

Building | Planning | Code Enforcement P.O. Box 9, 230 Davidson Avenue (360) 225-7299, www.ci.woodland.wa.us

NOTICE OF DECISION

Columbia River Carbonates – Storage and Loadout

Land Use Application Nos.:	SPR 21-008 (Site Plan Review – Type 1)		
Applicant:	Columbia River Carbonates Braden Wale 300 North Pekin RD Woodland, WA 98674		
Property Owner:	Columbia River Carbonates 300 North Pekin Road Woodland, WA 98674		
Site Location:	289 North Pekin Road Woodland, WA 98674		
Parcel & Size:	507350116, 10.06 acres		
Zoning Designation:	Heavy Industrial, I-2		
Date Application Received:	September 8, 2021		
Notice of Application & Likely DNS issued:	N/A		
Comment Period & SEPA	N/A		
Appeal Period Ended:			
Notice of Decision Issued:	September 27, 2021		
DRC Decision:	Approve with Conditions		

I. DESCRIPTION OF PROPOSAL

A previous site plan was approved in 2016 (216-902.SPR.SEPA). This proposal modifies the previous approval. CRC proposes to expand the site improvements to include construction of a new pole building (30 ft. x 70 ft.) for storage, expansion of onsite paving and parking, and installation of landscaping.

II. LOCATION OF PROPOSED DEVELOPMENT

The site is located at 300 North Pekin RD, Woodland, WA. The parcel number of this proposal is 507350116.

III. REVIEW AUTHORITY

Per WMC 19.08.010, department staff as assigned by the director or the Development Review Committee shall have the authority to review and approve, deny, modify, or conditionally approve, land use or environmental permits or licenses required from the City for a project action, including, but not limited to, site plan review, boundary line adjustments, administrative temporary and conditional use permits, building permits and other construction permits, SEPA procedural and substantive determinations, short plats, binding site plans, minor variances, minor modifications to approved administrative conditional use permits and conditional use permits, phasing and expiration extensions of subdivision preliminary plats, sign permits, certificates of occupancy, critical area permits, floodplain development permits, and shoreline exemptions, and to provide interpretations of codes and regulations applicable to such projects.

IV. FINDINGS

Per Woodland Municipal Code (WMC) 19.08.030, site plan reviews shall be approved, approved with conditions, or denied by the Development Review Committee and decisions shall be issued by the Community Development Department.

Development Impact Fees – Fire | WMC 3.41

Finding 1: Fire Impact Fees are required for the proposed building addition. Fees are calculated based on \$.51 per sq ft of building. Fees are calculated and due at the time of building permit issuance. Fee is estimated to be $(2,100 \times 50.51) = $1,071$ for the project. A condition of approval has been added which requires the fees be calculated and paid at the time of building permit issuance. *See Conditions #1 and #2.*

Conclusion: As conditioned, the proposal can comply with this requirement.

Development Impact Fees – Transportation | WMC 3.42

Finding 2: Transportation Impact Fees (TIF) are required on new development to support future transportation improvements within the city per WMC 3.42. The TIF is calculated based on \$838 per PM peak hour trip (PMPHT) generated by the project

based on the project Traffic Study or where no study is prepared, based on trip generation in accordance with Institute of Transportation Engineers (ITE) published data.

Finding 3: For this proposal, trip generation was evaluated under the use classification "#140 – Manufacturing" from the ITE 10th Edition manual. The classification calls for 0.67 peak hour trips per 1,000 square feet.

Finding 4: The proposed pole building is 2,100 square feet. Peak hour trips are 0.67 x 2.1 or 1.407 trips. The number of peak hour trips results in an estimated Transportation Impact Fee of $(1.407 \times \$33) = \$1,179.07$ for the project. Actual impact fee to be calculated and paid at the time of building permit issuance. *See Conditions #1 and #3.*

Conclusion: As conditioned, the project can comply with this requirement.

Streets and Sidewalks | WMC 12

Finding 5: Street and frontage improvements were completed as part of a previous project phase and are not applicable to this proposal.

Finding 6: Street trees along the sidewalk in the right-of-way are required. The proposed landscaping plan includes trees selected from the Woodland Street Tree List that is appropriate for the location (Shademaster Honeylocust).

Conclusion: The proposal can comply with the development standards.

Water and Sewage | WMC 13

Finding 7: The proposal does not include service connections for water and sewer. Water and sewer connection fees will not be required.

Finding 8: Water and sewer main extensions are not applicable to this proposal.

Conclusion: The proposal can comply with the development standards.

Erosion Control Ordinance | WMC 15.10

Finding 9: Applicants are required to install and maintain erosion control measures per the Best Management Practices as outlined in the current version of the Stormwater Management Manual for Western Washington during site excavations and grading. An NPDES permit from the Department of Ecology is required where more than one acre is being disturbed. *See Condition #4.*

Finding 10: A preliminary erosion control plan was not included with the preliminary site plan submittal. A condition of approval is added to meet all erosion control requirements of WMC 15.10 and follow the Woodland Design Standards for the erosion control plan. *See Condition #5.*

Conclusion: As conditioned, the project can comply with this standard.

Stormwater Management | WMC 15.12

Finding 11: The applicant's submittal includes narrative indicating that stormwater management on the site has been adequately addressed by a stormwater Technical Information Report (TIR) and stormwater treatment and detention facilities completed as part of a previous project phase, and that no improvements to the existing conveyance, treatment or detention facilities on the site are required for the current phase of the work. This appears to be an accurate assessment; hence, a new TIR is not required. A condition of approval is added that all proposed site modifications must be consistent with the assumptions in the previous TIR and all proposed site drainage improvements must comply with WMC 15.12 and the City Engineering Standards. *See Condition #6.*

Conclusion: As conditioned, the proposal can comply with these standards.

Permitted Uses | WMC 17.46.020

Finding 12: No changes in use are proposed by the application.

Conclusion: As proposed, the project can comply with this standard.

Building Setbacks | WMC 17.46.070

Finding 13: The required setbacks in heavy industrial zones are:

- Front yard setback: 30 ft.
- Side yad setback: 10 ft. Where I-2 abuts a residential zone, the side yard setback shall be a minimum of 25 ft.
- Rear yard setback: 10 ft. Where I-2 abuts a residential zone, the rear yard setback shall be a minimum of 25 ft.

Finding 14: The existing building and proposal meet the setback requirements.

Conclusion: As proposed, the project can comply with this standard.

Landscape Design and Screening | WMC 17.46.133 – WMC 17.46.136

Finding 15: A landscaping plan guaranteeing the healthy growth of proposed landscaping in compliance with WMC 17.46 and signed by a certified landscaping professional is required prior to issuance of the preliminary site plan approval.

Finding 16: A landscaping plan was submitted with this preliminary site plan review application.

Finding 17: The proposed landscaping plan shall include tabulation showing the area and percentage of the following, per WMC 17.46.124:

- A. Entire site;
- B. Total landscaping areas;
- C. Areas covered by groundcover;
- D. Areas covered by nonplant materials;
- E. Areas covered by tree canopy and shrubs;
- F. Each required setback area;
- G. Total parking area;
- H. Parking landscaping; and
- I. Other landscaping areas.

Finding 18: The landscaping plan set includes the required calculations.

Finding 19: A combination of deciduous and evergreen trees, shrubs, and groundcovers shall be used for all planted areas, the selection of which shall be based on local climate, exposure, water availability, and drainage conditions per WMC 17.46.125 (C). All landscaped area, whether or not required, that is not planted with trees and shrubs or not covered with nonplant material, shall have groundcover plants that are designed to

achieve 50% coverage of the area not covered by tree canopy and shrubs per WMC 17.46.125 (D).

Finding 20: Proposed landscaping is appropriate for the Pacific Northwest and achieves at least 50% coverage in areas not covered by tree canopy.

Finding 21: Per WMC 17.46.125 (E), trees shall have a minimum diameter or caliper measured at four feet above grade of two inches or greater at time of planting and shall be densely planted as certified by a certified landscaping professional.

Finding 22: A majority the trees indicated on the landscaping plan meet the size requirement. Some trees listed are sized by gallon rather than caliper. Two of the proposed trees are only 1-in. caliper. However, staff acknowledges that available stock from nurseries can vary and strictly adhering to 2-in. caliper may be challenging. The proposed plant schedule is acceptable.

Finding 23: Per WMC 17.46.125 (F), shrubs shall be planted from a five-gallon container or larger at the recommended spacing as certified by a certified landscaping professional.

Finding 24: Many, but not all of the proposed shrubs are indicated to be 5-gallons or larger. However, there is a wide variety of shrubs proposed. Staff acknowledges that obtaining all plants in 5-gallon size may be challenging and may result in a more limited variety of plants if strictly required. The proposed plant schedule and shrub sizes are acceptable.

