UNDER NO CIRCUMSTANCE SHALL "SUPER" CHLORINATED WATER BE ALLOWED TO SIT WITHIN A NEW WATER MAIN FOR MORE THAN 5 DAYS.

d. PRESSURE TESTING INCLUDES TESTING AGAINST NEW VALVES AND HYDRANTS. EACH VALVE SHALL BE TESTED BY CLOSING EACH IN TURN AND REDUCING THE PRESSURE BEYOND THE VALVE. THE PRESSURE ON THE BACK SIDE OF THE VALVE SHOULD NOT BE ELIMINATED. CARE MUST BE TAKEN THAT, DURING THIS PROCESS, POSITIVE PRESSURE REMAINS THROUGHOUT THE SYSTEM BEING TESTED AT ALL TIMES. ALL HYDRANT FOOT VALVES SHALL BE OPEN DURING PRESSURE TESTING SO THAT THE PRESSURE TEST IS AGAINST THE HYDRANT VALVE. PRESSURE TESTING WILL NOT BE ALLOWED AGAINST ANY EXISTING VALVES.

e. AFTER SUCCESSFUL PRESSURE TESTING, THE WATER MAIN SHALL BE THOROUGHLY FLUSHED TO REMOVE ALL "SUPER" CHLORINATED WATER FROM THE NEW WATER MAIN. FLUSHING OF NEW OR EXTENDED WATER MAINS SHALL BE CONDUCTED PER WSDOT SPECIFICATION 7–09.3(24)A WITH A MINIMUM VELOCITY DEVELOPED WITHIN THE PIPE WHILE FLUSHING OF 2.5 FEET PER SECOND (FPS). ALL FLUSHED WATER SHALL BE DECHLORINATED PRIOR TO DISPOSAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL CHLORINATED WATER FLUSHED FROM MAINS. THE CITY SHALL APPROVE THE DISPOSAL METHOD PRIOR TO IMPLEMENTATION IN THE FIELD. THE CONTRACTOR SHALL UTILIZE ONSITE DISPOSAL METHODS, IF AVAILABLE. DISPOSAL OF FLUSH WATER TO THE SANITARY SEWER SYSTEM SHALL NOT BE ALLOWED WITHOUT WRITTEN PERMISSION FROM THE WATER POLLUTION CONTROL PLANT (WPCP) SUPERVISOR. ANY PLANNED DISCHARGE TO A STORMWATER SYSTEM SHALL BE DECHLORINATED TO A CONCENTRATION OF 0.1 PPM OR LESS, PH ADJUSTED (IF NECESSARY) TO BE BETWEEN 6.5 AND 8.5, AND VOLUMETRICALLY AND VELOCITY CONTROLLED TO PREVENT ANY RESUSPENSION OF SEDIMENTS. THE CITY WILL REQUIRE INDEPENDENT TESTING THROUGHOUT THE WATER DISCHARGE PROCESS TO ENSURE COMPLIANCE OF THESE STANDARDS ARE MET.

f. SAMPLES FOR BACTERIOLOGICAL ANALYSIS SHALL BE COLLECTED AFTER FLUSHING AND AGAIN 24 HOURS AFTER THE FIRST SET OF SAMPLES.

g. ALL CLOSURE/FINAL CONNECTION FITTINGS SHALL BE SPRAYED CLEAN AND THEN SWABBED WITH A FIVE PERCENT (5%) CHLORINE SOLUTION IMMEDIATELY PRIOR TO INSTALLATION PER AWWA STANDARD C651. ADDITIONAL SAMPLES FOR BACTERIOLOGICAL ANALYSIS SHALL BE COLLECTED FROM THE IMMEDIATE VICINITY OF THE NEW OR REPLACED WATER MAIN AND ANALYZED AFTER THE FINAL CONNECTIONS ARE MADE. IF NECESSARY, ADDITIONAL FLUSHING SHALL BE CONDUCTED AND ADDITIONAL SAMPLES SHALL BE COLLECTED UNTIL SATISFACTORY RESULTS ARE OBTAINED.

SANITARY SEWER NOTES:

1. ALL WORK IN CITY RIGHT–OF–WAY REQUIRES A PERMIT FROM THE CITY OF PUYALLUP. PRIOR TO ANY WORK COMMENCING, THE GENERAL CONTRACTOR SHALL ARRANGE FOR A PRECONSTRUCTION MEETING AT THE DEVELOPMENT SERVICES CENTER TO BE ATTENDED BY ALL CONTRACTORS THAT WILL PERFORM WORK SHOWN ON THE ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES TO SCHEDULE THE MEETING (253) 841–5568. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN APPROVED SET OF PLANS AT THE MEETING.

2. AFTER COMPLETION OF ALL ITEMS SHOWN ON THESE PLANS AND BEFORE ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL OBTAIN A "PUNCH LIST" PREPARED BY THE CITY'S INSPECTOR DETAILING REMAINING ITEMS OF WORK TO BE COMPLETED. ALL ITEMS OF WORK SHOWN ON THESE PLANS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE SEWER SYSTEM AND PROVISION OF SANITARY SEWER SERVICE.

3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS"), WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER, LATEST EDITION, UNLESS SUPERSEDED OR AMENDED BY THE CITY OF PUYALLUP CITY STANDARDS FOR PUBLIC WORKS ENGINEERING AND CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "CITY STANDARDS").

4. A COPY OF THESE APPROVED PLANS AND APPLICABLE CITY DEVELOPER SPECIFICATIONS AND DETAILS SHALL BE ON SITE DURING CONSTRUCTION.

5. ANY REVISIONS MADE TO THESE PLANS MUST BE REVIEWED AND APPROVED BY THE DEVELOPER'S ENGINEER AND THE ENGINEERING SERVICES STAFF PRIOR TO ANY IMPLEMENTATION IN THE FIELD. THE CITY SHALL NOT BE RESPONSIBLE FOR ANY ERRORS AND/OR OMISSIONS ON THESE PLANS.

6. THE CONTRACTOR SHALL HAVE ALL UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. CALL (811) AT LEAST TWO WORKING DAYS IN ADVANCE. THE OWNER AND HIS/HER ENGINEER SHALL BE CONTACTED IMMEDIATELY IF A CONFLICT EXISTS.

7. ANY STRUCTURE AND/OR OBSTRUCTION WHICH REQUIRE REMOVAL OR RELOCATION RELATING TO THIS PROJECT SHALL BE DONE SO AT THE DEVELOPER'S EXPENSE.

8. MINIMUM GRADE ON ALL 4 INCH RESIDENTIAL SIDE SEWERS SHALL BE 2 PERCENT AND 6 INCH COMMERCIAL SIDE SEWERS SHALL BE 1 PERCENT; MAXIMUM SHALL BE 8 PERCENT. ALL SIDE SEWERS SHALL BE 6 INCHES WITHIN CITY RIGHT–OF–WAY.

9. SIDE SEWERS SHALL BE INSTALLED IN ACCORDANCE WITH CITY STANDARD NOS. 04.03.01, 04.03.02, 04.03.03 AND 04.03.04. SIDE SEWER INSTALLATION WORK SHALL BE DONE IN ACCORDANCE WITH THE WASHINGTON INDUSTRIAL SAFETY AND HEALTH ACT (WISHA).

10. ALL SEWER PIPE SHALL BE PVC, POLYPROPYLENE, OR DUCTILE IRON. PVC SEWER PIPE SHALL CONFORM TO ASTM D–3034, SDR35 FOR PIPE SIZES 15–INCH AND SMALLER AND ASTM F679 FOR PIPE SIZES 18– TO 27–INCH, DUCTILE IRON PIPE SHALL BE CLASS 51 OR GREATER, LINED WITH PROTECTO 401TM EPOXY LINING OR EQUIVALENT, UNLESS OTHERWISE NOTED. 12–INCH THROUGH 30–INCH POLYPROPYLENE PIPE (PP) SHALL BE DUAL WALLED, HAVE A SMOOTH INTERIOR AND EXTERIOR CORRUGATIONS AND MEET WSDOT 9–05.24(2). IT SHALL MEET OR EXCEED ASTM F2764. 36–INCH THROUGH 60–INCH PP PIPE SHALL BE TRIPLE WALLED AND MEET WSDOT 9–05.24(2). IT SHALL MEET OR EXCEED ASTM F2764. PP SHALL HAVE A MINIMUM PIPE STIFFNESS OF 46 PII WHEN TESTED IN ACCORDANCE WITH ASTM D2412. TESTING SHALL BE PER ASTM F1417. TRENCHING, BEDDING, AND BACKFILL SHALL BE IN ACCORDANCE WITH CITY STANDARD NO. 06.01.01. MINIMUM COVER ON PVC AND PP PIPE SHALL BE 3.0 FEET. MINIMUM COVER ON DUCTILE IRON PIPE SHALL BE 1.0 FOOT.

11. SANITARY SEWER MANHOLE FRAMES AND COVERS SHALL CONFORM TO CITY STANDARD NO. 06.01.02.

12. SANITARY SEWER MANHOLES SHALL CONFORM TO CITY STANDARD NOS. 04.01.01, 04.01.02, 04.01.03 AND 04.01.04. ALL MANHOLES SHALL BE CHANNELED FOR FUTURE LINES AS SPECIFIED ON THESE PLANS. MANHOLE STEPS AND LADDER SHALL CONFORM TO STANDARD NO. 06.01.03.

13. SANITARY SEWER PIPE AND SIDE SEWERS SHALL BE 10 FEET AWAY FROM BUILDING FOUNDATIONS AND/OR ROOF LINES WITH THE EXCEPTION OF SIDE SEWERS THAT PROVIDE SERVICE TO A SINGLE–FAMILY RESIDENCE. AT THE DISCRETION OF THE REVIEW ENGINEER, A LICENSED PROFESSIONAL ENGINEER WILL BE REQUIRED TO STAMP THE DESIGN TO ACCOUNT FOR DEPTH OR PROXIMITY TO FOUNDATION, STEEP SLOPES, OR OTHER FACTORS.

14. NO SIDE SEWERS SHALL BE CONNECTED TO ANY HOUSE OR BUILDING UNTIL ALL MANHOLES ARE ADJUSTED TO THE FINISHED GRADE OF THE COMPLETED ASPHALT ROADWAY AND THE ASPHALT PATCH AND SEAL AROUND THE RING ARE ACCEPTED.

15. FOR COMMERCIAL DEVELOPMENTS IN WHICH SOURCES OF GREASE AND/OR OILS MAY BE INTRODUCED TO THE CITY SANITARY SEWER SYSTEM, A CITY APPROVED GREASE INTERCEPTOR SHALL BE INSTALLED DOWNSTREAM FROM THE SOURCE.

16. ONCE SEWER AND ALL OTHER UTILITY CONSTRUCTION IS COMPLETED, ALL SANITARY SEWER MAINS AND SIDE SEWERS SHALL BE TESTED PER SECTION 406 OF THE CITY STANDARDS.

ROADWAY NOTES:

1. ALL WORK IN CITY RIGHT–OF–WAY REQUIRES A PERMIT FROM THE CITY OF PUYALLUP. PRIOR TO ANY WORK COMMENCING, THE GENERAL CONTRACTOR SHALL ARRANGE FOR A PRECONSTRUCTION MEETING AT THE DEVELOPMENT SERVICES CENTER TO BE ATTENDED BY ALL CONTRACTORS THAT WILL PERFORM WORK SHOWN ON THE ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES TO SCHEDULE THE MEETING (253) 841–5568. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN APPROVED SET OF PLANS AT THE MEETING.

2. AFTER COMPLETION OF ALL ITEMS SHOWN ON THESE PLANS AND BEFORE ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL OBTAIN A "PUNCH LIST" PREPARED BY THE CITY'S INSPECTOR DETAILING REMAINING ITEMS OF WORK TO BE COMPLETED. ALL ITEMS OF WORK SHOWN ON THESE PLANS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE WATER SYSTEM AND PROVISION OF SANITARY SEWER SERVICE.

3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS"), WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER, LATEST EDITION, UNLESS SUPERSEDED OR AMENDED BY THE CITY OF PUYALLUP CITY STANDARDS FOR PUBLIC WORKS ENGINEERING AND CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "CITY STANDARDS").

4. A COPY OF THESE APPROVED PLANS AND APPLICABLE CITY DEVELOPER SPECIFICATIONS AND DETAILS SHALL BE ON SITE DURING CONSTRUCTION.

5. ANY REVISIONS MADE TO THESE PLANS MUST BE REVIEWED AND APPROVED BY THE DEVELOPER'S ENGINEER AND THE ENGINEERING SERVICES STAFF PRIOR TO ANY IMPLEMENTATION IN THE FIELD. THE CITY SHALL NOT BE RESPONSIBLE FOR ANY ERRORS AND/OR OMISSIONS ON THESE PLANS.

6. THE CONTRACTOR SHALL HAVE ALL UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. CALL (811) AT LEAST TWO WORKING DAYS IN ADVANCE. THE OWNER AND HIS/HER ENGINEER SHALL BE CONTACTED IMMEDIATELY IF A CONFLICT EXISTS.

7. ANY STRUCTURE AND/OR OBSTRUCTION WHICH REQUIRES REMOVAL OR RELOCATION RELATING TO THIS PROJECT, SHALL BE DONE SO AT THE DEVELOPER'S EXPENSE.

8. MONUMENTS SHALL BE INSTALLED AT ALL STREET INTERSECTIONS, AT ANGLE POINTS, AND POINTS OF CURVATURE IN EACH STREET. ALL BOUNDARY MONUMENTS MUST BE INSTALLED ACCORDING TO THE WASHINGTON STATE SUBDIVISION LAWS.

9. CURB AND GUTTER INSTALLATION SHALL CONFORM TO CITY STANDARD DETAIL 01.02.09.

10. SIDEWALKS AND DRIVEWAYS SHALL BE INSTALLED AS LOTS ARE BUILT ON. SIDEWALKS AND DRIVEWAYS SHALL CONFORM TO CITY STANDARD DETAIL 01.02.01, 01.02.02 AND 01.02.12. IF ASPHALT IS DAMAGED DURING REPLACEMENT OF CURB AND GUTTER, THE REPAIR SHALL CONFORM TO CITY STANDARD DETAIL 01.02.10.

11. THE SURROUNDING GROUND (5 FEET BEYOND THE BASE) FOR ALL POWER TRANSFORMERS, TELEPHONE/TV PEDESTALS, AND STREET LIGHT MAIN DISCONNECTS SHALL BE GRADED TO A POSITIVE 2 PERCENT SLOPE FROM TOP OF CURB.

12. SIGNAGE AND TRAFFIC CONTROL DEVICES ARE SAFETY ITEMS AND SHALL BE INSTALLED PRIOR TO ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY OR PLAT APPROVAL. HOWEVER, IN LARGER DEVELOPMENTS, EXACT LOCATIONS OF STOP AND YIELD SIGNS MAY NEED TO BE DETERMINED AFTER FULL BUILDOUT WHEN TRAFFIC PATTERNS HAVE BEEN ESTABLISHED. IN THIS CASE, CONTRACTOR SHALL PROVIDE INDICATED "CITY–PLACED" SIGNS, SIGNPOSTS, AND BRACKETS TO THE CITY SIGN SPECIALIST (253) 841–5471 FOR LATER INSTALLATION BY THE CITY. ALL SIGNAGE SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

13. PRIOR TO ANY SIGN OR STRIPING INSTALLATION OR REMOVAL THE CONTRACTOR SHALL CONTACT THE CITY SIGN SPECIALIST (253) 841–5471 TO ARRANGE FOR AN ON–SITE MEETING TO DISCUSS PLACEMENT AND UNIFORMITY.

14. NEW OR REVISED STOP SIGNS OR YIELD SIGNS SHALL BE ADVANCE WARNED USING THE PROCEDURE OUTLINED IN THE MUTCD. ADVANCE WARNING SIGNS AND FLAGS SHALL BE MAINTAINED BY INSTALLER FOR 30 DAYS AND THEN REMOVED.

GRADING, EROSION AND SEDIMENTATION CONTROL NOTES:

1. ALL WORK IN CITY RIGHT–OF–WAY REQUIRES A PERMIT FROM THE CITY OF PUYALLUP. PRIOR TO ANY WORK COMMENCING, THE GENERAL CONTRACTOR SHALL ARRANGE FOR A PRECONSTRUCTION MEETING AT THE DEVELOPMENT SERVICES CENTER TO BE ATTENDED BY ALL CONTRACTORS THAT WILL PERFORM WORK SHOWN ON THE ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES TO SCHEDULE THE MEETING (253) 841–5568. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN APPROVED SET OF PLANS AT THE MEETING.

2. AFTER COMPLETION OF ALL ITEMS SHOWN ON THESE PLANS AND BEFORE ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL OBTAIN A "PUNCH LIST" PREPARED BY THE CITY'S INSPECTOR DETAILING REMAINING ITEMS OF WORK TO BE COMPLETED. ALL ITEMS OF WORK SHOWN ON THESE PLANS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE WATER SYSTEM AND PROVISION OF SANITARY SEWER SERVICE.

3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS"), WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER, LATEST EDITION, UNLESS SUPERSEDED OR AMENDED BY THE CITY OF PUYALLUP CITY STANDARDS FOR PUBLIC WORKS ENGINEERING AND CONSTRUCTION (HERINAFTER REFERRED TO AS THE "CITY STANDARDS").

4. A COPY OF THESE APPROVED PLANS AND APPLICABLE CITY DEVELOPER SPECIFICATIONS AND DETAILS SHALL BE ON SITE DURING CONSTRUCTION.

5. ANY REVISIONS MADE TO THESE PLANS MUST BE REVIEWED AND APPROVED BY THE DEVELOPER'S ENGINEER AND THE CITY ENGINEER PRIOR TO ANY IMPLEMENTATION IN THE FIELD. THE CITY SHALL NOT BE RESPONSIBLE FOR ANY ERRORS AND/OR OMISSIONS ON THESE PLANS.

6. THE CONTRACTOR SHALL HAVE ALL UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. CALL (811) AT LEAST TWO WORKING DAYS HOURS IN ADVANCE. THE OWNER AND HIS/HER ENGINEER SHALL BE CONTACTED IMMEDIATELY IF A CONFLICT EXISTS.

7. ALL LIMITS OF CLEARING AND AREAS OF VEGETATION PRESERVATION AS PRESCRIBED ON THE PLANS SHALL BE CLEARLY FLAGGED IN THE FIELD AND OBSERVED DURING CONSTRUCTION.

8. ALL REQUIRED SEDIMENTATION AND EROSION CONTROL FACILITIES MUST BE CONSTRUCTED AND IN OPERATION PRIOR TO ANY LAND CLEARING AND/OR OTHER CONSTRUCTION TO ENSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER THE NATURAL DRAINAGE SYSTEM. THE CONTRACTOR SHALL SCHEDULE AN INSPECTION OF THE EROSION CONTROL FACILITIES PRIOR TO ANY LAND CLEARING AND/OR OTHER CONSTRUCTION. ALL EROSION AND SEDIMENT FACILITIES SHALL BE MAINTAINED IN A SATISFACTORY CONDITION AS DETERMINED BY THE CITY, UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR ON–SITE EROSION HAS PASSED. THE IMPLEMENTATION, MAINTENANCE, REPLACEMENT, AND ADDITIONS TO THE EROSION AND SEDIMENTATION CONTROL SYSTEMS SHALL BE THE RESPONSIBILITY OF THE PERMITTEE. CITY OF PUYALLUP – CITY STANDARDS GESC REVISED 06/06/12500–6

9. THE EROSION AND SEDIMENTATION CONTROL SYSTEM FACILITIES DEPICTED ON THESE PLANS ARE INTENDED TO BE MINIMUM REQUIREMENTS TO MEET ANTICIPATED SITE CONDITIONS. AS CONSTRUCTION PROGRESSES AND UNEXPECTED OR SEASONAL CONDITIONS DICTATE, FACILITIES WILL BE NECESSARY TO ENSURE COMPLETE SILTATION CONTROL ON THE SITE. DURING THE COURSE OF CONSTRUCTION, IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE PERMITTEE TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY HIS ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES, OVER AND ABOVE THE MINIMUM REQUIREMENTS, AS MAY BE NEEDED TO PROTECT ADJACENT PROPERTIES, SENSITIVE AREAS, NATURAL WATER COURSES, AND/OR STORM DRAINAGE SYSTEMS.

10. APPROVAL OF THESE PLANS IS FOR GRADING, TEMPORARY DRAINAGE, EROSION AND SEDIMENTATION CONTROL ONLY. IT DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT STORM DRAINAGE DESIGN, SIZE OR LOCATION OF PIPES, RESTRICTORS, CHANNELS, OR RETENTION FACILITIES.

11. ANY DISTURBED AREA WHICH HAS BEEN STRIPPED OF VEGETATION AND WHERE NO FURTHER WORK IS ANTICIPATED FOR A PERIOD OF 30 DAYS OR MORE, MUST BE IMMEDIATELY STABILIZED WITH MULCHING, GRASS PLANTING, OR OTHER APPROVED EROSION CONTROL TREATMENT APPLICABLE TO THE TIME OF YEAR IN QUESTION. GRASS SEEDING ALONE WILL BE ACCEPTABLE ONLY DURING THE MONTHS OF APRIL THROUGH SEPTEMBER INCLUSIVE. SEEDING MAY PROCEED OUTSIDE THE SPECIFIED TIME PERIOD WHENEVER IT IS IN THE INTEREST OF THE PERMITTEE BUT MUST BE AUGMENTED WITH MULCHING, NETTING, OR OTHER TREATMENT APPROVED BY THE CITY.

12. IN CASE EROSION OR SEDIMENTATION OCCURS TO ADJACENT PROPERTIES, ALL CONSTRUCTION WORK WITHIN THE DEVELOPMENT THAT WILL FURTHER AGGRAVATE THE SITUATION MUST CEASE, AND THE OWNER/CONTRACTOR WILL IMMEDIATELY COMMENCE RESTORATION METHODS. RESTORATION ACTIVITY WILL CONTINUE UNTIL SUCH TIME AS THE AFFECTED PROPERTY OWNER IS SATISFIED.

13. NO TEMPORARY OR PERMANENT STOCKPILING OF MATERIALS OR EQUIPMENT SHALL OCCUR WITHIN CRITICAL AREAS OR ASSOCIATED BUFFERS, OR THE CRITICAL ROOT ZONE FOR VEGETATION PROPOSED FOR RETENTION.

APPROVED

BY ____________________
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE ____________________

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR 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 ENGINEERING SERVICES MANAGER.

PCR 002
PRCCP20231028

No.	Date	By	Ckd.	Appr.	Revision
3	06/17/25	LRP	CMV	CMV	BUILDING, WATER, STORM, AND GRADING REVISIONS

Title:
CONSTRUCTION NOTES
FOR
CIVIL PLANS
PHASE 2 - WESLEY BRADLEY PARK

For:
WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

DANIEL K. BALMELLI
25672
6/17/25

Scale:
Horizontal N/A
Vertical N/A

Designed CK
Drawn BGK
Checked CMV
Approved DKB
Date 6/17/25

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

Job Number
16718

Sheet
C14 of C20

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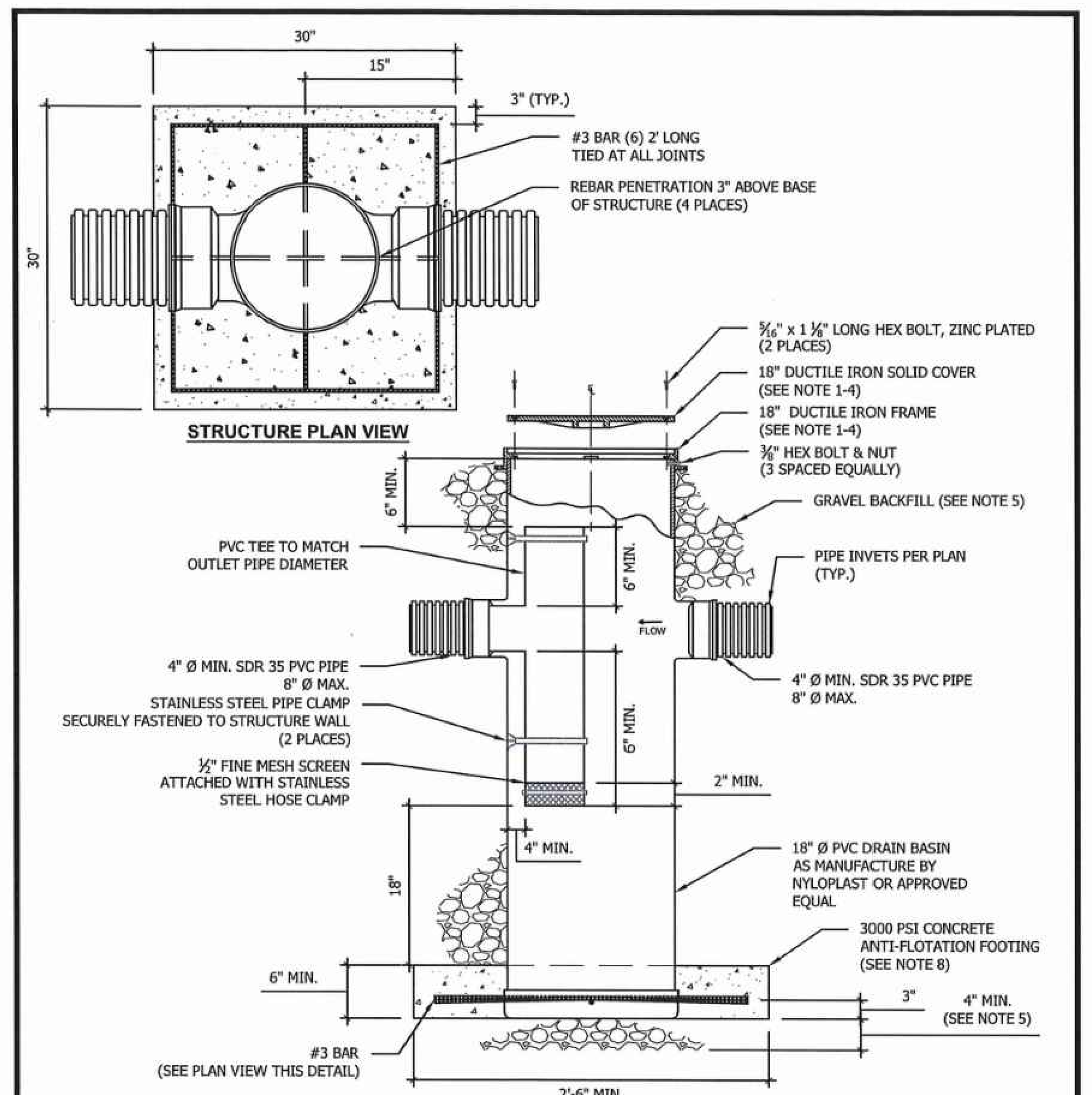
CONSTRUCTION NOTES & DETAILS

FOR

PHASE 2 - WESLEY BRADLEY PARK



NOTES:

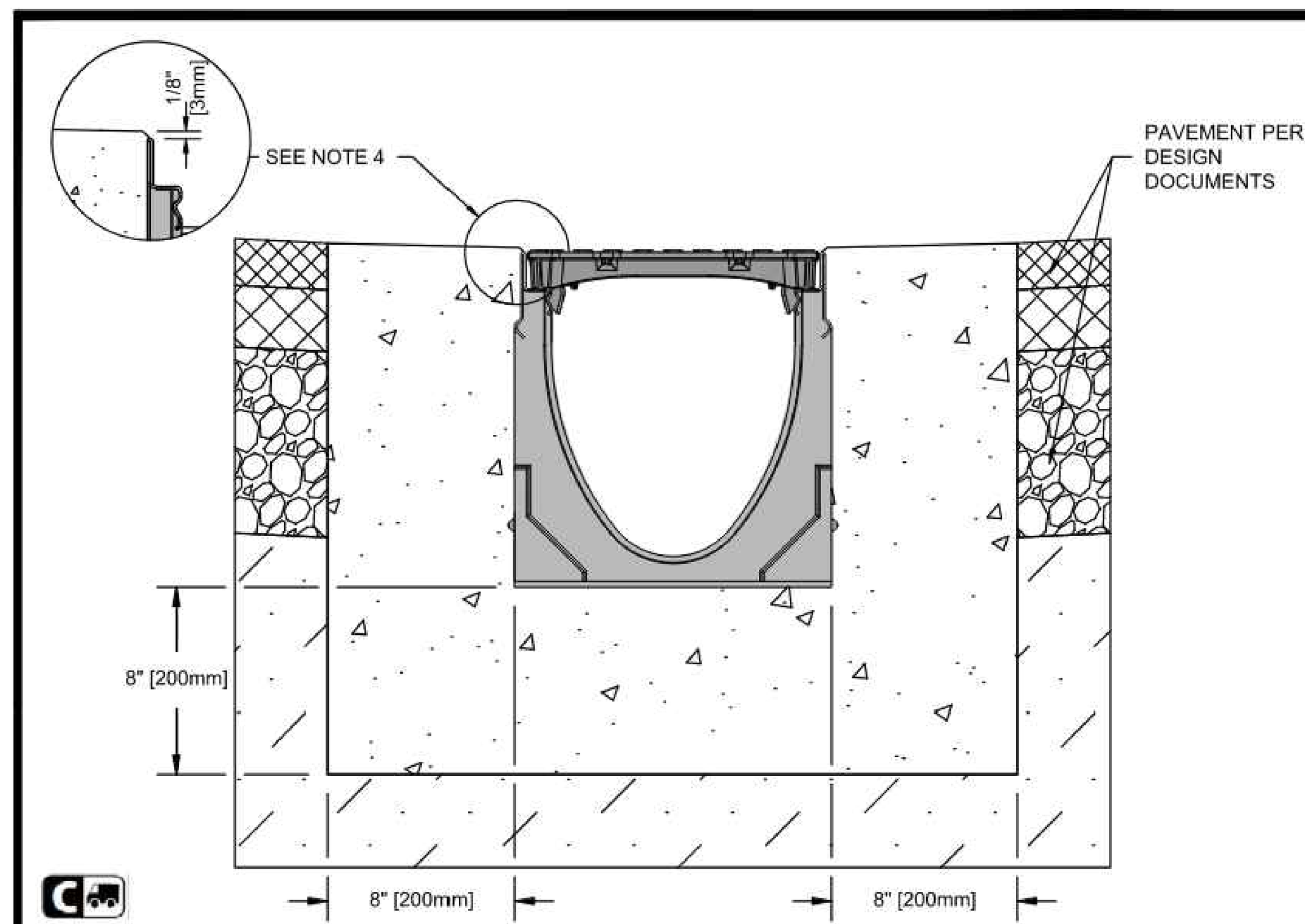
1. TRAFFIC APPLICATIONS SHALL BE HS-20 RATED, NOT FOR USE IN PUBLIC RIGHT-OF-WAY, PUBLIC EASEMENTS, OR TRACTS.
2. 18" SOLID LOCKING DUCTILE IRON FRAME AND COVER BY NYLOPLAST - TYPE C OR APPROVED EQUAL.
3. DUCTILE IRON FRAME AND COVER SHALL BE DRILLED AND TAPPED WITH ⁵⁄₁₆"- 8 ZINC-PLATED HEX BOLT 1 ⅛" LONG.
4. DUCTILE IRON FRAME AND COVER SHALL BE FLUSH WITH FINISHED GRADE.
5. STORM PIPE AND STRUCTURE BEDDING AND BACKFILL SHALL CONFORM TO STD DETAIL 06.01.01.
6. ALL BOLT HOLES DRILLED IN THE STRUCTURE SHALL BE WATERTIGHT WITH RUBBER SEALING WASHERS OR APPROVED EQUAL.
7. ALL PIPE JOINTS SHALL BE WATERTIGHT.
8. A CONCRETE FOOTING SHALL BE PROVIDED AT THE BASE OF THE STRUCTURE WHEN THE BOTTOM ELEVATION OF THE STRUCTURE IS WITHIN 6" OF HIGH GROUNDWATER.
9. THE MAXIMUM DEPTH FROM FINISHED GRADE TO THE PIPE INVERT IS 5'-0".

CITY OF PUYALLUP
PUBLIC WORKS AND DEVELOPMENT ENGINEERING

APPROVED FOR PUBLICATION

YARD DRAIN

SCALE: NTS | DATE REVISED: 12/05/2022 | CITY STANDARD 02.05.02



NOTES:

1. IT IS NECESSARY TO ENSURE MINIMUM DIMENSIONS SHOWN ARE SUITABLE FOR EXISTING GROUND CONDITIONS. *ENGINEERING ADVICE MAY BE REQUIRED.*
2. MINIMUM CONCRETE STRENGTH OF 4,000 PSI IS RECOMMENDED. CONCRETE SHOULD BE VIBRATED TO ELIMINATE AIR POCKETS.
3. EXPANSION AND CONTRACTION CONTROL JOINTS AND REINFORCEMENT ARE RECOMMENDED TO PROTECT CHANNEL AND CONCRETE SURROUND. *ENGINEERING ADVICE MAY BE REQUIRED.*
4. THE FINISHED LEVEL OF THE CONCRETE SURROUND MUST BE APPROX. 1/8" [3mm] ABOVE THE TOP OF THE CHANNEL EDGE.
5. CONCRETE BASE THICKNESS SHOULD MATCH SLAB THICKNESS. ENGINEERING ADVICE MAY BE REQUIRED TO DETERMINE PROPER LOAD CLASS.
6. REFER TO ACO'S LATEST INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS.

