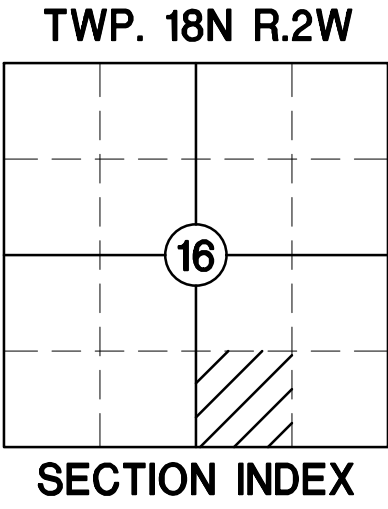
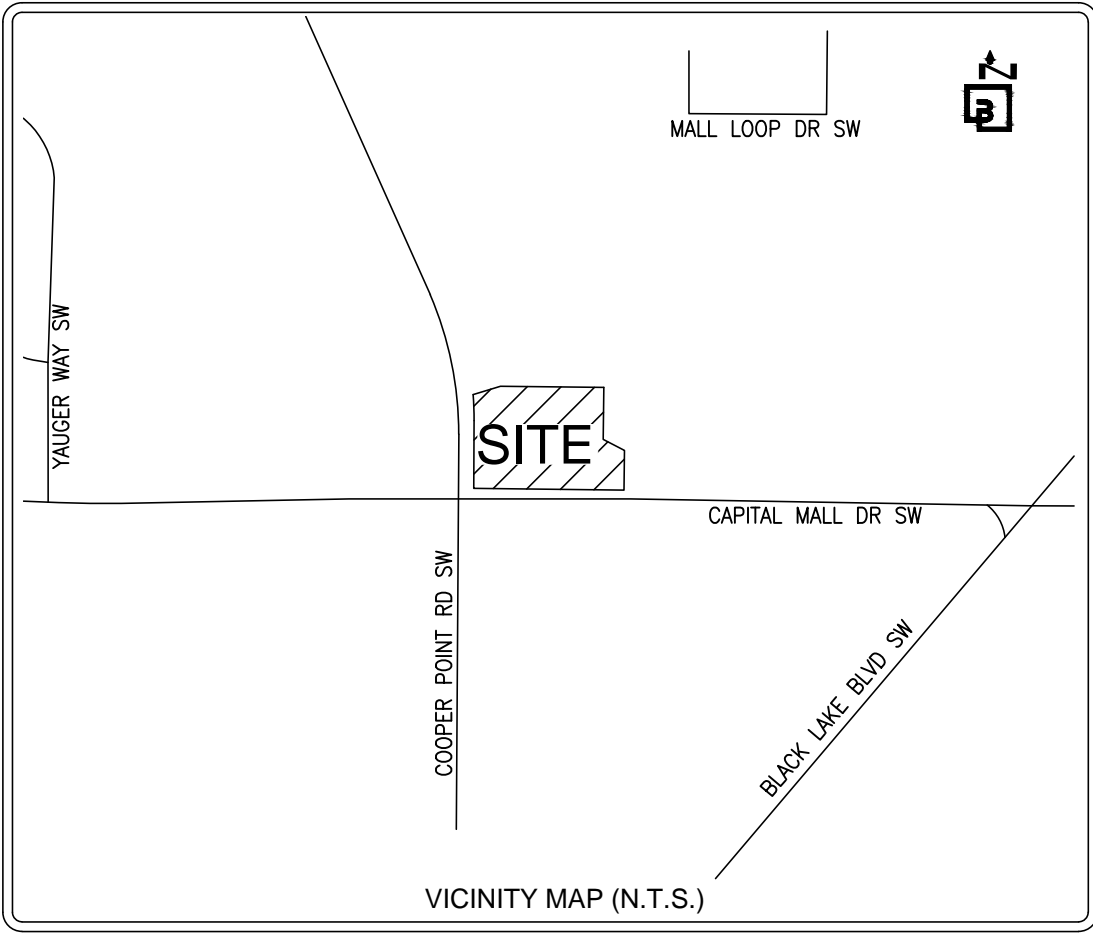


ALTA/NSPS LAND TITLE SURVEY



SURVEY INFORMATION:

HORIZONTAL DATUM – BASIS OF BEARINGS:
HORIZONTAL DATUM FOR THIS SURVEY IS NAD 83 PER CITY OF OLYMPIA DATUM, BASED ON TIES TO A FOUND 2" DOMED BRASS DISK W/PUNCH AT THE INTERSECTION OF CAPITAL MALL DR. SW & COOPER POINT RD. SW AND TO A FOUND 2" DOMED BRASS DISK W/PUNCH AT THE INTERSECTION OF CAPITAL MALL DR. SW & BLACK LAKE BLVD. SW

THE 2" DOMED BRASS DISK W/PUNCH AT THE INTERSECTION OF CAPITAL MALL DR. SW & COOPER POINT RD. SW WAS HELD FOR POSITION, AND A LINE BETWEEN SAID MONUMENT AND THE 2" DOMED BRASS DISK W/PUNCH AT THE INTERSECTION OF CAPITAL MALL DR. SW & BLACK LAKE BLVD. SW WAS HELD FOR BEARING (S87°37'54"E).

VERTICAL DATUM:
VERTICAL DATUM FOR THIS SURVEY IS NAVD88 PER CITY OF OLYMPIA DATUM. OLYMPIA BENCH MARK NO. 836 WAS HELD FOR ELEVATION (144.54').

TAX PARCEL NUMBER – ADDRESS – LOT AREA:
12816430300 – 625 BLACK LAKE BOULEVARD SOUTHWEST – 150,836.5± S.F. (3.5± AC)

PARKING SPACES:
UNMARKED: 108
ADA: 002
TOTAL: 110

REFERENCE MAPS:
1. RECORD OF SURVEY RECORDED AT AFN 3628322.

DATES OF SURVEYS:
THIS SURVEY REPRESENTS VISIBLE PHYSICAL IMPROVEMENT CONDITIONS EXISTING ON NOVEMBER 18, 2021. ALL SURVEY CONTROL INDICATED AS "FOUND" WAS RECOVERED FOR THIS PROJECT IN NOVEMBER OF 2021.

FLOOD INFORMATION:
FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) INFORMATION: FLOOD INSURANCE RATE MAP (FIRM) NOS. 53067C0162E AND 53067C0166E, PANELS 162 AND 166 OF 625, DATED OCTOBER 16, 2012. THE SUBJECT PROPERTY IS IN ZONE X, AN AREA OF MINIMAL FLOOD HAZARD.

SURVEYOR'S NOTES:

- ALL DISTANCES SHOWN HEREON ARE GROUND MEASUREMENTS IN U.S. SURVEY FEET.
- THE BOUNDARY CORNERS AND LINES DEPICTED ON THIS MAP REPRESENT DEED LINES ONLY, AND DONT PURPORT TO SHOW OWNERSHIP LINES THAT MAY OTHERWISE BE DETERMINED BY A COURT OF LAW. NO GUARANTEE OF OWNERSHIP IS EXPRESSED OR IMPLIED.
- UNDERGROUND UTILITIES AND FEATURES DEPICTED HEREON ARE BASED ON FIELD OBSERVATION, MARKINGS, DEVELOPMENT PLANS, AND/OR AVAILABLE RECORDED DOCUMENTS ONLY. THE TRUE LOCATION, NATURE AND/OR EXISTENCE OF BELOW GROUND FEATURES, DETECTED OR UNDETECTED SHOULD BE VERIFIED.
- THE LEGAL DESCRIPTION AND SPECIAL EXCEPTIONS SHOWN HEREON ARE PER THE TITLE REPORT REFERENCED HEREON UNLESS OTHERWISE NOTED.
- THIS SURVEY HAS DEPICTED ALL VISIBLE OCCUPATIONAL INDICATORS (IE. FENCE LINES, BUILDINGS, WALLS, ETC. – SEE MAP FOR PARTICULARS) PER W.A.C. 332-130. LINES OF OCCUPATION, AS DEPICTED, MAY INDICATE AREAS OF POTENTIAL CLAIMS OF UNWRITTEN OWNERSHIP. THIS SURVEY HAS ONLY DEPICTED THE RELATIONSHIP BETWEEN LINES OF OCCUPATION AND DEEDED LINES OF RECORD. NO RESOLUTION OF OWNERSHIP BASED ON UNWRITTEN RIGHTS HAS BEEN MADE BY THIS SURVEY OR BY ANY PERSONNEL OF BARGHAUSEN CONSULTING ENGINEERS, INC.
- THIS IS A FIELD TRAVERSE SURVEY. A TRIMBLE S-7 ROBOTIC TOTAL STATION AND A TRIMBLE R120 GPS WERE USED TO MEASURE THE ANGULAR AND DISTANCE RELATIONSHIPS BETWEEN CONTROLLING MONUMENTATION AS SHOWN. CLOSURE RATIOS OF THE TRAVERSE MET OR EXCEEDED THOSE SPECIFIED IN W.A.C. 332-130-090. ALL INSTRUMENTS AND EQUIPMENT HAVE BEEN MAINTAINED IN ADJUSTMENT ACCORDING TO MANUFACTURERS' SPECIFICATION AND USED BY APPROPRIATELY TRAINED PERSONNEL.
- THIS SURVEY MEETS OR EXCEEDS THE "RELATIVE POSITIONAL PRECISION" REQUIREMENTS SET FORTH IN THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS IN SECTION 3.E.
- THE RECORD DESCRIPTION FOR THE SUBJECT PROPERTY MATHEMATICALLY CLOSES.
- ELEMENTS AND FEATURES DEPICTED HEREON SATISFY THE REQUIREMENTS STATED WITHIN W.A.C. 332-130-145 FOR TOPOGRAPHIC MAPS, INCLUDING THE FOLLOWING: THE SOURCE OF THE CONTOURS SHOWN HEREON ARE BASED UPON DIRECT FIELD OBSERVATIONS. THE CONTOUR ACCURACY IS PER NATIONAL MAPPING STANDARDS, BEING ONE HALF OF THE ONE FOOT CONTOUR INTERVAL. THE PURPOSE OF THIS SURVEY IS FOR TITLE DILIGENCE AND TO MAP THE CURRENT CONDITIONS FOR ENGINEERING DESIGN.

TITLE INFORMATION:

TITLE COMMITMENT:
ALL TITLE INFORMATION SHOWN ON THIS MAP HAS BEEN EXTRACTED FROM FIRST AMERICAN TITLE INSURANCE COMPANY COMMITMENT NO. NCS-1089509-SD, DATED SEPTEMBER 20, 2021 AT 7:30 AM. IN PREPARING THIS MAP, BARGHAUSEN CONSULTING ENGINEERS, INC. HAS CONDUCTED NO INDEPENDENT TITLE SEARCH NOR IS BARGHAUSEN CONSULTING ENGINEERS, INC. AWARE OF ANY TITLE ISSUES AFFECTING THE SURVEYED PROPERTY OTHER THAN THOSE SHOWN ON THE MAP AND DISCLOSED BY SAID COMMITMENT. BARGHAUSEN CONSULTING ENGINEERS, INC. HAS RELIED WHOLLY ON SAID TITLE COMPANY'S REPRESENTATIONS OF THE TITLE'S CONDITION TO PREPARE THIS SURVEY AND THEREFORE BARGHAUSEN CONSULTING ENGINEERS, INC. QUALIFIES THE MAP'S ACCURACY AND COMPLETENESS TO THAT EXTENT.

LEGAL DESCRIPTION
(PER ABOVE REFERENCED TITLE REPORT)

PARCEL A:
THAT PORTION OF THE SOUTH HALF OF SECTION 16, TOWNSHIP 18 NORTH, RANGE 2 WEST, W.M., IN THURSTON COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT THAT IS SOUTH 87°38'05" EAST 50 FEET AND NORTH 1°53'14" EAST 30 FEET FROM THE SOUTH QUARTER CORNER OF SAID SECTION, SAID QUARTER CORNER BEING ALSO THE MONUMENTED INTERSECTION OF COOPER POINT ROAD AND 9TH AVENUE, AND SAID POINT BEING THE RIGHT OF WAY INTERSECTION OF SAID COOPER POINT ROAD AND 9TH AVENUE;
THENCE CONTINUING NORTH 1°53'14" EAST ALONG THE EASTERLY RIGHT OF WAY OF COOPER POINT ROAD 5.00 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION;
THENCE CONTINUING ALONG SAID RIGHT OF WAY NORTH 1°53'14" EAST 221.42 FEET TO INTERSECT A CURVE TO THE LEFT WHOSE CENTER BEARS NORTH 88°06'44" WEST 1,050.00 FEET DISTANT;
THENCE CONTINUING ALONG SAID RIGHT OF WAY AND CURVE TO THE LEFT THROUGH A CENTRAL ANGLE OF 4°38'22" AN ARC DISTANCE OF 85.02 FEET;
THENCE NORTH 74°29'54" EAST 93.51 FEET;
THENCE SOUTH 87°38'05" EAST 338 FEET;
THENCE SOUTH 2°21'55" WEST 170.00 FEET;
THENCE SOUTH 61°04'11" EAST 78.26 FEET;
THENCE SOUTH 2°21'55" WEST 130.00 FEET;
THENCE NORTH 87°38'05" WEST PARALLEL WITH 9TH AVENUE WEST AND SAID SOUTH LINE OF SECTION 16 A DISTANCE OF 491.00 FEET TO THE TRUE POINT OF BEGINNING, IN THURSTON COUNTY, WASHINGTON.

PARCEL B:
A NON-EXCLUSIVE EASEMENT FOR AUTOMOBILE PARKING, PEDESTRIAN AND INCIDENTAL USES CREATED BY CONSTRUCTION EASEMENT AND RECIPROCAL EASEMENT AGREEMENT RECORDED FEBRUARY 3, 1978 UNDER RECORDING NO. 1026041, IN THURSTON COUNTY, WASHINGTON.

PARCEL C:

A NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS CREATED BY INSTRUMENT RECORDED NOVEMBER 21, 1988 UNDER RECORDING NO. 8811210106, IN THURSTON COUNTY, WASHINGTON.

SPECIAL EXCEPTIONS:
(PER TITLE REPORT REFERENCED HEREON)

ITEMS 1 THROUGH 11 ARE NOT SURVEY RELATED.