Finding 25: Per 17.46.125 (I), the use of drought-tolerant plant species is encouraged and shall be required when irrigation is not available. Irrigation will be provided according to the landscaping plan.

Finding 26: Per WMC 17.46.126 (B), in the front yard landscaping area, trees, shrubs, and plant ground cover should be planted along the entire road frontage area and meet the requirements of WMC 17.46.

Finding 27: The plantings in the front yard setback meet the requirements of WMC 17.46.125 (B).

Finding 28: Per WMC 17.46.126 (F), a minimum of ten percent of the total surface area of all proposed parking areas, as measured around the perimeter of all parking spaces and maneuvering areas, shall be landscaped. The proposed landscaping plan meets this minimum coverage requirement.

Finding 29: At a minimum, one tree per five parking spaces shall be planted to create a partial tree canopy over and around the parking area. All parking areas with more than twenty spaces shall include landscape islands with trees at both ends and in between to break up the parking area into rows of not more than ten contiguous parking spaces.

Finding 30: The proposed parking lot consists of 16 parking spaces and 10 trees.

Finding 31: Per 17.46.126 (G), all mechanical equipment, outdoor storage and manufacturing areas, service and delivery areas, garbage receptacles and recycling containers shall be fully screened from view from all public streets and adjacent nonindustrial zoning district(s) and/or use(s) in a manner which is architecturally integrated with the structure. Such screening shall be a minimum of six feet provided by a decorative wall (i.e., masonry or similar quality material), evergreen hedge, opaque fence complying with the standards of this section, or a similar feature that provides an opaque barrier.

Finding 32: Equipment is currently screened, and no additional equipment is proposed.

Conclusion: As proposed, the proposal can comply with these standards.

Lighting | WMC 17.46.140

Finding 33: The operator shall be responsible for ensuring that lighting is installed and arranged to ensure that no reflection or glare shall conflict with the readability of traffic signs or control signs. Lighting shall also not rotate, glitter, or flash per WMC 17.46.140. *See Condition #7.*

Conclusion: As conditioned, the proposal can comply with these standards.

Site Standards | WMC 17.46.160

Finding 34: All buildings and yards shall be maintained in a neat and orderly manner. Landscaping shall be maintained in a healthy, presentable state. *See Condition #8.*

Conclusion: As conditioned, the proposal can comply with these standards.

Performance Standards | WMC 17.48

Finding 35: The requirements of this section cover hazards and nuisances including sound level, vibration, air emissions, smoke, dust, odors, industrial wastes, fire hazards, heat, glare, radioactivity and radio transmitters.

The applicant will be responsible for ensuring that their operation is complying with all performance standards. See *Condition #9.*

Conclusion: As conditioned, the proposal can comply with this standard.

Fire Safety

All buildings must be constructed in accordance with WA Building and Fire Codes. Plan revisions and building plans must be submitted directly to Clark-Cowlitz Fire Rescue (CCFR) for fire review.

Finding 36: Applicant is required to submit site plan to CCFR and comply with all comments. See *Condition #10.*

Finding 37: Building construction plans shall be submitted separately, along with any fire alarm and/or fire sprinkler alterations. See *Condition #11.*

Conclusion: As conditioned, the proposal can comply with Fire Code.

Building

Finding 38: One ADA parking space as shown on the site plan meets building code requirements.

Finding 39: HVAC, storefront and plumbing are required to be included at plan submittal and are not deferrable items. A condition is added to meet these requirements. *See Condition #12.*

Finding 40: Project must comply with Washington State Energy Code (WSEC) Sections 501, 502, and 503. *See Condition #13.*

Conclusion: As conditioned, the proposal can comply with Building Code.

Preliminary Site Plan Approval | WMC 19.10.070

Finding 41: The applicant submitted a preliminary site plan. Per WMC 19.10.070, the applicant is required to submit for final civil plan approval and submit a final site plan application. *See Condition #14*.

Conclusion: The preliminary site plan can be approved with conditions

V. DECISION

Per WMC 19.08.030, the above application for the preliminary Site Plan Review has been **APPROVED WITH CONDITIONS** by the City of Woodland's Development Review Committee (DRC) based on the criteria and standards outlined in Woodland Municipal Code (WMC). *See Section IV for conditions of approval.*

V. CONDITIONS OF APPROVAL

- 1. Pay all impact fees when building permits are issued per WMC 3.41 and WMC 3.42.
- Fire impact fees are calculated at the time of building permit issuance and are based on \$.51 per sq. ft. of structure. Fee is estimated to be \$1,071 (\$.51 per square foot of commercial space).
- 3. The number of peak hour trips results in a calculated Transportation Impact Fee of (.4745 trips X \$838) = \$1,179.07 for the project.
- 4. Obtain a NPDES permit from Department of Ecology if disturbing more than one acre of soil.
- 5. A final erosion control plan will be required with final engineering. Applicant is required to install and maintain erosion control measures per the Best Management Practices as outlined in WMC 15.10.
- 6. All proposed site modifications must be consistent with the assumptions in the previous TIR and all proposed site drainage improvements must comply with WMC 15.12 and the City Engineering Standards
- 7. The operator shall be responsible for ensuring that lighting is installed and arranged to ensure that no reflection or glare shall conflict with the readability of traffic signs or control signs. Lighting shall also not rotate, glitter, or flash per WMC 17.46.140.
- 8. All buildings and yards shall be maintained in a neat and orderly manner. Landscaping shall be maintained in a healthy, presentable state per WMC 17.46.160.
- 9. The applicant will be responsible for ensuring that their operation is complying with all performance standards of WMC 17.48 (hazards and nuisances including sound level, vibration, air emissions, smoke, dust, odors, industrial wastes, fire hazards, heat, glare, radioactivity and radio transmitters).

- 10. Submit site plan to CCFR for review. Include any required revisions with the civil engineering submission. All work subject to field inspection and correction as identified at the time of the on-site inspection; all work shall be compliant with the applicable standards and codes; to include the adopted edition of the International Fire Code and the City's Municipal Code.
- 11. Building construction plans shall be submitted separately, along with any fire alarm and/or fire sprinkler alterations.
- 12. HVAC, storefront and plumbing are required to be included at plan submittal and are not deferrable items.
- 13. Project must comply with Washington State Energy Code (WSEC) Sections 501, 502, and 503.
- 14. Per WMC 19.10.070, the applicant is required to submit for final civil plan approval and submit a final site plan application.

VI. APPEAL PROCEDURE

As per WMC 19.08.020 and 19.08.030, this Notice of Decision may be appealed to the Hearing Examiner within 14 days of the date this decision is issued. The appeal with grounds for appeal in writing shall be submitted to the Community Development Department **by 5:00 p.m., October 11, 2021.**

Staff Contact: Melissa Johnston, Associate Planner City of Woodland P.O. Box 9 230 Davidson Ave Woodland, WA 98661 johnstonm@ci.woodland.wa.us

VII. NEXT STEPS

If there is no appeal to the decision, the applicant may move forward to develop the site.

- Submit final civil plans addressing the conditions above. Include Woodland standard details for water, sewer, erosion control, etc. as required to support the civil design when you submit drawings for final civil approval.
 - a. The details can be found at www.ci.woodland.wa.us/departments/publicworks/standards.php.
 - b. Submit final civil plans to: <u>https://woodlandwa.seamlessdocs.com/f/civil_review</u>
- Once civil plans are approved:
 - a. Upload approved plans to Clark County Fire and Rescue for electronic signature: www.clarkfr.org. Print the plans once signed.

- b. Contact Public Works to arrange for signature: 360-225-7999. Then, bring plans signed by Clark County Fire and Rescue to Public Works for signature.
- c. Provide a .pdf to Public Works of signed plan set.
- Submit building, grading, and sign permits online: www.ci.woodland.wa.us/documents/
 - a. Contact Janice Fisher, Permit Technician, for assistance: 360-225-7299.
 - b. Pay any outstanding professional consulting services per Woodland Municipal Code, Ordinance 1097.
- Schedule a pre-construction meeting before beginning any construction activities. Contact Public Works at 360-225-7999 to schedule.
- Install all required landscaping and irrigation prior to applying for final occupancy.
- Submit one full-sized and one copy of reduced size (11" x 17") as-built drawings. In addition, submit a CD/thumb drive containing the as-built drawings in AutoCAD and pdf formats prior to applying for final occupancy.