SPECIFICATION CLAUSE

K200 KLASSIKDRAIN 'DRAINLOK' LOAD CLASS C

GENERAL
THE SURFACE DRAINAGE SYSTEM SHALL BE POLYMER CONCRETE K200 CHANNEL SYSTEM WITH GALVANIZED STEEL EDGE RAILS AS MANUFACTURED BY ACO POLYMER PRODUCTS, INC.

MATERIALS
CHANNELS SHALL BE MANUFACTURED FROM POLYESTER RESIN POLYMER CONCRETE WITH AN INTEGRALLY CAST-IN GALVANIZED STEEL EDGE RAIL. MINIMUM PROPERTIES OF POLYMER CONCRETE WILL BE AS FOLLOWS:

COMPRESSIVE STRENGTH:	14,000 PSI
FLEXURAL STRENGTH:	4,000 PSI
TENSILE STRENGTH:	1,500 PSI
WATER ABSORPTION:	0.07%
FROST PROOF	YES
DILUTE ACID AND ALKALI RESISTANT	YES
B117 SALT SPRAY TEST COMPLIANT	YES

THE SYSTEM SHALL BE 8" (200mm) NOMINAL INTERNAL WIDTH WITH A 10.2" (260mm) OVERALL WIDTH AND A BUILT-IN SLOPE OF 0.5%. CHANNEL INVERT SHALL HAVE DEVELOPED "V" SHAPE. ALL CHANNELS SHALL BE INTERLOCKING WITH A MALE/FEMALE JOINT.

THE COMPLETE DRAINAGE SYSTEM SHALL BE BY ACO POLYMER PRODUCTS, INC. ANY DEVIATION OR PARTIAL SYSTEM DESIGN AND/OR IMPROPER INSTALLATION WILL VOID ANY AND ALL WARRANTIES PROVIDED BY ACO POLYMER PRODUCTS, INC.

CHANNEL SHALL WITHSTAND LOADING TO PROPER LOAD CLASS AS OUTLINED BY EN 1433. GRATE TYPE SHALL BE APPROPRIATE TO MEET THE SYSTEM LOAD CLASS SPECIFIED AND INTENDED APPLICATION. GRATES SHALL BE SECURED USING 'DRAINLOK' BOLTLESS LOCKING SYSTEM. CHANNEL AND GRATE SHALL BE CERTIFIED TO MEET THE SPECIFIED EN 1433 LOAD CLASS. THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.

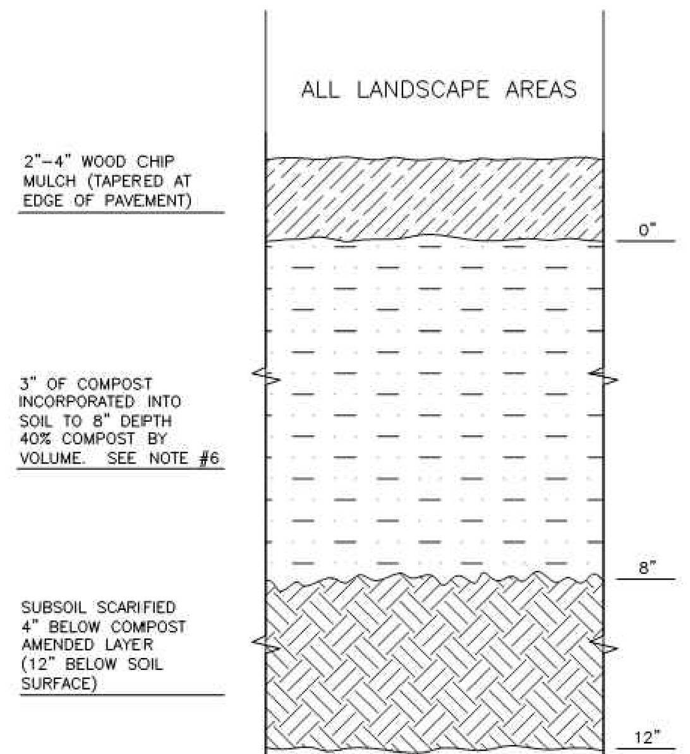
K2D-C-EAP | DATE: 08/17/16

K200 - KLASSIKDRAIN - LOAD CLASS: C
Exposed Asphalt Pavement
INSTALLATION DRAWING - ACO DRAIN

ACO Polymer Products, Inc.

825 W. Beechcraft St Casa Grande, AZ 85122 Tel: 520-421-9988 Fax: 520-421-9899	9470 Pinecone Dr. Mentor, OH 44060 Tel: 440-639-7230 Fax: 440-639-7235	4211 Pleasant Rd. Fort Mill, SC 29708 Tel: 440-639-7230 Fax: 803-802-1063

Arizona Tel: 888-490-9552 e-mail: sales@acousa.com Ohio Tel: 800-543-4764 www.acousa.com South Carolina Tel: 800-543-4764



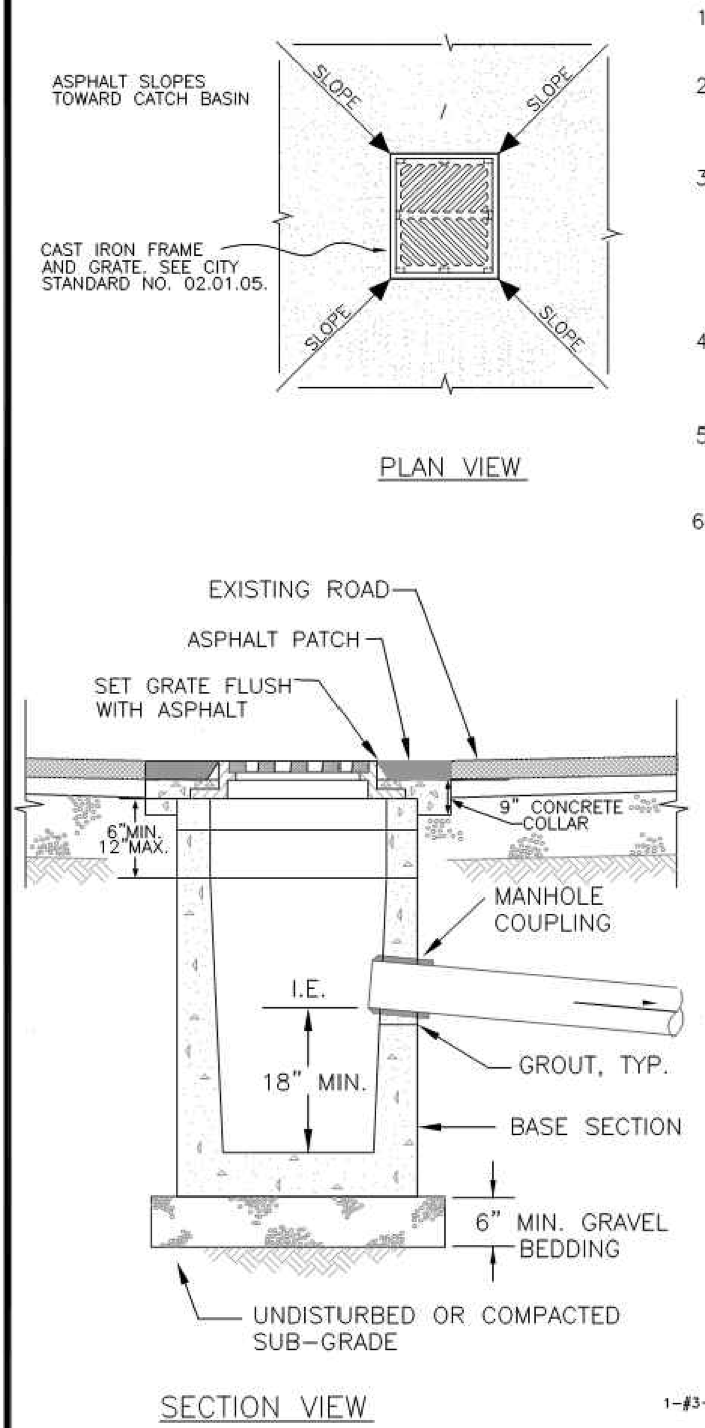
NOTES:

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

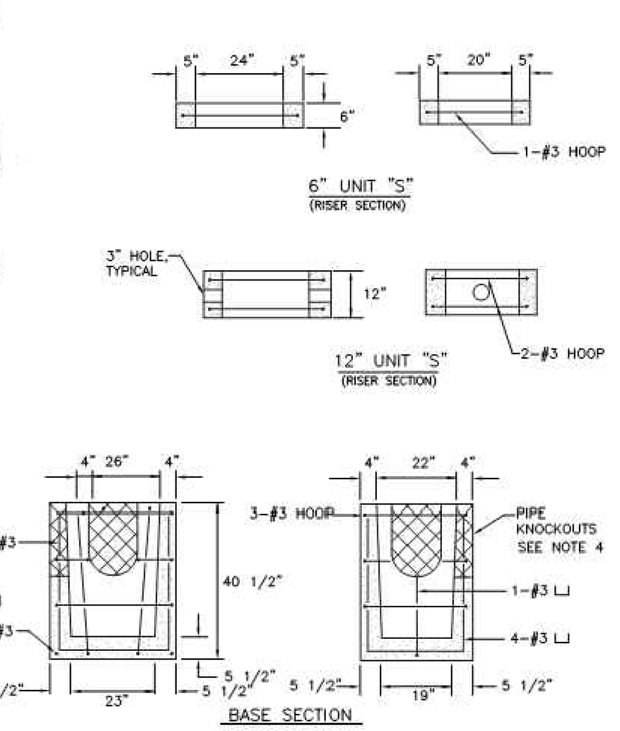
SOIL AMENDMENT AND DEPTH

CITY STANDARD 01.02.08a



NOTES:

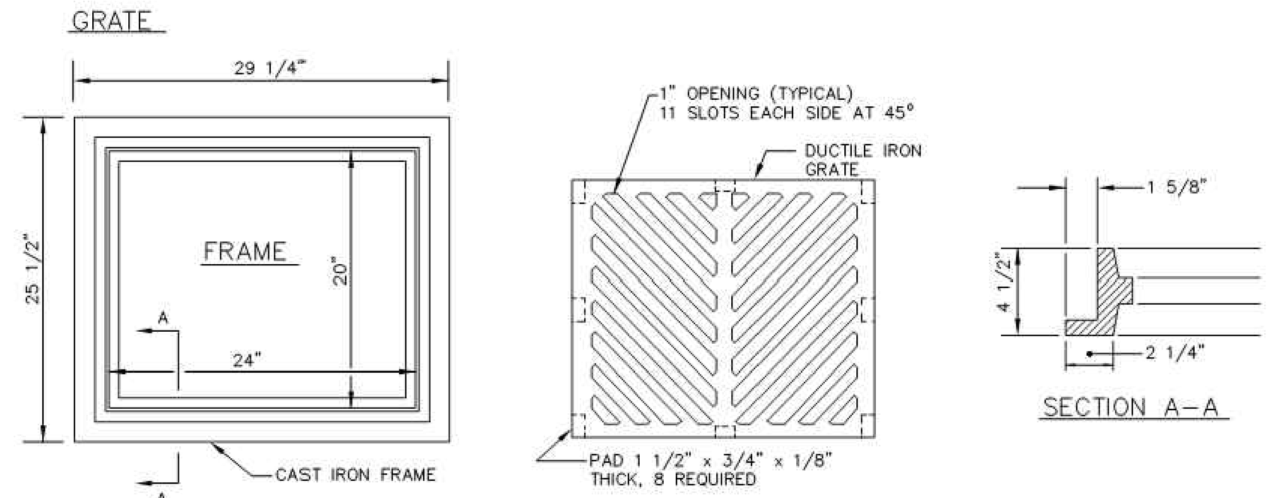
1. MAXIMUM LENGTH OF PIPE BETWEEN CATCH BASINS SHALL BE 400'.
2. TYPE I CATCH BASIN IS USED FOR DEPTHS LESS THAN 5'-0" FROM TOP OF GRATE TO I.E.(PIPE INVERT).
3. PRECAST BASE SECTION SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. KNOCKOUTS SHALL BE ON 4 SIDES WITH A MAXIMUM DIAMETER OF 20" TO PROVIDE FOR A MINIMUM SUMP DEPTH OF 18".
4. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION SHALL NOT EXCEEED 1/2" PER FOOT.
5. CATCH BASIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C 478 (AASHTO M 199) AND ASTM C 890 UNLESS OTHERWISE NOTED.
6. CATCH BASIN MARKER WILL BE AFFIXED WITH MANUFACTURER'S EPOXY IN DRY WEATHER, 40 DEGREES OR WARMER. IF CURB EXISTS MARKER IS PLACED ON TOP OF CURB, IF A RAISED EDGE PLACE MARKER ON THE WEDGE, IF NO CURB PLACE ON PAVEMENT ON SIDE LEAST EXPOSED TO TRAFFIC



CITY OF PUYALLUP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

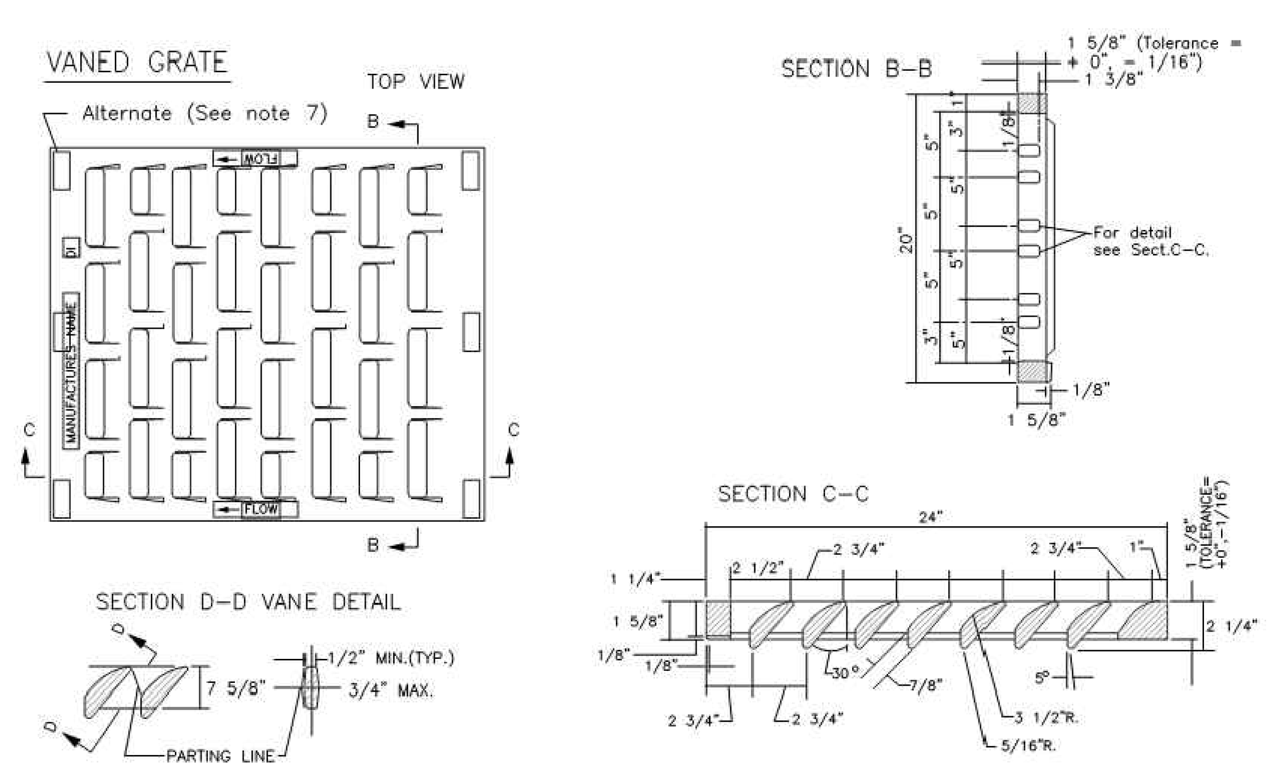
CATCH BASIN TYPE 1 (AREA DRAIN)

CITY STANDARD 02.01.02



NOTES:

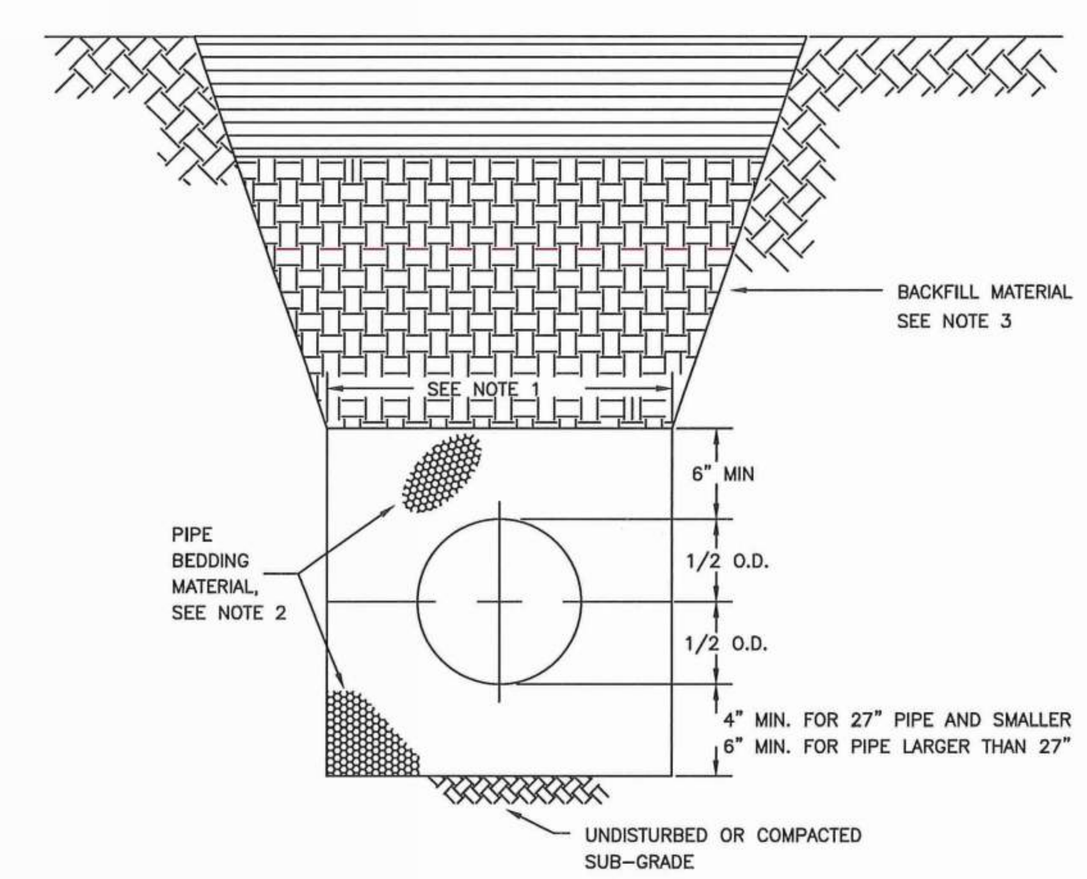
1. MATERIAL SHALL CONFORM TO SECTION 9-05.15 "METAL CASTINGS" OF THE "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION" PUBLISHED BY THE STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER.
2. THE NAME OF THE MANUFACTURE AND DIRECTION OF FLOW SHALL BE EMBOSSED ON THE TOP SURFACE OF EACH GRATE. LETTERING TO BE RECESSED 1/16".
3. THE MATERIAL USED FOR THE GRATE SHALL BE DESIGNATED BY EMBASSING EITHER DI (FOR DUCTILE IRON) OR CS (FOR CAST STEEL) NEAR THE NAME OF THE MANUFACTURER.
4. DIMENSIONS SHALL HAVE A +/- 1/16" TOLERANCE, EXCEPT AS NOTED.
5. EDGES SHALL HAVE 1/8" RADIUS.
6. WELDING IS NOT PERMITTED.
7. AS AN ALTERNATE, 8 PADS 1 1/2" X 3/4" X 1/8", INTEGRALLY CAST WITH THE GRATE, MAY BE USED.



CITY OF PUYALLUP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

CATCH BASIN FRAME AND GRATE/VANED GRATE

CITY STANDARD 02.01.05



1. TRENCHING SHALL MEET THE REQUIREMENTS OF SECTION 7-08.3(1)A AND 2-06.3(1) OF THE WSDOT SPECIFICATIONS.
2. BEDDING MATERIAL SHALL CONFORM TO 9-03.12(3) GRAVEL BACKFILL FOR PIPE ZONE BEDDING.
3. GRAVEL BACKFILL SHALL CONFORM TO 9-03.12(1)A GRAVEL BACKFILL FOR FOUNDATIONS, CLASS A.

CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER

PIPE TRENCHING BEDDING AND BACKFILL

APPROVED BY MARK PALMER | REVISED BY V STOCKMAN | DATE APPROVED 07/01/2009 | SCALE 1:1 | CITY STANDARD 06.01.01

APPROVED

BY ______________________
CITY OF PUYALLUP ENGINEERING SERVICES

DATE ______________________

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR 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 ENGINEERING SERVICES MANAGER.

PCR 002
PRCCP20231028

No.	Date	By	Ckd.	Appr.	Revision
3	06/17/25	LRP	CMV	CMV	BUILDING, WATER, STORM, AND GRADING REVISIONS

Title: **CONSTRUCTION NOTES & DETAILS FOR CIVIL PLANS PHASE 2 - WESLEY BRADLEY PARK**

For: **WESLEY HOMES**
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

DANIEL K. BALMELLI, STATE OF WASHINGTON, 25672, REGISTERED PROFESSIONAL ENGINEER, 6/17/25

Scale: Horizontal N/A, Vertical N/A

Designed CK | Drawn BGK | Checked CMV | Approved DKB | Date 6/17/25

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

Job Number 16718

Sheet C15 of C20

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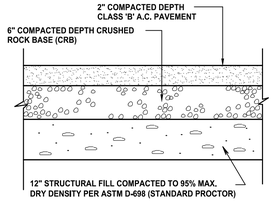
CONSTRUCTION NOTES & DETAILS

FOR

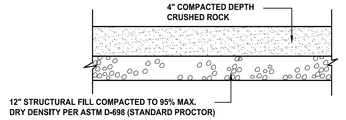
PHASE 2 - WESLEY BRADLEY PARK



ALTERNATE PAVING SECTION
2" COMPACTED DEPTH
CLASS "B" A.C. PAVEMENT
3" ASPHALT TREATED BASE (ATB)

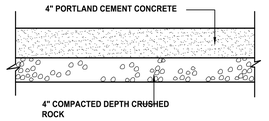
TYPICAL PAVING SECTION (ONSITE ONLY)

NOT TO SCALE



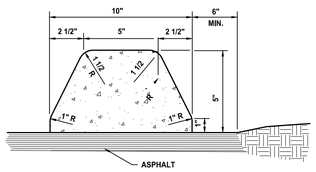
GRAVEL WALKING PATH (ONSITE ONLY)

NOT TO SCALE



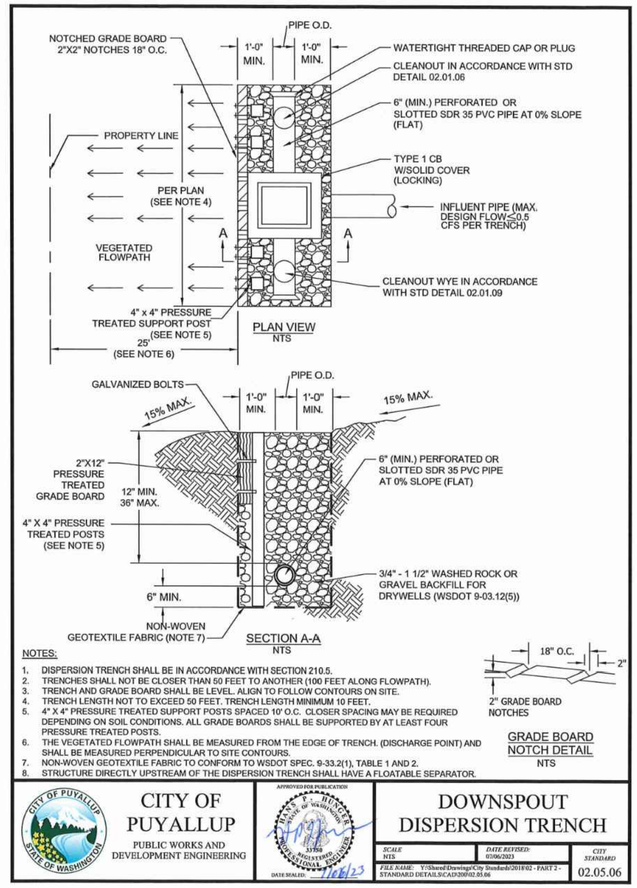
PRIVATE CONCRETE SIDEWALKS (ONSITE ONLY)

NOT TO SCALE



EXTRUDED CONCRETE CURB DETAIL (ONSITE ONLY)

NOT TO SCALE



NOTES:

1. DISPERSION TRENCH SHALL BE IN ACCORDANCE WITH SECTION 210.5.
2. TRENCHES SHALL NOT BE CLOSER THAN 50 FEET TO ANOTHER (100 FEET ALONG FLOWPATH).
3. TRENCH AND GRADE BOARD SHALL BE LEVEL. ALIGN TO FOLLOW CONTOURS ON SITE.
4. TRENCH LENGTH NOT TO EXCEED 50 FEET. TRENCH LENGTH MINIMUM 10 FEET.
5. 4" X 4" PRESSURE TREATED SUPPORT POSTS SPACED 10' O.C. CLOSER SPACING MAY BE REQUIRED DEPENDING ON SOIL CONDITIONS. ALL GRADE BOARDS SHALL BE SUPPORTED BY AT LEAST FOUR PRESSURE TREATED POSTS.
6. THE VEGETATED FLOWPATH SHALL BE MEASURED FROM THE EDGE OF TRENCH. (DISCHARGE POINT) AND SHALL BE MEASURED PERPENDICULAR TO SITE CONTOURS.
7. NON-WOVEN GEOTEXTILE FABRIC TO CONFORM TO WSDOT SPEC. 9-33.2(1), TABLE 1 AND 2.
8. STRUCTURE DIRECTLY UPSTREAM OF THE DISPERSION TRENCH SHALL HAVE A FLOATABLE SEPARATOR.

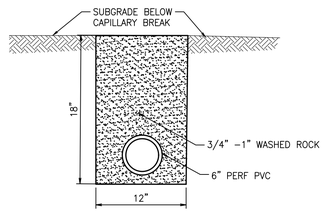
CITY OF PUYALLUP
PUBLIC WORKS AND DEVELOPMENT ENGINEERING

APPROVED FOR PUBLICATION
DANIEL K. BALMELLI
STATE OF WASHINGTON
25672
REGISTERED PROFESSIONAL ENGINEER
DATE SEALED: 6/16/25

DOWNSPOUT DISPERSION TRENCH

SCALE	DATE REVISED:	CITY STANDARD
NTS	02/06/2023	02.05.06

FILE NAME: Y:\Shared\Drawings\City Standards\2018\02 - PART 2 - STANDARD DETAILS\SCAD\205#02.05.06



SUB DRAIN TYPICAL SECTION

NOT TO SCALE

APPROVED

BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE _____

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR 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 ENGINEERING SERVICES MANAGER.

PCR 002
PRCCP20231028

No.	Date	By	Ckd.	Appr.	BUILDING, WATER, STORM, AND GRADING REVISIONS Revision
3	06/17/25	LBP	CMV	CMV	

Title: CONSTRUCTION NOTES & DETAILS FOR CIVIL PLANS PHASE 2 - WESLEY BRADLEY PARK

For: WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

DANIEL K. BALMELLI
STATE OF WASHINGTON
25672
REGISTERED PROFESSIONAL ENGINEER
6/17/25

Scale: Horizontal N/A Vertical N/A

Designed CK. Drawn BCK Checked CMV Approved DKB Date 6/17/25

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

Job Number 16718

Sheet C16 of C20

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WATER DETAILS
FOR
PHASE 2 - WESLEY BRADLEY PARK

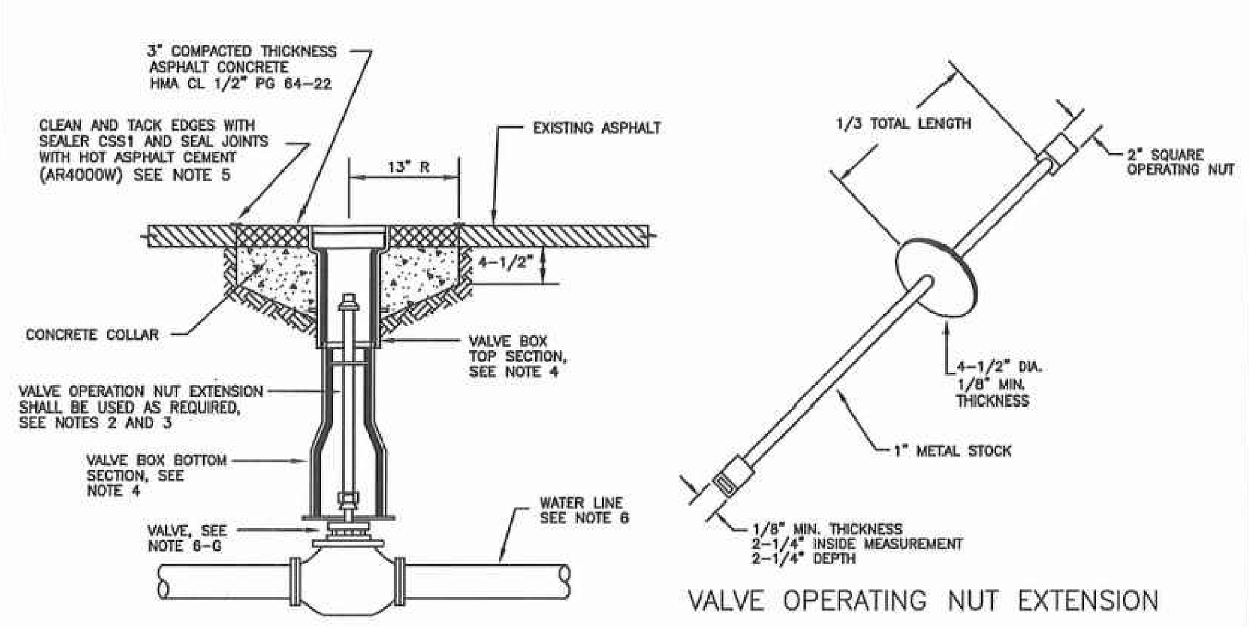
APPROVED

BY ______________________
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE ______________________

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR 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 ENGINEERING SERVICES MANAGER.