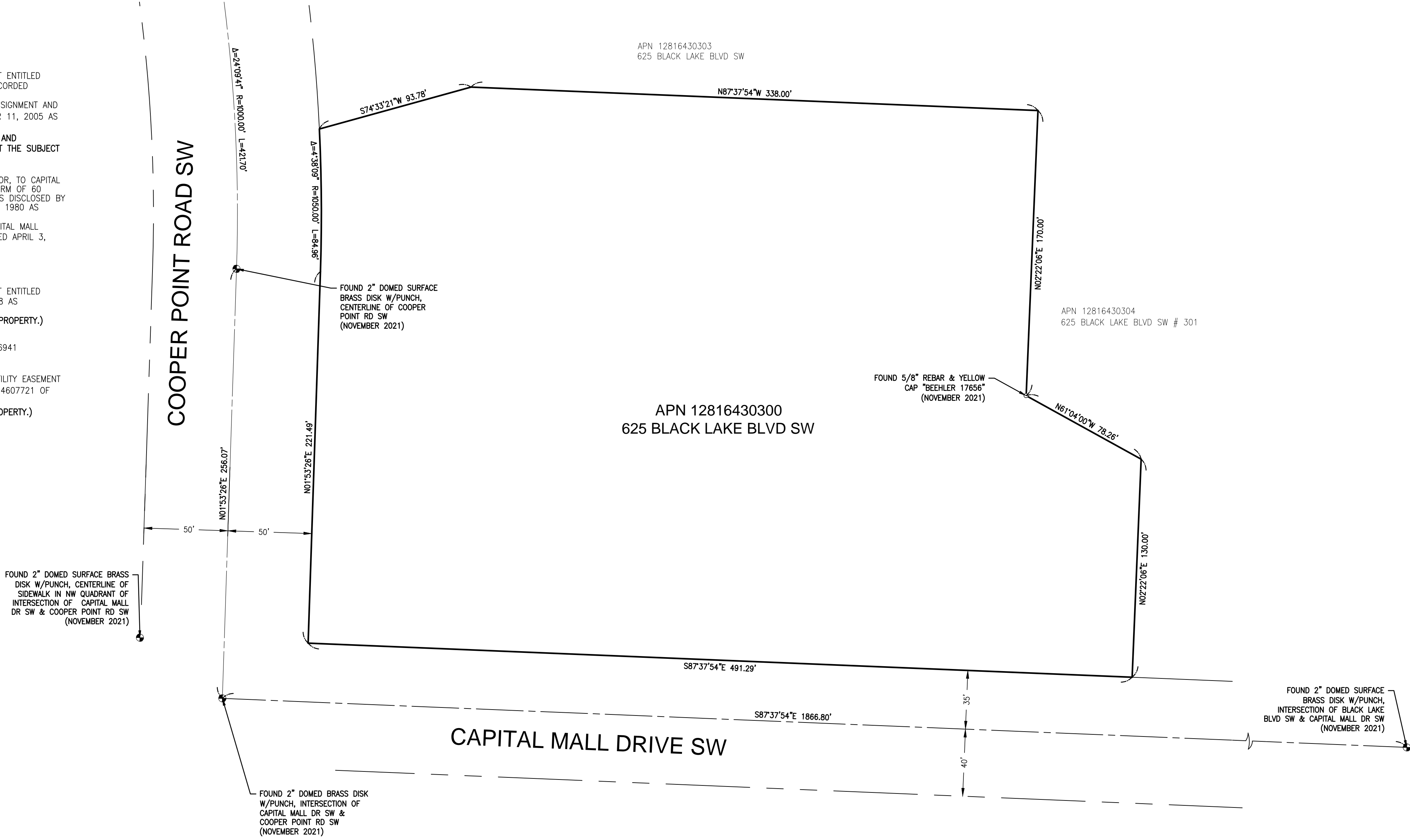
12. THE TERMS, PROVISIONS AND EASEMENT(S) CONTAINED IN THE DOCUMENT ENTITLED "CONSTRUCTION, OPERATION AND RECIPROCAL EASEMENT AGREEMENT" RECORDED FEBRUARY 3, 1978 AS RECORDING NO. 1026041 OF OFFICIAL RECORDS. THE TERMS AND PROVISIONS CONTAINED IN THE DOCUMENT ENTITLED "ASSIGNMENT AND ASSUMPTION OF RECIPROCAL EASEMENT AGREEMENT" RECORDED OCTOBER 11, 2005 AS 3774821 AND 3774822 OF OFFICIAL RECORDS.
(CONTAINS NON-EXCLUSIVE EASEMENTS FOR ACCESS, PARKING, UTILITIES AND CONSTRUCTION IN COMMON AREAS SPECIFIED THEREIN WHICH MAY AFFECT THE SUBJECT PROPERTY.)

13. LEASE MADE BY CONNECTICUT GENERAL LIFE INSURANCE COMPANY, LESSOR, TO CAPITAL MALL COMPANY, A WASHINGTON LIMITED PARTNERSHIP, LESSEE, FOR A TERM OF 60 YEARS, AND THE COVENANTS AND CONDITIONS AS THEREIN CONTAINED, AS DISCLOSED BY MEMORANDUM OF LEASE DATED APRIL 9, 1980, AND RECORDED APRIL 9, 1980 AS DOCUMENT NO. 1109109.
THE LESSOR'S INTEREST UNDER THE LEASE HAS BEEN ASSIGNED TO CAPITAL MALL COMPANY, A WASHINGTON LIMITED PARTNERSHIP BY ASSIGNMENT RECORDED APRIL 3, 2007 AS 3915839 OF OFFICIAL RECORDS.
(AFFECTS SAID PREMISES AND OTHER PROPERTY)
(NOT SURVEY RELATED.)

14. THE TERMS, PROVISIONS AND EASEMENT(S) CONTAINED IN THE DOCUMENT ENTITLED "DECLARATION AND GRANT OF EASEMENT" RECORDED NOVEMBER 21, 1988 AS RECORDING NO. 8811210106 OF OFFICIAL RECORDS.
(REFERENCED EASEMENT IS OFF SITE, 1000± FEET NORTH OF SUBJECT PROPERTY.)

15. EASEMENT, INCLUDING TERMS AND PROVISIONS CONTAINED THEREIN: RECORDING INFORMATION: SEPTEMBER 11, 2007 AS RECORDING NO. 3956941 IN FAVOR OF: THE CITY OF OLYMPIA FOR: WATER SERVICE
THE TERMS AND PROVISIONS CONTAINED IN THE DOCUMENT ENTITLED "UTILITY EASEMENT AND PARTIAL RELEASE OF EASEMENT" RECORDED JANUARY 22, 2018 AS 4607721 OF OFFICIAL RECORDS.
(REFERENCED EASEMENT IS OFF SITE, NORTH AND EAST OF SUBJECT PROPERTY.)

ITEMS 16 THROUGH 24 ARE NOT SURVEY RELATED.

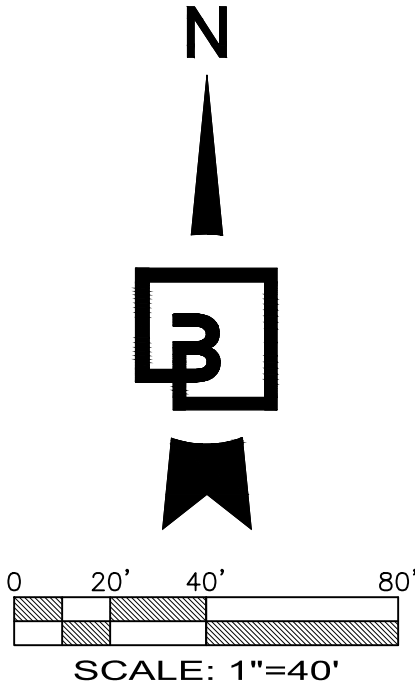


LEGEND
(NOTE: NOT ALL SYMBOLS MAY APPEAR ON THE MAP)

	SURVEY MONUMENT (AS NOTED)
	SECTION CORNER (AS NOTED)
	NAG/WASHER OR LEAD/TACK (AS NOTED)
	SCHEDULE B EXCEPTION NUMBER (SEE LIST HEREON)

ABBREVIATIONS

(R#)	REFERENCE SURVEYS
(OH)	OVERHEAD
(UG)	UNDERGROUND
(TYP)	TYPICAL
(C)	CALCULATED
(M)	MEASURED



SURVEYOR'S CERTIFICATION:

TO: CHICK-FIL-A, INC., A GEORGIA CORPORATION;
FIRST AMERICAN TITLE INSURANCE COMPANY NATIONAL COMMERCIAL SERVICES

THIS IS TO CERTIFY THAT THIS MAP AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS AND INCLUDES ITEMS 2, 3, 4, 5, 7(a)(1), 7(c), 8, 9, 11(a), 11(b), 13 AND 16 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED IN NOVEMBER, 2021.

DATE OF PLAT OR MAP: DECEMBER 14, 2021.