Date: 9/27/2021

Signature:

Milina Admitte

Melissa Johnston, Associate Planner

cc: Applicant Parties of Record File Website Mayor City Administrator

ATTACHMENTS

A. Site Plan

Attachment A Site Plan

CRC Pelletizing Plant Pelletizing Plant Expansion Woodland, Washington

Project Directory

Owner

CRC Pelletizing Plant Brady Wale 300 N. Pekin Road Woodland, Washington 98674 Phone No. (360) 225-6505 Fax No. (360) 225-4129 bwale@carbonates.com

Design Team

Civil Engineers

Gibbs & Olson, Inc. Carol Ruiz, PE 1157 3rd Ave. Suite 219 Longview, Washington 98632 Phone No. (360) 425-0991 Fax No. (360) 423-3162

Landscape Architects

Clark Land Design, PLLC Jamie Clark, LA 10013 NE Hazel Dell Ave, #177 Vancouver, Washignton 98685 Phone No. (360) 921-4445 jclark@clarklanddesign.com



Vicinity Map Scale: 1" = 1000'

1"	THIS DRAWING IS THE PROPERTY OF COLUMBIA RIVER CARBONA IT IS LENT AND IS TO BE RETURNED UPON REQUEST. THE DES
3/4"	CARBONATES AND SHALL NOT BE USED, DISCLOSED TO OTHERS COPIED, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION.

CITY OF PUBLIC WOR PO Box 9 -	Phone Fa:	e: (360) 225- x: (360) 225-	-7999 -7467	
WOODLAND WASHINGTON Levels Report Valley Woodland, WA 98674 www.ci.woodland.wa.us				h Dibbert
Plans Re with City	eviewed for Compli Standards and Po	ance licies		
Permit Number:	An and a second se			
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Improvement Summary Street Improvements Water Main Footage			1,070 1,090	_LF LF
Sewer Main Footage Septic System Decommission Trenching within City Right-of-V	Vay		<u>1,153</u> <u>0</u> 1,153	_LF _EA _LF
Total Impervious Surface Private Impervious Surface			<u>356,914</u> 7.9	SF AC
Grading	Cut <u>14,419</u> CY	Fill	21,143	_CY

City of WOODLAND WASHINGTON Lewis River Valley	CITY OF WOODLAND PO Box 9 / 230 Davidson Woodland, WA 98674 www.ci.woodland,wa.us	Phone: 360-887-4609 Fax: 360-887-0862
Permit Number:		-
Signature Fire	e Chief or Designee	Date



			REVISIONS	BA	CRC COLUMBIA RIVER CARBONATES WOODLAND, WASHINGTON
					PROJECT TITLE CRC Pelletizing Plant General
S. NS	AFE	SCALE 1" = 1000'	DATE 9/8/2021	DRAWN BY KAR	Cover Sheet
OR	LOCATION	AREA	APPROVED CLR	DRAWN FOR	DWG. NO. 8001A 0

Abbreviations

ASPH. ASS'Y	As As
AVE.	Av
BFV	Bu
BLKG	Blo
BLDG	Bu
CL	Ca
CI	Ce
CMP	Co
CO	Cle
CONC	Со
CONST.	Co
CPLG	Co
CSBC	Cri
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DWY.	Dri
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Building	
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Cast Iron	
Centerline	
Corrugated Metal Pipe	
Cleanout	
Concrete	
Construction	
Coupling	
Crushed Surfacing Base Course	
Crushed Surfacing Top Course	
Ductile Iron	
Diameter	
Detail	
Drawing	
Driveway	
East	
Erosion Control	
Elevation	
Existing	
Edge of Pavement	
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Face of Curb	
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	Point of Vertical Intersection Elevation
	Point of Vertical Intersection Station
	Pavement
	Parking
	Pressure Reducing Valve
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	Bequired
	Bight
	Bight-of-Way
	Sidewalk
	Slope
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	Storm Drain Catch Basin
	Storm Drain Manhole
	Sheet
	Sanitary Sewer
	Sanitary Sewer Cleanout
	Sanitary Sewer Manhole
	Stainless Steel
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Mechanical Joint

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- BE IN CONFORMANCE WITH THE EXISTING LABOR LAWS, SAFETY REQUIREMENTS AND OTHER S REQUIRED BY THE CITY OF WOODLAND, COWLITZ COUNTY, THE STATE OF WASHINGTON, THE FEDERAL ND THE OWNER. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE ING THE COURSE OF CONSTRUCTION, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY. THIS IALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS
- IATERIAL SHALL MEET THE REQUIREMENTS OF THE APPLICABLE DETAILS SHOWN ON THE DRAWINGS, AND CONFORM TO THE CURRENT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, INCLUDING SECTION 1-99 APWA SUPPLEMENTS, AS AMENDED, AS ISSUED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) AND THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA), WASHINGTON STATE CHAPTER. HEREAFTER SECTION NUMBERS REFER TO WSDOT SPECIFICATIONS UNLESS NOTED OTHERWISE
- 3. ALSO INCORPORATED INTO THESE CONTRACT DOCUMENTS BY REFERENCE ARE:
- a. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (MUTCD), CURRENT EDITION, WITH WSDOT MODIFICATIONS, IF ANY;
- b. CITY DEVELOPMENT GUIDELINES AND PUBLIC WORKS STANDARDS, CURRENT ADDITION, WHICH IS REQUIRED TO BE ON-SITE WITH APPROVED PLANS:
- CONTRACTOR SHALL OBTAIN COPIES OF THESE PUBLICATIONS AT OWN EXPENSE AND HAVE ACCESSIBLE ON-SITE AT ALL TIMES DURING CONSTRUCTION.
- 5. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, TRANSPORTATION, SUPPLIES, AND INCIDENTALS REQUIRED TO COMPLETE ALL WORK SHOWN ON THESE DRAWINGS AND TO OBTAIN ACCEPTANCE BY THE CITY AND THE PROJECT OWNER.
- 6. THE CONTRACTOR SHALL CONFORM TO LABOR AND INDUSTRIES REQUIREMENTS WITH REGARD TO SAFETY, CONFINED SPACE ENTRY, AND ALL OTHER APPLICABLE SECTIONS TO THIS PROJECT.
- 7. THE INTENT OF THESE DRAWINGS IS TO DESCRIBE A COMPLETE WORK. OMISSIONS FROM THE DRAWINGS OF DETAILS OF WORK WHICH ARE NECESSARY TO CARRY OUT THE INTENT OF THE DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR FROM PERFORMING THE OMITTED WORK.
- 8. THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH ADJACENT PROPERTY OWNERS. DRIVEWAYS AND UTILITY SERVICES SHALL REMAIN ACCESSIBLE AT ALL TIMES.
- 9. CONTRACTOR SHALL NOTIFY AND COORDINATE WITH OTHER UTILITIES AS NEEDED FOR DURATION OF THE PROJECT
- 10. A PROPOSED ALTERATION BY THE CONTRACTOR AFFECTING THE REQUIREMENTS AND INFORMATION IN THESE DRAWINGS SHALL BE IN WRITING AND WILL REQUIRE APPROVAL OF ENGINEER AND OWNER.
- 11. ALL CONNECTIONS TO WATER, SEWER, AND STORM DRAIN SYSTEMS, I.E., TIE-INS OR RELOCATIONS, WILL REQUIRE SHOP DRAWINGS PRIOR TO CONSTRUCTION.
- 12. ALL MATERIAL SUBMITTALS TO BE APPROVED PRIOR TO CONSTRUCTION INCLUDING SHOPS DRAWINGS, TRAFFIC CONTROL PLANS, SHUT DOWN NOTICES, AND FLUSHING NOTICES.
- 13. THE CONTRACTOR SHALL SUBMIT CATALOG DATA, CUT SHEETS, SHOP DRAWINGS AND OTHER INFORMATION TO THE ENGINEER AND THE OWNER FOR REVIEW OF MATERIALS AND CONSTRUCTION PROCEDURES FOR ALL MAJOR MATERIALS, APPURTENANCES, AND EQUIPMENT. MAJOR MATERIALS INCLUDE PIPE, DRAINAGE STRUCTURES, BACKFILL MATERIAL, CRUSHED SURFACING MATERIAL, CONCRETE AND ASPHALT.
- 14. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL "PRE-CONSTRUCTION" STATE OR BETTER.
- 15. TEMPORARY STREET PATCHING SHALL BE ALLOWED AS APPROVED BY THE CITY OF WOODLAND. ALL TEMPORARY STREET PATCHING SHALL BE PROVIDED BY PLACEMENT AND COMPACTION OF HOT MIXED ASPHALT WITH A NOMINAL DEPTH OF 2 INCHES. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TEMPORARY PATCHES AS REQUIRED.
- 16. CONTRACTOR TO PROVIDE SHORING MEETING THE REQUIREMENTS OF SECTION 7-08.3(1)B OF THE STANDARD SPECIFICATIONS.
- 17. THE CONTRACTOR SHALL ATTEND A PRE-CONSTRUCTION MEETING, TWO WEEKS PRIOR TO CONSTRUCTION, WITH THE OWNER, OWNER'S REPRESENTATIVE AND THE CITY OF WOODLAND PRIOR TO BEGINNING ANY CONSTRUCTION.