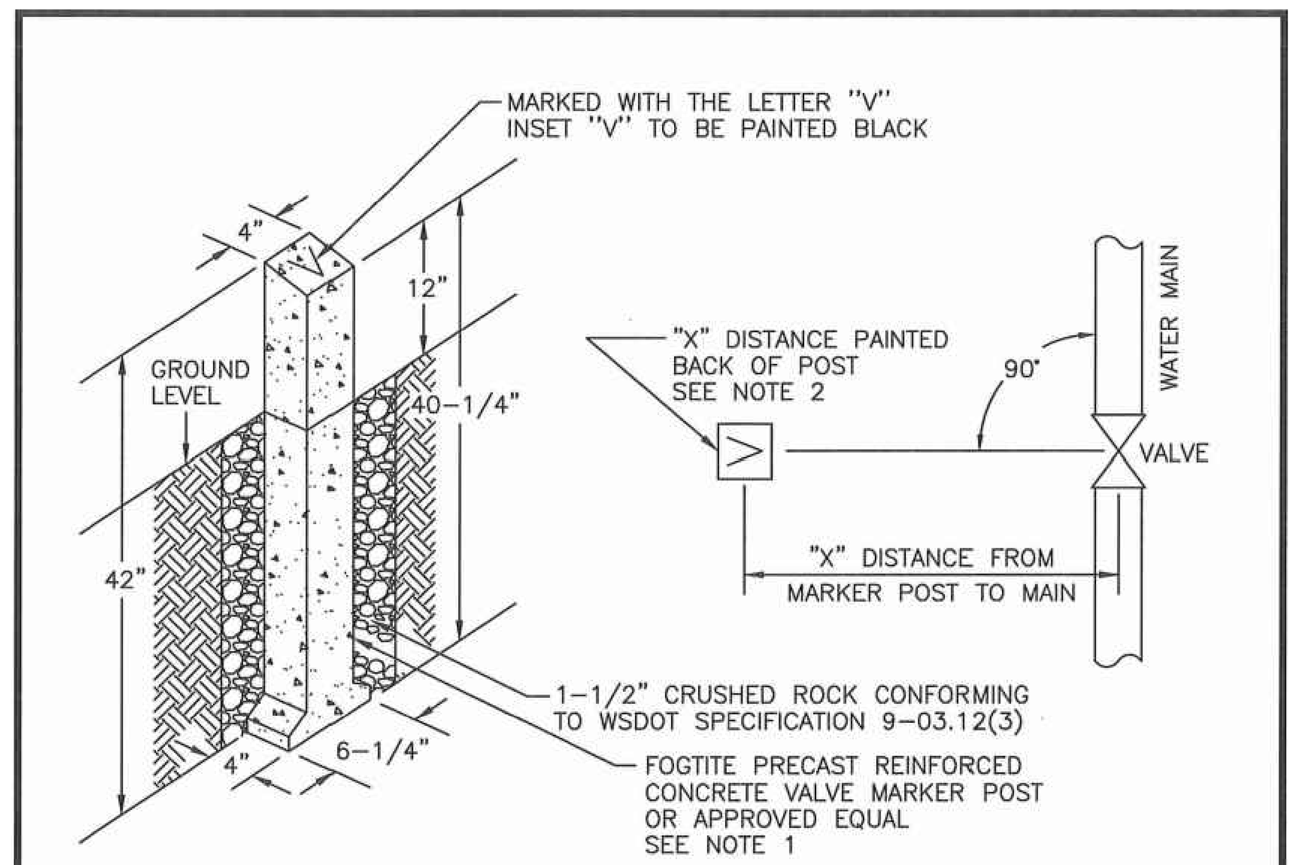
PCR 002
PRCCP20231028



NOTES:

1. WATER MAINS SHALL HAVE A MINIMUM COVER OF 36" FROM PAVED FINAL GRADE IN IMPROVED RIGHT-OF-WAY AND IMPROVED EASEMENTS, AND A MINIMUM OF 48" IN UNIMPROVED RIGHT-OF-WAY AND UNIMPROVED EASEMENTS.
2. VALVE OPERATING NUT EXTENSIONS ARE REQUIRED WHEN THE VALVE NUT IS MORE THAN FIVE (5) FEET BELOW FINISHED GRADE. EXTENSIONS ARE TO BE A (MINIMUM OF TWO (2) FEET LONG, ONLY ONE EXTENSION TO BE USED PER VALVE. TOP OF EXTENSION SHALL BE 2 FEET 6 INCHES TO 3 FEET BELOW FINISHED GRATE.
3. ALL VALVE OPERATING NUT EXTENSIONS ARE TO BE MADE OF STEEL, SIZED AS NOTED, AND PAINTED WITH TWO COATS OF METAL PAINT.
4. VALVE BOXES SHALL BE TWO-PIECE, ADJUSTABLE, CAST IRON WITH EXTENSION PIECES (IF NECESSARY), AS MANUFACTURED BY THE VANRICH #940 SEATTLE OR APPROVED EQUAL. THE WORD "WATER" SHALL BE CAST IN RELIEF ON THE VALVE BOX COVER. VALVE BOX TOPS INSTALLED IN ARTERIAL ROADWAYS SHALL BE MANUFACTURED BY EAST JORDAN (EJ) IRONWORKS MODEL 8555 WITH VALVE BOX COVER MODEL 6800 OR APPROVED EQUAL.
5. NEAT LINE CUTS SHALL BE SEALED WITH A HOT PAVING GRADE ASPHALT AND FACE OF CUT TACKED.
6. WATER MAINS SHALL BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH DIVISION 7 OF THE WSDOT STANDARD SPECIFICATIONS SUPPLEMENTED WITH THE FOLLOWING:
   A. DUCTILE IRON PIPE SHALL CONFORM TO AWWA C 151, THICKNESS CLASS 52, AND THE EXTERIOR SHALL BE COATED WITH COAL TAR VARNISH. PIPE AND FITTINGS SHALL BE MORTOR LINED AND SHALL CONFORM TO AWWA C 104. THE THICKNESS OF THE LINING SHALL BE NOT LESS THAN 1/16" THICK FOR 3" TO 12" PIPE, 3/32" THICK FOR 14" TO 24" PIPE, AND 1/8" THICK FOR 30" TO 54" PIPE. THE CEMENT LINING SHALL CONFORM TO THE REQUIREMENTS OF ASTM C 150.
   B. JOINTS SHALL BE TYTON PUSH-ON JOINTS, OR APPROVED EQUAL, OR MECHANICAL JOINT TYPE PER AWWA C 111 EXCEPT WHERE FLANGED JOINTS ARE REQUIRED TO CONNECT TO VALVES OR OTHER EQUIPMENT.
   C. BOLTS AND NUTS FOR BURIED FLANGES LOCATED OUTDOORS, ABOVE GROUND, OR IN OPEN VAULTS IN STRUCTURES SHALL BE TYPE 316 STAINLESS STEEL CONFORMING TO ASTM A 193, GRADE B8M FOR BOLTS, AND ASTM A 194, GRADE 8M FOR NUTS. BOLTS AND NUTS LARGER THAN ONE AND ONE-QUARTER (1-1/4) INCHES SHALL BE STEEL, ASTM A 307, GRADE B, WITH CADMIUM PLATING, ASTM A 165, TYPE NS.
   D. BOLTS USED IN FLANGE INSTALLATION SETS SHALL CONFORM TO ASTM B 193, GRADE B7. NUTS SHALL COMPLY WITH ASTM A 194, GRADE 2H.
   E. PROVIDE A WASHER FOR EACH NUT, WHERE NEEDED. WASHERS SHALL BE OF THE SAME MATERIAL AS THE NUTS.
   F. ALL FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF AWWA C 110 AND AWWA C 111.
   G. RESILIENT SEATED WEDGE GATE VALVES SHALL BE USED FOR TEN (10) INCH MAINS AND SMALLER. BUTTERFLY VALVES SHALL BE USED FOR MAINS GREATER THAN TEN (10) INCHES.
      1) RESILIENT SEATED WEDGE GATE VALVE: GATE VALVES SHALL CONFORM TO THE LATEST AWWA SPECIFICATIONS FOR COLD WATER, DOUBLE-DISK GATE VALVES, 200 PSI WORKING PRESSURE. THEY SHALL BE IRON-BODIED, BRONZE MOUNTED, NON-RISING STEM, WITH TWO (2) INCH SQUARE NUT. COUNTER-CLOCKWISE OPENING, MECHANICAL JOINT AND / OR FLANGED ENDS (6" VALVES ON FIRE HYDRANT LINES WHICH SHALL BE MECHANICAL JOINTS BY FLANGED). VALVE STEMS SHALL BE PROVIDED WITH O-RING SEALS AND SHALL BE AS MANUFACTURED BY THE MUELLER COMPANY OR APPROVED EQUAL.
      2) BUTTERFLY VALVES: BUTTERFLY VALVES CONFORMING WITH AWWA C 504, CLASS 150 AND SHALL HAVE STANDARD AWWA TWO (2) INCH SQUARE NUT.

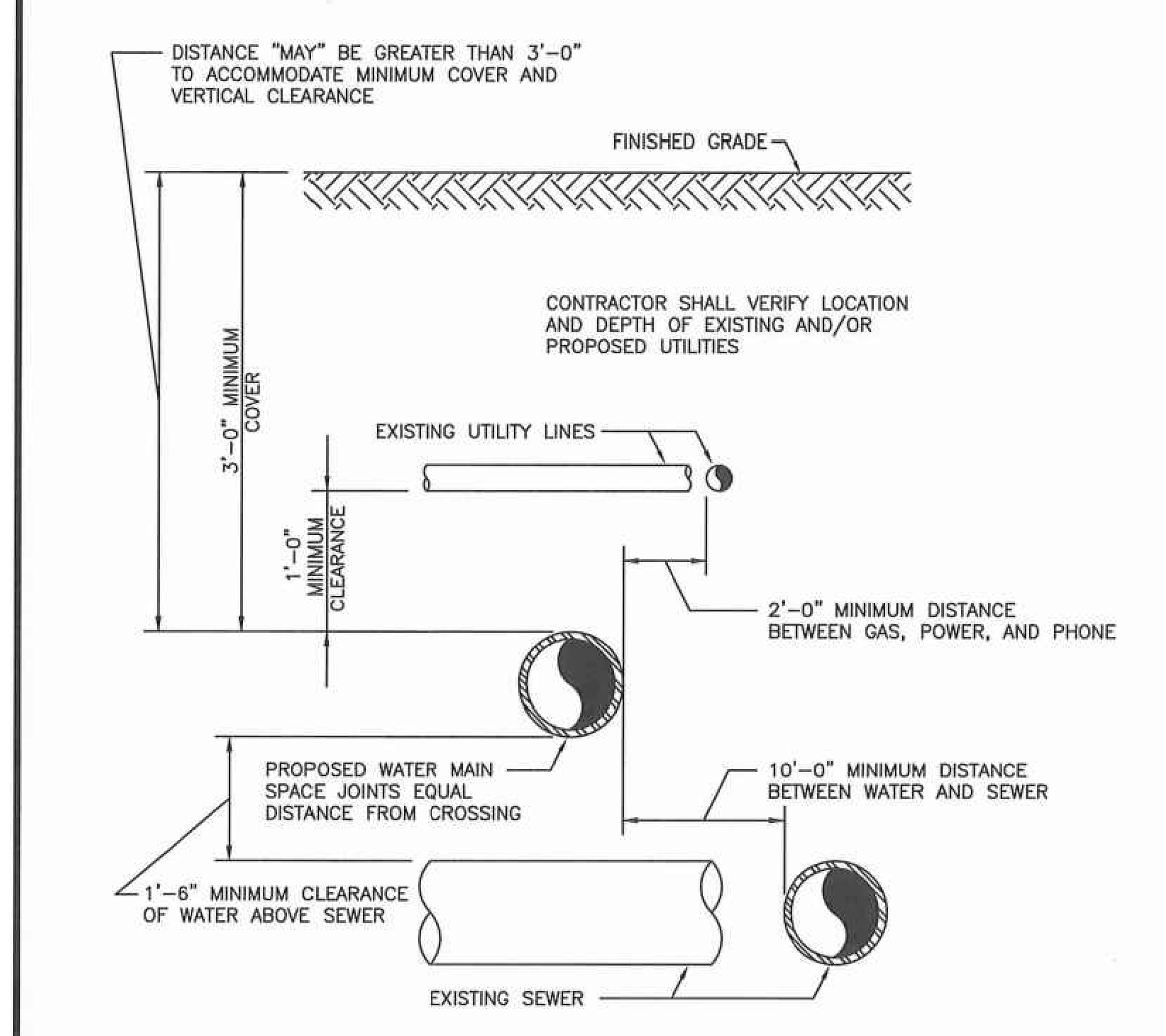
CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER
WATER VALVES AND MAINS
CITY STANDARD 03.01.01



NOTES:

1. PAINT MARKER POST WITH RUST-OLEUM SAFETY YELLOW #7543 OR APPROVED EQUAL.
2. THE DISTANCE FROM THE MARKER POST TO THE WATER MAIN SHALL BE PAINTED ON THE BACKSIDE OF THE MARKER POST, IN BLACK WITH A 2" HIGH NUMBER.
3. VALVE MARKER POST SHALL BE REQUIRED WHEN EVER THE WATER VALVE IS LOCATED IN AN UNPAVED AREA.
4. THE POST WILL ALSO BE REQUIRED FOR BLOW-OFF ASSEMBLIES IN THE SAME CONDITION AS WATER VALVES.
5. LOCATION OF VALVE MARKER POSTS SHALL BE OFFSET AT RIGHT ANGLES TO EACH LINE VALVE.

CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER
VALVE MARKER POST
CITY STANDARD 03.01.02



CITY STANDARD 03.01.03-2 COVERS ADDITIONAL NOTES FOR THIS DETAIL.

CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER
WATER MAIN CROSSING OTHER UTILITES
DRAWN BY JIM ERWIN-SVOBODA | CHECKED BY LINDA LIAN | APPROVED BY MARK PALMER | REVISED BY LINDA LIAN | DATE REVISED: 10/18/16, 12/02/16, XX/XX/XX, XX/XX/XX
FILE NAME F:\DWG\COMMON\STDS\CITYSTDS\03_WTR\03.01\03.01.03-1 | DATE APPROVED 12/19/2016 | SCALE NTS
CITY STANDARD 03.01.03-1

NOTES FOR WATER MAIN CROSSING OTHER UTILITIES
CITY STANDARD 03.01.03-1

WHEN LOCAL CONDITIONS PREVENT THE SEPARATIONS DESCRIBED ON CITY STANDARD 03.01.03-1, A SEWER MAY BE LAID CLOSER THAN 10-FEET HORIZONTALLY OR 18-INCHES VERTICALLY TO A WATER LINE, PROVIDED THE GUIDELINES BELOW ARE FOLLOWED:

UNUSUAL CONDITIONS (PARALLEL SYSTEMS)

1. SEWER LINE IS LAID IN A SEPARATE TRENCH FROM THE WATER LINE.
2. WHEN 18-INCHES VERTICAL SEPARATION CANNOT BE OBTAINED, THE SEWER SHALL BE CONSTRUCTED OF MATERIALS AND JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION AND SHALL BE PRESSURE TESTED TO ENSURE WATER TIGHTNESS PRIOR TO BACKFILLING.
3. THE WATER LINE SHALL BE PLACED ON A BENCH OF UNDISTURBED EARTH WITH THE BOTTOM OF THE WATER PIPE AT LEAST 18-INCHES ABOVE THE CROWN OF THE SEWER, AND SHALL HAVE AT LEAST 5-FEET OF HORIZONTAL SEPARATION AT ALL TIMES. THE CITY RESERVES THE RIGHT TO REQUIRE SUPPLEMENTAL MITIGATION EFFORTS, SUCH AS IMPERMEABLE BARRIERS OR OTHER MEANS, FOR ADDITIONAL PROTECTION.
4. THE SEWER SHALL NOT BE INSTALLED IN THE SAME DITCH AS A POTABLE WATER LINE WITHOUT PRIOR APPROVAL OF THE CITY OF PUYALLUP.

UNUSUAL CONDITIONS (PERPENDICULAR SYSTEMS)

A. GRAVITY SEWERS PASSING UNDER WATER LINES (ALL OF THE FOLLOWING APPLY)

1. ONE FULL SEGMENT (NOT LESS THAN 18-FEET LONG) OF DUCTILE IRON CLASS 52 WATER PIPE, AND THE LONGEST STANDARD SEWER PIPE LENGTH AVAILABLE FROM THE MANUFACTURER SHALL BE USED WITH THE PIPES CENTERED TO MAXIMIZE JOINT SEPARATION.
2. STANDARD GRAVITY-SEWER MATERIAL ENCASED IN CONCRETE OR IN A ONE-QUARTER-INCH THICK CONTINUOUS STEEL, DUCTILE IRON, OR PRESSURE RATED PVC PIPE WITH A DIMENSION RATIO (THE RATIO OF THE OUTSIDE DIAMETER TO THE PIPE WALL THICKNESS) OF 18 OR LESS, WITH ALL VOIDS PRESSURE-GROUTED WITH SAND-CEMENT GROUT OR BENTONITE.

   EXAMPLE OF DIMENSION RATIO (DR): OUTSIDE PIPE DIAMETER DIVIDED BY THE WALL THICKNESS OR OD/T. FOR 8-INCH SCH. 80 PVC PIPE (T=0.5 INCHES) THE DR IS 8.625/0.5=17.25

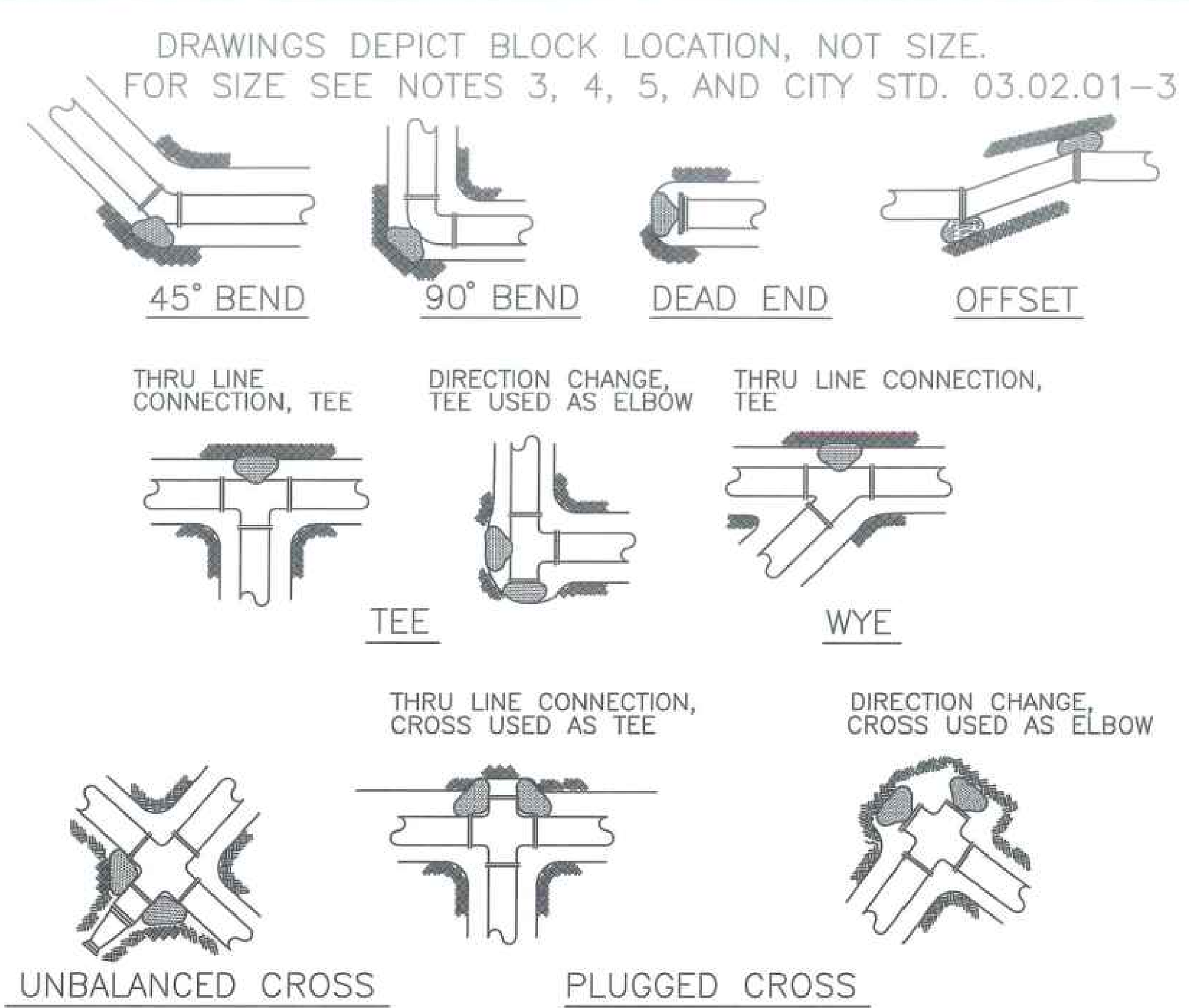
B. GRAVITY SEWER PASSING OVER WATER LINES

WATER LINES SHALL BE PROTECTED BY PROVIDING:

1. A VERTICAL SEPARATION OF AT LEAST 18-INCHES BETWEEN THE INVERT OF THE SEWER AND THE CROWN OF THE WATER LINE.
2. ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER LINE TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING ON AND BREAKING OF THE WATER LINE.
3. THE SEWER PIPE SHALL BE THE LONGEST STANDARD SEWER PIPE LENGTH AVAILABLE FROM THE MANUFACTURER WITH THE WATER AND SEWER PIPES CENTERED TO MAXIMIZE JOINT SEPARATION.
4. THE SEWER LINE CASING EQUIVALENT TO THAT SPECIFIED IN A(2) ABOVE.

CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER
WATER MAIN CROSSING OTHER UTILITES (NOTES)
CITY STANDARD 03.01.03-2

DRAWINGS DEPICT BLOCK LOCATION, NOT SIZE. FOR SIZE SEE NOTES 3, 4, 5, AND CITY STD. 03.02.01-3



NOTES:

1. THE FOLLOWING PRECAUTIONS MUST BE OBSERVED WHEN CONSTRUCTING THRUST BLOCKS:
   A. BLOCKS MUST BE POURED AGAINST UNDISTURBED SOIL.
   B. THE PIPE FITTING(S) AND BOLTS MUST BE ACCESSIBLE. WRAP IN PLASTIC BEFORE POURING CONCRETE BLOCKING.
   C. CONCRETE SHOULD BE CURED FOR AT LEAST 5 DAYS AND SHOULD HAVE A MINIMUM COMPRESSION STRENGTH OF 2,000 PSI AT 28 DAYS.
   D. RESTRAINED JOINTS SHALL BE INSTALLED, IN ADDITION TO CONCRETE THRUST BLOCKING.
   E. BLOCKS MUST BE POSITIONED TO COUNTERACT THE DIRECTION OF THE RESULTANT THRUST FORCE.
2. ALL PIPE SHALL BE PROPERLY BEDDED, SEE CITY OF PUYALLUP STANDARD BEDDING DETAIL NO. 06.01.01
3. CONTRACTOR TO PROVIDE BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE.
4. DIVIDE THRUST BY SAFE BEARING LOAD TO DETERMINE REQUIRED AREA (IN SQUARE FEET) OF CONCRETE TO DISTRIBUTE LOAD.
5. BEARING SURFACE AREAS TO BE ADJUSTED BY THE ENGINEER FOR OTHER PRESSURE AND/OR SOIL CONDITIONS.

CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER
HORIZONTAL THRUST BLOCKING
DRAWN BY BRIAN JOHNSON | CHECKED BY TED HILL | APPROVED BY MARK PALMER | REVISED BY BRIAN JOHNSON | DATE REVISED: 12/27/16, 02/10/17
CITY STANDARD 03.02.01-1

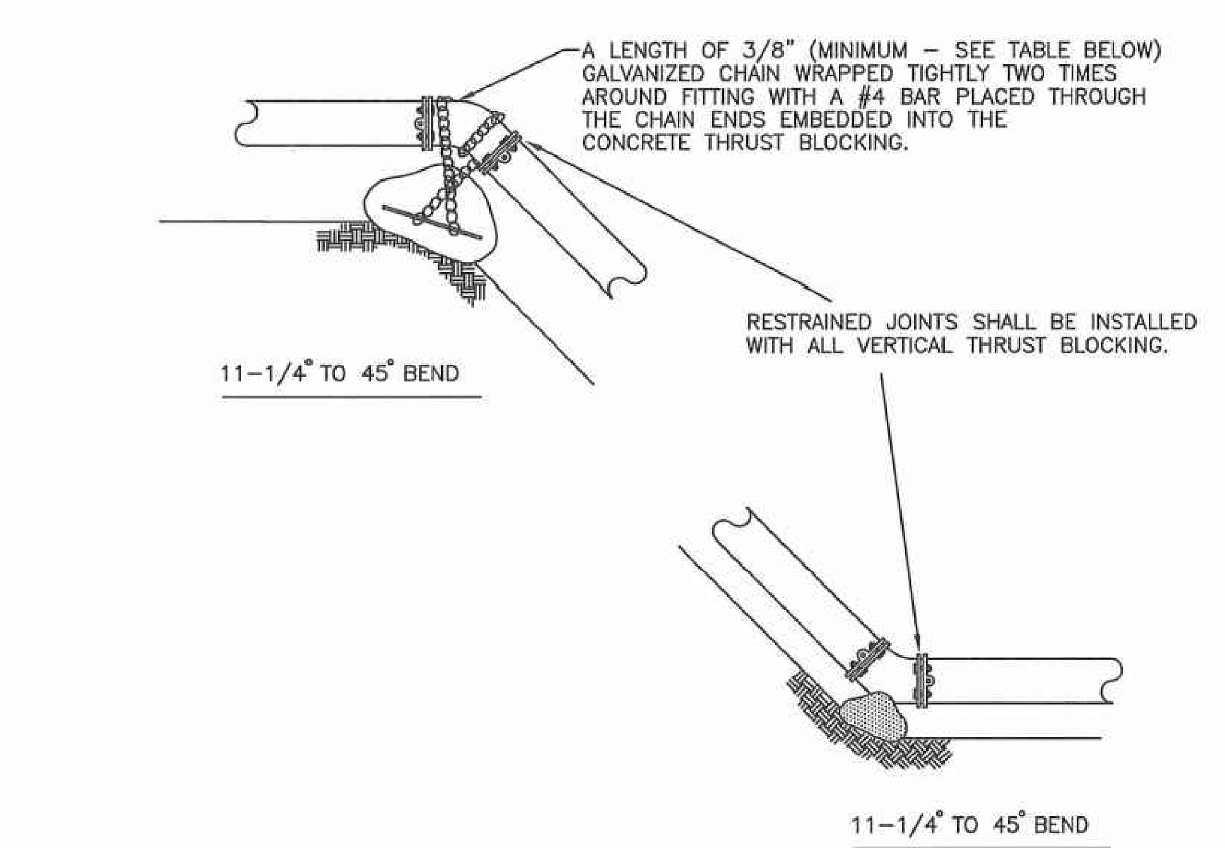


TABLE 1: CONCRETE BLOCKING FOR VERTICAL BENDS

PIPE DIA	TEST PRESSURE PSI	BEND ANGLE	CONCRETE VOLUME FT^3	CUBE SIZE FT	CHAIN SIZE	CHAIN EMBEDMENT
4"	200	11.25°	6	1.8	3/8"	17"
		22.5°	12	2.3		
		45°	22	2.8		
6"	200	11.25°	14	2.4	3/8"	17"
		22.5°	27	3.0		
		45°	50	3.7		
8"	200	11.25°	25	2.9	3/8"	17"
		22.5°	48	3.6		
		45°	89	4.5		
10"	200	11.25°	38	3.4	3/8"	17"
		22.5°	75	4.2		
		45°	139	5.2		
12"	200	11.25°	55	3.8	3/8"	17"
		22.5°	108	4.8		
		45°	200	5.8	1/2"	24"
14"	200	11.25°	75	4.2	3/8"	17"
		22.5°	147	5.3	1/2"	20"
		45°	272	6.5	1/2"	27"
16"	200	11.25°	98	4.6	3/8"	17"
		22.5°	192	5.8	1/2"	24"
		45°	355	7.1	3/4"	30"

ALL NOTES ON CITY STANDARD 03.02.01-1 SHALL APPLY TO THIS DETAIL.
SEE CITY STANDARD 03.02.01-3 FOR ADDITIONAL INFORMATION.

CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER
VERTICAL THRUST BLOCKING
DRAWN BY JIM ERWIN-SVOBODA | CHECKED BY LINDA LIAN | APPROVED BY MARK PALMER | REVISED BY LINDA LIAN | DATE REVISED: 09/10/09
CITY STANDARD 03.02.01-2

TABLE 2: THRUST AT FITTINGS AT 200 PSI

SIZE	TEST PRESSURE PSI	THRUST AT FITTINGS IN POUNDS: A — TEE AND DEAD ENDS	B — 90° BEND	C — 45° BEND	D — 22.5° BEND	E — 11.25° BEND
4"	200	3,140	4,440	2,405	1,225	615
6"	200	7,070	9,995	5,410	2,760	1,385
8"	200	12,565	17,770	9,620	4,905	2,465
10"	200	19,635	27,770	15,030	7,660	3,850
12"	200	28,275	39,985	21,640	11,030	5,545
14"	200	38,485	54,425	29,455	15,015	7,545
16"	200	50,265	71,085	38,470	19,615	9,855

TABLE 3: BEARING VALUE OF SOIL

SOIL TYPE	SAFE BEARING LOAD LBS/SF
MUCK, PEAT, ETC.	0
SOFT CLAY / ALLUVIAL SOIL	1,000
SAND	2,000
SAND AND GRAVEL	3,000
SAND AND GRAVEL CEMENTED WITH CLAY	4,000
HARD SHALE	10,000

SEE CITY STANDARDS 03.02.01-1 AND 03.02.01-2 FOR ADDITIONAL INFORMATION.

NOTES:

① TO DETERMINE THRUST AT PRESSURES OTHER THAN PSI SHOWN, MULTIPLY THE THRUST OBTAINED IN TABLE 2 BY THE RATIO OF THE PRESSURE TO 200 PSI.

EXAMPLE, THE THRUST ON A 12 INCH, 90° BEND AT 300 PSI.

$$39{,}985 \times \frac{300\ PSI}{200\ PSI} = 59{,}978\ LBS$$

② TO DETERMINE THE VOLUME OF THE THRUST BLOCK:

EXAMPLE, (150 LBS/CF UNIT WEIGHT OF CONCRETE)

59,978 LBS ÷ 150 LB/CF = 399.9 CF

399.9 CF ÷ 27 CF/CY = 14.81 CY OF CONCRETE

③ TO DETERMINE THE BEARING AREA OF THE THRUST BLOCK IN SQUARE FEET (SF) SEE TABLE 3, BEARING VALUE OF SOIL:

EXAMPLE, FOR SAND AND GRAVEL BEARING VALUE FROM TABLE 3 IS 3,000 LBS/SF

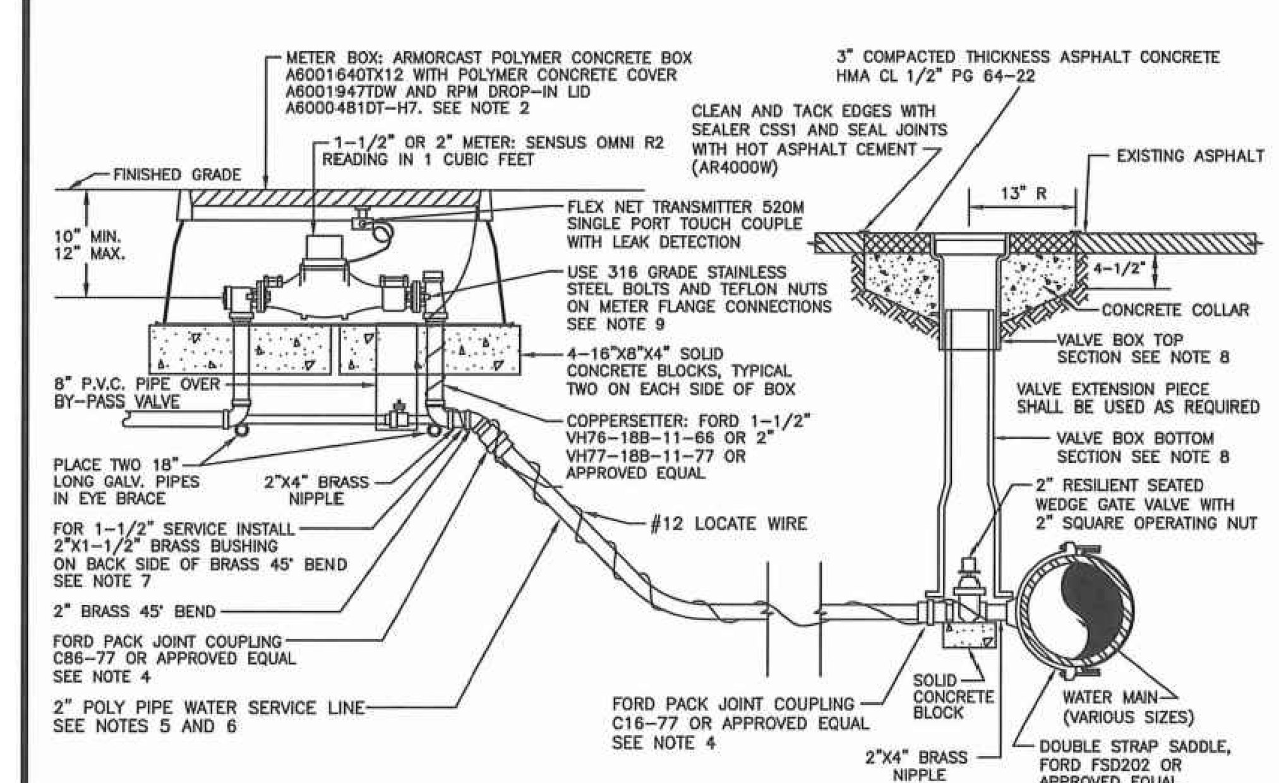
59,978 LBS ÷ 3000 LB/SF = 20 SF OF AREA

④ CONTRACTOR TO PROVIDE BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE.

⑤ AREAS TO BE ADJUSTED FOR OTHER PRESSURE CONDITIONS

⑥ NO WATER MAIN SHALL DEAD END AGAINST A MAIN LINE VALVE. DEAD END WATER MAINS SHALL BE BLOCKED AGAINST A RESTRAINED MECHANICAL-JOINT (M.J.) PLUG OR CAP.

CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER
THRUST BLOCKING TABLE
CITY STANDARD 03.02.01-3



NOTES:

1. ALL MATERIALS AND FITTINGS SHALL BE AS SPECIFIED OR AN APPROVED EQUAL.
2. NORMALLY THE WATER METER BOX SHOULD BE LOCATED IN THE PLANTING STRIP. IF SIDEWALK IS AGAINST THE CURB, PLACE METER BOX DIRECTLY BEHIND THE SIDEWALK. THE WATER METER BOX SHALL NOT BE LOCATED IN HARD SURFACES. WHEN UNAVOIDABLE, EXCEPTIONS CAN BE MADE AT END OF CUL-DE-SACS OR PAN HANDLED LOTS.
3. WATER MAINS SHALL HAVE A MINIMUM COVER OF 36" IN IMPROVED RIGHT-OF-WAY AND IMPROVED EASEMENTS, AND A MINIMUM OF 48" IN UNIMPROVED RIGHT-OF-WAY AND UNIMPROVED EASEMENTS.
4. ALL POLY PIPE COUPLINGS SHALL USE PIPE INSERT STIFFENERS.
5. THE WATER SERVICE LINE SHALL HAVE 36" OF COVER BELOW FINISHED GRADE WITHIN THE RIGHT-OF-WAY. THE WATER SERVICE LINE SHALL BE ONE CONTINUOUS PIECE WITH NO SPLICES.
6. ALL POLY PIPE SHALL BE HIGH DENSITY POLY (IRON PIPE SIZE) MEETING ASTM D-2239-SIDR 7 (PE 3408), 200 PSI MINIMUM.
7. FOR A 1-1/2" WATER SERVICE, ALL MATERIAL SHALL BE 2" FROM THE WATER MAIN TO THE COPPERSETTER. REDUCE FROM 2" TO 1-1/2" IMMEDIATELY BEFORE COPPERSETTER.
8. VALVE BOXES SHALL BE TWO-PIECE, ADJUSTABLE, CAST IRON WITH EXTENSION PIECE (IF NECESSARY), AS MANUFACTURED BY THE VANRICH # 940 SEATTLE OR APPROVED EQUAL. THE WORD "WATER" SHALL BE CAST IN RELIEF ON THE VALVE BOX COVER. VALVE BOX TOPS INSTALLED IN ARTERIAL ROADWAYS SHALL BE MANUFACTURED BY EAST JORDAN (EJ) IRONWORKS MODEL 8555 WITH VALVE BOX COVER MODEL 6800 OR APPROVED EQUAL.
9. THE STAINLESS STEEL METER FLANGE BOLTS SHALL BE 5/8" DIAMETER FOR THE 1-1/2" METER, AND 3/4" DIAMETER FOR THE 2" METER.

CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER
1-1/2" AND 2" WATER SERVICE CONNECTION
DRAWN BY JIM ERWIN-SVOBODA | CHECKED BY LINDA LIAN | APPROVED BY MARK PALMER | REVISED BY LINDA LIAN | DATE REVISED: 11/17/16
CITY STANDARD 03.03.02

No.	Date	By	Ckd.	Appr.	Revision
3	06/17/25	LRP	CMV	CMV	BUILDING, WATER, STORM, AND GRADING REVISIONS

Title: WATER DETAILS FOR CIVIL PLANS PHASE 2 - WESLEY BRADLEY PARK

For: WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

DANIEL K. BALMELLI, STATE OF WASHINGTON, 25672, REGISTERED PROFESSIONAL ENGINEER, 6/17/25

Scale: Horizontal N/A, Vertical N/A
Designed CK | Drawn BGK | Checked CMV | Approved DKB | Date 6/17/25

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

Job Number 16718
Sheet C17 of C20

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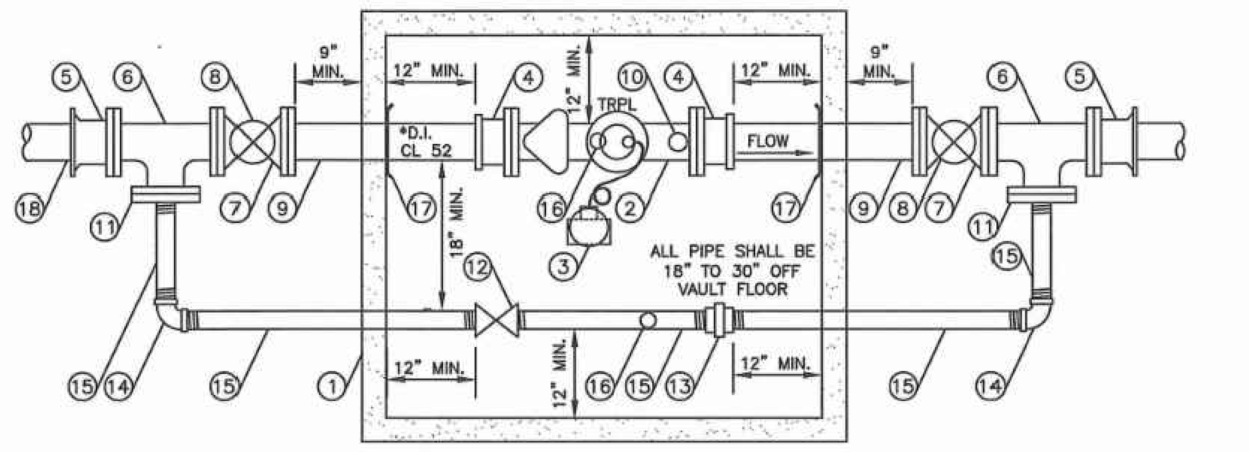
WATER DETAILS
FOR
PHASE 2 - WESLEY BRADLEY PARK



CONSTRUCTION NOTES

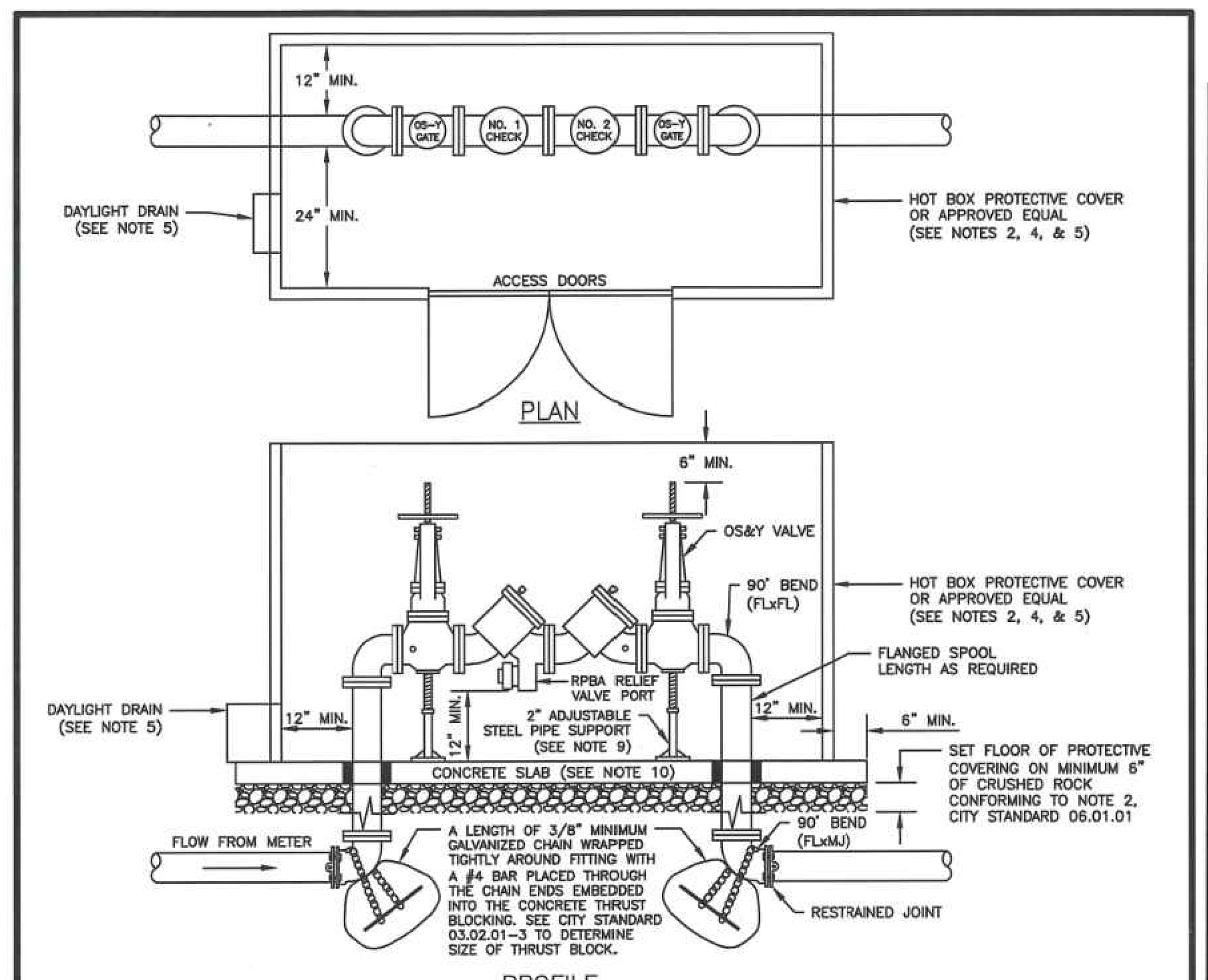
1. PRECAST CONCRETE VAULT WITH STANDARD SUMP PIT THAT DRAINS TO DAYLIGHT, IF POSSIBLE. VAULT SHALL BE SUFFICIENTLY SIZED TO MAINTAIN MINIMUM CLEARANCES SPECIFIED ON THIS DETAIL. VAULT SHALL MEET CITY STANDARD 03.11.01. PROVIDE A CUT 2" HOLE IN LID FOR METER TRANSMITTER.
2. * SENSUS FLANGED C2 OMNI METER WITH BUILT-IN STRAINER WITH TRPL READING IN 1 CUBIC FEET. USE 3/4" DIAMETER 316 GRADE STAINLESS STEEL BOLTS AND TEFLON NUTS ON METER FLANGE CONNECTIONS.
3. FLEX NET TRANSMITTER 520M SINGLE PORT COUPLE WITH LEAK DETECTION. MOUNTED ON METER VAULT LID.
4. FLANGED COUPLING ADAPTOR.
5. * FLANGE x MECHANICAL JOINT ADAPTOR.
6. * FLANGED TEE.
7. * RESILIENT SEATED WEDGE GATE VALVE (FLGxFLG) WITH 2" SQUARE OPERATING NUT.
8. INSTALL TWO-PIECE, ADJUSTABLE, CAST IRON VALVE BOX AS SPECIFIED IN CITY STANDARD 03.01.01.
9. * FLANGE x PLAIN END SPOOL LENGTH AS REQUIRED.
10. REMOVE METER TEST PLUG AND INSTALL 2" x 4" BRASS NIPPLE, 2" BALL VALVE FORD B11-777W OR APPROVED EQUAL, 2-1/2" MALE (NST) x 2" MALE IPS THREADED BRASS FIRE HOSE ADAPTOR, 2-1/2" (NST) BRASS NOZZLE CAP.
11. * BLIND FLANGE WITH 2" THREADED OUTLET.
12. 2" LOCKING BALL VALVE FORD B11-777W OR APPROVED EQUAL.
13. 2" GALVANIZED UNION.
14. 2" GALVANIZED ELL.
15. 2" THREADED GALVANIZED PIPE – CUT TO LENGTH AS REQUIRED.
16. 2" ADJUSTABLE GALVANIZED PIPE SUPPORT.
17. MEGA LUG RING SECURED AGAINST VAULT WALL. MASTIC AND MORTAR SEAL WHERE PIPE PASSES THROUGH VAULT WALL.
18. AN ADDITIONAL * GATE VALVE IS REQUIRED AT THE WATER MAIN BRANCH CONNECTION.

NOTE: * = 3" ,4" ,OR 6" DEPENDING ON SERVICE LINE SIZE.

GENERAL NOTES

1. ALL PIPE, VALVES, FITTINGS AND OTHER MATERIAL USED SHALL CONFORM TO AWWA STANDARDS (LATEST EDITION).
2. ALL CONSTRUCTION SHALL CONFORM TO WSDOT/APWA STANDARDS SPECIFICATIONS, CURRENT EDITION, AND CITY OF PUYALLUP STANDARDS.

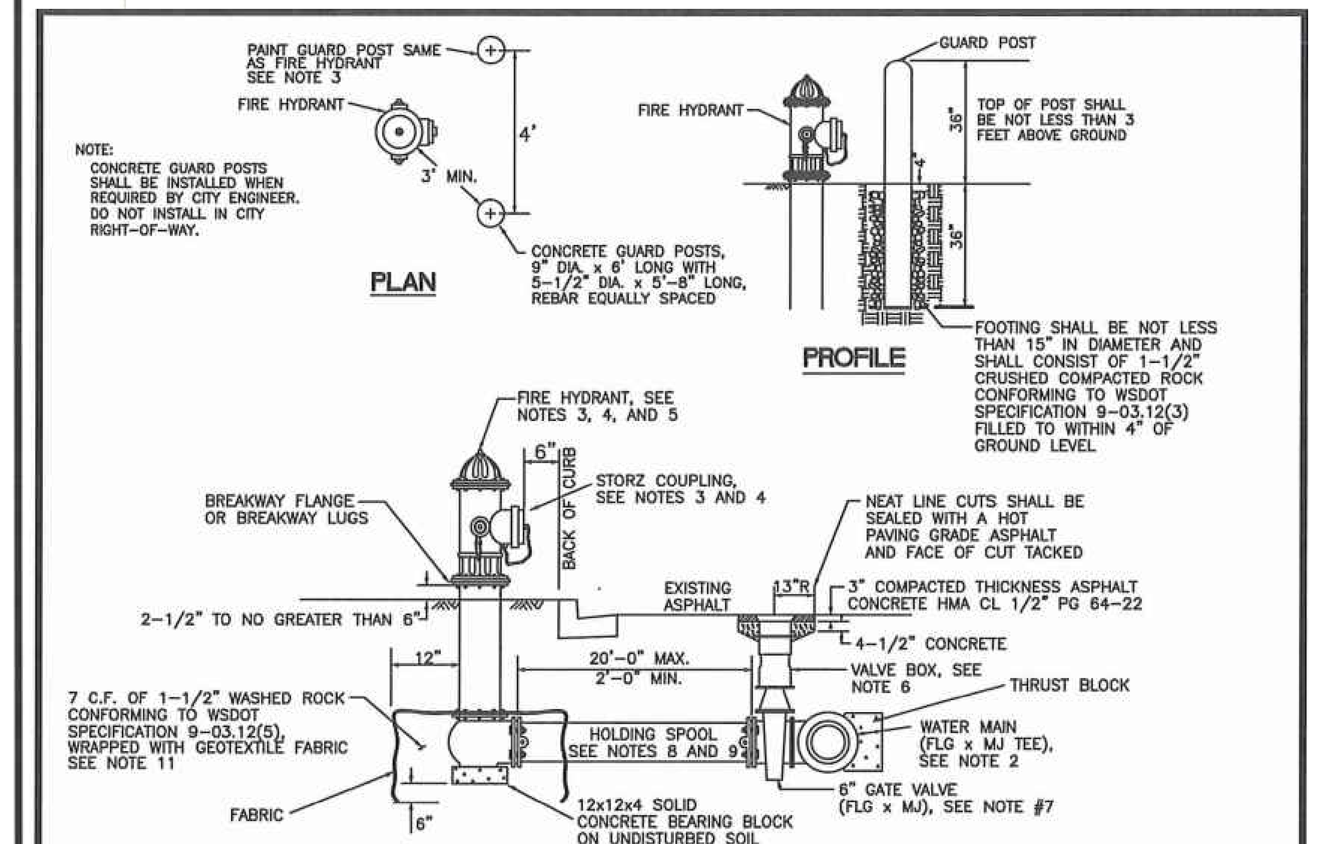
CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER
APPROVED FOR PUBLICATION
DATE SEALED: 10/15/2019
3"-4"-6" WATER SERVICE
(NOT TO SCALE)
CITY STANDARD 03.03.03



NOTES:

1. BACKFLOW ASSEMBLY MUST BE SELECTED FROM WASHINGTON STATE DEPARTMENT OF HEALTH'S LIST OF BACKFLOW PREVENTION ASSEMBLIES APPROVED FOR INSTALLATION IN WASHINGTON STATE, LASTEST EDITION.
2. THE RPBA SHALL BE INSTALLED WITH ADEQUATE SPACE TO FACILITATE MAINTENANCE AND TESTING. IT SHALL BE TESTED AFTER INSTALLATION, BY A WASHINGTON STATE CERTIFIED BACK-FLOW ASSEMBLY TESTER, TO INSURE ITS SATISFACTORY OPERATION BEFORE OCCUPANCY, AND ANNUALLY THERAFTER. SEND TEST RESULTS TO: CITY OF PUYALLUP, WATER QUALITY OPERATIONS, 1100 39TH AVE SE, PUYALLUP, WA 98374.
3. THE RPBA MUST BE PURCHASED AS A UNIT. NO MODIFICATIONS TO THE ASSEMBLY ARE ALLOWED.
4. THE RPBA SHALL NOT BE INSTALLED IN A PIT BELOW GROUND LEVEL.
5. THE PROTECTIVE COVERING FOR THE RPBA, WHICH PROTECTS THE ASSEMBLY FROM FREEZING, MUST INCLUDE A DAYLIGHT DRAIN. THE DRAIN MUST BE INSTALLED ABOVE GROUND OR ABOVE THE MAXIMUM FLOOD LEVEL, WHICHEVER IS HIGHER. THE DRAIN MUST BE A MINIMUM OF TWICE THE SIZE OF THE RPBA, TO BE ABLE TO HANDLE THE VOLUME OF WATER THAT POTENTIALLY COULD BE DISCHARGED FROM THE RELIEF VALVE PORT.
6. THE RPBA SHALL BE SIZED EQUAL OR COMPARABLE TO THE METER SIZE.
7. THE RPBA SHALL BE LOCATED IMMEDIATELY DOWN STREAM OF THE METER, AND CANNOT BE INSTALLED INSIDE OF A BUILDING, DUE TO THE SEVERE HAZARD FROM THE WATER THAT POTENTIALLY COULD BE DISCHARGED FROM THE RELIEF VALVE PORT DURING A FOULED CHECK VALVE SITUATION.
8. ALL ELECTRICAL SHALL BE INSPECTED BY A WASHINGTON STATE ELECTRICAL INSPECTOR.
9. PIPE SUPPORTS SHALL BE RUST-PROTECTED WITH ALUMINUM PAINT.
10. POUR A 4 INCH CONCRETE SLAB FOR RPBA PROTECTIVE COVER. PROVIDE A 2 INCH ANNULAR SPACE BETWEEN THE PIPE AND FLOOR. EXTEND THE CONCRETE SLAB 6 INCHES BEYOND THE PROTECTIVE COVERING TO PROVIDE ADEQUATE ANCHORING.
11. PROVIDE FREEZE PROTECTION AS DIRECTED BY OWNER.

CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER
APPROVED FOR PUBLICATION
DATE SEALED: 2/5/2019
3" AND ABOVE REDUCED PRESSURE BACKFLOW ASSEMBLY INSTALLATION
(NOT TO SCALE)
CITY STANDARD 03.04.03



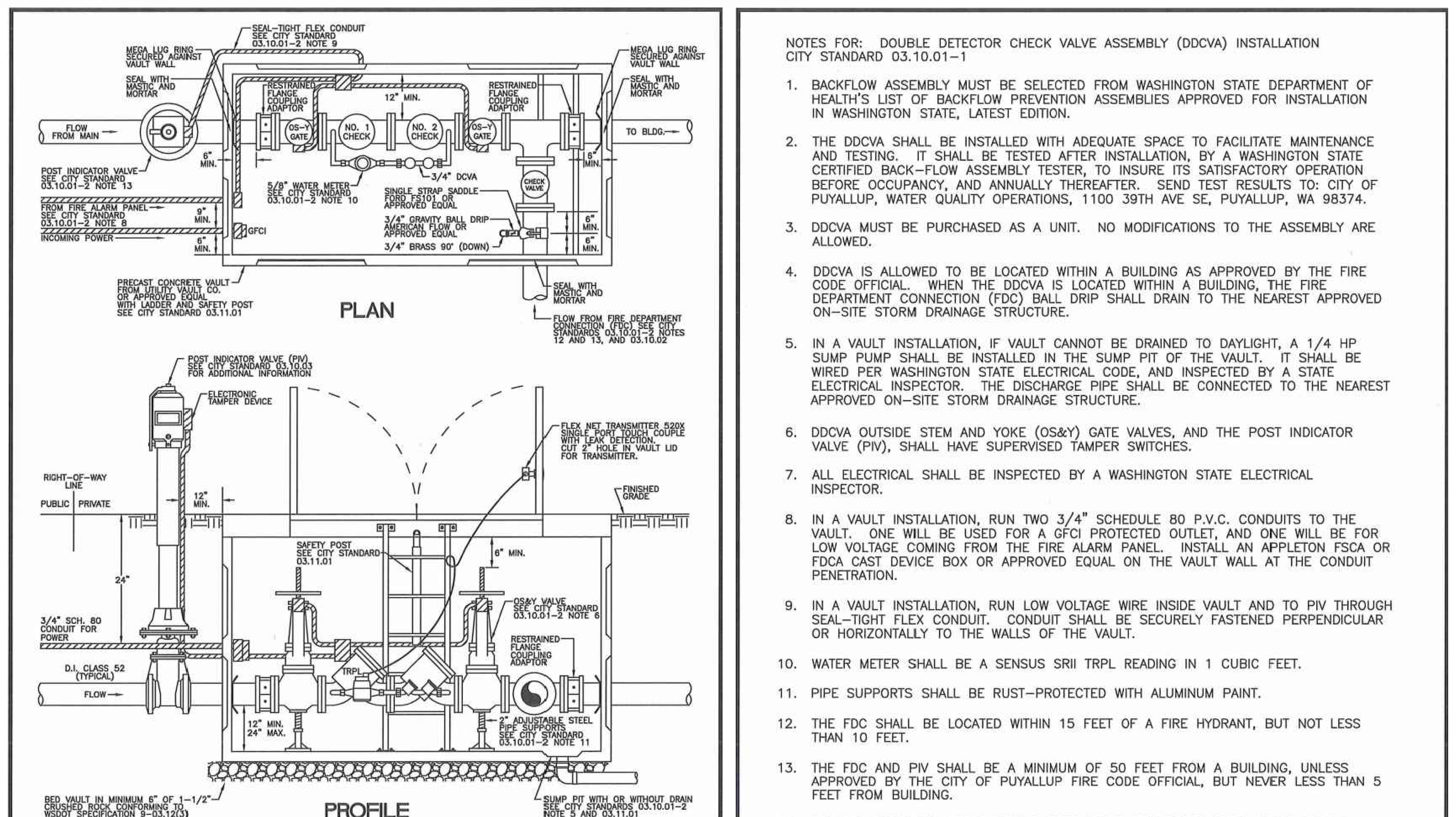
NOTES:

1. ALL MATERIALS AND FITTINGS SHALL BE AS SPECIFIED OR APPROVED EQUAL.
2. WATER MAINS SHALL HAVE A MINIMUM COVER OF 36" IN IMPROVED RIGHT-OF-WAY AND IMPROVED EASEMENTS, AND A MINIMUM 48" IN UNIMPROVED RIGHT-OF-WAY AND UNIMPROVED EASEMENTS.
3. THE FIRE HYDRANT AND CONCRETE GUARD POSTS SHALL BE PAINTED, RUST-OLEUM SAFETY YELLOW #7543 (TWO COATS) OR AN APPROVED EQUAL. THE STORZ FITTING SHALL NOT BE PAINTED.
4. FIRE HYDRANTS SHALL HAVE TWO 2-1/2" HOSE PORTS (NATIONAL STANDARD THREAD) WITH CAPS AND CHAINS AND ONE 4" PUMPER PORT (TACOMA STEAMER PORT THREAD) WITH A 5" 'STORZ' COUPLING AND BLIND CAP INSTALLED ON THE STEAMER PORT, (STEAMER PORT SHALL FACE THE STREET), 1-1/4" PENTAGONAL OPERATING NUT (COUNTER-CLOCKWISE OPENING), O-RING TYPE STUFFING BOX, AUTOMATIC BARREL DRAINS AND 5-1/4" MAIN VALVE OPENING. HYDRANTS SHALL BE DESIGNED IN A MANNER THAT WILL PREVENT BARREL BREAKAGE WHEN STRUCK BY A VEHICLE. HYDRANTS SHALL CONFORM TO THE LATEST REVISION OF AWWA SPECIFICATIONS NO. C 502-73 FOR FIRE HYDRANTS FOR ORDINARY WATER SERVICE. FIRE HYDRANTS SHALL INCLUDE THE ENTIRE ASSEMBLY COMPLETE, INCLUDING HYDRANT, GATE VALVE AND BOX, CONNECTING PIPING, FITTINGS, AND ACCESSORIES.
5. FIRE HYDRANTS SHALL BE AVK, CLOW MEDALLION, M & H 929, MUELLER CENTURION, OR WATEROUS.
6. VALVE BOXES SHALL BE TWO-PIECE, ADJUSTABLE, CAST IRON WITH EXTENSION PIECES (IF NECESSARY), AS MANUFACTURED BY THE VANRICH #940 SEATTLE OR APPROVED EQUAL. THE WORD "WATER" SHALL BE CAST IN RELIEF ON THE VALVE BOX COVER. VALVE BOX TOPS INSTALLED IN ARTERIAL ROADWAYS SHALL BE MANUFACTURED BY EAST JORDAN (EJ) IRONWORKS MODEL 8555 WITH VALVE BOX COVER MODEL 6800 OR APPROVED EQUAL.
7. GATE VALVES SHALL CONFORM TO THE LATEST AWWA SPECIFICATIONS FOR COLD WATER, RESILIENT SEATED WEDGE GATE VALVES, 200 PSI WORKING PRESSURE. THEY SHALL BE IRON-BODIED BRONZE-MOUNTED, NON-RISING STEM, COUNTER-CLOCKWISE OPENING, MECHANICAL JOINT BY FLANGED. VALVE STEMS SHALL BE PROVIDED WITH O-RING SEALS AND SHALL BE AS MANUFACTURED BY THE MUELLER COMPANY OR APPROVED EQUAL.
8. THE HOLDING SPOOL SHALL BE A MECHANICAL-JOINT (M.J.) HOLDING SPOOL, WITH THE USE OF MEGA-LUG CONNECTORS OR APPROVED EQUAL WITH CLASS 52 DUCTILE IRON PIPE.
9. IF DISTANCE BETWEEN WATER MAIN AND FIRE HYDRANT IS GREATER THAN 17 FEET, A RESTRAINED JOINT IS REQUIRED ON ADDITIONAL JOINT. MAXIMUM HYDRANT RUN ALLOWED IS 20 FEET.
10. FIRE HYDRANTS SHALL BE LOCATED A MINIMUM OF 50 FEET FROM A BUILDING OR STRUCTURE.
11. THE CONTRACTOR SHALL PLACE A 6 OZ. GEOTEXTILE FABRIC AROUND THE WASHED ROCK AREA, ENDS TO OVERLAP.
12. A FLUORESCENT ORANGE BAG MUST COVER AND BE SECURED TO THE FIRE HYDRANT UNTIL APPROVED FOR USE BY CITY ENGINEER.

CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER
FIRE HYDRANT ASSEMBLY

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	DATE REVISED:	CITY STANDARD
JIM ERWIN-SVOBODA	LINDA LIAN	MARK PALMER	LINDA LIAN	09/14/09 11/22/16 XX/XX/XX	03.05.01

FILE NAME F:\DWG\COMMON\STDS\CITYSTDS\03_WTR\03.05\03.05.01 — DATE APPROVED 12/27/2016 — SCALE NTS



DOUBLE DETECTOR-CHECK VALVE ASSEMBLY ALLOWED TO BE INSTALLED WITHIN A BUILDING. PLAN AND PROFILE VIEW SHOWS ALTERNATIVE VAULT INSTALLATION.

CITY STANDARD 03.10.01-2 COVERS ADDITIONAL NOTES FOR THIS DETAIL.

CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER
DOUBLE DETECTOR-CHECK VALVE ASSEMBLY INSTALLATION
CITY STANDARD 03.10.01-1

NOTES FOR: DOUBLE DETECTOR CHECK VALVE ASSEMBLY (DDCVA) INSTALLATION
CITY STANDARD 03.10.01-1

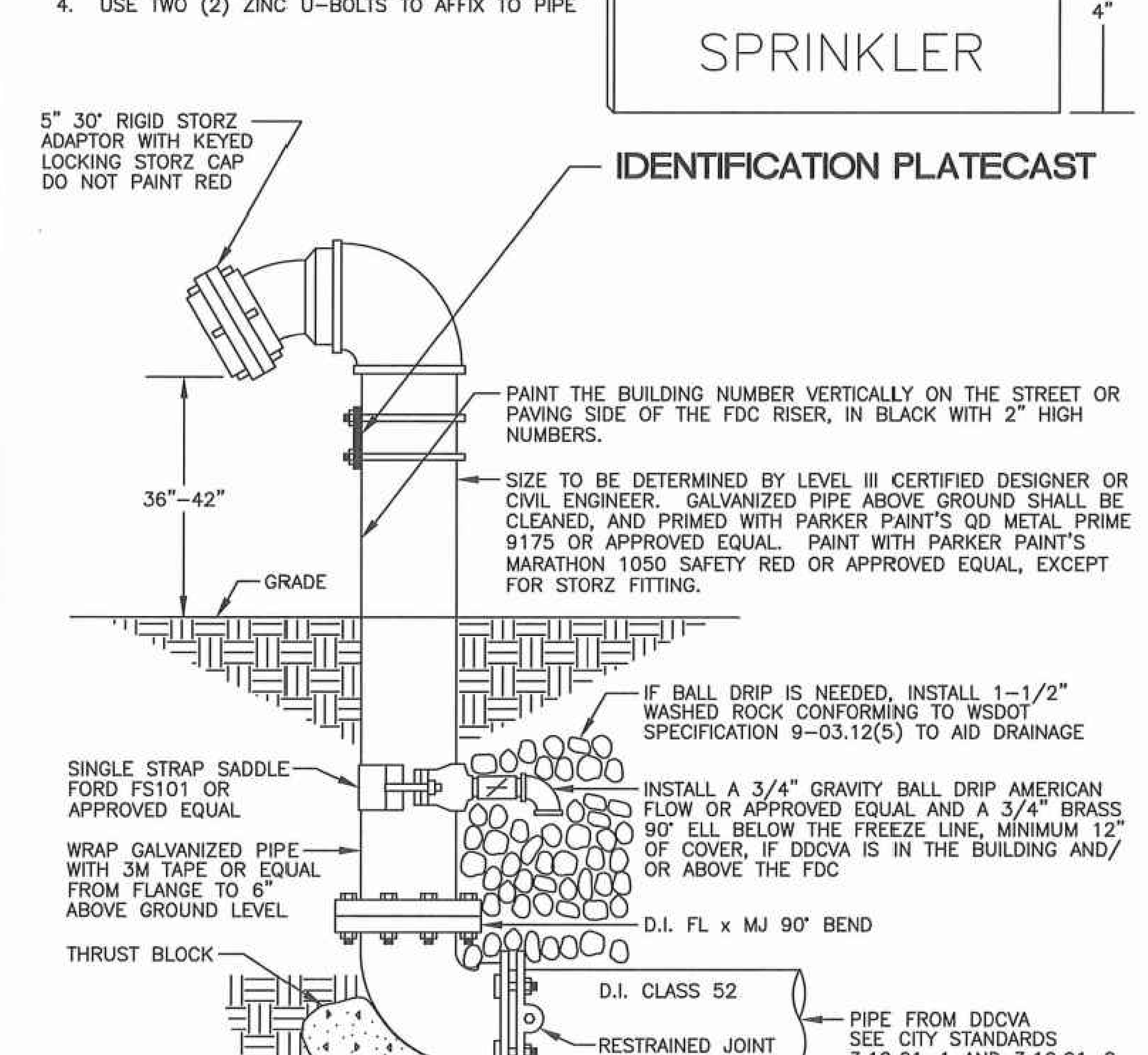
1. BACKFLOW ASSEMBLY MUST BE SELECTED FROM WASHINGTON STATE DEPARTMENT OF HEALTH'S LIST OF BACKFLOW PREVENTION ASSEMBLIES APPROVED FOR INSTALLATION IN WASHINGTON STATE, LATEST EDITION.
2. THE DDCVA SHALL BE INSTALLED WITH ADEQUATE SPACE TO FACILITATE MAINTENANCE AND TESTING. IT SHALL BE TESTED AFTER INSTALLATION, BY A WASHINGTON STATE CERTIFIED BACK-FLOW ASSEMBLY TESTER, TO INSURE ITS SATISFACTORY OPERATION BEFORE OCCUPANCY, AND ANNUALLY THEREAFTER. SEND TEST RESULTS TO: CITY OF PUYALLUP, WATER QUALITY OPERATIONS, 1100 39TH AVE SE, PUYALLUP, WA 98374.
3. DDCVA MUST BE PURCHASED AS A UNIT. NO MODIFICATIONS TO THE ASSEMBLY ARE ALLOWED.
4. DDCVA IS ALLOWED TO BE LOCATED WITHIN A BUILDING AS APPROVED BY THE FIRE CODE OFFICIAL. WHEN THE DDCVA IS LOCATED WITHIN A BUILDING, THE FIRE DEPARTMENT CONNECTION (FDC) BALL DRIP SHALL DRAIN TO THE NEAREST APPROVED ON-SITE STORM DRAINAGE STRUCTURE.
5. IN A VAULT INSTALLATION, IF VAULT CANNOT BE DRAINED TO DAYLIGHT, A 1/4 HP SUMP PUMP SHALL BE INSTALLED IN THE SUMP PIT OF THE VAULT. IT SHALL BE WIRED PER WASHINGTON STATE ELECTRICAL CODE, AND INSPECTED BY A STATE ELECTRICAL INSPECTOR. THE DISCHARGE PIPE SHALL BE CONNECTED TO THE NEAREST APPROVED ON-SITE STORM DRAINAGE STRUCTURE.
6. DDCVA OUTSIDE STEM AND YOKE (OS&Y) GATE VALVES, AND THE POST INDICATOR VALVE (PIV), SHALL HAVE SUPERVISED TAMPER SWITCHES.
7. ALL ELECTRICAL SHALL BE INSPECTED BY A WASHINGTON STATE ELECTRICAL INSPECTOR.
8. IN A VAULT INSTALLATION, RUN TWO 3/4" SCHEDULE 80 P.V.C. CONDUITS TO THE VAULT. ONE WILL BE USED FOR A GFCI PROTECTED OUTLET, AND ONE WILL BE FOR LOW VOLTAGE COMING FROM THE FIRE ALARM PANEL. INSTALL AN APPLETON FSCA OR FDCA CAST DEVICE BOX OR APPROVED EQUAL ON THE VAULT WALL AT THE CONDUIT PENETRATION.
9. IN A VAULT INSTALLATION, RUN LOW VOLTAGE WIRE INSIDE VAULT AND TO PIV THROUGH SEAL-TIGHT FLEX CONDUIT. CONDUIT SHALL BE SECURELY FASTENED PERPENDICULAR OR HORIZONTALLY TO THE WALLS OF THE VAULT.
10. WATER METER SHALL BE A SENSUS SRII TRPL READING IN 1 CUBIC FEET.
11. PIPE SUPPORTS SHALL BE RUST-PROTECTED WITH ALUMINUM PAINT.
12. THE FDC SHALL BE LOCATED WITHIN 15 FEET OF A FIRE HYDRANT, BUT NOT LESS THAN 10 FEET.
13. THE FDC AND PIV SHALL BE A MINIMUM OF 50 FEET FROM A BUILDING, UNLESS APPROVED BY THE CITY OF PUYALLUP FIRE CODE OFFICIAL, BUT NEVER LESS THAN 5 FEET FROM BUILDING.
14. A DDCVA INSTALLED MORE THAN 5 FEET ABOVE THE FLOOR LEVEL MUST HAVE A PLATFORM UNDER IT FOR THE TESTER OR MAINTENANCE PERSON TO STAND ON. THE PLATFORM MUST BE OSHA APPROVED AND MEET ALL APPLICABLE SAFETY STANDARDS AND CODES.

CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER
DOUBLE DETECTOR-CHECK VALVE ASSEMBLY INSTALLATION (NOTES)

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	DATE REVISED:	CITY STANDARD
JIM ERWIN-SVOBODA	LINDA LIAN	MARK PALMER	LINDA LIAN	09/18/09 11/22/16	03.10.01-2

IDENTIFICATION PLATECAST NOTES:

1. IDENTIFICATION PLATECAST WILL BE BRASS
2. IDENTIFICATION PLATECAST WILL BE 1/4" THICK
3. LETTERS WILL BE ONE INCH HIGH AND RAISED
4. USE TWO (2) ZINC U-BOLTS TO AFFIX TO PIPE

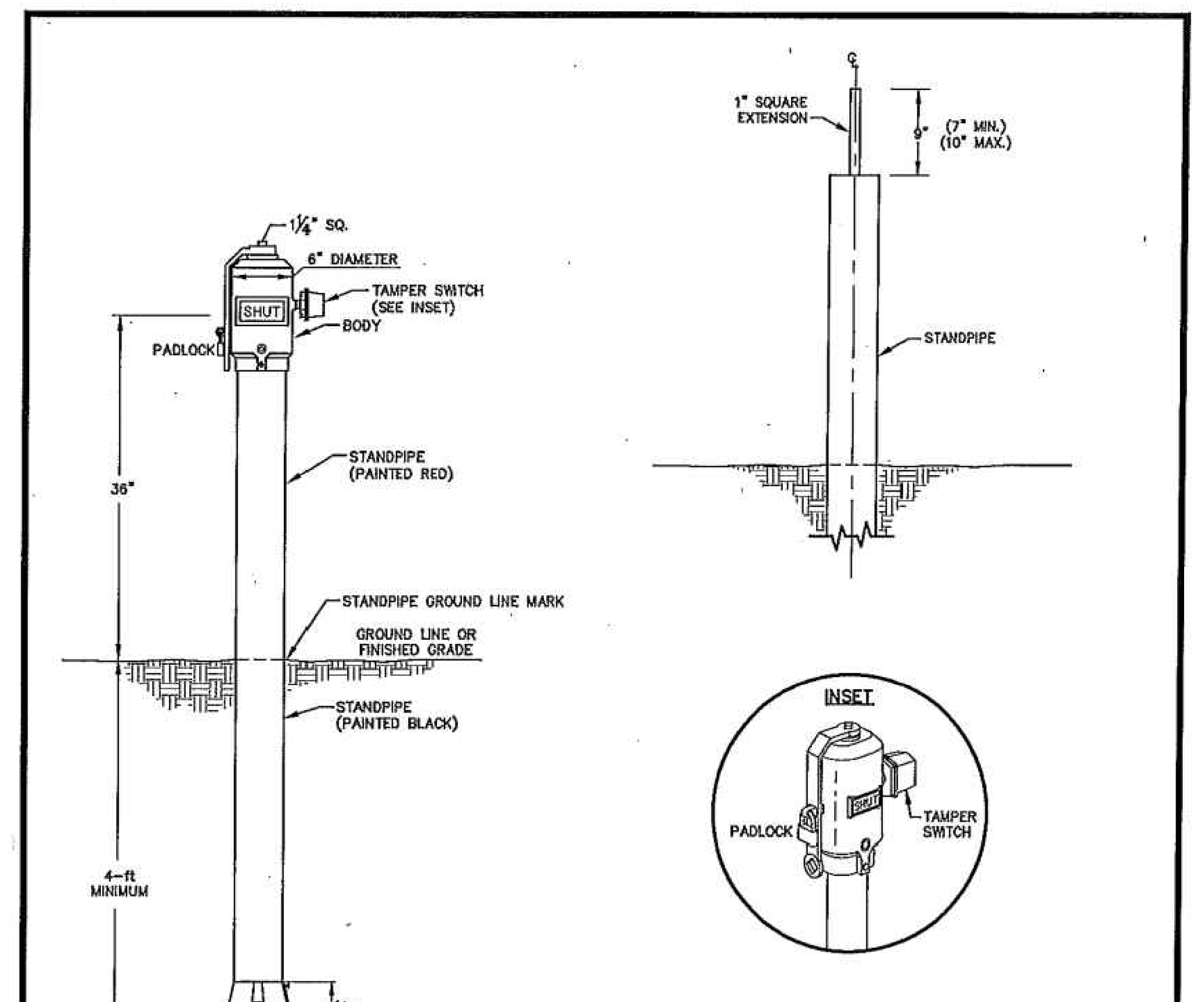


NOTES:

1. THE FIRE DEPARTMENT CONNECTION (FDC) SHALL BE LOCATED WITHIN 15 FEET OF A FIRE HYDRANT, BUT NOT LESS THAN 10 FEET.
2. THE FDC SHALL BE A MINIMUM OF 50 FEET FROM THE BUILDING, UNLESS APPROVED BY THE FIRE CODE OFFICIAL, BUT NEVER LESS THAN 5 FEET FROM BUILDING.

CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER
FIRE DEPARTMENT CONNECTION (FDC)

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	DATE REVISED:	CITY STANDARD
JIM ERWIN-SVOBODA	LINDA LIAN	MARK PALMER	LINDA LIAN	09/21/09 11/22/16	03.10.02



STANDARD POST INDICATOR VALVE

FIELD ADJUSTMENT INSTRUCTIONS

1. REMOVE THE BODY FROM THE TOP OF THE INDICATOR POST ASSEMBLY.
2. CUT THE REQUIRED LENGTH OFF THE BOTTOM OF THE STANDPIPE FOR THE GROUND LINE TO MATCH UP WITH STANDPIPE GROUND LINE MARK.
3. CUT THE 1" SQ. EXTENSION AT A DISTANCE OF 9" ABOVE THE TOP OF THE STANDPIPE.
4. SET THE "OPEN" AND "SHUT" TARGETS FOR THE APPROPRIATE VALVE SIZE.
5. RE-ATTACH THE BODY TO THE TOP OF THE INDICATOR POST ASSEMBLY.
6. ALL POST INDICATOR VALVES SHALL BE INSTALLED WITH AN ELECTRONIC UL LISTED TAMPER SWITCH.
7. THERE SHALL BE 36" OF UNOBSTRUCTED CLEARANCE AROUND THE PERIMETER OF ALL POST INDICATOR VALVES.
8. POST INDICATOR VALVE SHALL BE LOCATED AT A MINIMUM 5-ft FROM BUILDING.

CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER
POST INDICATOR VALVE

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	DATE REVISED:	CITY STANDARD
BRIAN JOHNSON	TED HILL	MARK PALMER	BRIAN JOHNSON	04/28/14 03/16/17	03.10.03

APPROVED

BY ______ CITY OF PUYALLUP ENGINEERING SERVICES

DATE ______

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR 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 ENGINEERING SERVICES MANAGER.

PCR 002
PRCCP20231028

No.	Date	By	Ckd.	Appr.	Revision
3	06/17/25	LRP	CMV	CMV	BUILDING, WATER, STORM, AND GRADING REVISIONS

Title: WATER DETAILS FOR CIVIL PLANS PHASE 2 - WESLEY BRADLEY PARK

For: WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

DANIEL K. BALMELLI, STATE OF WASHINGTON, 25672, REGISTERED PROFESSIONAL ENGINEER, 6/17/25

Scale: Horizontal N/A, Vertical N/A

Designed CK — Drawn BGK — Checked CMV — Approved DKB — Date 6/17/25

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

Job Number 16718
Sheet C18 of C20

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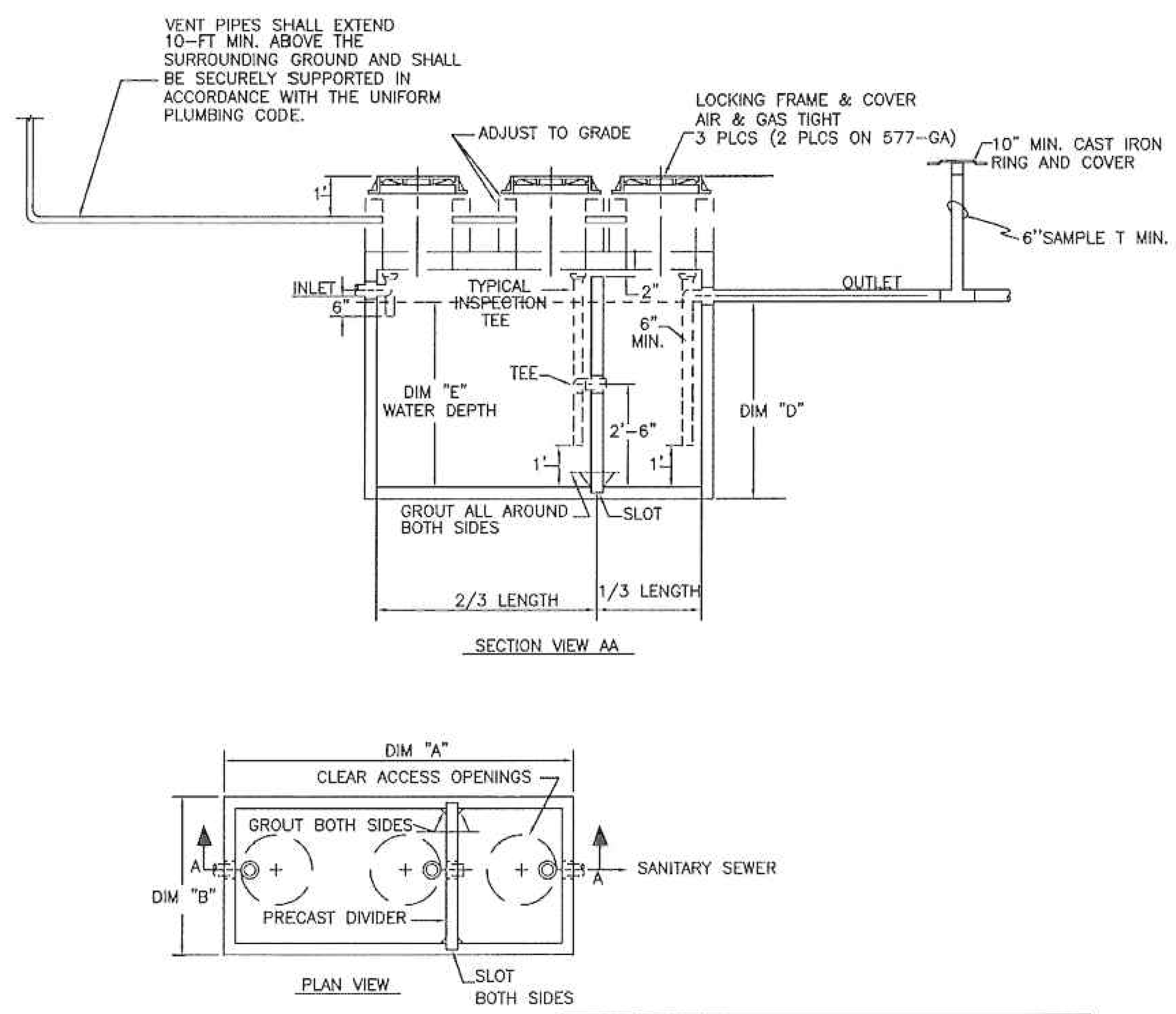
SEWER DETAILS
FOR
PHASE 2 - WESLEY BRADLEY PARK



	CAPACITY	DIM "A"	DIM "B"	DIM "C"	DIM "D"	WATER DEPTH DIM "E"
(Min. Size)	750	7'-0"	4'-8"	7'-0"	4'-3"	3'-11"
	1000	9'-0"	5'-0"	7'-2"	4'-2"	3'-10"
	1500	11'-2"	5'-8"	7'-2"	4'-3"	3'-11"
	2000	12'-8"	6'-8"	8'-0"	4'-7"	3'-10"
	2500	12'-8"	6'-8"	8'-0"	5'-6"	4'-9"
	3000	13'-1"	8'-0"	8'-7"	5'-1"	4'-8"
	4000	13'-1"	8'-0"	8'-7"	6'-8"	6'-3"
	5000	15'-7"	9'-7"	10'-0"	7'-4"	6'-1"
	6000	19'-11"	9'-11"	10'-5"	7'-1"	5'-8"
	7000	19'-11"	9'-11"	10'-5"	8'-0"	6'-7"

NOTES:

1. CONCRETE: 28 DAY COMPRESSIVE STRENGTH f'c = 4500 psi
2. REBAR: ASTM A-615 GRADE 60
3. MESH: ASTM A-185 GRADE 65
4. DESIGN: ACI-318-83 BUILDING CODE ASTM C-857 "MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES"
5. MINIMUM VAULT DIMENSIONS BASED ON UTILITY VAULT. OTHER MANUFACTURER'S SIZING MAY VARY.

* SEE CITY STANDARD DETAIL NO. 04.06.02 FOR ADDITIONAL NOTES

CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER

GREASE INTERCEPTOR

CITY STANDARD 04.06.01

NOTES FOR GREASE INTERCEPTORS:

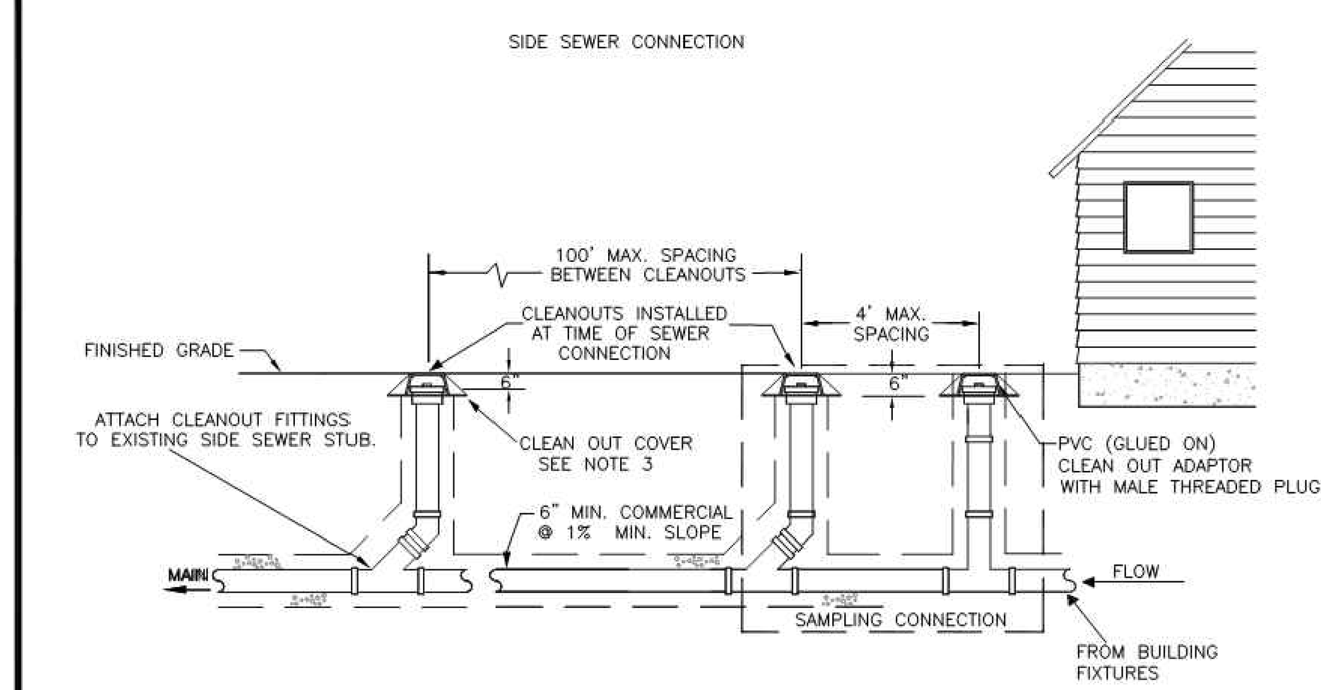
1. THE PLANS & SPECIFICATIONS SHALL ILLUSTRATE PROPERTY BOUNDARIES, PIPING/DRAINAGE DETAILS AND CONNECTIONS TO THE SANITARY SEWER. DETAIL AND ELEVATION DRAWINGS OF THE GREASE INTERCEPTOR SHALL INCLUDE SIZING CALCULATIONS IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE CURRENTLY ADOPTED BY THE CITY OF PUYALLUP.
2. VENTING OF THE INTERCEPTOR SHALL BE IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE CURRENTLY ADOPTED BY THE CITY OF PUYALLUP.
3. EFFLUENT FROM GREASE INTERCEPTORS SHALL NOT EXCEED 100 mg/L FAT, OIL, AND/OR GREASE DISCHARGED TO THE DOWNSTREAM SANITARY SEWER SYSTEM.
4. GREASE INTERCEPTORS INSTALLED IN PAVED AREAS SHALL COMPLY WITH H-20 LOADING CRITERIA.
5. THE GREASE INTERCEPTOR SHALL BE INSTALLED AND CONNNECTED SUCH THAT IT SHALL BE EASILY ACCESSIBLE FOR INSPECTION, CLEANING, AND REMOVAL AT ALL TIMES. MANHOLE COVERS SHALL BE GAS TIGHT AND HAVE A MINIMUM OPENING OF 24-INCHES IN DIAMETER.
6. NO SANITARY WASTEWATER SHALL BE CONVEYED TO THE SEPARATOR. A SEPARATE SIDE SEWER SHALL BE REQUIRED TO CARRY SANITARY WASTEWATER TO THE SEWER MAIN AND SHALL BE PLACED AS CLOSE TO THE SERVICE AREA AS PRACTICAL.
7. PLUMBING/PIPING SHALL BE CONSTRUCTED TO ESTABLISH "PARALLEL FLOW" (90-DEGREES TO THE TANK BAFFLE) THROUGH THE GREASE INTERCEPTOR. NO RADIUS, BEND, OR ELBOW SHALL BE ALLOWED IN THE INLET PIPE UPSTREAM OF THE INTERCEPTOR FOR A MINIMUM OF 10-FEET, OR 20-PIPE DIAMETERS, WHICHEVER IS GREATER.
8. ANY PUMP MECHANISM SHALL BE INSTALLED DOWNSTREAM OF THE INTERCEPTOR TO PREVENT FAT, OIL AND GREASE EMULSIFICATION. A "TEE" CONNECTION SHALL BE INSTALLED IN THE DISCHARGE PIPING TO PROVIDE FOR SAMPLE COLLECTION
9. ALL GREASE INTERCEPTORS SHALL BE FILLED WITH CLEAN WATER BEFORE USE.
10. THE DESIGN ENGINEER SHALL PROVIDE ENGINEERING SERVICES STAFF WITH A LETTER OF INSPECTION CERTIFYING THAT THE INSTALLATION WAS PERFORMED IN ACCORDANCE WITH ALL REGULATIONS AND THE APPROVED PLAN.
11. FINAL INSPECTION IS REQUIRED BY ENGINEERING SERVICES STAFF PRIOR TO CONNECTING TO THE SANITARY SEWER.
12. THE PROPERTY OWNER SHALL RETAIN OWNERSHIP OF THE GREASE INTERCEPTOR AND SIDE SEWER LINES AND SHALL BE RESPONSIBLE FOR THEIR OPERATION AND MAINTENANCE. A SERVICE/MAINTENANCE RECORD SHALL BE KEPT ON THE PREMISES AT ALL TIMES AND SHALL BE IMMEDIATELY AVAILABLE TO CITY OF PUYALLUP STAFF UPON REQUEST.
13. THE PROPERTY OWNER SHALL REPORT IMMEDIATELY TO THE CITY'S INDUSTRIAL PRETREATMENT SPECIALIST ANY SPILL, SURCHARGE, BYPASS, OR MECHANICAL FAULT AND/OR FAILURE WHICH INTERRUPTS, OR OTHERWISE REDUCES THE CAPACITY OR REMOVAL EFFICIENCY OF THE GREASE INTERCEPTOR BY CALLING (253) 841-5523.

CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER

GREASE INTERCEPTOR (NOTES)

CITY STANDARD 04.06.02

SIDE SEWER CONNECTION



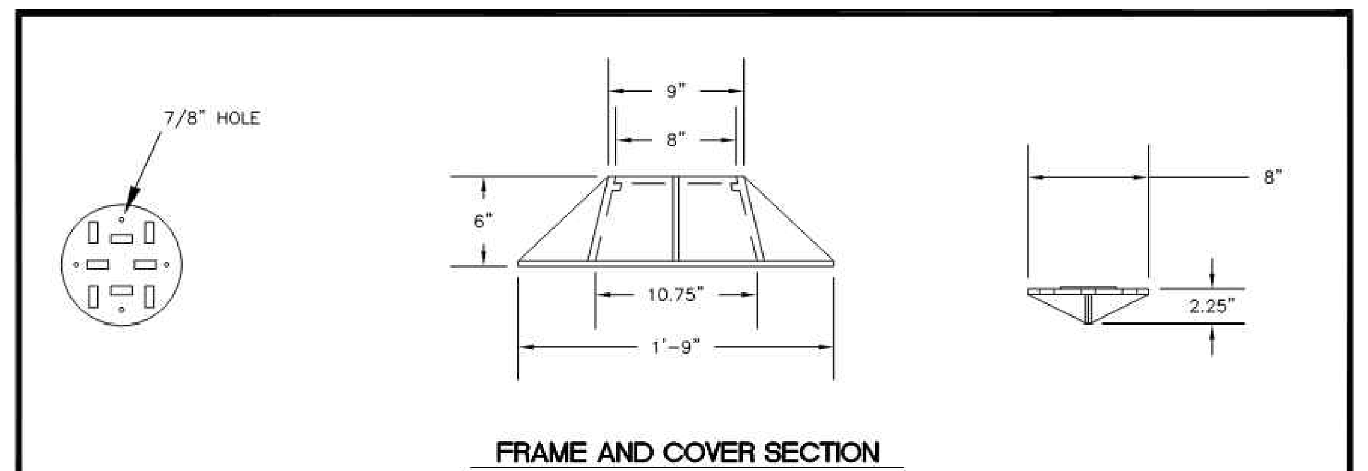
NOTES:

1. SAMPLING CONNECTION SHALL BE INSTALLED OUT SIDE WITH UNOBSTRUCTED ACCESS AT ALL TIMES.
2. A SAMPLING CONNECTION SHALL BE INSTALLED FOR EACH COMMERCIAL / RETAIL UNIT OR SPACE.
3. CLEAN OUT AND SAMPLING CONNECTION COVERS:
   A) FOR NON-VEHICULAR TRAFFIC INSTALLATIONS USE "CARSON" MODEL 910 GREEN YARD BOX WITH BOLT DOWN LID MARKED SEWER OR APPROVED EQUAL.
   B) FOR ASPHALT, GRAVEL, OR TRAFFIC INSTALLATIONS SEE CITY STANDARD DETAIL NO. 04.03.05 FRAME AND COVER SECTION.
4. EACH CLEANOUT ASSEMBLY SHALL CONSIST OF: ONE CLEANOUT ADAPTER, HUB x FEMALE, FIPT, PVC SI AND ONE CLEANOUT PLUG, MOPT WITH RAISED NUT, PVC SDR35.

CITY OF PUYALLUP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

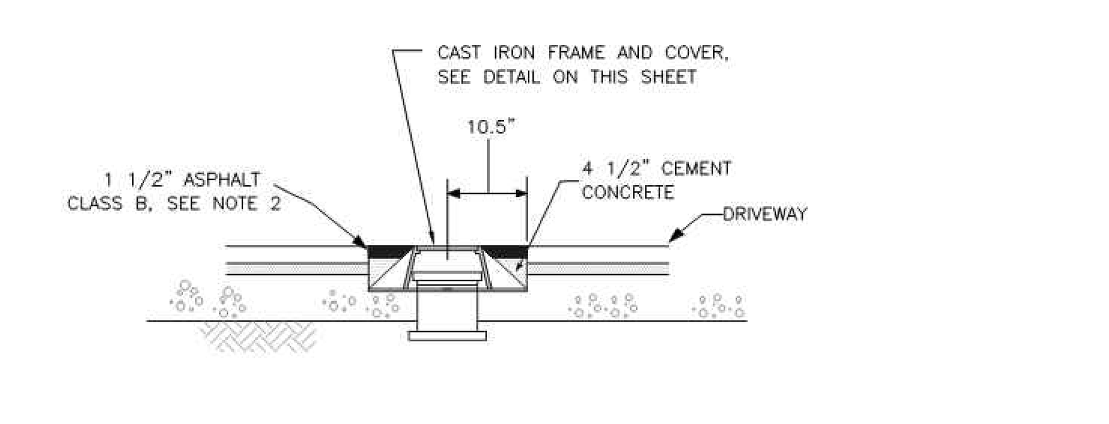
COMMERCIAL SIDE SEWER CONNECTION WITH SAMPLING CONNECTION

CITY STANDARD 04.03.04



FRAME AND COVER SECTION

SCALE 1:1



NOTES

1. NEAT LINE CUT SHALL BE SEALED AT THE TOP WITH A HOT PAVING GRADE ASPHALT AND FACE OF CUT TACKED.
2. ALL MATERIAL SHALL CONFORM TO THE 1991 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION PREPARED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER.
3. MACHINE BEARING FACES OF FRAME AND COVER TO INSURE POSITIVE FIT.
4. EACH CLEAN OUT ASSEMBLY SHALL CONSIST OF: ONE CLEAN OUT ADAPTOR (HUB X FEMALE INSIDE PIPE THREAD, P.V.C. SLIP IN), AND ONE CLEAN OUT PLUG (MALE OUTSIDE PIPE THREAD WITH RAISED NUT, P.V.C. SDR35).

SCALE 1:2

CITY OF PUYALLUP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

SIDE SEWER CLEAN OUT WHEN PLACED IN DRIVEWAY

CITY STANDARD 04.03.05

APPROVED

BY ____________ CITY OF PUYALLUP ENGINEERING SERVICES

DATE ____________

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR 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 ENGINEERING SERVICES MANAGER.

PCR 002
PRCCP20231028

No.	Date	By	Ckd.	Appr.	Revision
3	06/17/25	LRP	CMV	CMV	BUILDING, WATER, STORM, AND GRADING REVISIONS

Title: SEWER DETAILS FOR CIVIL PLANS PHASE 2 - WESLEY BRADLEY PARK

For: WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

DANIEL K. BALMELLI, STATE OF WASHINGTON, 25672, REGISTERED PROFESSIONAL ENGINEER
6/17/25

Scale: Horizontal N/A, Vertical N/A

Designed CK
Drawn BGK
Checked CMV
Approved DKB
Date 6/17/25

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

Job Number 16718

Sheet C19 of C20

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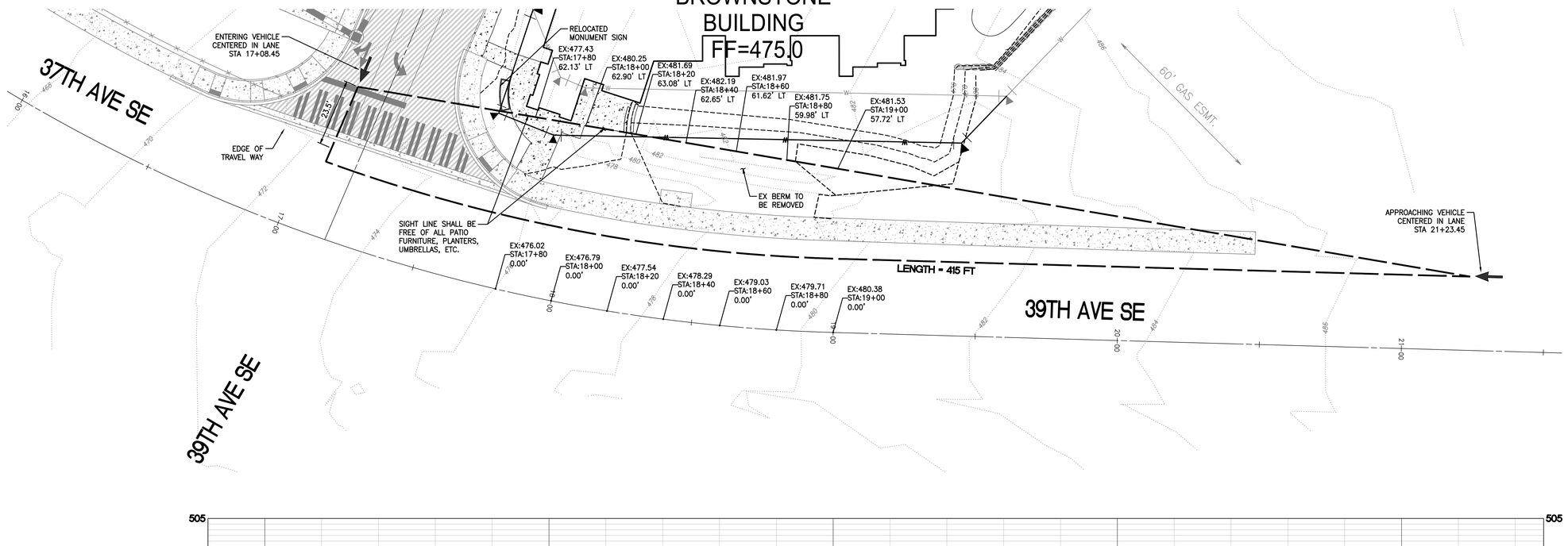
ENTERING SIGHT DISTANCE

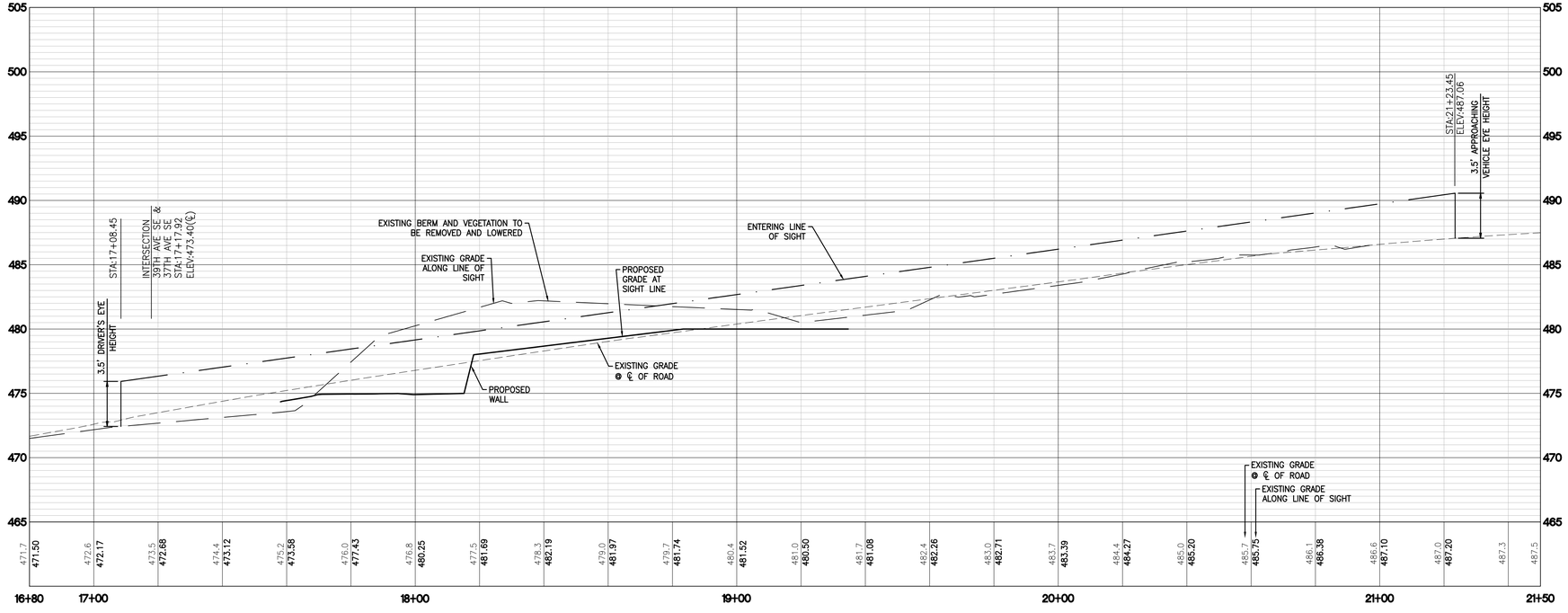
FOR

PHASE 2 - WESLEY BRADLEY PARK

1"=20'

0 10 20 40





39TH AVE SE/ 37TH AVE SE PROFILE

SCALE: H 1"=20', V 1"=5'

APPROVED

BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE _____

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR 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 ENGINEERING SERVICES MANAGER.