MARK DUFFNER, PLS
WASHINGTON REGISTRATION NO. 39870
MDUFFNER@BARGHAUSEN.COM

12/14/2021
DATE

Revision		Title:		ALTA/NSPS LAND TITLE SURVEY	
No.		Date		PTN OF THE SW1/4, OF THE SE1/4 OF SEC. 16, TWP. 18 N., RGE 2 W, W. M. CITY OF OLYMPIA, THURSTON COUNTY, WASHINGTON STATE	
By		Ckd.		Appr.	
For:		CHICK-FIL-A, INC.		A GEORGIA CORPORATION	
Scale:		Horizontal 1"=40'		Vertical	
Designed		Drawn		Checked	
Approved		MND		MND	
Date		12/14/21			
Job Number		22110		Barghausen Consulting Engineers, Inc. 18215 72nd Avenue South Kent, WA 98032 425.251.6222 barghausen.com	
Sheet		1		2	



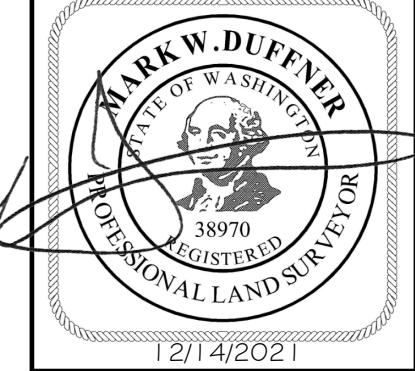
ALTA/NSPS LAND TITLE SURVEY



Revision

CHICK-FIL-A, INC.
A GEORGIA CORPORATION

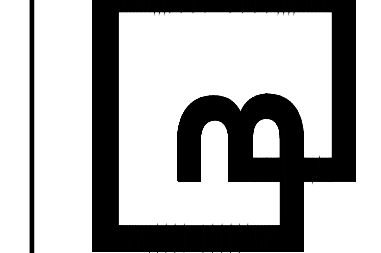
For:



Scale:

Designed
Drawn
Checked
Approved
Date

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



Job Number
22110

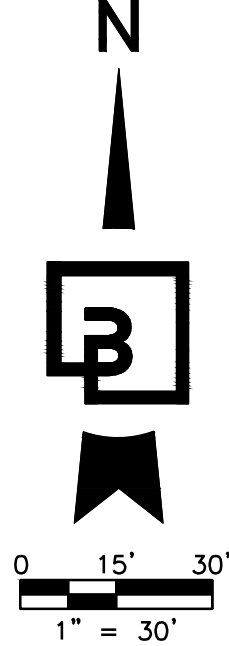
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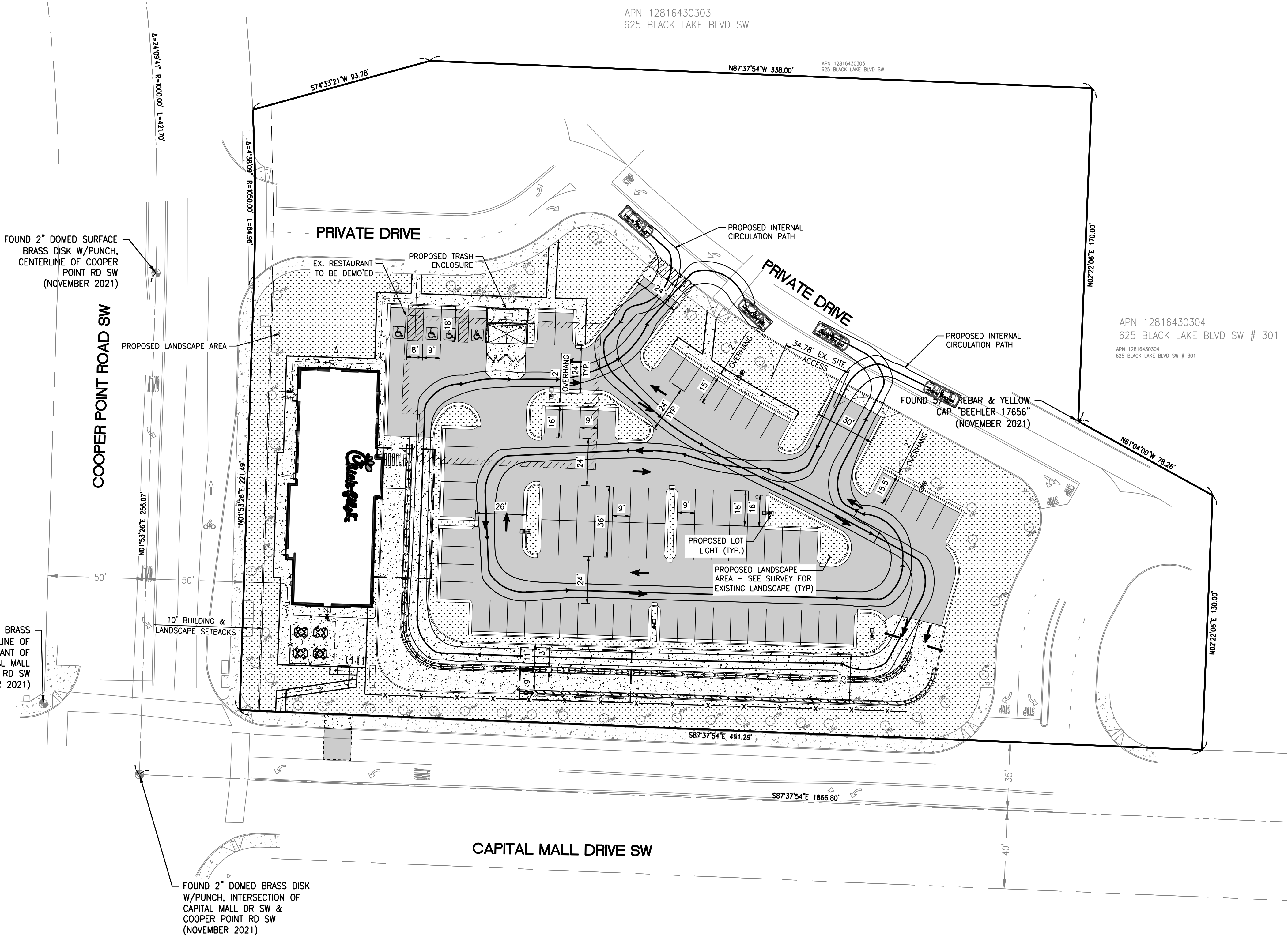
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12/14/2021 3:20 PM A:\LARRY

PRELIMINARY SITE PLAN
FOR
CHICK-FIL-A COOPER POINT
SECTION 16, TWP. 18 N., RGE 2 EAST, W. M.
OLYMPIA, THURSTON COUNTY, STATE OF WASHINGTON



	EXISTING	TO BE ADDED	TOTAL
PARCEL AREA (SQ. FT.)	150837	0	150837
NUMBER OF LOTS	1	0	1
OCCUPANCY TYPE	RESTAURANT	RESTAURANT	RESTAURANT
NUMBER OF BUILDINGS	1	1	1
HEIGHT (FT.)	23.80		
NUMBER OF STORIES INCLUDING BASEMENT	1	1	1
GROUND FLOOR AREA (SQ. FT.)	7,220.58	4,987	4,987
GROSS FLOOR AREA OF BUILDING (SQ. FT.)	7,220.57	4,987	4,987
PROJECT AREA LANDSCAPE (SQ. FT.)	26,703	26,396	26,396
NUMBER OF VEHICULAR PARKING SPACES	109	80	80
NUMBER OF LONG TERM BIKE SPACES	0	3	3
NUMBER OF SHORT TERM BIKE SPACES	0	5	5
TOTAL IMPERVIOUS SURFACE COVERAGE (SQ. FT.)	61,988	62,295	62,295



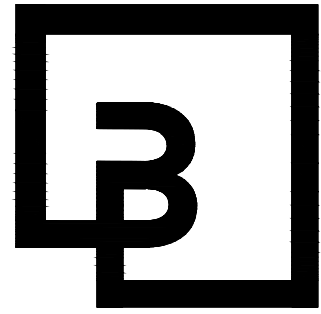
CRITICAL AREAS NOTE:
THE FOLLOWING CRITICAL AREAS ARE ASSOCIATED WITH THIS SITE:

- CRITICAL AQUIFER RECHARGE AREA (WHOLE SITE)
- HIGH GROUNDWATER REVIEW AREA (WEST HALF)
- WETLAND REVIEW AREA (WEST HALF)



Chick-fil-A

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia 30349-2998



Barghausen
Consulting Engineers, Inc.