Survey and Datum

- 1. TOPOGRAPHIC AND PROPERTY LINE INFORMATION DEPICTED HEREON WAS PROVIDED BY SURVEY. THE INFORMATION WAS NOT FIELD VERIFIED BY THE CITY OR OWNER.
- 2. PROJECT DATUM IS COWLITZ COUNTY GIS (GEOGRAPHIC INFORMATION SYSTEM) VERTICAL AND HORIZONTAL

Contractor Liability

_ __ __ __ __ __ __

_____ P____ ___ ___

_____ T<u>S</u>____ ___

THE SOLE NEGLIGENCE OF THE OWNER.

Contractor As-Built

- FOR WORK IN CITY RIGHT-OF-WAY, OWNER IS REQUIRED BY THE CITY TO PROVIDE AS-BUILT CERTIFICATION PRIOR TO FINAL CITY ACCEPTANCE. OWNER WILL NOT CERTIFY AS-BUILTS UNLESS INSPECTION OF ACTUAL INSTALLATIONS OF THE STORM FACILITIES HAS OCCURRED PRIOR TO BACKFILLING.
- 2. CONTRACTOR SHALL MAINTAIN ONE SET OF THE CONTRACT DRAWINGS THAT SHALL INCLUDE, CLEARLY AND LEGIBLY MARKED, ANY ALTERATION OR LOCATIONS OF UNDERGROUND UTILITIES ENCOUNTERED DURING PROGRESS OF THIS PROJECT, AND ANY ALTERATIONS MADE TO THE IMPROVEMENT BEING INSTALLED. SAID DRAWINGS SHALL BE MARKED "AS-BUILT" AND SHALL BE SUBMITTED TO THE ENGINEER UPON PROJECT COMPLETION.
- THE CONTRACTOR SHALL MAINTAIN REDLINES, FIELD NOTES AND DIGITAL PHOTOGRAPHS TO DOCUMENT ALL FERTILIZER SHALL BE A COMMERCIALLY PREPARED MIX OF 10-20-20 AND SHALL BE APPLIED AT IMPROVEMENTS OR VARIATIONS AS WORK PROGRESSES. CONTRACTOR SHALL MAINTAIN DOCUMENTATION THE RATE OF 10 POUNDS PER 1,000 SQUARE FEET. ONSITE AT ALL TIMES AND SHALL MAKE IT AVAILABLE FOR OWNER REVIEW. THE DOCUMENTATION SHALL BE PROVIDED TO THE OWNER IN AUTOCAD ELECTRONIC FORMAT AT THE COMPLETION OF CONSTRUCTION FOR MULCH SHALL BE WOOD CELLULOSE FIBER APPLIED AT 1,600 LBS/ACRE WITH 3% TACKIFII USE IN PREPARATION OF RECORD DRAWINGS.

Utilities Location

1. APPROXIMATE LOCATIONS OF EXISTING UTILITIES HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND ARE SHOWN FOR CONVENIENCE. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING UNDERGROUND LOCATE LINE AT 811 A MINIMUM OF TWO FULL WORKING DAYS PRIOR TO BEGINNING ANY EXCAVATION, AND BY POTHOLING ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION TO VERIFY DEPTH.

Work Within the Right-of-Way

STANDARDS.

Erosion Control

DETAILS. SEE DWG 6519.

CONTRACT DRAWINGS.

Dewatering

SHALL BE DISCHARGED TO AN APPROVED LOCATION.

Drainage

- OR EQUIVALENT TESTABLE PIPE
- 2. ALL PIPE ZONE AND BACKFIL PER SECTION 9-03.9(3) OF 3. ALL BACKFILL SHALL BE COM
- PER ASTM D1557.

Legends

Existing	g Line Types
	Existing Building
	Existing Cable TV - Buried
	Existing Centerline Road
	Existing Concrete, Curb,
	Gutter and Sidewalk
	Existing Creek/Ditch
X	Existing Fence
	Existing Gas
	Existing Guardrail
	Existing Gravel
	Existing Pavement Edge
– P ———	Existing Power - Aerial
	Existing Power - Buried
	Existing Right-Of-Way
	Existing Sanitary Sewer
	Existing Storm Drain
	Existing Telephone - Buried
- TS	Existing Traffic Signal
	Existing Toe of Slope
	Existing Top of Slope
NNN	Existing Brush Line
	Existing Water

Proposed Line Types

Proposed Sanitary Sewer

Proposed Storm Drain

Proposed Water

- Utility to be Removed/Abandoned
 - Proposed Right-Of-Way Proposed Silt Fence
- ---- Proposed Saw Cut Line
- Existing Water Meter Existing Gate Valve |W|Existing Water Vault Existing Mail Box Existing Sign Existing Conifer Tree Existing Deciduous Tree Existing Shrub Existing Power Pole Existing Power Pole Anchor Existing Power Transformer Existing Power Vault Existing Sewer Cleanout Existing Sewer Manhole Existing Storm Culver Existing SDCB Existing SDMH -O- Existing Telephone Pole Existing Telephone Pole Anchor Existing Telephone Rise à—à Existing Street Light Existing Traffic Signal Existing Junction Box Existing Gas Valve Existing Traffic Signal Cabinet Proposed Symbols

Existing Symbols

Existing Yard Light

Q Existing Hydrant

- Proposed SSMH Proposed SSCO Proposed Fire Hydran
- Proposed Gate Valve Proposed Water Meter
- Proposed Fitting w/ Thrust Block
- Proposed Catch Basin with Grate
- CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD HARMLESS FROM ANY LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM

1. CONTRACTOR SHALL OBTAIN PERMIT PRIOR TO ANY WORK WITHIN THE CITY OF WOODLAND RIGHT-OF-WAY. ALL WORK WITHIN THE RIGHT-OF-WAY SHALL ADHERE TO CITY STANDARDS AS OUTLINED IN THE PERMIT. MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE WSDOT STANDARD SPECIFICATIONS, CURRENT ADDITION OF MUTCD, AND CITY OF WOODLAND PUBLIC WORKS

ALL EROSION CONTROL MEASURES SHALL MEET THE REQUIREMENTS OF THE CITY OF WOODLAND STANDARD

2. A TEMPORARY EROSION AND SEDIMENT CONTROL (TESC) PLAN HAS BEEN PREPARED AND INCLUDED IN THE

1. FOUNDATIONS, UTILITY TRENCHES, AND ALL OTHER PARTS OF THE CONSTRUCTION SITE SHALL BE DEWATERED AND KEPT FREE OF STANDING WATER AND MUDDY CONDITIONS AS NECESSARY FOR THE PROPER EXECUTION OF THE WORK. THE CONTRACTOR SHALL FURNISH, INSTALL, OPERATE, AND MAINTAIN ALL DRAINS, SUMPS, AND OTHER EQUIPMENT REQUIRED TO PROPERLY DEWATER THE SITE AS SPECIFIED. DEWATERING SYSTEMS THAT CAUSE A LOSS OF SOIL FINE FROM FOUNDATIONS AREAS WILL NOT BE PERMITTED. WATER

 ALL CORRUGATED POLYETHYLENE STORM SEWER PIPE SHALL BE RUBBER GASKETED BELL AND SPIGOT CONFORMING TO ASTM F477. PIPE AND JOINTS SHALL BE WATER TIGHT AND AIR TESTABLE MEETING THE REQUIREMENTS OF ASTM D3212. CORRUGATED HDPE POLYETHYLENE PIPE SHALL BE ADS N-12WT, HANCOR

Sheet Index			
Drawing No.	Sheet Title		
	General		
8001A	Cover Sheet		
8002A	Notes, Legend, and Abbreviations		
8003A	Existing Conditions & Property Boundary Plan		
Civil			
8008A	Site, Grading & Storm Drainage Plan		
8009A	Site, Grading, & Storm Drainage Plan Future Improvements		
8012A	Roadway & Storm Drainage Details		
	Landscaping		
8022A	Landscaping Plan		
8023A	Landscaping Plan		
8024A	Landscaping Plan		
8025A	Landscaping Plan		
8026A	Plant Schedule & Detail		

Removal and Replacement of Unsuitable Materials

- WHATEVER EXCAVATION ACTIVITIES EXPOSES PEAT, SOFT CLAY, QUICKSAND, DEBRIS, OR OTHER UNSUITABLE FOUNDATION MATERIAL, SUCH MATERIAL SHALL BE REMOVED TO THE DEPTH DIRECTED BY ENGINEER AND BACKFILLED WITH SUITABLE APPROVED FOUNDATION MATERIAL
- UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE SITE AND HAULED TO AN APPROVED PERMITTED WASTE SITE OBTAINED BY THE CONTRACTOR. THE CONTRACTOR SHALL FURNISH AND PLACE SUITABLE MATERIALS MEETING THE REQUIREMENTS OF THE STANDARD SPECIFICATION.
- 3. TREE STUMPS LOCATED WITHIN THE PROPOSED ROADWAY PRISM SHALL BE REMOVED OR GROUND OUT AND RESULTANT VOID REPLACED WITH CRUSHED SURFACING BASE COURSE (CSBC) COMPACTED TO 95% OF MAXIMUM DRY DENSITY PER ASTM D1567.