PCR 002
PRCCP20231028

No.	Date	By	Ckd.	Appr.	Revision
3	06/17/25	LBP	CMV	CMV	BUILDING, WATER, STORM, AND GRADING REVISIONS

Title: ENTERING SIGHT DISTANCE FOR CIVIL PLANS PHASE 2 - WESLEY BRADLEY PARK

For: WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

DANIEL K. BALMELLI
STATE OF WASHINGTON
25672
REGISTERED PROFESSIONAL ENGINEER
6/17/25

Scale: Horizontal 1" = 20' Vertical 1" = 5'

Designed CK Drawn BGK Checked CMV Approved DKB Date 6/17/25

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

Job Number 16718

Sheet C20 of C20

P:\16000s\16718\exhibit\Phase 2\16718-x1 - Sight Distance.dwg 12/11/2024 12:07 PM LPALMER

Know what's **below.**
Call before you dig.
Dial 811

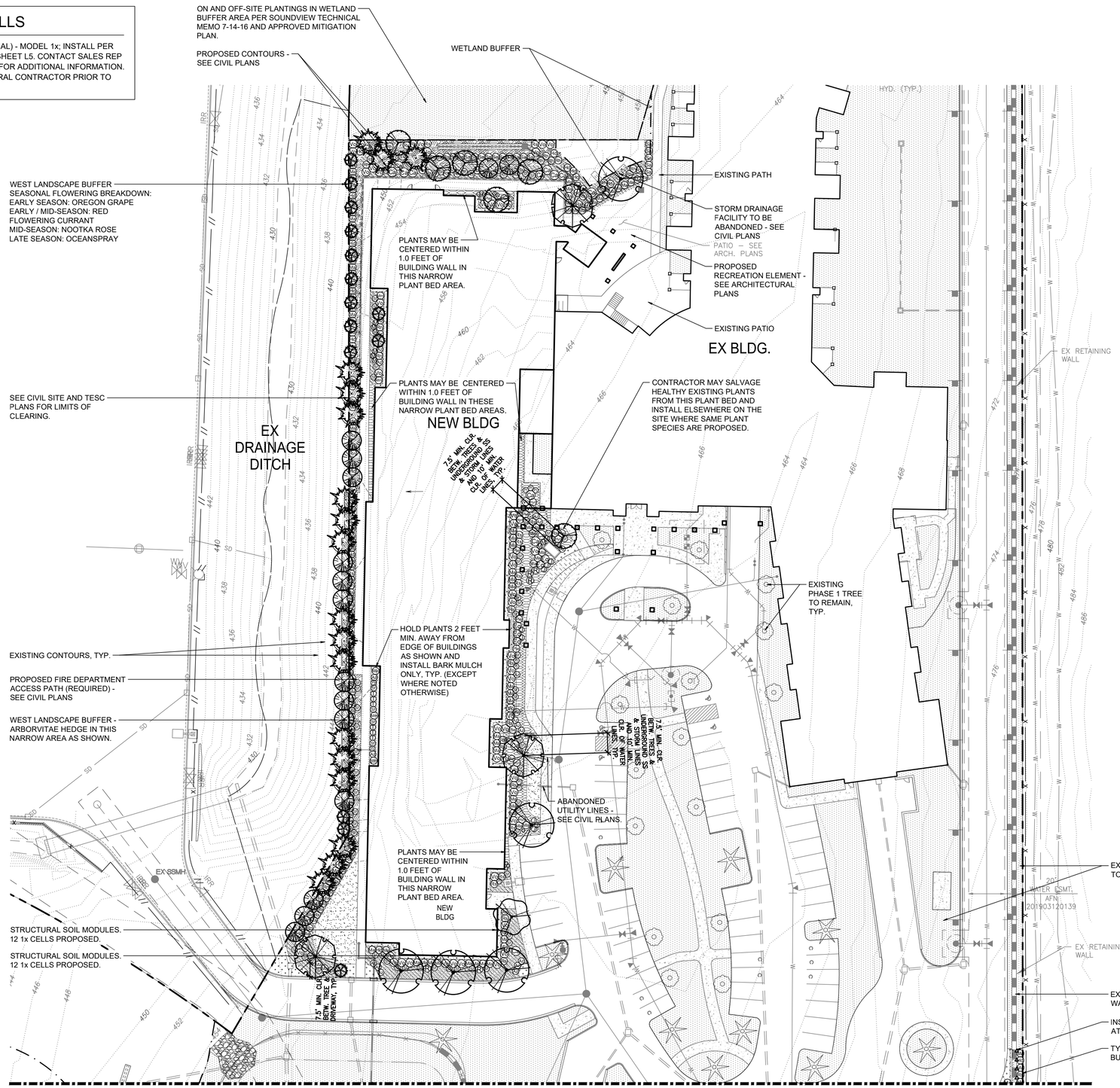
LANDSCAPE PLAN NORTH

FOR

PHASE 2 - WESLEY BRADLEY PARK

STRUCTURAL SOIL CELLS

SILVA CELL MODULES (OR APPROVED EQUAL) - MODEL 1x; INSTALL PER SPECIFICATIONS (SHEET L5); SEE DETAIL SHEET L5. CONTACT SALES REP RACHEL ROBERTS - PHONE (415) 746-1553 FOR ADDITIONAL INFORMATION. COORDINATE WITH SALES REP AND GENERAL CONTRACTOR PRIOR TO PAVEMENT AND CURB INSTALLATION.



MATCH LINE SEE SHEET L2

LANDSCAPE PLAN NORTH

LANDSCAPE SHEET INDEX

BRADLEY PARK LANDSCAPE NOTES

EXISTING TREES: ADJUST LOCATIONS OF PROPOSED PLANTS TO AVOID ROOTZONES OF EXISTING TREES TO REMAIN

NON-NATIVE PLANT NOTE: MECHANICALLY REMOVE ALL NON-NATIVE WEEDY PLANT SPECIES WITHIN THE PLANTED AREAS SHOWN

IRRIGATION NOTE: CONNECT TO EXISTING SYSTEM. SEE IRRIGATION SHEETS IN THIS PLAN SET.

SOIL NOTE: PER PUYALLUP VEGETATION MANAGEMENT STANDARDS CHAPTER 8.2(A), INSTALL 8" DEPTH TOPSOIL IN NEW PLANTING BEDS. SEE SHEET L5 FOR CITY OF PUYALLUP SOIL AMENDMENT REQUIREMENTS.

MULCH NOTE: PER PUYALLUP V.M.S 8.3, INSTALL 4" DEPTH ARBORIST WOOD CHIP MULCH IN ALL NEW SHRUB AND GROUNDCOVER BEDS

LANDSCAPE LEGEND

SYMBOL	DESCRIPTION	QUANTITY
	EXISTING VEGETATION TO REMAIN PRESERVE AND PROTECT	---
	EXISTING PH 1 SHRUB BED TO BE REMOVED & NOT REPLACED	---
	EXISTING DECIDUOUS TREE TO BE REMOVED.	---
	EXISTING CONIFER TREE TO BE REMOVED.	---
	EXISTING CONIFER TREE TO REMAIN PRESERVE AND PROTECT	---
	EXISTING CONIFER TREE FROM PHASE 1 LANDSCAPE PLANS PRESERVE AND PROTECT	---
	EXISTING DECIDUOUS TREE FROM PHASE 1 LANDSCAPE PLANS PRESERVE AND PROTECT	---
	SILVA CELLS	---

Provide minimum clearance btwn woody landscaping and underground utilities:
-7.5ft min. for sanitary sewer (SS) and storm (SD) lines, and;
-10ft min. for water lines.

N

1"=30'

0 15 30 60

PCR 002
PRCCP20231028

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

Staff:

Date:

THIS APPROVAL IS VOID AFTER 1 YEAR 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 PLANNING MANAGER, DESIGNEE, 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 city standards may result in rejection of installation.

APPROVED

BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE _____

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No.	Date	By	Ckd.	Appr.	Revision
–	07/25/25	LRP	LRP	LRP	REVISIONS AROUND NORTH BUILDING
–	10/25/24	LRP	LRP	LRP	GRAPHIC SCALE CORRECTION

Title:
LANDSCAPE PLAN NORTH
FOR
CIVIL PLANS
PHASE 2 - WESLEY BRADLEY PARK

For:
WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

STATE OF WASHINGTON
LAUREN R. PERRY
NO. 488 EXP. 2/18/27
LANDSCAPE ARCHITECT

Scale: Horizontal 1"=30' Vertical N/A

Designed LRP Drawn LRP Checked LP/JV Approved LRP Date 07/25/25

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

Job Number 16718

Sheet L1 of 10

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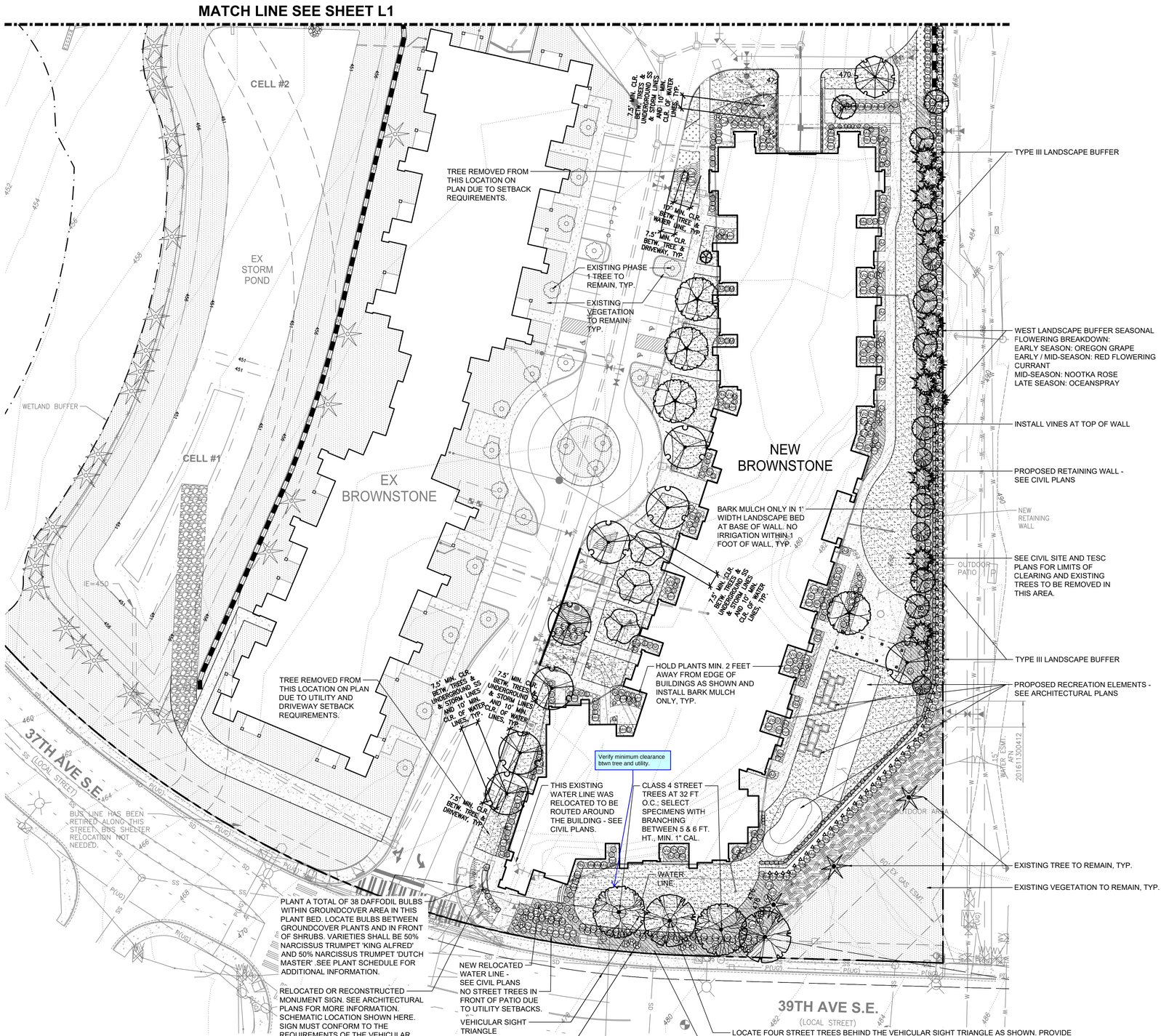
LANDSCAPE PLAN SOUTH

FOR

PHASE 2 - WESLEY BRADLEY PARK



LANDSCAPE LEGEND

SYMBOL	DESCRIPTION	QUANTITY
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	SILVA CELLS	---

PCR 002
PRCCP20231028

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

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N

1"=30'

0 15 30 60

LANDSCAPE PLAN NORTH

No.	Date	By	Ckd.	Appr.	Revision
–	10/25/24	LRP	LRP	LRP	GRAPHIC SCALE CORRECTION
–	07/25/25	LRP	LRP	LRP	REVISIONS AROUND NORTH BUILDING

Title:
LANDSCAPE PLAN SOUTH
FOR
CIVIL PLANS
PHASE 2 - WESLEY BRADLEY PARK

For:
WESLEY HOMES
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DES MOINES, WA 98190
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LAUREN R. PERRY
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NO. 488 EXP. 2/18/2027

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Designed LRP
Drawn LRP
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Date 07/25/25

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

Job Number 16718

Sheet L2 of 10

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Know what's **below.**
Call before you dig.
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PLANT SCHEDULE
FOR
PHASE 2 - WESLEY BRADLEY PARK

PLANT SCHEDULE

SYMBOL	QTY	BOTANICAL / COMMON NAME	CONT.	SIZE	ORIGIN
DECIDUOUS TREES					
	16	ACER CIRCINATUM / VINE MAPLE	B & B	1" CAL	NATIVE
	4	GINKGO BILOBA `AUTUMN GOLD` / AUTUMN GOLD MAIDENHAIR TREE	B & B	1" CAL	ADAPTIVE
	4	GLEDITSIA TRIACANTHOS INERMIS `SUNCOLE` / SUNBURST® HONEY LOCUST	B & B	1" CAL	ADAPTIVE
	4	LIRIODENDRON TULIPIFERA `JFS-OZ` / EMERALD CITY® TULIP POPLAR	B & B	1" CAL	ADAPTIVE
	13	MAGNOLIA GRANDIFLORA `VICTORIA` / VICTORIA SOUTHERN MAGNOLIA	B & B	1" CAL	ADAPTIVE
EVERGREEN TREES					
	29	PSEUDOTSUGA MENZIESII / DOUGLAS FIR	B & B	5`-6` MIN. HT.	NATIVE
	1	SEQUOIADENDRON GIGANTEUM / GIANT SEQUOIA	B & B	5`-6` MIN. HT.	ADAPTIVE
	20	THUJA PLICATA / WESTERN RED CEDAR	B & B	5`-6` MIN. HT.	NATIVE
	15	X CUPRESSOCYPARIS LEYLANDII 'MONCAL' TM / EMERALD ISLE LEYLAND CYPRESS	B & B	5`-6` MIN. HT.	ADAPTIVE
STREET TREES					
	2	FAGUS SYLVATICA 'RIVERSII' / RIVERS EUROPEAN BEECH BRANCHED TO BETWEEN 5 & 6 FT. HT.	B & B	1" CAL	ADAPTIVE
	2	QUERCUS COCCINEA / SCARLET OAK BRANCHED TO BETWEEN 5 & 6 FT. HT.	B & B	1" CAL	ADAPTIVE

SYMBOL	QTY	BOTANICAL / COMMON NAME	CONT.	ORIGIN	SPACING
SHRUBS					
AJ	81	AZALEA X 'HINO-CRIMSON' / HINO-CRIMSON KURUME AZALEA	#2	ADAPTIVE	42" o.c.
CA	24	CORNUS ALBA 'ELEGANTISSIMA' / SILVEREDGE TATARIAN DOGWOOD	#2	ADAPTIVE	60" o.c.
EA	18	EUONYMUS ALATUS 'COMPACTUS' / COMPACT BURNING BUSH	#2	ADAPTIVE	54" o.c.
EF	20	EUONYMUS FORTUNEI 'EMERALD GAIETY' / EMERALD GAIETY WINTERCREEPER	#2	ADAPTIVE	36" o.c.
HD	52	HOLODISCUS DISCOLOR / OCEAN-SPRAY	#2	NATIVE	48" o.c.
HQ	24	HYDRANGEA QUERCIFOLIA 'MUNCHKIN' / MUNCHKIN OAKLEAF HYDRANGEA	#2	ADAPTIVE	48" o.c.
J	8	JUNIPERUS SQUAMATA 'BLUE STAR' / BLUE STAR JUNIPER	#2	ADAPTIVE	36" o.c.
MA	234	MAHONIA AQUIFOLIUM 'COMPACTA' / COMPACT OREGON GRAPE	#2	NATIVE	48" o.c.
M	18	MAHONIA NERVOSA / OREGON GRAPE	#2	NATIVE	36" o.c.
MM	28	MAHONIA X MEDIA 'WINTER SUN' / WINTER SUN MAHONIA	#2	ADAPTIVE	48" o.c.
NM	27	NANDINA DOMESTICA 'GULF STREAM' / GULF STREAM HEAVENLY BAMBOO	#2	ADAPTIVE	48" o.c.
P	18	PIERIS JAPONICA 'CAVATINE' / CAVATINE JAPANESE PIERIS	#2	ADAPTIVE	36" o.c.
PF	14	PIERIS X 'FOREST FLAME' / FOREST FLAME PIERIS	#2	ADAPTIVE	48" o.c.
RC	50	RHODODENDRON MACROPHYLLUM / PACIFIC RHODODENDRON	#2	NATIVE	48" o.c.
RS	93	RIBES SANGUINEUM `KING EDWARD VII` / RED FLOWERING CURRANT	#2	NATIVE	48" o.c.
RN	60	ROSA NUTKANA / NOOTKA ROSE	#2	NATIVE	48" o.c.
RR	20	ROSA RUGOSA 'FRU DAGMAR HASTRUP' / FRU DAGMAR HASTRUP ROSE	#2	ADAPTIVE	48" o.c.
SA	33	SYMPHORICARPOS ALBUS / COMMON WHITE SNOWBERRY	#2	NATIVE	48" o.c.
T	6	THUJA OCCIDENTALIS `EMERALD GREEN` / EMERALD GREEN ARBORVITAE	5`-6` HT	ADAPTIVE	36" o.c.
VO	72	VACCINIUM OVATUM / EVERGREEN HUCKLEBERRY	#2	NATIVE	54" o.c.
FERNS					
D	22	DRYOPTERIS FILIX-MAS 'ROBUSTA' / ROBUST MALE FERN	#2	ADAPTIVE	36" o.c.
P	166	POLYSTICHUM MUNITUM / WESTERN SWORD FERN	#2	NATIVE	40" o.c.
GRASSES					
C	3	CHIONOCHLOA RUBRA / RED TUSSOCK	#2	ADAPTIVE	48" o.c.
PERENNIALS					
A	5	ARUNCUS DIOICUS / GOATSBEARD	#2	NATIVE	36" o.c.
AS	7	ASTILBE X ARENDSII 'BEAUTY OF ERNST' / COLOR FLASH® ASTILBE	#2	ADAPTIVE	24" o.c.
CP	18	CAMPANULA PERSICIFOLIA / PEACH-LEAF BELLFLOWER	#2	ADAPTIVE	22" o.c.
H	8	HELLEBORUS FOETIDUS / BEARSFOOT HELLEBORE	#2	ADAPTIVE	24" o.c.

SYMBOL	QTY	BOTANICAL / COMMON NAME	CONT.	ORIGIN	SPACING
VINES					
△	76	LONICERA JAPONICA 'HALLIANA' / HALLS HONEYSUCKLE FLOWERING VINE	#1	ADAPTIVE	24" o.c.
GROUND COVERS					
	1,740	ARCTOSTAPHYLOS UVA-URSI / KINNIKINNICK	#1	NATIVE	24" o.c.
	239	ERICA X DARLEYENSIS 'WHITE PERFECTION' / WHITE PERFECTION DARLEY HEATH	#1	ADAPTIVE	24" o.c.
	693	GAULTHERIA SHALLON / SALAL	#1	NATIVE	36" o.c.
	79	LAVANDULA ANGUSTIFOLIA 'HIDCOTE SUPERIOR' / HIDCOTE SUPERIOR ENGLISH LAVENDER	#1	ADAPTIVE	18" o.c.
	914	LIRIOPE MUSCARI `SILVERY SUNPROOF` / SILVERY SUNPROOF LILYTURF	#1	ADAPTIVE	24" o.c.
	196	LIRIOPE SPICATA / CREEPING LILYTURF	#1	ADAPTIVE	24" o.c.
NO SYMBOL - SEE NOTES ON SHEET L2	147	NARCISSUS X 'DUTCH MASTER' / DUTCH MASTER DAFFODIL TOP SIZE BULBS; PLANT ALONG FRONTAGE BETWEEN GROUNDCOVER PLANTS AS NOTED ON LANDSCAPE PLAN. PLANT BULBS SEPTEMBER - NOVEMBER, OR DURING ALTERNATE TIME OF YEAR AS APPROVED BY LANDSCAPE ARCHITECT.	BULBS	ADAPTIVE	24" o.c.
	147	NARCISSUS X 'KING ALFRED' / KING ALFRED DAFFODIL TOP SIZE BULBS; PLANT ALONG FRONTAGE BETWEEN GROUNDCOVER PLANTS AS NOTED ON LANDSCAPE PLAN. PLANT BULBS SEPTEMBER - NOVEMBER, OR DURING ALTERNATE TIME OF YEAR AS APPROVED BY LANDSCAPE ARCHITECT.	BULBS	ADAPTIVE	24" o.c.

LOCATE BETW. GROUNDCOVER, SEE PLAN

LANDSCAPE LEGEND

SYMBOL	DESCRIPTION	QUANTITY
	EXISTING VEGETATION TO REMAIN PRESERVE AND PROTECT	---
	EXISTING PH 1 SHRUB BED TO BE REMOVED & NOT REPLACED	---
	EXISTING DECIDUOUS TREE TO BE REMOVED.	---
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	EXISTING DECIDUOUS TREE FROM PHASE 1 LANDSCAPE PLANS PRESERVE AND PROTECT	---
	SILVA CELLS	---

SYMBOL	DESCRIPTION	QUANTITY
	EROSION CONTROL HYDROSEED SUNMARK SEEDS NATIVE EC MIX, OAE. INSTALL PER MANUFACTURER`S RECOMMENDATIONS.	194 SF
	LAWN SOD OR SEED LAWN. SEE LANDSCAPE NOTES.	13,385 SF
	FOUR (4) INCHES ARBORIST CHIP MULCH SEE SOILS AND LANDSCAPE NOTES. (MULCH QUANTITY SHOWN IN THIS LEGEND ONLY INCLUDES AREAS OF MULCH SHOWN ON THE PLANS. THE QUANTITY DOES NOT INCLUDE THE 4" DEPTH OF MULCH REQUIRED WITHIN SHRUB AND GROUNDCOVER BEDS.)	7,188 SF

PLANT SCHEDULE NOTES

1. ALL TREES SHALL BE FULL, WELL BRANCHED AND SYMMETRICAL WITH STRONG, STRAIGHT, UNCUT CENTRAL LEADER.
2. TREES OF SAME SPECIES GROUPED TOGETHER SHALL BE MATCHED SPECIMENS.
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 SHALL BE WELL ROOTED, SYMMETRICAL, AND BE FULL AND BUSHY.
8. ALL FERNS AND GRASSES SHALL BE WELL ROOTED, SYMMETRICAL, WITH FULL TOP GROWTH. ALL FERNS SHALL HAVE A MINIMUM OF 3 FRONDS.
9. ALL PLANTS SHALL BE NURSERY GROWN, NOT COLLECTED.
10. APPLY 4" ARBORISTS WOOD CHIP MULCH TO THE SURFACES OF ALL SHRUB AND GROUNDCOVER BEDS AND AREAS ADJACENT TO BUILDINGS AND WALLS AS NOTED ON THE PLANS.
11. ALL PROPOSED NEW PLANTS SHALL BE IRRIGATED WITH A WATER-WISE AUTOMATIC IRRIGATION SYSTEM.
12. MAINTAIN ALL NEW PLANTS IN A HEALTHY CONDITION THROUGH THE ONE YEAR GUARANTEE PERIOD.
13. PLANTS SHALL BE NO CLOSER TO THE FACE OF A BUILDING THAN HALF OF THE PLANT SPACING INDICATED IN THE PLANT SCHEDULE PLUS 2 FEET.

Provide minimum clearance btwn woody landscaping and underground utilities:
-7.5ft min. for sanitary sewer (SS) and storm (SD) lines, and;
-10ft min. for water lines.

PCR 002
PRCCP20231028

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FOR
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PHASE 2 - WESLEY BRADLEY PARK

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DES MOINES, WA 98190
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STATE OF WASHINGTON
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No. 488 EXP. 2/19/27
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Sheet L3 of 10

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LANDSCAPE NOTES + DETAILS

FOR

PHASE 2 - WESLEY BRADLEY PARK

LANDSCAPE PLANTING NOTES AND MATERIALS

SCOPE OF WORK

FURNISH ALL MATERIALS, LABOR, EQUIPMENT AND RELATED ITEMS NECESSARY TO ACCOMPLISH TOPSOIL, TREATMENT AND PREPARATION OF SOIL, FINISH GRADING, PLACEMENT OF SPECIFIED PLANT MATERIALS, FERTILIZER, STAKING, MULCH, CLEAN-UP, DEBRIS REMOVAL, AND 30-DAY MAINTENANCE.

QUALIFICATIONS:
LANDSCAPE CONTRACTOR TO BE SKILLED AND KNOWLEDGEABLE IN THE FIELD OF WORK AND HAVE A MINIMUM OF FIVE (5) YEAR'S EXPERIENCE INSTALLING SIMILAR WORK. CONTRACTOR TO BE LICENSED TO PERFORM THE WORK SPECIFIED WITHIN THE PRESIDING JURISDICTION.

JOB CONDITIONS:
IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE SITE AND REPORT ANY DISCREPANCIES TO THE OWNER OR THE OWNER'S REPRESENTATIVES. ALL PLANT MATERIAL AND FINISH GRADES ARE SUBJECT TO APPROVAL BY THE OWNER.

PROTECTION:
SAVE AND PROTECT ALL EXISTING PLANTINGS SHOWN TO REMAIN. DO NOT PLANT UNTIL OTHER CONSTRUCTION OPERATIONS WHICH CONFLICT HAVE BEEN COMPLETED. IF AN IRRIGATION SYSTEM IS TO BE INSTALLED DO NOT PLANT UNTIL THE SYSTEM HAS BEEN INSTALLED, TESTED, AND APPROVED BY THE OWNER. 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 NOT IN COMPLIANCE WITH PLANS AND SPECIFICATIONS, AS DIRECTED BY OWNER AT NO ADDITIONAL COST TO THE OWNER.

REPAIR OF EXISTING PLANTINGS:
DURING THE COURSE OF WORK, REPAIR ALL EXISTING PLANTING AREAS BY PRUNING DEAD GROWTH, RE-ESTABLISHING FINISH GRADE AND RE-MULCHING TO SPECIFIED DEPTH.

REPAIR OF IRRIGATION SYSTEM:
DURING THE COURSE OF WORK, REPAIR ANY DAMAGE TO THE IRRIGATION SYSTEM TO MATCH CONDITIONS PRIOR TO THE DAMAGE.

GUARANTEE:
GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE OF THE JOB BY OWNER.

30-DAY MAINTENANCE:
CONTRACTOR TO PROVIDE OWNER WITH A SCOPE OF WORK AT TIME OF INITIAL PROJECT BID TO PROVIDE LANDSCAPE AND IRRIGATION MAINTENANCE FOR 30 DAYS FOLLOWING STORE OPENING. WORK TO INCLUDE MAINTENANCE AS DESCRIBED BELOW, IN PLANTING AND IRRIGATION MAINTENANCE.

SUBMITTALS:
SUBMIT 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; SEE SOIL AMENDMENT NOTES ON SHEET L5.
C) TREE STAKING AND GUYING MATERIALS.
D) ONE (1) QUART SIZE OF TOPSOIL AND MULCH.
E) PLANTING SCHEDULE INCLUDING DATES AND TIMES.
F) MAINTENANCE INSTRUCTIONS FOR ONE (1) FULL YEAR.

MATERIALS:

PLANT MATERIALS:
PLANT MATERIALS TO BE GRADE NO. 1, SIZED IN ACCORDANCE WITH (AAN) AMERICAN STANDARDS FOR NURSERY STOCK (ANSI Z60.1-2004). PRUNE PLANTS RECEIVED FROM THE NURSERY ONLY UPON AUTHORIZATION BY THE LANDSCAPE ARCHITECT. "B & B" INDICATES BALLED AND BURLAPPED; "CONT." INDICATES CONTAINER; "BR" INDICATES BARE ROOT; "GAL" INDICATES GALLON.
A) SPECIFIED PLANT CANOPY SIZE OR CALIPER IS THE MINIMUM ACCEPTABLE CONTAINER OR BALL SIZE AND ESTABLISHES MINIMUM PLANT CONDITION TO BE PROVIDED.
B) QUALITY:
PLANT MATERIAL TO COMPLY WITH STATE AND FEDERAL LAWS FOR DISEASE INSPECTION, PLANTS TO BE FULLY LIVE, VIGOROUS, 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 LANDSCAPE ARCHITECT TO HAVE BEEN DAMAGED; HAVE DEFORMITIES OF STEM, BRANCHES, OR ROOTS; LACK SYMMETRY, HAVE MULTIPLE LEADERS OR "Y" CROTCHES LESS THAN 30 DEGREES IN TREES, OR DO NOT MEET SIZE OR ANSI STANDARDS WILL BE REJECTED. PLANT MATERIAL TO BE FROM A SINGLE NURSERY SOURCE FOR EACH SPECIFIED SPECIES/HYBRID. NURSERY SOURCES TO BE THOSE LOCATED IN THE SAME REGION AS THE JOB SITE.

C) SUBSTITUTION:
NO SUBSTITUTION OF PLANT MATERIAL, SPECIES OR VARIETY, WILL BE PERMITTED UNLESS WRITTEN EVIDENCE IS SUBMITTED TO THE OWNER FROM TWO QUALIFIED PLANT BROKERAGE OFFICES. SUBSTITUTIONS WHICH ARE PERMITTED TO BE IN WRITING FROM THE OWNER AND LANDSCAPE ARCHITECT. THE SPECIFIED SIZE, SPECIES AND NEAREST VARIETY, AS APPROVED, TO BE FURNISHED. SUBSTITUTIONS MAY REQUIRE SUBMITTAL TO REVISED LANDSCAPE PLAN TO CITY FOR APPROVAL.
D) 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.
E) DELIVER PLANT MATERIAL AFTER PREPARATION OF PLANTING AREAS HAVE BEEN COMPLETED AND PLANT IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN SIX (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.

SOIL PREPARATION:
SEE SOIL AMENDMENT AND DEPTH NOTES ON SHEET L5.

THE CITY OF PUYALLUP REQUIRES:
A MINIMUM OF 4 INCHES OF MULCH AND 8 INCHES OF COMPOST AMENDED SOIL ARE REQUIRED IN ALL PLANTED AREAS PER CITY VMS. INSTALL PER CITY VMS SECTION 8, 2A.

ORGANIC MULCH (TOPDRESSING):
ARBORISTS WOOD CHIP MULCH. COARSE BARK MULCH MAY BE USED ONLY AS APPROVED.

STAKES:
2-INCH DIAMETER BY 8-FOOT MINIMUM LODGEPOLE PINE STAKES.

GUY MATERIAL:
1-INCH WIDE POLYETHYLENE CHAIN LOCK TYPE TIES; OR, 3/8" DIAMETER RUBBER. NO WIRE.

LAWN:
DROUGHT TOLERANT COMMERCIAL SEED AS NOTED ON PLANS.

HERBICIDE:
HERBICIDE IS NOT RECOMMENDED FOR THE FIRST YEAR AFTER INSTALLATION.

ANTI-DESICCANT:
"WILT-PROOF," 48 HOURS PRIOR TO SHIPMENT TO SITE FROM JUNE 1 THROUGH SEPTEMBER. THOROUGHLY ROOT WATER PLANTS PRIOR TO DELIVERY. PLANT MATERIAL DELIVERED TO SITE TO BE KEPT CONTINUALLY MOIST THROUGH INSTALLATION.