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

CHICK-FIL-A
OLYMPIA, WA
2930 CAPITAL MALL DRIVE SW
OLYMPIA, WA 98502

FSR#04425

BUILDING TYPE / SIZE:
RELEASE:

REVISION SCHEDULE
NO. DATE DESCRIPTION

CONSULTANT PROJECT # 22110
PRINTED FOR ENTITLEMENT
DATE 5/9/2022
DRAWN BY MMM

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SHEET
PRELIMINARY SITE PLAN

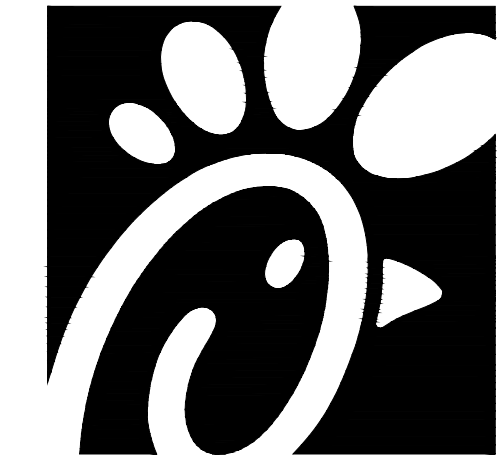
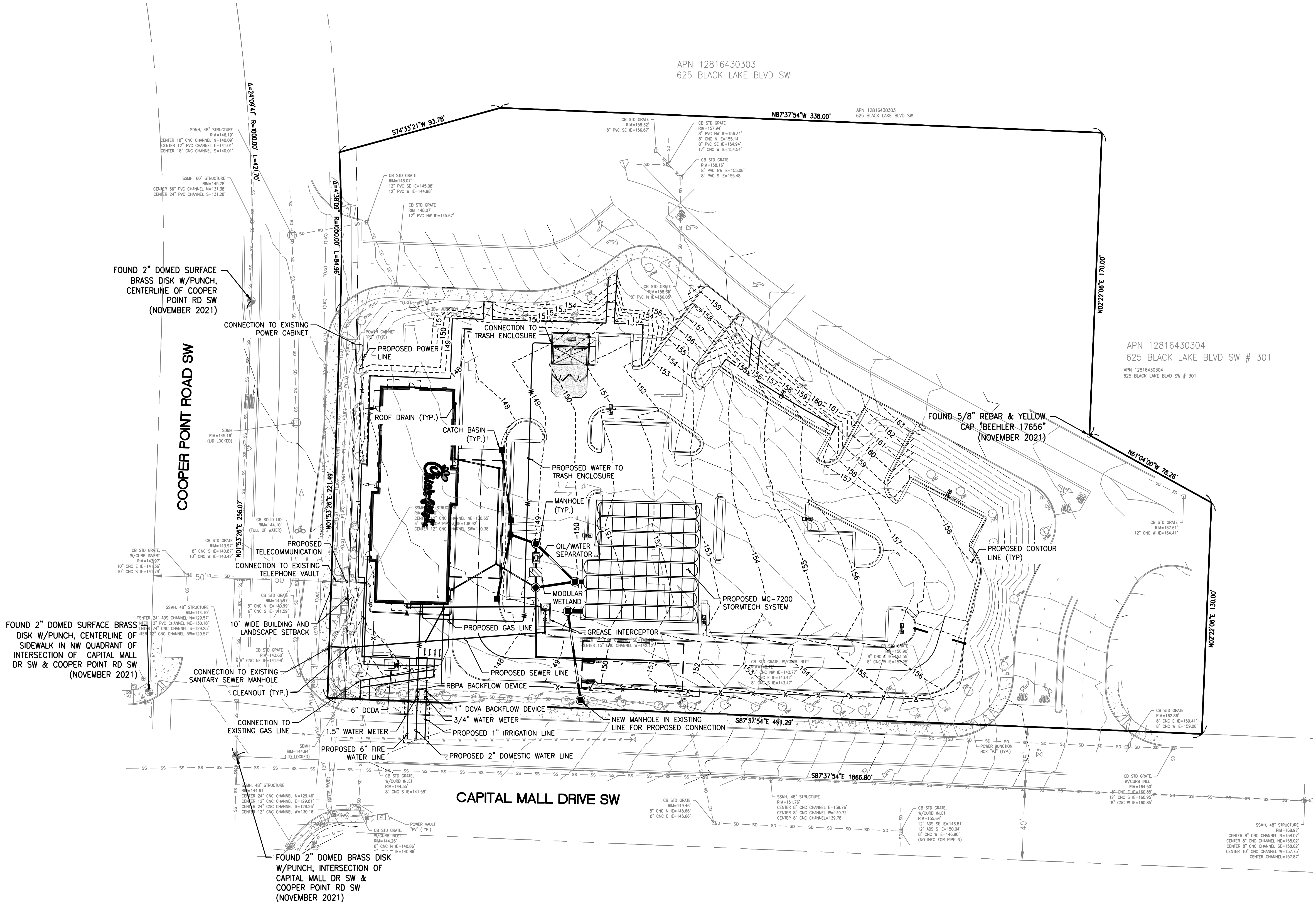
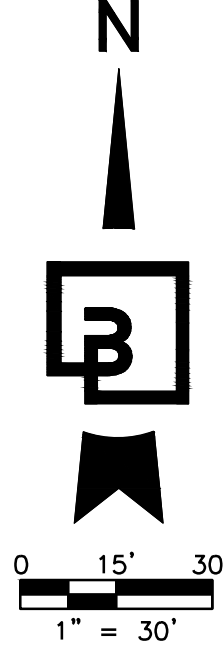
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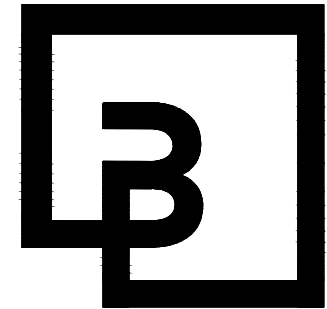
Know what's below.
Call before you dig.
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PRELIMINARY GRADING, DRAINAGE + UTILITY PLAN
FOR
CHICK-FIL-A COOPER POINT
SECTION 16, TWP. 18 N., RGE 2 EAST, W. M.
OLYMPIA, THURSTON COUNTY, STATE OF WASHINGTON



Chick-fil-A

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia 30349-2998



Barghausen
Consulting Engineers, Inc.

18215 72nd Avenue South
Kent, WA 98032
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CHICK-FIL-A
OLYMPIA, WA
2930 CAPITAL MALL DRIVE SW
OLYMPIA, WA 98502

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BUILDING TYPE / SIZE:
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CONSULTANT PROJECT # 22110
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DATE 5/9/2022
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SHEET
PRELIMINARY GRADING,
DRAINAGE + UTILITY PLAN

SHEET NUMBER



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Call before you dig.
Dial 811

WASHINGTON FORESTRY CONSULTANTS, INC.

FORESTRY AND VEGETATION MANAGEMENT SPECIALISTS



O: 360/943-1723
C: 360/561-4407

9136 Yelm Hwy SE
Olympia, WA 98513

- Level II Tree, Soil, and Native Vegetation Protection and Replacement Plan -

CHICK-FIL-A

2930 Capital Mall Drive SW
Olympia WA 98502

Prepared for: 4G Development and Consulting, Inc.

Prepared by: Washington Forestry Consultants, Inc.

Date of Report: March 10, 2022

Introduction

We were asked to inspect the trees and vegetation at 2930 Capital Mall Drive SW in Olympia and prepare Level II Tree, Soil, and Native Vegetation Protection and Replacement Plan per Chapter 16.60 of the City of Olympia Municipal Code.

The applicant is planning to re-develop the site into a new Chick-fil-A restaurant. The following is a summary of our findings and recommendations.

Methods: WFCI has individually inventoried and evaluated each tree over 1 inch diameter at breast height (DBH) in the proposed project area, and assessed its potential to be affected project. The tree evaluation phase used methodology developed by Matheny and Clark (1998)¹.

In all cases, the overall appearance of the tree was considered relative to its ability to add value to the site and the scale of the tree and its proximity to other developments was considered.

Site Description: The site consists of 1 parcel totaling 3.49 acres. There is a restaurant and large parking areas currently on the site. It is bordered by the Capital Mall to the north and east, Capital Mall Drive SW to the south, and Cooper Point Road SW to the west.