Landscaping

- GRASS SEED SHALL BE A COMMERCIALLY PREPARED MIX, MADE UP OF A LOW GROWING SPECIES WHICH WILL GROW WITHOUT IRRIGATION AT THE PROJECT LOCATION, AND APPROVED BY THE ENGINEER. THE APPLICATION RATE SHALL BE TWO POUNDS PER 1,000 SQUARE FEET.
- 4. IN PLANTING AREAS AND LAWNS, CONTRACTOR TO SUPPLY AND INSTALL A MINIMUM OF 4-INCHES OF TOPSOIL. TOPSOIL SHALL BE COMMERCIALLY MIXED OF THE FOLLOWING COMPONENTS:
- 40% LOAM SOIL (MEETING THE PARTICLE SIZE DISTRIBUTION FOR "LOAM SOIL" ACCOL TO THE NRCS SOIL TEXTURAL TRIANGLE AND AS DOCUMENTED IN A PARTICLE SIZE
- ANALYSIS, AASHTO T88 "PARTICLE SIZE ANALYSIS OF SOILS"); 40% FINE COMPOST (AS DEFINED BY 9-14.4(8) OF THE STANDARD SPECIFICATIONS); • 20% SAND.
- ANY TOPSOIL MANUFACTURED AND STOCKPILED FOR PROJECT USE SHALL BE COVERED BLACK PLASTIC TO PREVENT EROSION AND WEED GROWTH PRIOR TO PLACEMENT. WEE GRASS GROWTH ON TOPSOIL STOCKPILE SITES SHALL BE IMMEDIATELY ELIMINATED. PL/ SHALL MEET THE THICKNESS REQUIREMENTS OF 9-14.5(3).

Roadway

1. THE ROADWAY SECTION SHALL CONSIST OF THE FOLLOWING:

COURSE	THICKNESS (INCHES)	PERCENT COMPACTION*	STANDARD SPECIFICATION
HOT MIXED ASPHALT	5	92	5-04
CSTC	3	95	9-03.9(3)
CSBC	9	95	9-03.9(3)
STRUCTURAL FILL	**	95***	9-03.14(4)
EMBANKMENT FILL	**	92	9-03.14(4)
* PERCENT OF MAXIMUM DRY DENSITY (ASTM D1557)			

MUM DRY DENSITY (ASTM D1557). DEPTH VARIES, SEE CONTRACT DRAWINGS

STRUCTURAL FILL SHALL BE CONSIDERED THE FILL WITHIN THE ROADWAY PRISM

- 2. HMA SHALL MEET THE REQUIREMENTS OF "HMA CLASS 1/2" PG 64-22" OF THE STANDARD
- SPECIFICATIONS. 3. THE NOMINAL COMPACTED DEPTH OF HMA SHALL NOT EXCEED 5 INCHES.

L MATERIAL SHALL BE CRUSHED SURFACING TOP COURSE (CS	TC)		
HE STANDARD SPECIFICATIONS.		, "	THIS DRAWING IS THE PROPERTY OF COLUMBIA RIVER CARBONA
			IT IS LENT AND IS TO BE RETURNED UPON REQUEST. THE DES
IPACTED TO AT LEAST 95% MAXIMUM DBY DENSITY			AND IDEAS SHOWN HEREON ARE THE PROPERTY OF COLUMBIA F
ACTED TO AT LEAST 35% MAXIMON DITT DENOTT			CARBONATES AND SHALL NOT BE USED. DISCLOSED TO OTHERS.
		3/4"	COPIED, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION.
		1	