EXECUTION:

CONTAMINANTS:
VERIFY THAT ALL SOIL CONTAMINANTS (E.G., PAINT, SEALANTS, SOLVENTS, OILS, GREASES, CONCRETE/ASPHALT SPOILS, ETC.) HAVE BEEN SATISFACTORILY REMOVED FROM ALL PLANTING AREAS. DO NOT BEGIN WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

FINISH GRADES:
FINE GRADE AND REMOVE ROCKS, DEBRIS, AND FOREIGN OBJECTS OVER 2 INCHES DIAMETER FROM TOP SURFACE OF PREPARED LANDSCAPE AREAS. FINISH ELEVATIONS TO BE DEFINED AS 3 INCHES BELOW CURBS, WALKS AND/OR OTHER ADJACENT HARDSCAPE FOR ALL PLANTING BED AREAS AND 1-INCH BELOW CURBS, WALKS AND/OR OTHER ADJACENT HARDSCAPE FOR ALL LAWN AREAS. "FINISH GRADE" REFERS TO GRADES PRIOR TO INSTALLATION OF MULCH OR LAWN. ALL FINISH GRADES TO BE SMOOTH EVEN GRADES, LIGHTLY COMPACTED, AS SHOWN ON THE PLAN AND DETAILED. PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS AND STRUCTURES. SITE CIVIL DRAWINGS IDENTIFY FINAL ELEVATIONS. MOISTEN PREPARED AREAS BEFORE PLANTING IF SOIL IS DRY. WATER THOROUGHLY AND ALLOW SURFACE TO DRY BEFORE PLANTING. DO NOT CREATE MUDDY SOIL.

TREES AND SHRUBS:
ARRANGE TREES AND SHRUBS ON SITE IN PROPOSED LOCATIONS PER DRAWINGS. EXCAVATE PIT, PLANT AND STAKE OR GUY, AS CALLED OUT AND DETAILED. ALL TREES, SHRUBS, AND SUPPORTS TO STAND VERTICAL. BACKFILL SHALL BE PIT SPOILS. SETTLE BACKFILL USING WATER ONLY. NO MECHANICAL COMPACTION.

ROOT BARRIER:
INSTALL ROOT BARRIER ADJACENT TO CURB OR PAVEMENT EDGE WHERE TREES ARE LESS THAN 5 FEET FROM CURBS AND PAVEMENTS. SEE DETAIL ON SHEET L5.

GROUNDCOVERS:
EXCAVATE PITS TO A MINIMUM OF 3 INCHES BELOW, AND TWICE THE ROOT BALL DIAMETER. WATER THOROUGHLY AND TAKE CARE TO ENSURE THAT ROOT CROWN IS AT PROPER GRADE, AS DETAILED.

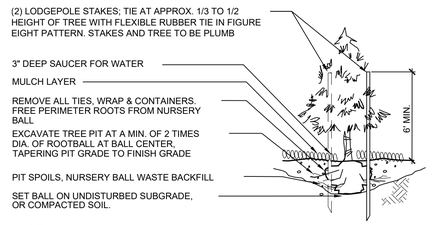
MULCH:
MULCH ALL LANDSCAPE AREAS NOT COVERED BY LAWN AND/OR SEED. APPLY SUFFICIENT QUANTITY TO PROVIDE A 3 TO 4-INCH MINIMUM DEPTH AFTER SETTLEMENT.

UTILITY CLEARANCES:
FIELD ADJUST PLANT LOCATIONS FOR 8-FOOT SEPARATION OF TREES/SHRUBS AND 2-FOOT SEPARATION FOR GROUNDCOVER FROM FIRE HYDRANTS AND UTILITY VAULTS.

CLEANUP AND PROTECTION:
DURING LANDSCAPE WORK, KEEP ALL PAVEMENT CLEAN AND WORK AREAS IN AN ORDERLY CONDITION. PROTECT LANDSCAPE WORK AND MATERIALS FROM DAMAGE DUE TO LANDSCAPE OPERATIONS AND TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIOD. TREAT, REPAIR, OR REPLACE DAMAGE LANDSCAPE WORK AS DIRECTED BY THE OWNER.

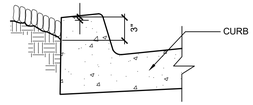
Provide minimum clearance btwn woody landscaping and underground utilities:
-7.5ft min. for sanitary sewer (SS) and storm (SD) lines, and;
-10ft min. for water lines.

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.

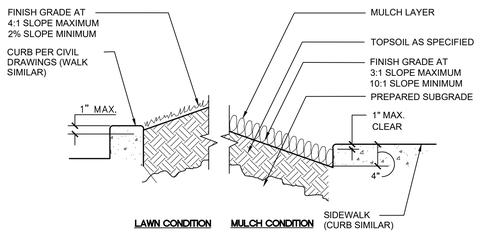


NOTE:
LIGHT FERTILIZER OVER PLANTING BED AFTER BACKFILL ONLY; NO FERTILIZER IN PLANTING PIT.
WORK PERIMETER ROOTS FREE OF NURSERY BALL.
BALL & PIT TO BE COURSELY SCARIFIED.

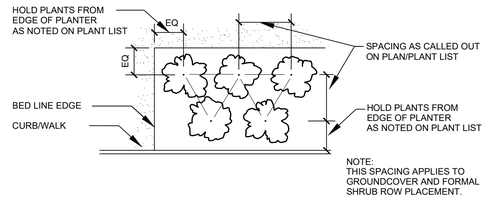
EVERGREEN TREE PLANTING/STAKING DETAIL
NOT TO SCALE



MULCH AT CURB DETAIL
NOT TO SCALE



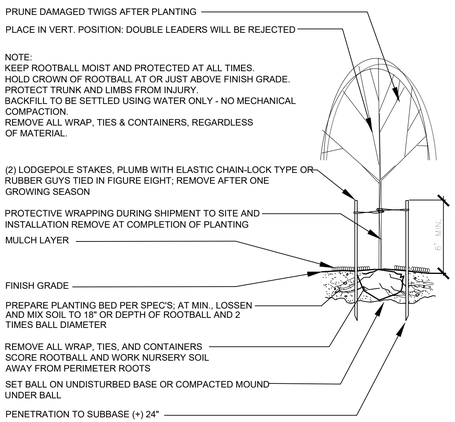
PLANTER SECTION DETAIL
NOT TO SCALE



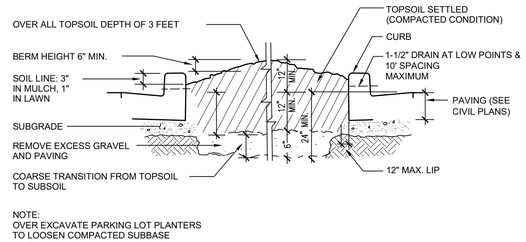
NOTE:
THIS SPACING APPLIES TO GROUNDCOVER AND FORMAL SHRUB ROW PLACEMENT.

PLANT MATERIAL SPACING DETAIL
NOT TO SCALE

PCR 002
PRCCP20231028



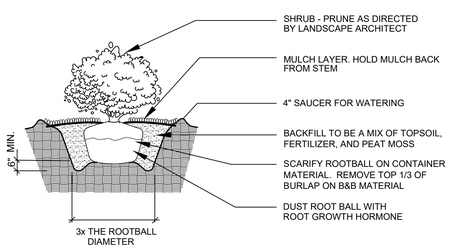
DECIDUOUS TREE PLANTING/STAKING DETAIL
NOT TO SCALE



NOTE:
OVER EXCAVATE PARKING LOT PLANTERS TO LOOSEN COMPACTED SUBBASE

SOIL DEPTH FOR PARKING LOT PLANTER DETAIL
NOT TO SCALE

DEDUCT ALT #1: IF LANDSCAPE CONTRACTOR CAN DEMONSTRATE WITH A SOIL ANALYSIS (OR SIMILAR) THAT PARKING LOT ISLAND PLANTERS HAVE EXISTING SOIL THAT HAS SIMILAR QUALITIES AS THE IMPORTED TOPSOIL, 6" OF ORGANIC COMPOST CAN BE INSTALLED IN THE PLANTERS AND CULTIVATED INTO THE TOP 12"-18" OF EXISTING SOIL



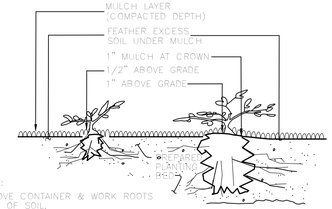
NOTE:
APPLY ADDITIONAL 4 OZ. 8-32-16 FERTILIZER INTO TOP 2" OF PLANTING MIX.

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

CUT AND REMOVE BURLAP FROM ROOT BALL

SHRUB PLANTING DETAIL
NOT TO SCALE

(VINE PLANTING SHALL BE SIMILAR TO THIS DETAIL. SEE DETAIL ON SHEET L7 AS WELL)



GROUNDCOVER PLANTING DETAIL
NOT TO SCALE

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

Staff:

Date:

THIS APPROVAL IS VOID AFTER 1 YEAR 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 PLANNING MANAGER, DESIGNEE, 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 city standards may result in rejection of installation.

APPROVED

BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE _____

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR 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 ENGINEERING SERVICES MANAGER.

No.	Date	By	Ckd.	Appr.	Revision
-	07/25/25	LRP	LRP	LRP	REVISIONS AROUND NORTH BUILDING
-	10/25/24	LRP	LRP	LRP	GRAPHIC SCALE CORRECTION

Title: LANDSCAPE NOTES & DETAILS FOR CIVIL PLANS PHASE 2 - WESLEY BRADLEY PARK

For: WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

STATE OF WASHINGTON · LAUREN R. PERRY · 488 · REGISTERED LANDSCAPE ARCHITECT · NO. 488 EXP. 2/18/27

Scale: Horizontal 1"=30' Vertical N/A

Designed LRP Drawn LRP Checked LP/JN Approved LRP Date 07/25/25

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

Job Number 16718

Sheet L4 of 10

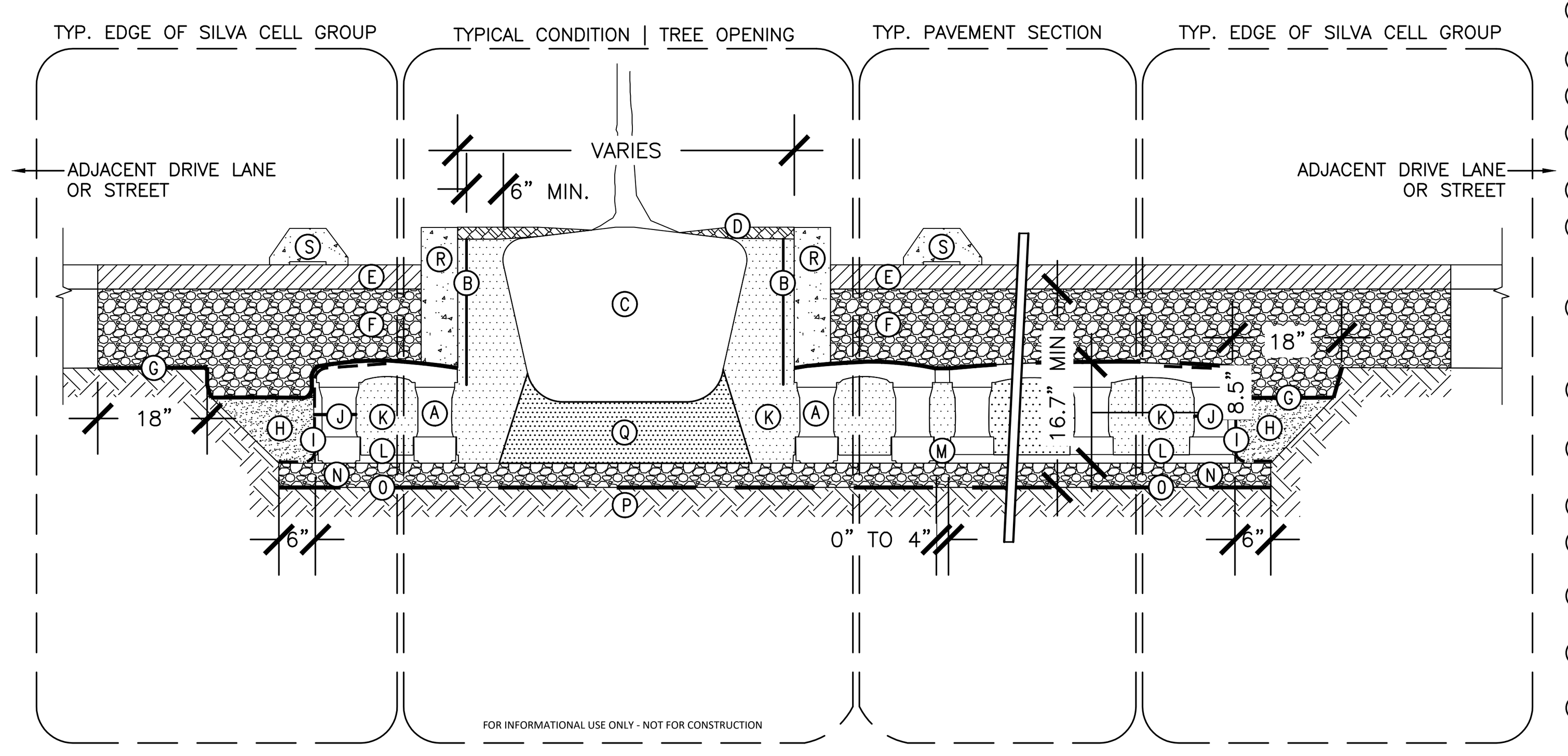
P:\16000s\16718\engineering\Phase 2\Landscape\16718-Ldwg 7/25/2025 4:57 PM LPERRY

Know what's **below.**
Call before you dig.
Dial 811

LANDSCAPE NOTES + DETAILS

FOR

PHASE 2 - WESLEY BRADLEY PARK



PARKING APPLICATION | FLEXIBLE.1x | 1x SILVA CELL SYSTEM FOR PAVERS OR ASPHALT PAVING ON AGGREGATE BASE – SECTION
NOT TO SCALE

K E Y
P L A N

- (A) SILVA CELL SYSTEM (DECK, BASE, AND POSTS)
- (B) DEEPROOT UB24–2 ROOT BARRIER. INSTALL DIRECTLY ADJACENT TO CONCRETE EDGE RESTRAINT
- (C) TREE ROOT PACKAGE, SIZE VARIES
- (D) 1–2" MULCH, PLACED IN TREE OPENING
- (E) PAVERS OR ASPHALT, PER PROJECT
- (F) 12" MIN. AGGREGATE BASE COURSE
- (G) GEOTEXTILE TO EDGE OF EXCAVATION
- (H) BACKFILL, TO WITHIN 4–6" BELOW TOP OF SILVA CELL DECKS. INSTALL IN 8" LIFTS, EACH COMPACTED TO 95% PROCTOR.
- (I) GEOGRID TO LINE PERIMETER OF SYSTEM WITH 6" TOE (OUTWARD FROM BASE) AND 12" EXCESS (OVER TOP OF DECK)
- (J) 3/16"x14" ZIP TIES, SECURING GEOGRID TO SILVA CELLS
- (K) PLANTING SOIL. INSTALL IN 12" LIFTS, EACH COMPACTED TO 70–80% PROCTOR
- (L) SILVA CELL BASE SLOPE, 5% MAX
- (M) 0" to 4" SPACING BETWEEN SILVA CELLS AT BASE
- (N) 4" MIN. AGGREGATE SUB BASE, COMPACTED TO 95% PROCTOR
- (O) GEOTEXTILE FABRIC, PLACED BELOW AGGREGATE SUB BASE
- (P) SUBGRADE, COMPACTED TO 95% PROCTOR
- (Q) PLANTING SOIL BELOW TREE ROOT PACKAGE, COMPACTED TO 85–90% PROCTOR
- (R) CONCRETE EDGE RESTRAINT BETWEEN AGGREGATE BASE COURSE AND TREE OPENING
- (S) OPTIONAL WHEEL STOP, PER PROJECT. PROTECT SILVA CELLS FROM DAMAGE WHEN ANCHORING TO PAVEMENT

N O T E S

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS
2. DO NOT SCALE DRAWINGS
3. PROVIDE SUPPLEMENTAL IRRIGATION FOR SEASONAL DROUGHT SUPPORT OF TREES & SOIL

NOTE: SILVA CELL OR APPROVED EQUAL STRUCTURAL SOIL PRODUCT. ALTERNATIVE MANUFACTURER PRODUCT INFORMATION TO BE SUBMITTED TO LANDSCAPE ARCHITECT WITH OTHER REQUIRED SUBMITTALS

SILVA CELL SPECIFICATIONS, ADDTIONAL

3.14 INSTALLATION OF GEOTEXTILE AND AGGREGATE BASE COURSE OVER THE DECK

A. Place geotextile over the top of the deck and extend to the edge of the excavation. Overlap joints a minimum of 18 inches (450 mm). Leave enough slack in the geotextile for the aggregate base course to push the geotextile down in the gaps in between the decks.
B. Install the aggregate base course (including aggregate setting bed if installing unit pavers) over the geotextile immediately after completing the installation of the fabrics. Work the aggregate from one side of the layout to the other so that the fabric and aggregate conform to the Silva Cell deck contours.
C. Maintain equipment used to place aggregate base course completely outside the limits of the Silva Cell excavation area to prevent damage to the installed system.
D. For large or confined areas, where aggregate cannot easily be placed from the edges of the excavated area, obtain approval for the installation procedure and types of equipment to be used in the installation from the Silva Cell manufacturer.
E. Compact aggregate base course(s) to 95 percent of maximum dry density in accordance with ASTM D698, Standard Proctor Method. Utilize a vibration or plate compactor with a maximum weight of 800 lbs (362.87 kg).
F. Do not drive vehicles or operate equipment over the completed aggregate base course.

3.15 INSTALLATION OF CONCRETE CURBS AT TREE OPENINGS, AGGREGATE SUBBASE AND PAVEMENT ABOVE THE SILVA CELL SYSTEM

A. Place concrete curbs along planting areas and tree openings as shown on the Drawings to retain the aggregate base course from migrating into the planting soil.
B. When staking concrete forms (e.g. curbs around the tree openings), prevent stakes from penetrating the Silva Cell decks.
C. Turn down edge of concrete paving to the Silva Cell deck along the edges of tree openings or planting areas to retain the aggregate base course material.
D. When paving type is a unit paver or other flexible material, provide a concrete curb under the paving at the edge of the Silva Cell deck to retain the aggregate base course material at the tree opening.
E. Place paving material over Silva Cell system in accordance with the Drawings.
   1. The Silva Cell system does not fully meet loading strength until the final paving is installed. Do not operate construction equipment on top of the Silva Cell system until paving installation has been completed.

F. Use care when placing paving or other backfill on top of Silva Cell system to prevent damage to the Silva Cell system or its components.

3.16 INSTALLATION OF ROOT BARRIERS

A. Install root barrier in accordance with manufacturer's installation instructions.

3.17 INSTALLATION OF PLANTING SOIL WITHIN THE TREE PLANTING AREA

A. Remove rubble, debris, dust and silt from the top of the planting soil within the tree opening that may have accumulated after the initial installation of the planting soil within the Silva Cells.
B. Install additional planting soil within the tree openings, to the depths indicated on the Drawings.
   1. Use the same soil used within the Silva Cells for planting soil within the tree openings.

C. Compact planting soil under the tree root ball to between 85 and 90 percent of maximum dry density in accordance with ASTM D698, Standard Proctor Method, to prevent settlement of the root ball.
D. Place trees in accordance with the Drawings.

3.18 PROTECTION

A. Keep construction traffic away from the limits of the Silva Cells until the final pavement profile is in place. The Silva Cell system does not fully meet loading strength until the final paving is installed.
   1. Do not operate equipment directly on top of the Silva Cell system until paving installation has been completed.
   2. Provide fencing and other barriers to prevent vehicles from entering into the Silva Cell area.

B. When the Silva Cell installation is completed and the permanent pavement is in place, limit traffic and construction related activities to only loads less than the design loads.

3.19 CLEAN UP

A. Perform clean up during installation and upon completion of the Work. Maintain the site free of soil, sediment, trash and debris. Remove excess soil materials, debris, and equipment from the site following completion of the Work of this Section.
B. Repair damage to adjacent materials and surfaces resulting from installation of this Work using mechanics skilled in remedial work of the construction type and trades affected.

Provide minimum clearance btwn woody landscaping and underground utilities:
-7.5ft min. for sanitary sewer (SS) and storm (SD) lines, and;
-10ft min. for water lines.

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 (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 – 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)

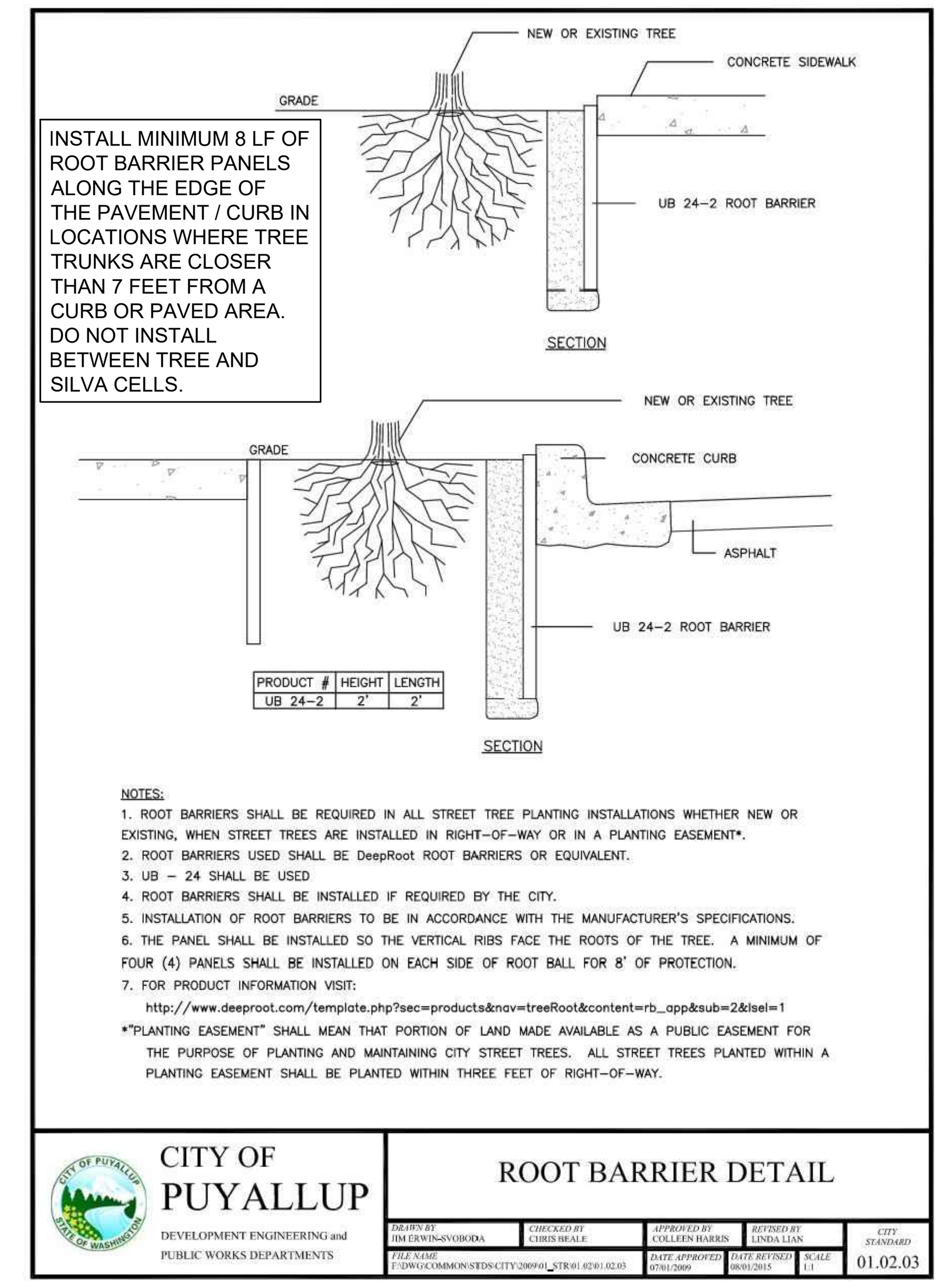
(1)7) INSTALL AND AMEND TOPSOILS – TO AVOID STRATIFIED LAYERS, FIRST PLACE SEVEN INCHES (7") OF APPROVED TOPSOIL IN THE PREPARED/SCARIFIED PLANTING STRIP AREA AND MECHANICALLY TILL IN FIVE INCHES (5") OF APPROVED COMPOST; FOLLOW THIS PROCEDURE TWICE TO ACHIEVE THE TOTAL 24" TOPSOIL DEPTH. FINISHED GRADE 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

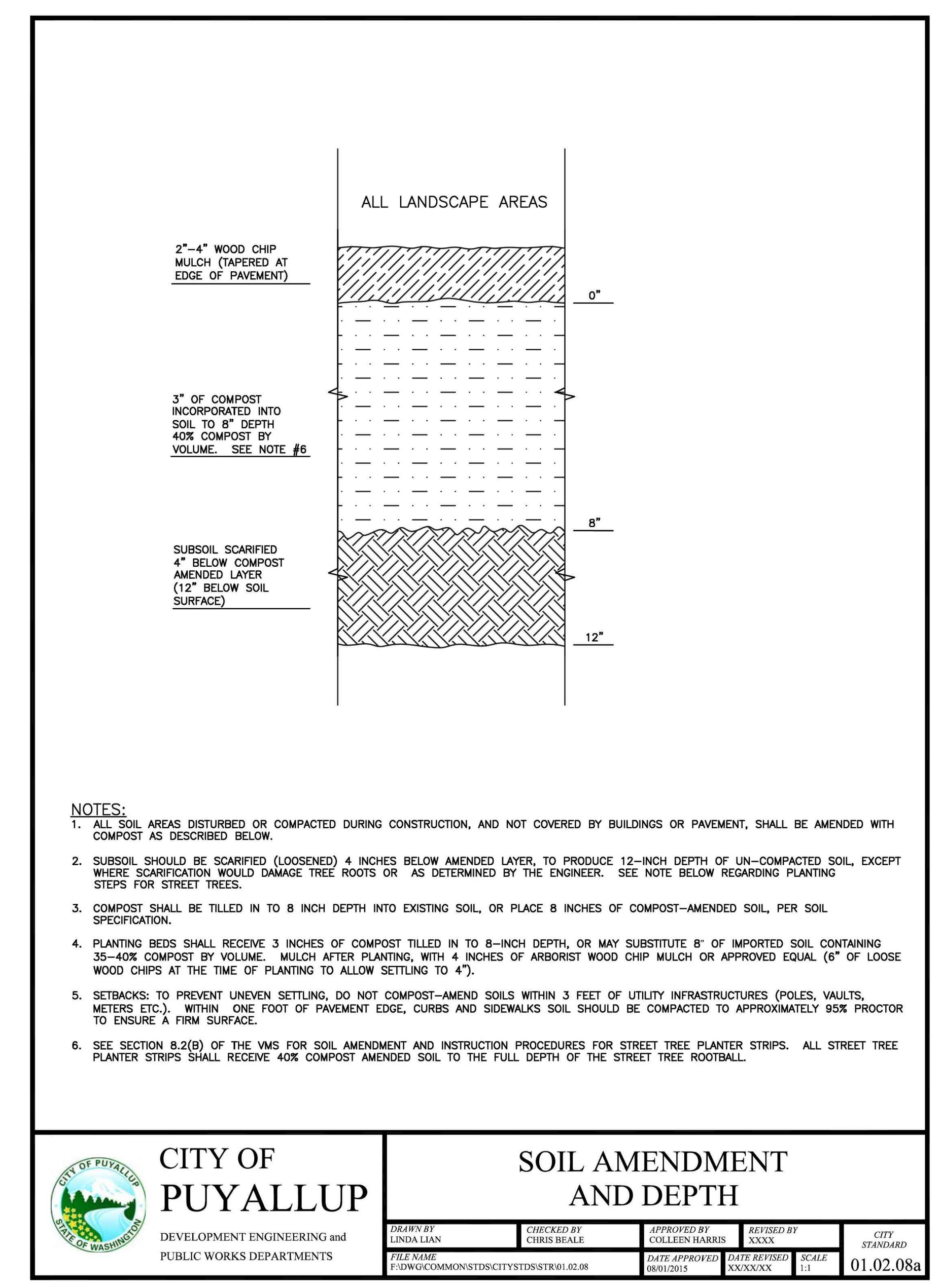
SEE SHEET L4 FOR ADDITIONAL PLANTING SPECIFICATIONS. CONFORM TO THE SPECIFICATIONS AND DRAWINGS IN THESE LANDSCAPE PLANS AND THE REQUIREMENTS OF CITY OF PUYALLUP VEGETATION MANAGEMENT STANDARDS (VMS). WHERE THERE IS A CONFLICT CONFORM TO THE MORE STRINGENT REQUIREMENTS.

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 AMENDMENT AND DEPTH
NOT TO SCALE



ROOT BARRIER
NOT TO SCALE



PCR 002
PRCCP20231028

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

Staff:
Date:

THIS APPROVAL IS VOID AFTER 1 YEAR 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 PLANNING MANAGER, DESIGNEE, 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 city standards may result in rejection of installation.

APPROVED

BY ____________
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE ____________

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No.	Date	By	Ckd.	Appr.	Revision
-	07/25/25	LRP	LRP		REVISIONS AROUND NORTH BUILDING
-	10/25/24	LRP	LRP		GRAPHIC SCALE CORRECTION

Title: LANDSCAPE NOTES & DETAILS FOR CIVIL PLANS PHASE 2 - WESLEY BRADLEY PARK

For: WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

STATE OF WASHINGTON — LAUREN R. PERRY — NO. 488 EXP. 2/18/27 — LANDSCAPE ARCHITECT

Scale: Horizontal 1"=30' Vertical N/A

Designed LRP
Drawn LRP
Checked LP/JV
Approved LRP
Date 07/25/25

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

Job Number 16718
Sheet L5 of 10

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IRRIGATION PLAN NORTH

FOR

PHASE 2 - WESLEY BRADLEY PARK

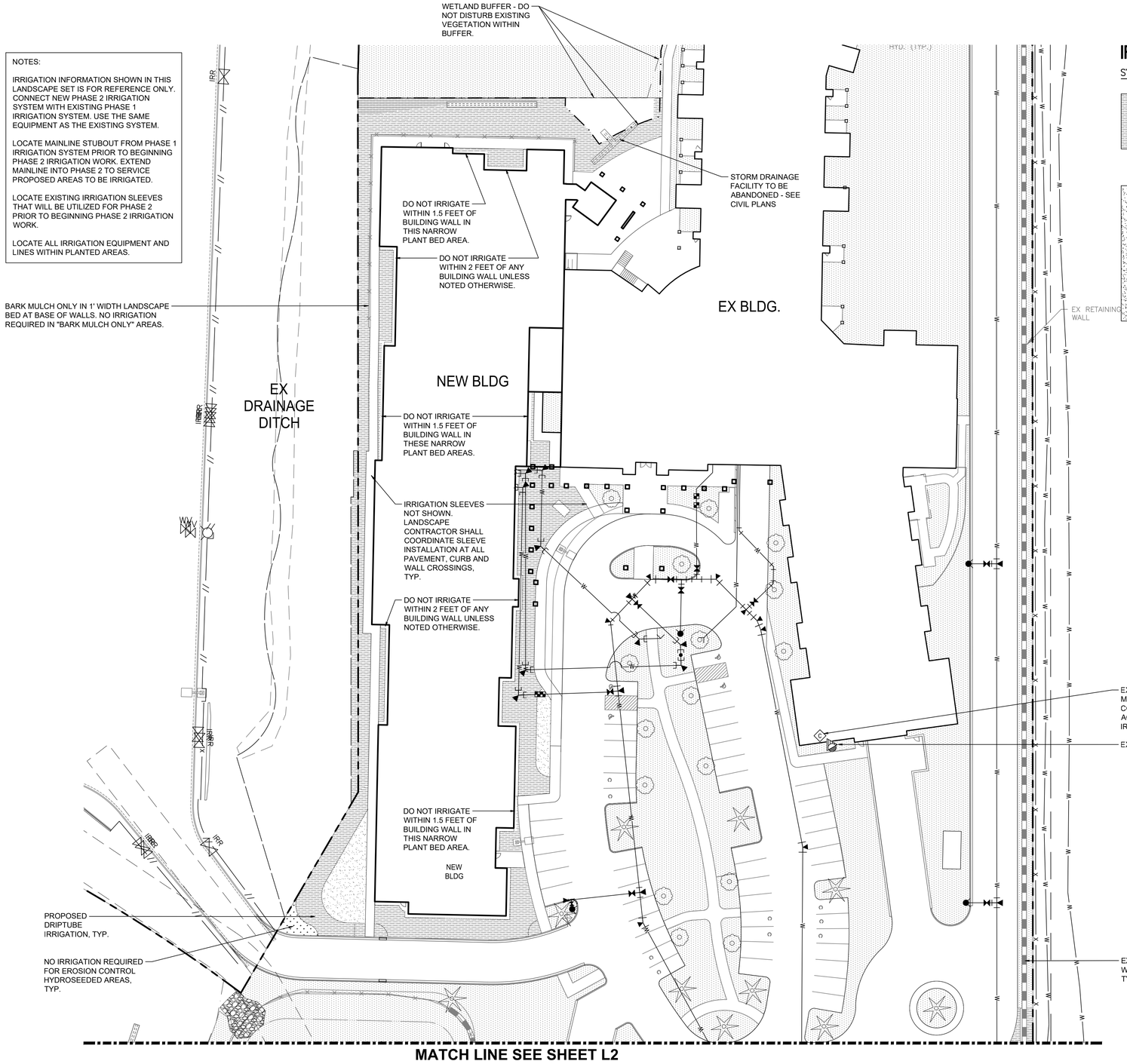
NOTES:

IRRIGATION INFORMATION SHOWN IN THIS LANDSCAPE SET IS FOR REFERENCE ONLY. CONNECT NEW PHASE 2 IRRIGATION SYSTEM WITH EXISTING PHASE 1 IRRIGATION SYSTEM. USE THE SAME EQUIPMENT AS THE EXISTING SYSTEM.