¹ Matheny, Nelda and James R. Clark. *Trees and Development: A Technical Guide to Preservation of Trees during Land Development*. International Society of Arboriculture, Champaign. IL 1998

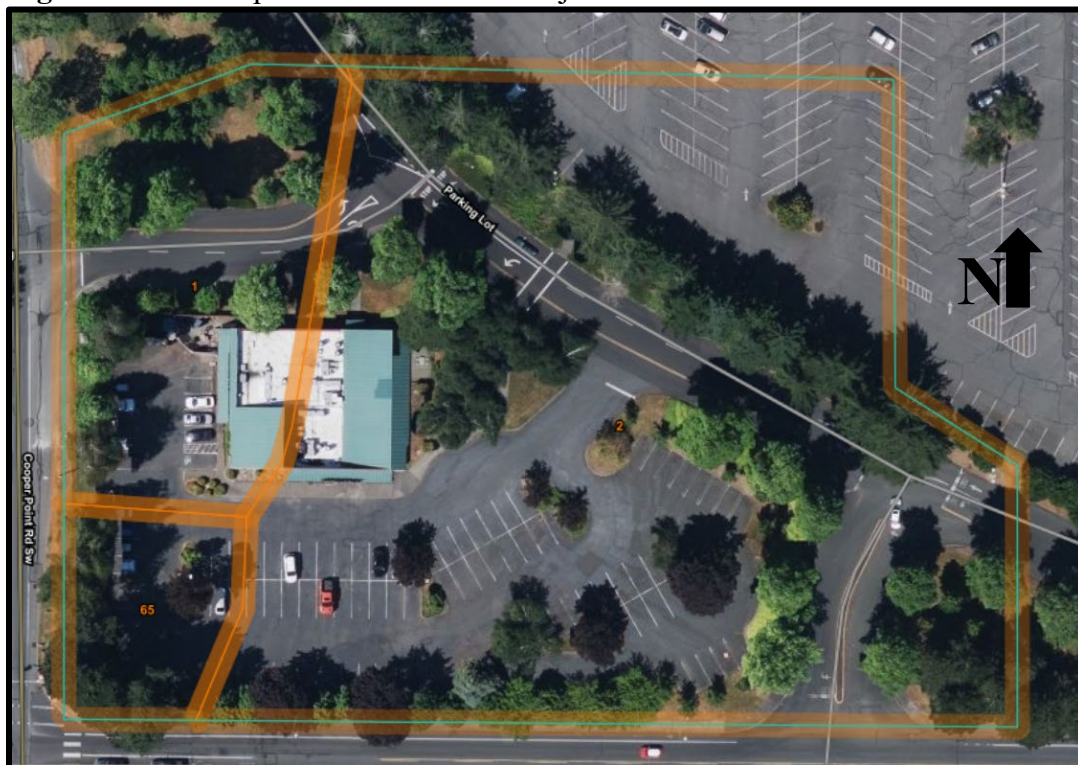
Soils Description: According to the USDA Web Soil Survey there are two soil types on the site. Both soil types have been altered from previous site development.

The first type is the Alderwood gravelly sandy loam. The Alderwood gravelly sandy loam is a moderately deep, moderately well drained soil found on glacial till plains. It is formed in ablation till overlying basal till. A weakly cemented hardpan is at a depth of 20 to 40 inches. Permeability is moderately rapid above the hardpan and very slow in the pan. Available water capacity is low. The effective rooting depth for trees is 20-40 inches. A perched seasonal high-water table is at a depth of 18-36 inches from November to March. The potential for windthrow of trees is moderate under normal conditions. New trees require irrigation for establishment. Most of the property covered by this soil type has been graded and paved over with asphalt.

In areas where grading brings the hardpan nearer to the surface, the hardpan must be fractured under new trees to provide soil volume for root development and to improve drainage around the tree.

The second type is the McKenna gravelly silt loam, a moderately deep, poorly drained soil. It is formed in gravelly glacial till under conifers, hardwoods, sedges and grasses in low lying depressions and drainageways. Permeability is very slow. The available water capacity for plants is moderate. The effective rooting depth for trees is 31 inches. A high-water table remains close to the surface throughout the rainy season. When the soil is excessively wet and winds are strong windthrow can be expected.

Figure 1. Soils Map of the Chick-fil-A Project Area.



1,2 – Alderwood gravelly sandy loam
65 – McKenna gravelly silt loam

Tree Conditions: There is one cover type for the purposes of description. There are 142 trees on the site ranging from 2 to 32 inches in diameter at breast height (DBH). The trees are a mix of native and introduced species that were planted in the landscape of the existing property. Tree species include Alaskan cedar (*Callitropsis nootkatensis*), Austrian black pine (*Pinus nigra*), Callery pear (*Pyrus calleryana*), Colorado blue spruce (*Picea pungens*), Douglas-fir (*Pseudotsuga menziesii*), European birch (*Betula pendula*), cherry (*Prunus spp.*), green ash (*Fraxinus pensylvanica*), Japanese black pine (*Pinus thunbergia*), Norway maple (*Acer platanoides*), paper birch (*Betula papyrifera*), red maple (*Acer rubrum*), and tulip poplar (*Liriodendron tulipifera*).

One hundred and twenty-three of the trees are in ‘Fair’ or better condition with nineteen trees in ‘Poor’ or worse condition. Table 1 below is a summary of the trees in the type by species and condition.



Photo 1. View of trees in area of proposed work.

Understory vegetation is sparse and includes mostly ornamental shrubs in the landscape and a grass lawn.

Table 1. Summary of trees in Type I of the project site.

Species	DBH Range (in)	# Healthy Trees	# Unhealthy Trees	Total # of Trees
Alaskan Cedar	3	2	0	2
Austrian Black Pine	24	0	1	1
Callery Pear	4 – 6	11	0	11
Colorado Blue Spruce	19	1	0	1
Deciduous	9	0	1	1
Douglas-fir	9 – 29	24	4	28
European Birch	13 – 19	0	5	5
Flowering Cherry	3 – 14	6	0	6
Green Ash	3 – 9	11	0	11
Japanese Black Pine	13 – 29	5	7	12
Norway Maple	4 – 30	9	0	9
Paper Birch	6 – 13	12	0	12
Red Maple	4 – 9	21	0	21
Tulip Poplar	2 – 32	21	1	22
Sum	2 – 32	123	19	142

Discussion

Tree Retention: The site plan shows that 26 trees will be removed for the construction of the project. This leaves 116 trees to be retained on the site after construction. It is recommended that 20 trees of the save trees in ‘Poor’ or worse condition be removed and replaced as well.

Tree Density Calculations

The City of Olympia requires 1 tree unit retained for every 500 square feet of disturbance up to the required tree unit density. The following is a summary of the planned tree density calculations:

Lot Size: 152,024 Square Feet

Area of Disturbance: 62,784 Square Feet

Tree Units Required: $62,784\text{ft}^2 / 500\text{ft}^2 = 125.5$ tree units

Planned Tree Retention: 116 trees

Planned Tree Unit Retention: 360.0 tree units

Tree Retention Requirement Summary:

360.0 saved tree units – 125.5 required tree units = +234.5 tree units

By retaining 116 significant trees, this plan retains 360.0 tree units, 234.5 tree units over the minimum required by the City of Olympia.

There are 20 trees shown as being retained that should be removed because of poor health or are hazards to surrounding targets. If these 20 trees are removed the total number of trees retained would be 96 and the number of tree units being retained would be 264.5 units. This is still over the required retention by 139 tree units.

Tree Protection Measures: Trees to be saved must be protected during construction by temporary chain-link fencing on driven posts (Attachment 4), located at the edge of the root protection zone (RPZ). The individual RPZ's are a radius 5 ft. outside the dripline of the tree, at the edge of existing improvements, or otherwise delineated by WFCI.

There should be no equipment activity (including rototilling) within the critical root zone. No irrigation lines, trenches, or other utilities should be installed within the RPZ. Cuts or fills should impact no more than 20% of a tree's root system. If topsoil is added to the root zone of a protected tree, the depth should not exceed 2 inches of a sandy loam or loamy fine sand topsoil and should not cover more than 20% of the root system.