Fencing

- 1. CHAIN LINK FENCE FABRIC SHALL BE HOT-DIP GALVANIZED WITH A MINIMUM OF 0.8 OUNCE PER SQUARE FOOT OF SURFACE AREA.
- 2. CHAIN LINK FENCE MATERIALS SHALL BE SPECIFIED AS BELOW:
- STEEL FENCING FABRIC: SHALL BE NO.9 GAUGE GALVANIZED STEEL WIRES, 2-INCH MESH, WITH BOTH TOP AND BOTTOM SELVAGES TWISTED AND BARBED. FURNISH ONE-PIECE FABRIC WIDTHS FOR ALL FENCING. FABRIC SHALL HAVE A GALVANIZED COATING PER ASTM A817 WITH A MINIMUM WEIGHT OF 1.0 OUNCE/SQUARE FOOT OF UNCOATED WIRE SURFACE STEEL FRAMEWORK: SHALL BE GALVANIZED STEEL PER ASTM F1083, WITH A MINIMUM OF 2.0 OUNCES OF ZINC PER SQUARE b. FOOT OF SURFACE AREA.
- FITTINGS AND ACCESSORIES: ALL FITTINGS AND MISCELLANEOUS HARDWARE SHALL BE PRESSED STEEL OR MALLEABLE IRON AND SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM F 626. GALVANIZING OF MISCELLANEOUS FITTINGS NOT COVERED BY ASTM F 626 SHALL BE IN CONFORMANCE WITH ASTM A 153.
- END, CORNER AND PULL POSTS: ALL TERMINAL POSTS SHALL BE TUBULAR 2-7/8" O.D. GALVANIZED STEEL PIPE, 5.79 POUNDS PER LINEAR FOOT.
- LINE POSTS: ALL LINE POSTS SHALL BE SPACED AT AN EQUAL SPACING, WITH MAXIMUM SPACING OF 10-FEET, AND SHALL BE TUBULAR 2_3/8" O.D. GALVANIZED STEEL PIPE, 3.65 POUNDS PER LINEAR FOOT. GATE POSTS: FURNISH POSTS REQUIRED FOR SUPPORTING NOMINAL GATE WIDTHS AS SHOWN ON DRAWINGS.
- TOP AND BRACE RAILS: RAILS SHALL BE 1-5/8" O.D. GALVANIZED STEEL PIPE, 2.27 POUNDS PER LINEAR FOOT.
- TENSION WIRE: 7-GAUGE, COIL SPRING WIRE, METAL AND FINISH TO MATCH FABRIC. LOCATE AT BOTTOM OF FABRIC. WIRE TIES: 9-GAUGE WIRE, METAL AND FINISH TO MATCH FABRIC.
- POST BRACE ASSEMBLY: MANUFACTURER'S STANDARD ADJUSTABLE BRACE AT END AND GATE POSTS AND AT BOTH SIDES OF CORNER AND PULL POSTS, WITH HORIZONTAL BRACE LOCATED AT MID-HEIGHT OF FABRIC. USE SAME MATERIAL AS TOP RAIL FOR BRACE, AND TRUSS TO LINE POSTS WITH 3/8-INCH DIAMETER ROD AND ADJUSTABLE TIGHTENER.
- POST TOPS: PROVIDE WEATHER TIGHT CLOSURE CAP WITH LOOP TO RECEIVE TENSION WIRE OR TOP RAIL; ONE CAP FOR EACH POST
- STRETCHER BARS: ONE-PIECE LENGTHS EQUAL TO FULL HEIGHT OF FABRIC, WITH MINIMUM CROSS-SECTION OF 3/16" X 3/4". PROVIDE ONE STRETCHER BAR FOR EACH GATE AND END POST, AND TWO FOR EACH CORNER AND PULL POST.
- STRETCHER BAR BANDS: MAXIMUM SPACING 15-INCHES O.C., TO SECURE STRETCHER BARS TO END, CORNER, PULL, AND m. GATE POSTS.
- BARBED WIRE SUPPORTING ARMS: MANUFACTURER'S STANDARD BARBED WIRE SUPPORTING ARMS, METAL AND FINISH TO MATCH FENCE FRAMEWORK, WITH PROVISION FOR ANCHORAGE TO POSTS AND ATTACHING 3 ROWS OF BARBED WIRE TO EACH ARM. SUPPORTING ARMS MAY BE EITHER ATTACHED TO POSTS OR INTEGRAL WITH POST TOP WEATHER CAP AND MUST BE CAPABLE OF WITHSTANDING 250 LBS. DOWNWARD PULL AT OUTERMOST END. PROVIDE ONE SINGLE 45-DEGREE ARM FOR 3 STRANDS OF BARBED WIRE FOR EACH POST.
- BARBED WIRE: DOUBLE STRAND, 12-1/2 GAUGE WIRE WITH 14-GAUGE, 4-POINT BARBS SPACED NOT MORE THAN 5" O.C. AND FINISH TO MATCH FABRIC.
- 3. CHAIN LINK FENCE INSTALLATION:
- SETTING POSTS: CENTER AND ALIGN POSTS TO REQUIRED HEIGHT DURING ASSOCIATED WORK OF PLACING CONCRETE. ALL POSTS SHALL BE SET IN 3,000 PSI (MINIMUM) CONCRETE. POSTS SHALL HAVE A MAXIMUM SPACING OF 10 FEET. ALL CONCRETE POST FOOTINGS SHALL BE 10-INCH MINIMUM DIAMETER, A MINIMUM OF 3 FEET DEEP, AND SHALL BE CROWNED AT THE TOP. PLACE CONCRETE AROUND POSTS AND VIBRATE OR TAMP FOR CONSOLIDATION. CHECK EACH POST FOR VERTICAL AND TOP ALIGNMENT, AND HOLD IN POSITION DURING PLACEMENT AND FINISHING OPERATIONS.
- TOP RAILS: RUN RAIL CONTINUOUSLY THROUGH POST CAPS. PROVIDE EXPANSION COUPLINGS AS PREVIOUSLY SPECIFIED. b. CENTER RAILS: PROVIDE CENTER RAILS WHERE RECOMMENDED BY MANUFACTURER. INSTALL IN ONE PIECE BETWEEN POSTS AND FLUSH WITH POST ON FABRIC SIDE, USING SPECIAL OFFSET FITTINGS WHERE NECESSARY.
- BRACE ASSEMBLIES: INSTALL BRACES SO POSTS ARE PLUMB WHEN DIAGONAL ROD IS UNDER PROPER TENSION.
- TENSION WIRE: INSTALL TENSION WIRES BEFORE STRETCHING FABRIC AND TIE TO EACH POST WITH NOT LESS THAN 6-GAUGE GALVANIZED WIRE. FASTEN FABRIC TO TENSION WIRE USING 11-GAUGE GALVANIZED STEEL HOG RINGS SPACED 24 INCHES O.C
- FABRIC: LEAVE APPROXIMATELY TWO INCHES BETWEEN FINISH GRADE AND BOTTOM SELVAGE, UNLESS OTHERWISE INDICATED. PULL FABRIC TAUT AND TIE TO POSTS, RAILS, AND TENSION WIRES. INSTALL FABRIC ON SECURITY SIDE OF FENCE, AND ANCHOR TO FRAMEWORK SO THAT FABRIC REMAINS IN TENSION AFTER PULLING FORCE IS RELEASED. STRETCHER BARS: THREAD THROUGH OR CLAMP TO FABRIC FOUR INCHES O.C., AND SECURE TO POSTS WITH METAL BANDS SPACED 15 INCHES O.C.
- TIE WIRES: USE U-SHAPED WIRE, CONFORMING TO DIAMETER OF PIPE TO WHICH ATTACHED, CLASPING PIPE AND FABRIC h. FIRMLY WITH ENDS TWISTED AT LEAST TWO FULL TURNS. BEND ENDS OF WIRE TO MINIMIZE HAZARD TO PERSONS OR CLOTHING
- TIE FABRIC TO LINE POSTS, WITH WIRE TIES SPACED 12 INCHES O.C. TIE FABRIC TO RAILS AND BRACES, WITH WIRE TIES SPACED 24 INCHES O.C. TIE FABRIC TO TENSION WIRES, WITH HOG RINGS SPACED 24 INCHES O.C. ATTACH FABRIC TO TERMINALS WITH 10-GAUGE LOCK LOOPS SPACED EVERY 3.3 INCHES. THE FABRIC SHALL BE WOVEN
- THROUGH THE LOCK LOOPS TO PROVIDE EXTRA STRENGTH. FASTENERS: INSTALL NUTS FOR TENSION BANDS AND HARDWARE BOLTS ON SIDE OF FENCE OPPOSITE FABRIC SIDE. PEEN
- ENDS OF BOLTS OR SCORE THREADS TO PREVENT REMOVAL OF NUTS.
- THE 20-FOOT ROLLING GATE SHOWN ON THE DRAWINGS SHALL BE FURNISHED AND INSTALLED BY OTHERS.











			THRUS	<u>T_LOADS</u>				
ĎI	THRUST AT FIT	TINGS IN POUND	DS AT 200 POL	INDS PER SQUA	RE INCH OF WA	TER PRESSURE		
	PIPE DIAMETER	90" BEND	45° BEND	22-1/2" BEND	11-1/4" BEND	DEAD END OR TEE		
	4"	3,600	2,000	1,000	500	2,600		
	6"	8,000	4,400	2,300	1,200	5,700		
	8 [#]	14,300	7,700	4,000	2,000	10,100		
	10"	22,300	12,100	6,200	3,100	15,800		
	12"	32,000	17,400	8,900	4,500	22,700		
	14"	43,600	23,600	12,100	6,100	30,800		
	16"	57,000	30,800	15,700	7,900	40,300		
	NOTES:		T	1 I				
	1. BLOCKING UNDISTURE WITH PLAS	SHALL BE COM BED EARTH. FIT STIC OR SIMILAR	MERCIAL CONCE TTING SHALL BE MATERIAL.	RETE POURED IN ISOLATED FROM	I PLACE AGAINS	t Rust Block		
	2. TO DETER EXAMPLE 10.7 S.F.	MINE THE BEARI : 12" — 90" BE OF AREA	NG AREA OF TH ND IN SAND AI	HE THRUST BLOG ND GRAVEL 32,0	CK IN SQUARE 000 LBS 3000 L	FEET (S.F.): .B/S.F. =		
	3. AREAS MU CONDITION	3. AREAS MUST BE ADJUSTED FOR OTHER PIPE SIZE, PRESSURES AND SOIL CONDITIONS.						
	4. BLOCKING TO CONTIN SERVICE.	SHALL BE ADEC IUOUSLY WITHST	QUATE TO WITHS	STAND FULL TES PRESSURE UN	t pressure as der all condit	WELL AS		
		SA	EE SOIL B	EARING LO	ADS			
	FOR HORIZONIAL			F LUVER UVER	THE PIPE EXCE	EDS Z FEEI		
			SOIL	SQ	UARE FOOT			
		MUCK, PEAT			0			
		SOFT CLAY	<u> </u>		1,000			
		SAND			2,000			
		SAND & GRAVEL			3,000			
		SAND & GRAVEL CEMENTED WITH CLAY			4,000			
		HARD SHALE			10,000			
_			THRIIST					
	All second and							
IDLANE	AF Bro = 1-	PROVED	REVIS	IONS DATE	DRAWN	DESIGNED		









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					GIBBS & OLSON www.gibbs-olson.com	
	NO DATE		REVISIONS	BY	CRC CARBONATES WOODLAND, WASHINGTON	
S	AFE	SCALE	DATE	DRAWN BY	PROJECT TITLE CRC Pelletizing Plant Civil Pelletizing Plant Expansion	taila
S ND IN	LOCATION	N.T.S. AREA	9/8/2021 APPROVED CLR	KAR DRAWN FOR	DWG. NO. 8012A	REV.