LOCATE MAINLINE STUBOUT FROM PHASE 1 IRRIGATION SYSTEM PRIOR TO BEGINNING PHASE 2 IRRIGATION WORK. EXTEND MAINLINE INTO PHASE 2 TO SERVICE PROPOSED AREAS TO BE IRRIGATED.

LOCATE EXISTING IRRIGATION SLEEVES THAT WILL BE UTILIZED FOR PHASE 2 PRIOR TO BEGINNING PHASE 2 IRRIGATION WORK.

LOCATE ALL IRRIGATION EQUIPMENT AND LINES WITHIN PLANTED AREAS.



IRRIGATION SCHEDULE

SYMBOL — DRIP EMITTER

HUNTER LANDSCAPE DRIPLINE COMPONENTS WITH HUNTER COMPRESSION FITTINGS AND ADAPTERS
ICZ-101-LF WITH 40 PSI PRESSURE REGULATOR
PLD-04-18-250 DRIP EMITTER TUBING — 0.40 GALLONS PER HOUR FLOW, EMITTERS 18" O.C.
AIR/VACUUM RELIEF RELIEF VALVE KIT, IN VALVE BOX
GALVANIZED TIE-DOWN STAKES, AT 3' ON CENTER

NOZZLE	PSI	GPM	PRECIP.	RADIUS
HUNTER-1000 5 F, TH, TT, H, Q SERIES	40	0.75, 0.57, 0.43, 0.37, 0.19		5'
HUNTER-1000 8-15 F, TH, TT, H, Q SERIES	40	0.65, 0.48, 0.37, 0.32, 0.16	0.43	8'
HUNTER-1000 8-15 F, TH, TT, H, Q SERIES	40	0.65, 0.48, 0.37, 0.32, 0,16	0.43	10'
HUNTER-1000 8-15 F, TH, TT, H, Q SERIES	40	0.65, 0.48, 0.37, 0.32, 0,16	0.43	12'
HUNTER-2000 13-21 F, TQ, TT, H, Q SERIES	40	1.29, 0.95, 0.74, 0.63, 0.33	0.39	15'
HUNTER SS530, ES515 SERIES	30	1.30, 0.65	–	5'x30'/15'
HUNTER-2000 13-21 F, TQ, TT, H, Q SERIES	40	1.48, 1.10, 0.86, 0.77, 0.43	0.44	20'
HUNTER-3000 22-30 F, TQ, TT, H, Q SERIES	40	3.64, 2.73, 2.12 1.82, 0.86	0.43	30'

PLASTIC BALL VALVE, MATCH LINE SIZE, IN VALVE BOX

HUNTER HQ-33LRC ¾" QUICK COUPLING VALVE, IN VALVE BOX, PROVIDE TWO KEYS AND SWIVELS

HUNTER ICV 101G AND 151G REMOTE CONTROL VALVE, IN VALVE BOX, ONE VALVE PER BOX. MAXIMUM 15 GPM THROUGH 101G, MAXIMUM 50 GPM THROUGH 151G

DRIP IRRIGATION: HUNTER ICZ-101-LF VALVE, ONE VALVE PER BOX

EXISTING HUNTER RAIN-CLIK WIRED SENSOR. INSTALL AT A LOCATION EXPOSED TO WEATHER

EXISTING HUNTER I-CORE IRRIGATION CONTROLLER

P.O.C. — WILKINS 950 XLT– 1-1/2" 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

MAINLINE – SCH 40 PVC (18" COVER); SIZE PER PLAN, 1-1/2" SIZE MINIMUM

LATERAL – SCH 40 PVC (12" COVER); SIZE PER PLAN, 3/4" SIZE MINIMUM

SLEEVE – CLASS 200 PVC; 24" MINIMUM COVER AT VEHICLE CROSSINGS AND 18" MINIMUM COVER IN LANDSCAPE AREAS, 6" SIZE

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.)

N

1"=30'

0 15 30 60

PCR 002
PRCCP20231028

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

Staff:

Date:

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APPROVED

BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

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No.	Date	By	Ckd.	Revision
–	07/25/25	LRP	LRP	REVISIONS AROUND NORTH BUILDING
–	10/25/24	LRP	LRP	GRAPHIC SCALE CORRECTION

Title:
IRRIGATION PLAN NORTH
FOR
CIVIL PLANS
PHASE 2 - WESLEY BRADLEY PARK

For:
WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

STATE OF WASHINGTON
LAUREN R. PERRY
LANDSCAPE ARCHITECT
NO. 4186 EXP. 2/19/27

Scale: Horizontal 1" = 30' Vertical N/A

Designed LRP
Drawn LRP
Checked LP/JV
Approved LRP
Date 07/25/25

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

Job Number 16718

Sheet L6 of 10

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Know what's **below.**
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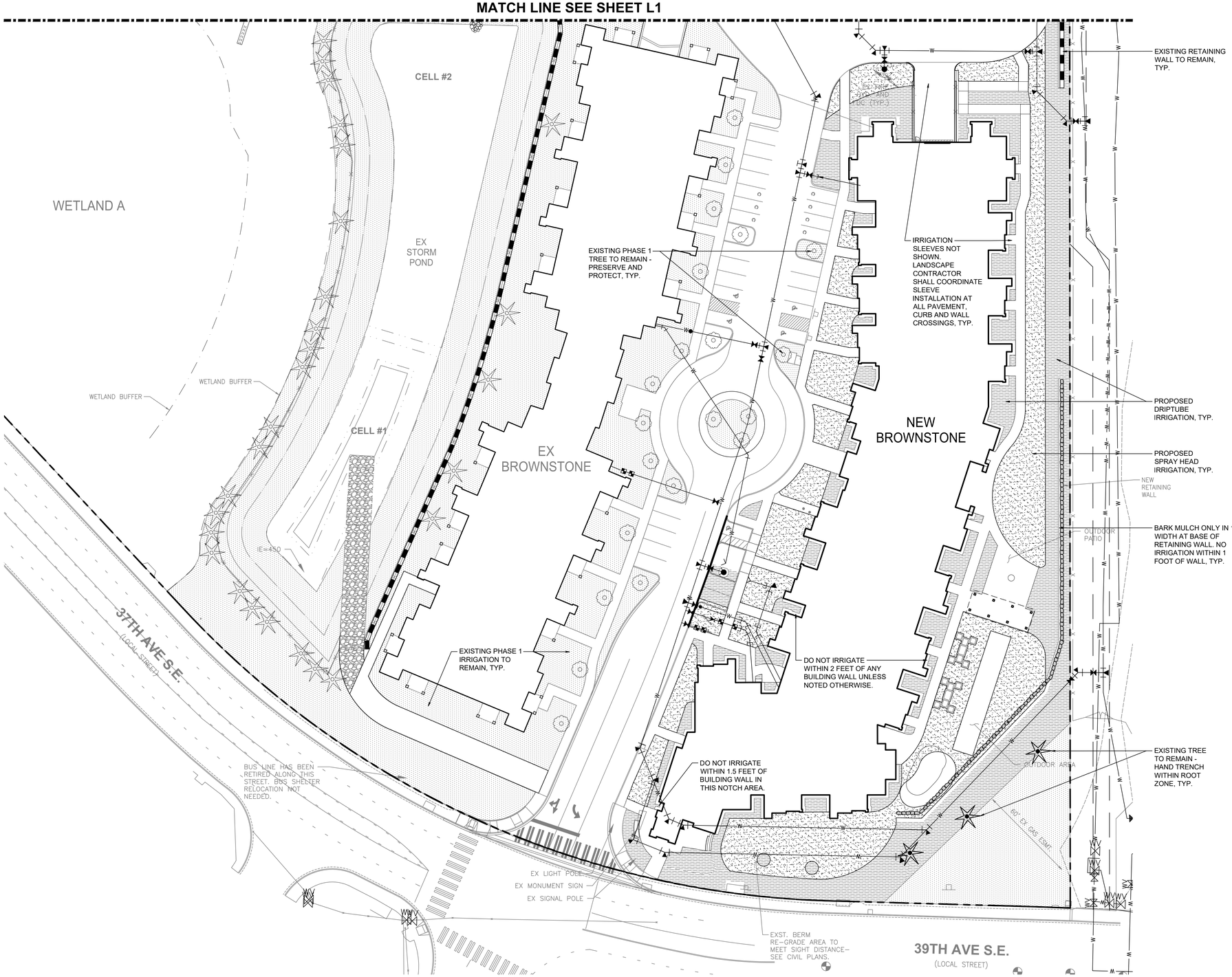
IRRIGATION PLAN SOUTH

FOR

PHASE 2 - WESLEY BRADLEY PARK



NOTES:

SEE NOTES ON SHEET L6

N

1"=30'

0 15 30 60

PCR 002
PRCCP20231028

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

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No.	Date	By	Ckd.	Appr.	Revision
–	10/25/24	LRP	LRP	LRP	GRAPHIC SCALE CORRECTION
–	07/25/25	LRP	LRP	LRP	REVISIONS AROUND NORTH BUILDING

Title:
IRRIGATION PLAN SOUTH
FOR
CIVIL PLANS
PHASE 2 - WESLEY BRADLEY PARK

For:
WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

STATE OF WASHINGTON · LAUREN R. PERRY · LANDSCAPE ARCHITECT · NO. 488 EXP. 2/18/27

Scale: Horizontal 1"=30' Vertical N/A

Designed LRP
Drawn LRP
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Barghausen Consulting Engineers, LLC.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222 **barghausen.com**

Job Number **16718**

Sheet **L7** of **10**

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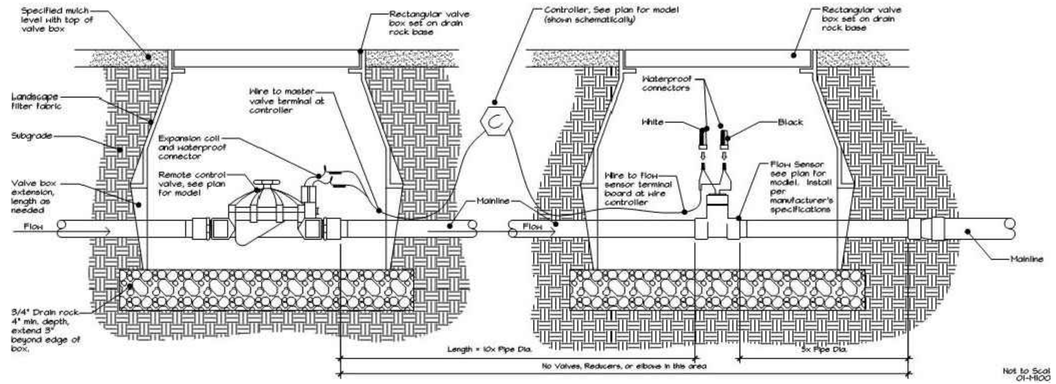
IRRIGATION NOTES + DETAILS

FOR

PHASE 2 - WESLEY BRADLEY PARK

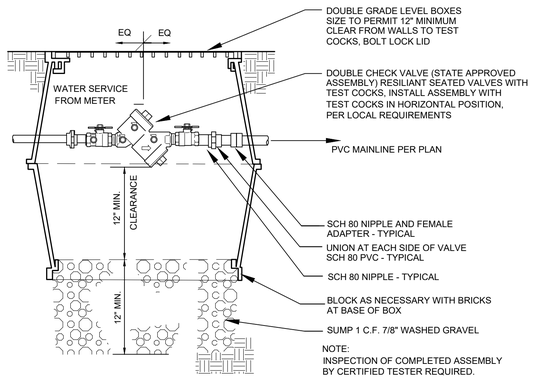
IRRIGATION NOTES

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 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 18 INCHES, LATERALS 12 INCHES, AND SLEEVES 24" INCHES 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.



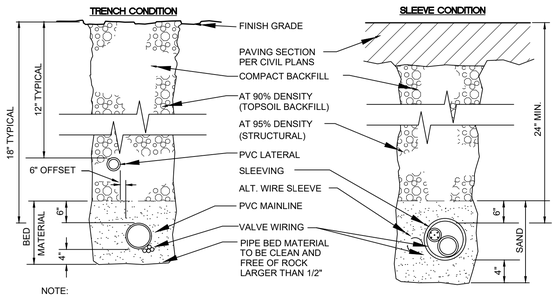
MASTER VALVE and FLOW SENSOR

NOT TO SCALE



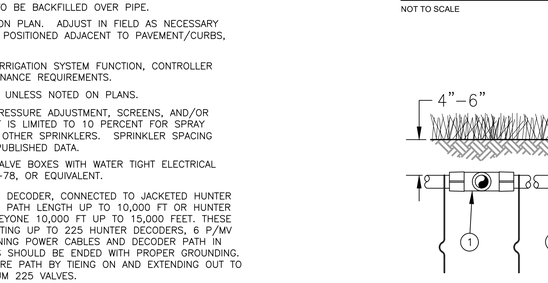
CHECK VALVE ASSEMBLY DETAIL

NOT TO SCALE



NOTE:
SLEEVING MATERIAL SHALL BE PVC SCH 40.
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)

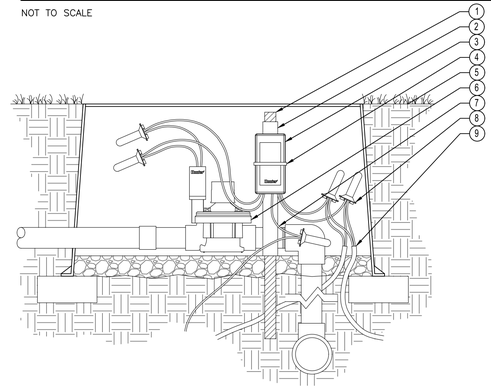
SLEEVE/TRENCHING DETAIL



NOTES:
1. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.
2. 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.
3. INSERTION PLOW AND TRENCHED INSTALLATIONS DO NOT REQUIRE TIE DOWN STAKES.

DRIPLINE BURIAL

NOT TO SCALE



ICD-100 DECODER ON STAKE

NOT TO SCALE

PCR 002
PRCCP20231028

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

Staff:

Date:

THIS APPROVAL IS VOID AFTER 1 YEAR 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 PLANNING MANAGER, DESIGNEE, OR PROJECT PLANNER.

NOTE: If street trees are required, Cull 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 city standards may result in rejection of installation.

APPROVED

BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE _____

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR 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 ENGINEERING SERVICES MANAGER.

No.	Date	By	Ckd.	Appr.	Revision
-	10/25/24	LBP	LBP	LBP	GRAPHIC SCALE CORRECTION
-	07/25/25	LBP	LBP	LBP	REVISIONS AROUND NORTH BUILDING

Title:
IRRIGATION NOTES & DETAILS
FOR
CIVIL PLANS
PHASE 2 - WESLEY BRADLEY PARK

For:
WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

STATE OF WASHINGTON · LAUREN R. PERRY · NO. 488 EXP. 2/18/27 · LANDSCAPE ARCHITECT

Scale: Horizontal 1"=30" Vertical N/A

Designed LBP Drawn LBP Checked LP/JV Approved LBP Date 07/25/25

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

Job Number **16718**

Sheet **L8** of **10**

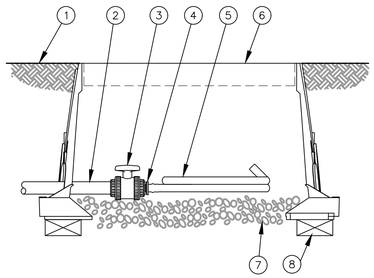
P:\16000s\16718\engineering\Phase 2\Landscape\16718-L.dwg 7/25/2025 4:57 PM LPERRY

Know what's **below.**
Call before you dig.
Dial 811

IRRIGATION DETAILS

FOR

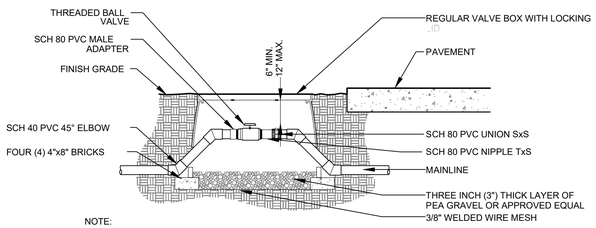
PHASE 2 - WESLEY BRADLEY PARK



1. FINISH GRADE
2. PVC DRIP MANIFOLD PIPE
3. PVC 1" X 3/4" TRUE UNION BALL VALVE
4. 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

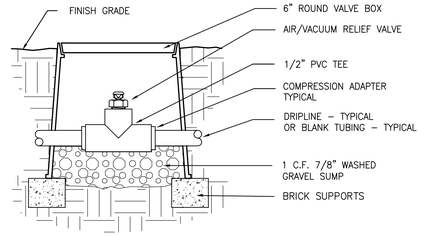
NOT TO SCALE



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

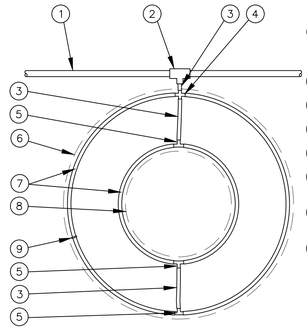
NOT TO SCALE



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

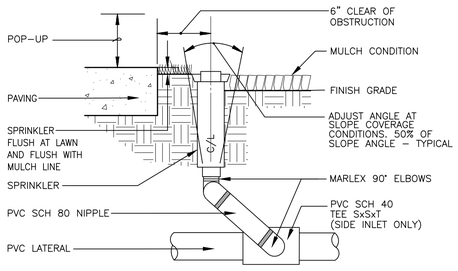


1. PVC DRIP MANIFOLD PIPE
2. PVC SCH 40 TEE OR EL
3. BLANK TUBING
4. BARB CROSS INSERT FITTING
5. BARB TEE INSERT FITTING
6. PROJECTED CANOPY LINE OF TREE
7. SUB-SURFACE DRIPLINE: SEE IRRIGATION SCHEDULE
8. PLACE AS SHOWN (LENGTH AS REQUIRED) ROOT BALL
9. TIE DOWN STAKE: QUANTITY AS REQUIRED, SEE NOTES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

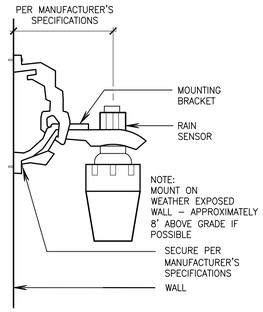
NOT TO SCALE



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

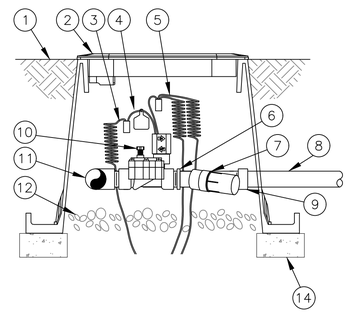
POP-UP RISER ASSEMBLY

NOT TO SCALE



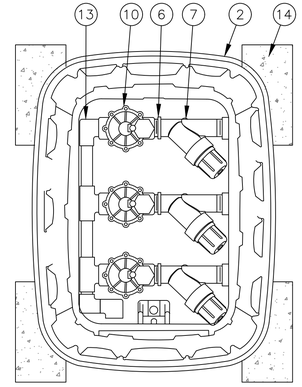
RAIN SENSOR DETAIL

NOT TO SCALE



SIDE VIEW

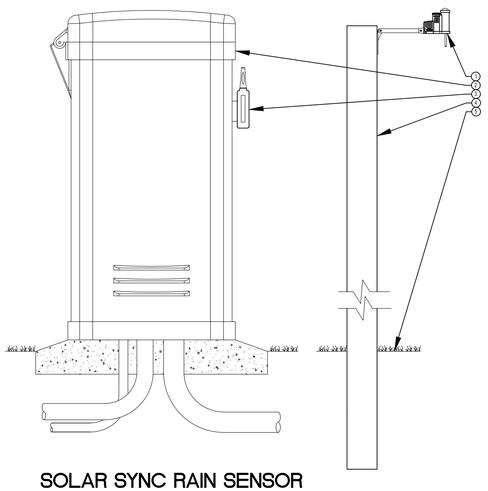
1. FINISH GRADE
2. STANDARD VALVE BOX WITH COVER:
3. WATERPROOF CONNECTION:
4. VALVE ID TAG
5. 30-INCH LINEAR LENGTH OF WIRE, COILED
6. 1" X ¾" REDUCING COUPLING
7. PRESSURE REGULATING FILTER:
8. LATERAL PIPE
9. PVC SCH 40 FEMALE ADAPTOR OR REDUCER
10. REMOTE CONTROL VALVE
11. PVC SCH 40 TEE OR ELL TO 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

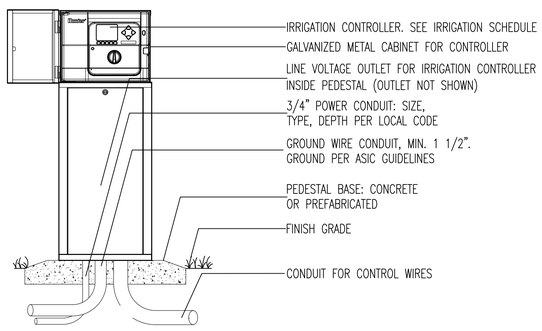
DRIP IRRIGATION VALVE

NOT TO SCALE



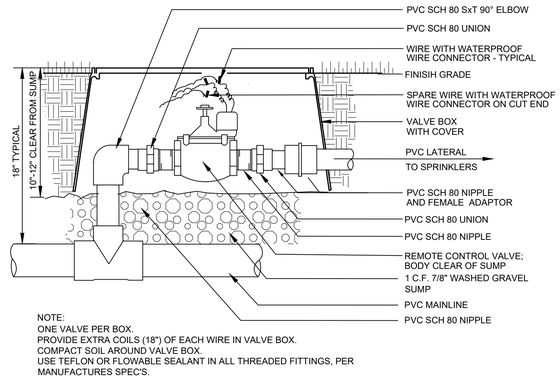
SOLAR SYNC RAIN SENSOR

NOT TO SCALE



IRRIGATION CONTROLLER - PEDESTAL MOUNT

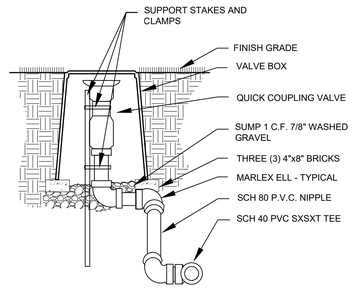
NOT TO SCALE



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

PCR 002
PRCCP20231028

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

Staff:
Date:

THIS APPROVAL IS VOID AFTER 1 YEAR 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 PLANNING MANAGER, DESIGNEE, 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 city standards may result in rejection of installation.

APPROVED

BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE: _____

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR 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 ENGINEERING SERVICES MANAGER.

No.	Date	By	Ckd.	Appr.	Revision
-	07/25/25	LRP	LRP	LRP	REVISIONS AROUND NORTH BUILDING
-	10/25/24	LRP	LRP	LRP	GRAPHIC SCALE CORRECTION

Title:
IRRIGATION DETAILS
FOR
CIVIL PLANS
PHASE 2 - WESLEY BRADLEY PARK

For:
WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209

STATE OF WASHINGTON
LAUREN R. PERRY
No. 4884 EXP. 2/18/26
LANDSCAPE ARCHITECT

Scale: Horizontal 1" = 30' Vertical N/A

Designed LRP
Drawn LRP
Checked LP/JV
Approved LRP
Date 07/25/25

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

7/25/2025 4:57 PM LPERRY

Job Number 16718

Sheet L9 of 10

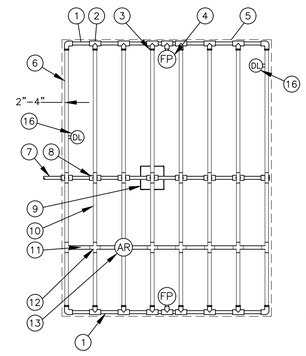
P:\16000s\16718\engineering\Phase 2\Landscape\16718-L.dwg

Know what's **below.**
Call before you dig.
Dial 811

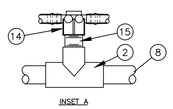
IRRIGATION DETAILS

FOR

PHASE 2 - WESLEY BRADLEY PARK



1. PVC EXHAUST HEADER
2. PVC SCH 40 TEE OR EL (TYPICAL)
3. BARB X MALE FITTING:
4. FLUSH POINT (TYPICAL)
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. RAIN BIRD XF SERIES BLANK TUBING
12. BARB X BARB INSERT TEE OR CROSS
13. ½" AIR RELIEF VALVE: RAIN BIRD MODEL: ARV050
14. BARB X FEMALE FITTING:
15. ¾" PVC NIPPLE, LENGTH AS NECESSARY
16. DRIPLINE INDICATOR. SEE DETAIL FOR ADDITIONAL INFORMATION



INSET A

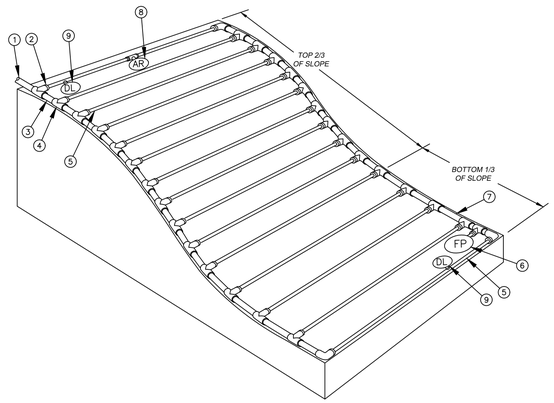
XFS Dripline Maximum Lateral Lengths (Feet)

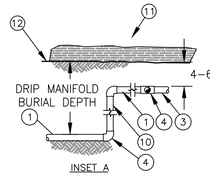
Inlet Pressure psi	*12" Spacing Nominal Flow (gph)*		*18" Spacing Nominal Flow (gph)*		*24" Spacing Nominal Flow (gph)*	
	0.6	*0.9*	*0.6*	*0.9*	*0.6*	*0.9*
15	*273*	*155*	*314*	*250*	*424*	*322*
20	*318*	*169*	*353*	*294*	*508*	*368*
30	*360*	*230*	*413*	*350*	*586*	*414*
40	*395*	*255*	*465*	*402*	*652*	*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 MANUFACTURER'S INSTALLATION GUIDE FOR SUGGESTED SPACINGS.
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





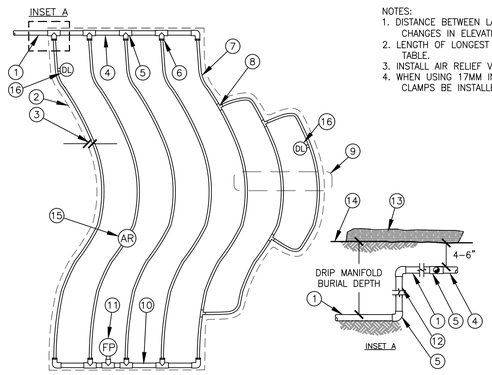
INSET A

NOTES:
- DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. DISTANCE BETWEEN LATERAL ROWS FOR BOTTOM 1/3 OF SLOPE TO BE SPACED GREATER THAN OPTIMAL ROW DISTANCE. SEE RAIN BIRD XFD DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACING.
- LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH SHOWN IN THE ACCOMPANYING TABLE.
- WHEN ELEVATION CHANGE EXCEEDS 8 FEET IT IS RECOMMENDED THAT A NEW DRIPLINE ZONE BE CREATED.
- INSTALL AIR RELIEF VALVE AT HIGH POINTS IN DRIP LATERAL.
- WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.

1. PVC DRIP MANIFOLD FROM CONTROL ZONE VALVE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
2. BARB X MALE FITTING:
3. PVC SUPPLY HEADER
4. PVC SCH 40 TEE OR EL (TYPICAL)
5. SUB–SURFACE DRIPLINE:
6. FLUSH POINT
7. PVC FLUSH HEADER
8. ½" AIR RELIEF VALVE
9. DRIPLINE INDICATOR. SEE DETAIL FOR ADDITIONAL INFORMATION
10. PVC RISER PIPE
11. TURF OR MULCH
12. FINISH GRADE

DRIPLINE SLOPED LAYOUT

NOT TO SCALE

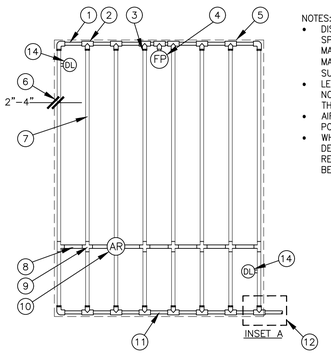


NOTES:
1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE INSTALLATION SPECIFICATIONS ON MANUFACTURER'S WEB SITE FOR SUGGESTED SPACING.
2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM SPACING SHOWN IN THE ACCOMPANYING 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.

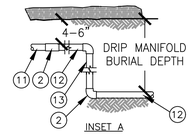
1. PVC SUPPLY PIPE FROM RAIN BIRD CONTROL ZONE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
2. PERIMETER OF AREA
3. PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"–4" FROM PERIMETER OF AREA
4. PVC SUPPLY MANIFOLD
5. PVC SCH 40 TEE OR EL (TYPICAL)
6. BARB X MALE FITTING
7. SUB–SURFACE DRIPLINE:
8. ARB X BARB INSERT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

DRIPLINE ODD CURVES 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 MANUFACTURER'S 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.

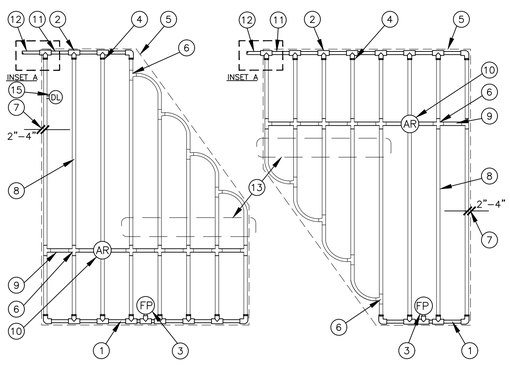


1. PVC EXHAUST HEADER
2. PVC SCH 40 TEE OR EL (TYPICAL)
3. BARB X MALE FITTING:
4. FLUSH POINT (TYPICAL)
5. PERIMETER OF AREA
6. PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"–4" FROM PERIMETER OF AREA
7. SUB–SURFACE DRIPLINE:
8. BLANK TUBING
9. BARB X BARB INSERT TEE OR CROSS:
10. ½" AIR RELIEF VALVE
11. 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

XFS Dripline Maximum Lateral Lengths (Feet)						
Inlet Pressure psi	12" Spacing		18" Spacing		24" Spacing	
	Nominal Flow (gph)		Nominal Flow (gph)		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*

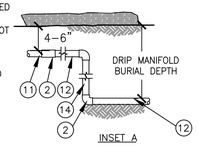
DRIPLINE END FEED LAYOUT

NOT TO SCALE



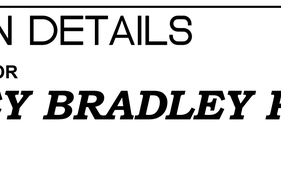
1. PVC EXHAUST HEADER
2. PVC SCH 40 TEE OR EL (TYPICAL)
3. FLUSH POINT (TYPICAL)
4. BARB X MALE FITTING:
5. PERIMETER OF AREA
6. BARB X BARB INSERT TEE OR CROSS:
7. PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"–4" FROM PERIMETER OF AREA
8. SUB–SURFACE DRIPLINE:
9. BLANK TUBING
10. ½" AIR RELIEF VALVE
11. 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 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.



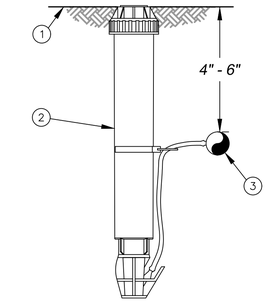
DRIPLINE IRREGULAR SHAPED LAYOUT

NOT TO SCALE



1. PVC EXHAUST HEADER
2. PVC SCH 40 TEE OR EL (TYPICAL)
3. BARB X MALE FITTING:

NOTES:
- DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE MANUFACTURER'S 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. FINISH GRADE/TURF
2. OPERATION INDICATOR
3. SUB–SURFACE DRIPLINE

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.

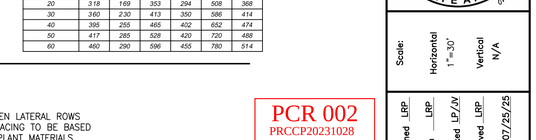
DRIP IRRIGATION DRIPLINE INDICATOR

NOT TO SCALE

No.	Date	By	Ckd.	Appr.	Revision
–	07/25/25	LRP	LRP	LRP	REVISIONS AROUND NORTH BUILDING
–	10/25/24	LRP	LRP	LRP	GRAPHIC SCALE CORRECTION

Title: IRRIGATION DETAILS FOR CIVIL PLANS PHASE 2 - WESLEY BRADLEY PARK

For: WESLEY HOMES
815 SOUTH 216TH STREET
DES MOINES, WA 98190
(206) 870-1209



Scale: Horizontal 1"=30' Vertical N/A

Designed LRP Drawn LRP Checked LP/JN Approved LRP Date 07/25/25

PCR 002
PRCCP20231028

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

Staff:

Date:

THIS APPROVAL IS VOID AFTER 1 YEAR 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 PLANNING MANAGER, DESIGNEE, 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 city standards may result in rejection of installation.

APPROVED

BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE _____

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR 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 ENGINEERING SERVICES MANAGER.

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

Job Number 16718

Sheet L10 of 10

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