If roots are encountered outside the RPZ during construction, they should be cut cleanly with a saw and covered immediately with moist soil. Noxious vegetation within the critical root zone should be removed by hand. If a proposed save tree must be impacting by grading or fills, then the tree should be re-evaluated by WFCI to determine if the tree can be saved with mitigating measures, or if the tree should be removed.

Conclusions and Timeline for Tree Protection Activity

1. Contact Project Forester to identify location for Tree Protection fence on site.
2. Contractor to install Tree Fence.
3. Project Forester inspects location and installation of Tree Fence and sends City of Olympia Forester inspection notice of Approval.
4. City Forester notifies Inspector the Pre-construction conference may be scheduled.
5. Contact Project Forester to attend the pre-construction conference to discuss tree protection issues.
6. Removal of trees and grading may begin within the clearing limits in the construction area
7. Maintain all tree protection fences throughout construction.
8. If any unplanned construction activity will affect a save tree, contact Project Forester prior to the impact. Project Forester assesses the proposed impact and recommends cultural care, mitigation, or removal. Project Forester sends email to City of Olympia Forester for final approval.

Summary

Twenty-six of the trees on the Chick-fil-A site will be removed for the proposed project. The 116 trees proposed for retention represent 360.0 tree units on the site, 234.5 more than the minimum required by the City of Olympia.

There are 20 trees in 'Poor' or worse health shown as being retained. We recommend that these 20 trees be removed and replaced. The remaining 96 trees will still exceed the minimum requirement by 264.5 tree units.

Please give us a call if you have any questions.

Respectfully submitted,



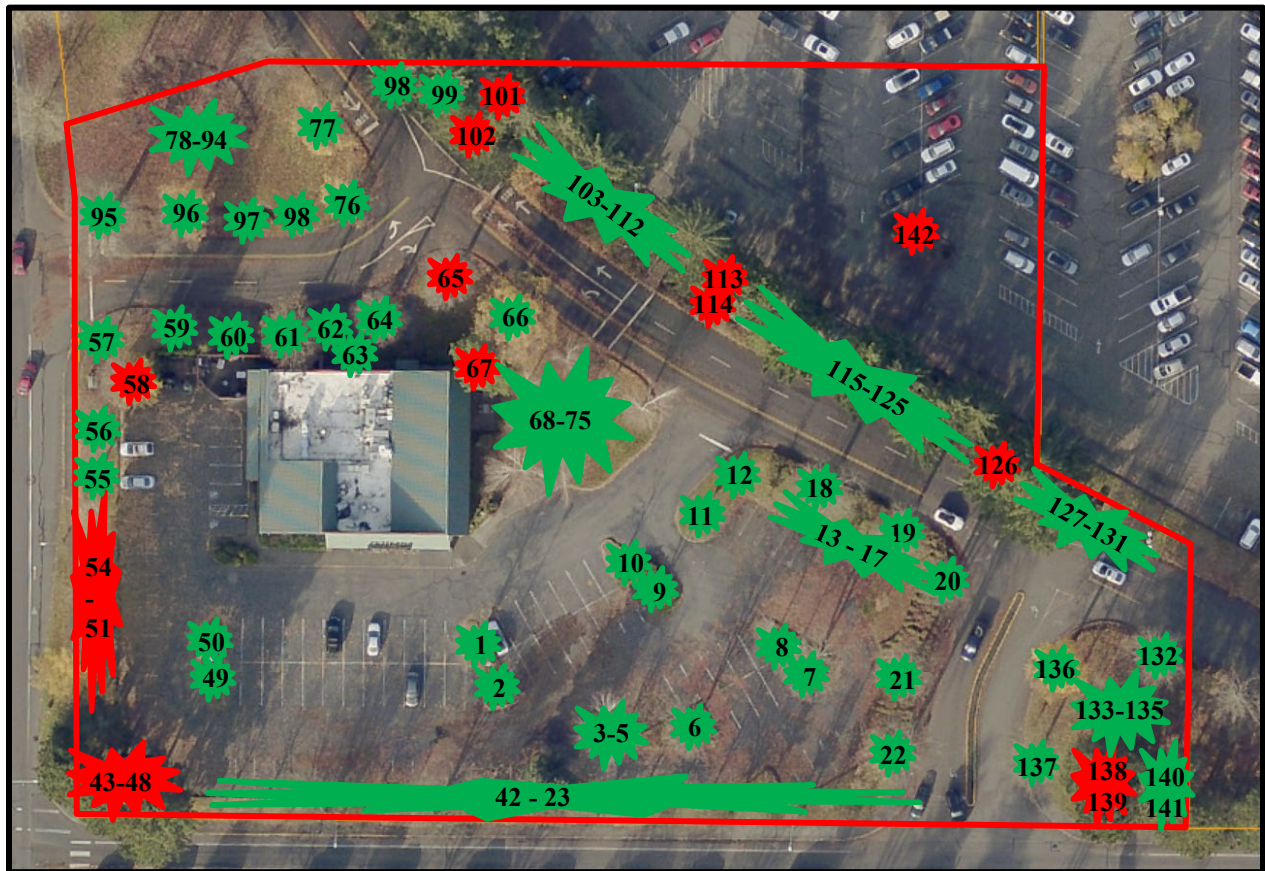
Galen M. Wright, ACF, ASCA
ISA Bd. Certified Master Arborist PN-129BU
Certified Forester No. 44
ISA Tree Risk Assessor Qualified



Joshua Sharpes
Professional Forester
ISA Certified Arborist
Municipal Specialist, PN-5939AM
ISA Tree Risk Assessor Qualified

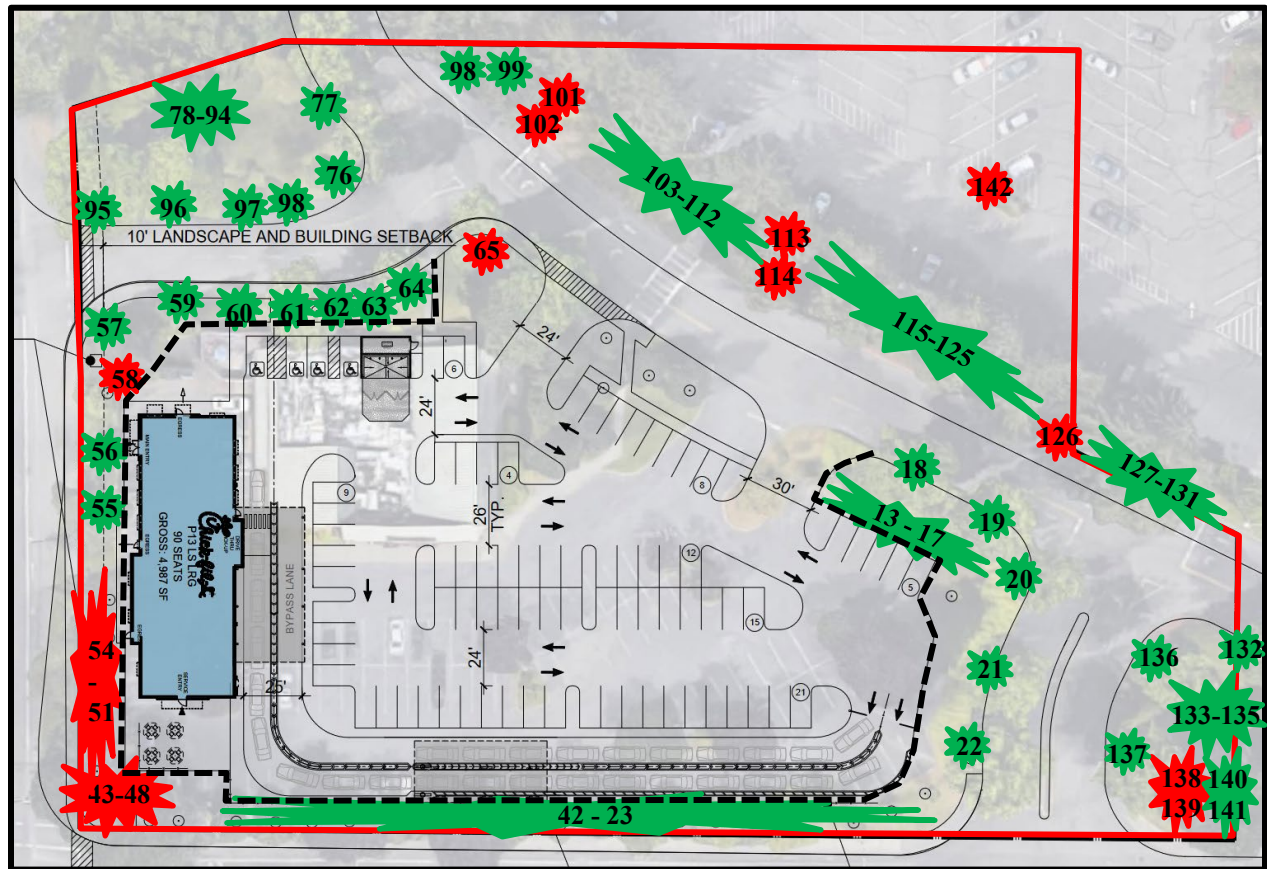
Attachment 1. Aerial Photo of Chick-fil-A Project Site