PLANT SCHEDULE

BOTANICAL / COMMON NAME	CONTAINER	SIZE	SPACING	<u>QTY</u>
Acer circinatum / Vine Maple	15 gal	8`-10`	as shown	5
Calocedrus decurrens / Incense Cedar	15 gal	6`-8`	as shown	7
Chamaecyparis nootkatensis `Pendula` / Weeping Nootka False Cypress	25 gal	8`-10`	as shown	3
Gleditsia triacanthos inermis `Shademaster` TM / Shademaster Locust	30 gal	2" cal	as shown	11
Populus trichocarpa / Black Cottonwood	15 gal	1" cal	as shown	4
Prunus serrulata `Royal Burgundy` / Royal Burgundy Cherry	30 gal	2" cal	as shown	9
Pseudotsuga menziesii / Douglas Fir	15 gal	6`-8`	as shown	13
Rhamnus purshiana / Cascara	15 gal	1" cal	as shown	5
Thuja plicata / Western Red Cedar	15 gal	6`	as shown	12
Ulmus propinqua `JFS-bieberich` / Emerald Sunshine Elm	30 gal	2" cal	30` o.c.	31

SHRUBS	BOTANICAL / COMMON NAME	CONTAINER	SPREAD	SPACING	QTY	
\odot	Abelia x grandiflora `Edward Goucher` / Glossy Abelia	5 gal	18"-24"	4` o.c.	7	
\	Cornus alba `Elegantissima` / Silveredge Dogwood	5 gal	30"-36"	5` o.c.	19	
	Cotoneaster lacteus / Parney Cotoneaster	5 gal	24"-30"	6` o.c.	68	
\odot	Lavandula angustifolia `Munstead` / Munstead English Lavender	1 gal	12"-15"	30" o.c.	18	
举	Mahonia aquifolium / Oregon Grape	1 gal	15"-18"	4` o.c.	91	
$\overline{\mathbf{\cdot}}$	Myrica californica / Pacific Wax Myrtle	5 gal	24"-30"	6` o.c.	43	<u>L</u> 1
	Osmanthus heterophyllus `Goshiki` / Goshiki Holly Olive	5 gal	15"-18"	4` o.c.	46	2
\bigcirc	Pieris japonica `Variegata` / Variegated Lily Of The Valley	5 gal	18"-24"	4` o.c.	12	3
\oplus	Prunus laurocerasus `Otto Luyken` / Luykens Laurel	5 gal	24"-30"	3.5` o.c.	186	2
\odot	Spiraea x bumalda `Goldflame` / Goldflame Spirea	5 gal	18"-24"	4` o.c.	56	6
\odot	Symphoricarpos albus / Common White Snowberry	1 gal	15"-18"	4` o.c.	62	7 8
$\bigcirc \bigcirc$	Viburnum plicatum `Mariesii` / Maries Doublefile Viburnum	5 gal	30"-36"	6` o.c.	32	
×	Yucca filamentosa `Color Guard` / Adam`s Needle	5 gal	18"-24"	as shown	33	ç
		o gui	10 -24			
GROUNDCOVER	BOTANICAL / COMMON NAME	CONTAINER	SPREAD	SPACING	QTY	1
GROUNDCOVER C	BOTANICAL / COMMON NAME Fragaria chiloensis / Beach Strawberry	<u>CONTAINER</u> 1 gal	<u>SPREAD</u> 10"-12"	<u>SPACING</u> 4` o.c.	<u>QTY</u> 419	1
GROUNDCOVER CONTRACTOR ANNUALS/PERENNIALS	BOTANICAL / COMMON NAME Fragaria chiloensis / Beach Strawberry BOTANICAL / COMMON NAME	<u>CONTAINER</u> 1 gal <u>CONTAINER</u>	<u>SPREAD</u> 10"-12" <u>SPREAD</u>	<u>SPACING</u> 4` o.c. <u>SPACING</u>	<u>QTY</u> 419 <u>QTY</u>	1
T GROUNDCOVER C ANNUALS/PERENNIALS د	BOTANICAL / COMMON NAME Fragaria chiloensis / Beach Strawberry BOTANICAL / COMMON NAME Hemerocallis x `Sherwood Gladiator` / Sherwood Gladiator Daylily	CONTAINER 1 gal CONTAINER 1 gal	<u>SPREAD</u> 10"-12" <u>SPREAD</u> 12"-15"	<u>SPACING</u> 4` o.c. <u>SPACING</u> 4` o.c.	<u>QTY</u> 419 <u>QTY</u> 19	1
IN COVER GROUNDCOVER Image: Comparison of the second se	BOTANICAL / COMMON NAME Fragaria chiloensis / Beach Strawberry BOTANICAL / COMMON NAME Hemerocallis x `Sherwood Gladiator` / Sherwood Gladiator Daylily Liriope muscari `Big Blue` / Big Blue Lilyturf	CONTAINER 1 gal <u>CONTAINER</u> 1 gal 1 gal	<u>SPREAD</u> 10"-12" <u>SPREAD</u> 12"-15" 10"-12"	<u>SPACING</u> 4` o.c. <u>SPACING</u> 4` o.c. 30" o.c.	<u>QTY</u> 419 <u>QTY</u> 19 22	1 1 1 1
اللہ کے بڑے CROUNDCOVER COV	BOTANICAL / COMMON NAME Fragaria chiloensis / Beach Strawberry BOTANICAL / COMMON NAME Hemerocallis x `Sherwood Gladiator` / Sherwood Gladiator Daylily Liriope muscari `Big Blue` / Big Blue Lilyturf Polystichum munitum / Western Sword Fern	CONTAINER 1 gal <u>CONTAINER</u> 1 gal 1 gal 1 gal	<u>SPREAD</u> 10"-12" <u>SPREAD</u> 12"-15" 10"-12"	<u>SPACING</u> 4` o.c. <u>SPACING</u> 4` o.c. 30" o.c. as shown	<u>QTY</u> 419 <u>QTY</u> 19 22 55	1 1 1 1 1
ANNUALS/PERENNIALS €3 ★ GRASSES	BOTANICAL / COMMON NAME Fragaria chiloensis / Beach Strawberry BOTANICAL / COMMON NAME Hemerocallis x `Sherwood Gladiator` / Sherwood Gladiator Daylily Liriope muscari `Big Blue` / Big Blue Lilyturf Polystichum munitum / Western Sword Fern BOTANICAL / COMMON NAME	CONTAINER 1 gal CONTAINER 1 gal 1 gal 1 gal 1 gal CONTAINER	<u>SPREAD</u> 10"-12" <u>SPREAD</u> 12"-15" 10"-12" <u>SPREAD</u>	<u>SPACING</u> 4` o.c. <u>SPACING</u> 4` o.c. 30" o.c. as shown <u>SPACING</u>	<u>QTY</u> 419 <u>QTY</u> 19 22 55 <u>QTY</u>	1 1 1 1 1 1
✓► GROUNDCOVER	BOTANICAL / COMMON NAME Fragaria chiloensis / Beach Strawberry BOTANICAL / COMMON NAME Hemerocallis x `Sherwood Gladiator` / Sherwood Gladiator Daylily Liriope muscari `Big Blue` / Big Blue Lilyturf Polystichum munitum / Western Sword Fern BOTANICAL / COMMON NAME Pennisetum alopecuroides `Red Head` / Red Head Fountain Grass	CONTAINER 1 gal CONTAINER 1 gal 1 gal 1 gal <u>CONTAINER</u> 1 gal	<u>SPREAD</u> 10"-12" <u>SPREAD</u> 12"-15" 10"-12" <u>SPREAD</u> 12"-15"	SPACING 4` o.c. SPACING 4` o.c. 30" o.c. as shown SPACING 3.5` o.c.	<u>QTY</u> 419 <u>QTY</u> 19 22 55 <u>QTY</u> 71	1 1 1 1 1
ANNUALS/PERENNIALS CRASSES CRASSES EXISTING VEGETATION	BOTANICAL / COMMON NAME Fragaria chiloensis / Beach Strawberry BOTANICAL / COMMON NAME Hemerocallis x `Sherwood Gladiator` / Sherwood Gladiator Daylily Liriope muscari `Big Blue` / Big Blue Lilyturf Polystichum munitum / Western Sword Fern BOTANICAL / COMMON NAME Pennisetum alopecuroides `Red Head` / Red Head Fountain Grass BOTANICAL / COMMON NAME	CONTAINER 1 gal CONTAINER 1 gal 1 gal 1 gal CONTAINER 1 gal 1 gal	SPREAD 10"-12" SPREAD 12"-15" 10"-12" SPREAD 12"-15" SPREAD 12"-15" SPREAD 12"-15"	SPACING 4` o.c. SPACING 4` o.c. 30" o.c. as shown SPACING 3.5` o.c. SPACING	QTY 419 QTY 19 22 55 QTY 71 QTY	1 1 1 1 1
Image: Annuals/perennials Image: Ann	BOTANICAL / COMMON NAME Fragaria chiloensis / Beach Strawberry BOTANICAL / COMMON NAME Hemerocallis x `Sherwood Gladiator` / Sherwood Gladiator Daylily Liriope muscari `Big Blue` / Big Blue Lilyturf Polystichum munitum / Western Sword Fern BOTANICAL / COMMON NAME Pennisetum alopecuroides `Red Head` / Red Head Fountain Grass BOTANICAL / COMMON NAME Existing Vegetation / Existing Vegetation to Remain	CONTAINER 1 gal CONTAINER 1 gal 1 gal 1 gal <u>CONTAINER</u> 1 gal <u>CONTAINER</u>	SPREAD 10"-12" SPREAD 12"-15" 10"-12" SPREAD 12"-15" SPREAD 12"-15" SPREAD 12"-15"	SPACING 4` o.c. SPACING 4` o.c. 30" o.c. as shown SPACING 3.5` o.c. SPACING	QTY 419 QTY 19 22 55 QTY 71 QTY 18,675 sf	1 1 1 1
Image: Annuals/perennials Image: Ann	BOTANICAL / COMMON NAME Fragaria chiloensis / Beach Strawberry BOTANICAL / COMMON NAME Hemerocallis x `Sherwood Gladiator` / Sherwood Gladiator Daylily Liriope muscari `Big Blue` / Big Blue Lilyturf Polystichum munitum / Western Sword Fern BOTANICAL / COMMON NAME Pennisetum alopecuroides `Red Head` / Red Head Fountain Grass BOTANICAL / COMMON NAME Existing Vegetation / Existing Vegetation to Remain BOTANICAL / COMMON NAME	CONTAINER 1 gal CONTAINER 1 gal 1 gal 1 gal CONTAINER 1 gal CONTAINER N/A	SPREAD 10"-12" SPREAD 12"-15" 10"-12" SPREAD 12"-15" SPREAD 12"-15" SPREAD SPREAD SPREAD SPREAD	SPACING 4` o.c. SPACING 4` o.c. 30" o.c. as shown SPACING 3.5` o.c. SPACING	QTY 419 QTY 19 22 55 QTY 71 QTY 18,675 sf QTY	1 1 1 1 1 1 1 1
Image: Constraint of the constraint	BOTANICAL / COMMON NAME Fragaria chiloensis / Beach Strawberry BOTANICAL / COMMON NAME Hemerocallis x `Sherwood Gladiator` / Sherwood Gladiator Daylily Liriope muscari `Big Blue` / Big Blue Lilyturf Polystichum munitum / Western Sword Fern BOTANICAL / COMMON NAME Pennisetum alopecuroides `Red Head` / Red Head Fountain Grass BOTANICAL / COMMON NAME Existing Vegetation / Existing Vegetation to Remain BOTANICAL / COMMON NAME Medium Bark Mulch	CONTAINER 1 gal CONTAINER 1 gal 1 gal CONTAINER 1 gal CONTAINER N/A CONTAINER N/A	SPREAD 10"-12" SPREAD 12"-15" SPREAD 12"-15" SPREAD SPREAD SPREAD SPREAD SPREAD	SPACING 4' o.c. SPACING 4' o.c. 30" o.c. as shown SPACING 3.5' o.c. SPACING	QTY 419 QTY 19 22 55 QTY 71 QTY 18,675 sf QTY 29,157 sf	1 1 1 1 1

LANDSCAPE NOTES

- CONTRACTOR SHALL VERIFY PLANT QUANTITIES. IF THERE IS A DISCREPANCY BETWEEN THE QUANTITIES LISTED IN THE PLANT LEGEND AND THE QUANTITIES SHOWN ON THE PLAN, THE PLAN SHALL PREVAIL. 2. STAKE ALL PROPOSED TREE LOCATIONS FOR REVIEW AND APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO DIGGING TREE
- PITS. THE OWNER RESERVES THE RIGHT TO ADJUST LOCATION AND SPACING OF PLANTS. 3. PLANT SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE SIMILAR IN SIZE, SHAPE, AND FOLIAGE TYPE TO THE PLANT BEING REPLACED AND MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE. STREET TREE SUBSTITUTIONS SHALL BE FROM
- CITY APPROVED LISTS OR SHALL BE APPROVED BY THE LOCAL JURISDICTION. ALL PLANTS SHALL MEET OR EXCEED INDUSTRY STANDARDS FOR SIZE AND QUALITY. SUBSTANDARD PLANT MATERIAL WILL BE REJECTED BY THE OWNER'S REPRESENTATIVE.
- 5. THE LOWER BRANCHES OF TREES ADJACENT TO ROADS, PARKING AREAS, AND WALKWAYS SHALL BE PRUNED UP TO AVOID INTERFERENCE WITH PEDESTRIANS AND VEHICLES.
- REPLACE AND RESTORE DISTURBED AREAS TO THEIR ORIGINAL CONDITION OR TO THE OWNER'S SATISFACTION.
- VERIFY BELOW GRADE CONDITIONS AND UTILITY LOCATIONS (EXISTING AND PROPOSED) PRIOR TO DIGGING. COORDINATE ALL PLANTINGS WITH LOCATIONS OF UTILITY POLES, STORM WATER STRUCTURES, CLEANOUTS, ELECTRICAL TRANSFORMERS, WATER METERS, FIRE HYDRANTS, AND ANY OTHER ABOVE OR BELOW GROUND UTILITIES AND STRUCTURES. CONTRACTOR MAY FIELD ADJUST OR ELIMINATE PLANTS THAT CONFLICT WITH UTILITIES WITH THE APPROVAL OF THE OWNER'S REPRESENTATIVE. LOCAL CODE REQUIREMENTS AND BEST INDUSTRY PRACTICES SHALL GOVERN THE DISTANCE BETWEEN
- PLANTINGS AND VARIOUS UTILITIES. 9. ALL PLANTINGS SHALL BE IRRIGATED BY A PERMANENT AUTOMATIC UNDERGROUND SYSTEM TO BE DESIGNED AND INSTALLED BY OTHERS. THE IRRIGATION SYSTEM SHALL INCLUDE EITHER OR BOTH: A RAIN SENSOR SHUTOFF DEVICE AND/OR A DRIP IRRIGATION SYSTEM FOR THE NEW LANDSCAPING.
- 10. THE CIVIL ENGINEER AND GENERAL CONTRACTOR SHALL COORDINATE WITH THE IRRIGATION DESIGNER/ CONTRACTOR TO PROVIDE 4" SCH. 40 PVC SLEEVES AS NECESSARY UNDER DRIVEWAYS, SIDEWALKS, AND PARKING LOTS TO SUPPLY IRRIGATION TO ISOLATED PLANTING BEDS. SLEEVES SHALL HAVE A MINIMUM 24" OF COVER.
- 11. REMOVE ALL CONSTRUCTION DEBRIS FROM THE SITE TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING ANY LANDSCAPE WORK. CONSTRUCTION DEBRIS DISCOVERED BURIED IN PLANTING BEDS SHALL BE REMOVED PRIOR TO COMPLETING LANDSCAPE WORK.
- 12. ALL PLANTING AREAS SHALL BE PROVIDED WITH AT LEAST 8 INCHES OF NON-COMPACTED TOPSOIL OR COMPOST AMENDED AND TILLED NATIVE SOIL.
- 13. TWO INCHES OF BLACK COMPOST MATERIAL SHALL BE INCORPORATED INTO THE TOP LAYER OF SOIL IN SEEDED AREAS. ADD ONE SHOVEL FULL OF COMPOST PER GALLON POT SIZE TO THE PLANTING PIT FOR EACH TREE, SHRUB OR GROUNDCOVER PLANT. 14. IDENTIFY ALL PLANTING BEDS AND LAWN EDGES IN THE FIELD FOR REVIEW AND APPROVAL BY OWNER'S REPRESENTATIVE PRIOR
- TO PLANTING AND SEEDING OPERATIONS. 15. THE LANDSCAPE PLANTING PLANS HAVE BEEN DESIGNED TO MEET THE REQUIREMENTS OUTLINED BY LOCAL CODES.
- 16. IF THE CONTRACTOR PROPOSES ANY DEVIATIONS FROM THE PLANTING PLANS, THOSE DEVIATIONS SHALL NOT CAUSE THE PLAN TO FALL BELOW MINIMUM CODE REQUIREMENTS.
- 17. TREES PLANTED CLOSER THAN 5 FEET FROM PAVING SHALL BE INSTALLED WITH 12" DEEPROOT® ROOT BARRIERS, OR AN APPROVED EQUAL, ACCORDING TO MANUFACTURERS SPECIFICATIONS.

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	NO	DATE		REVISIONS		BY	C	RC	COLUMBIA RIVER CARBONATES WOODLAND, WASHINGTON	
							PROJECT TI	CRC	Pelletizing Plant Civil	
TES. SIGNS	AFE ·		AFESCALEDATEDRAWN.NTSAug. 18, 2021JAC		BY		Plant	Schedule & Detail		
RIVER 5, OR	LOC	ATION ·	AREA	APPROVED CLR	DRAWN	FOR	DWG. NO.	8	3026A	REV.