(2020 Thurston County GeoData)



- Project Area and Cover Type Boundary
- ★ Healthy Tree
- ★ Unhealthy Tree

Attachment 2. Proposed Site Plan of Chick-fil-A Project.



----- Tree Protection Fence Location

★ Location of Healthy Tree to Retain

★ Location of Unhealthy Tree Proposed for Retention
That Should be Removed and Replaced

Attachment 3. Chick-fil-A Project Tree List

Tree #	Species	DBH (in.)	Condition	Tree Potential to Save Based only on Tree Condition? Yes or No	RPZ (ft. Radius)	Tree Units	Project Plan Save or Remove	Notes
1	Norway Maple	4	Fair	Yes			Remove	
2	Norway Maple	14	Fair	Yes			Remove	
3	Paper Birch	7	Fair	Yes			Remove	
4	Paper Birch	6	Fair	Yes			Remove	
5	Paper Birch	7	Fair	Yes			Remove	
6	Norway Maple	17	Fair	Yes			Remove	
7	Norway Maple	27	Fair	Yes			Remove	growing into street lamp
8	Paper Birch	6	Fair	Yes			Remove	
9	Norway Maple	9	Fair	Yes			Remove	
10	Norway Maple	10	Fair	Yes			Remove	
11	Callery Pear	6	Fair	Yes			Remove	
12	Callery Pear	4	Fair	Yes			Remove	
13	Callery Pear	4	Fair	Yes	Back of curb	1	Save	
14	Callery Pear	4	Fair	Yes	Back of curb	1	Save	
15	Callery Pear	4	Fair	Yes	Back of curb	1	Save	
16	Callery Pear	4	Fair	Yes	Back of curb	1	Save	
17	Callery Pear	4	Fair	Yes	Back of curb	1	Save	
18	Tulip Poplar	28	Fair	Yes	Back of curb	9	Save	
19	Tulip Poplar	23	Fair	Yes	Back of curb	6	Save	

Chick-fil-A- Level II Tree Soil and Native Vegetation Protection and Replacement Plan

Tree #	Species	DBH (in.)	Condition	Tree Potential to Save Based only on Tree Condition? Yes or No	RPZ (ft. Radius)	Tree Units	Project Plan Save or Remove	Notes
20	Tulip Poplar	22	Fair	Yes	Back of curb	6	Save	
21	Tulip Poplar	21	Fair	Yes	Back of curb	5	Save	
22	Tulip Poplar	25	Fair	Yes	Back of curb	7	Save	
23	Callery Pear	4	Fair	Yes	Back of curb	1	Save	
24	Callery Pear	4	Fair	Yes	Back of curb	1	Save	
25	Callery Pear	5	Fair	Yes	Back of curb	1	Save	
26	Callery Pear	5	Fair	Yes			Remove	
27	Flowering Cherry	14	Fair	Yes	Back of curb	2	Save	
28	Green Ash	9	Good	Yes	Back of curb	1.5	Save	
29	Flowering Cherry	13	Fair	Yes	Back of curb	1.5	Save	
30	Green Ash	9	Fair	Yes	Back of curb	1.5	Save	
31	Flowering Cherry	13	Fair	Yes	Back of curb	1.5	Save	
32	Green Ash	7	Good	Yes	Back of curb	1.5	Save	
33	Colorado Blue Spruce	19	Fair	Yes			Remove	
34	Green Ash	7	Good	Yes	Back of curb	1.5	Save	
35	Green Ash	9	Good	Yes	Back of curb	1.5	Save	
36	Norway Maple	30	Fair	Yes	Back of curb	10	Save	
37	Green Ash	7	Good	Yes	Back of curb	1.5	Save	
38	Green Ash	7	Good	Yes	Back of curb	1.5	Save	

Chick-fil-A- Level II Tree Soil and Native Vegetation Protection and Replacement Plan

Tree #	Species	DBH (in.)	Condition	Tree Potential to Save Based only on Tree Condition? Yes or No	RPZ (ft. Radius)	Tree Units	Project Plan Save or Remove	Notes
39	Norway Maple	23	Fair	Yes	Back of curb	6	Save	
40	Green Ash	7	Fair	Yes	Back of curb	1.5	Save	
41	Green Ash	8	Fair	Yes	Back of curb	1.5	Save	
42	Green Ash	7	Good	Yes	Back of curb	1.5	Save	
43	Japanese Black Pine	25	Poor	No	Back of curb	7	Save	poor co-dominant tops
44	Japanese Black Pine	20	Poor	No	Back of curb	5	Save	poor co-dominant tops
45	Japanese Black Pine	16	Poor	No	Back of curb	3	Save	poor co-dominant tops
46	Japanese Black Pine	29	Poor	No	Back of curb	9	Save	poor co-dominant tops
47	Japanese Black Pine	27	Poor	No	Back of curb	8	Save	poor co-dominant tops
48	Japanese Black Pine	23	Poor	No	Back of curb	6	Save	poor co-dominant tops
49	Norway Maple	14	Fair	Yes			Remove	
50	Green Ash	3	Good	Yes			Remove	
51	European Birch	16	Poor	No	Back of curb	3	Save	poor tops, stem decay
52	European Birch	13	Poor	No	Back of curb	1.5	Save	poor tops, stem decay

Chick-fil-A- Level II Tree Soil and Native Vegetation Protection and Replacement Plan

Tree #	Species	DBH (in.)	Condition	Tree Potential to Save Based only on Tree Condition? Yes or No	RPZ (ft. Radius)	Tree Units	Project Plan Save or Remove	Notes
53	European Birch	15	Poor	No	Back of curb	2	Save	poor top
54	European Birch	19	Poor	No	Back of curb	4	Save	poor top
55	Tulip Poplar	14	Good	Yes	Back of curb	2	Save	
56	Tulip Poplar	14	Good	Yes	Back of curb	2	Save	
57	Tulip Poplar	14	Good	Yes	Back of curb	2	Save	
58	European Birch	19	Poor	No	Back of curb	4	Save	poor top
59	Red Maple	9	Fair	Yes	Back of curb	1.5	Save	
60	Tulip Poplar	4	Fair	Yes	Back of curb	1	Save	
61	Tulip Poplar	23	Good	Yes	Back of curb	6	Save	
62	Alaskan Cedar	3	Good	Yes	Back of curb	1	Save	
63	Alaskan Cedar	3	Good	Yes	Back of curb	1	Save	
64	Tulip Poplar	22	Good	Yes	Back of curb	6	Save	
65	Tulip Poplar	24	Very Poor	No	Back of curb	7	Save	cracking co-dominant stems
66	Tulip Poplar	27	Fair	Yes			Remove	
67	Austrian Black Pine	24	Poor	No			Remove	poor multit-tops
68	Paper Birch	9	Fair	Yes			Remove	
69	Paper Birch	10	Fair	Yes			Remove	
70	Paper Birch	7	Fair	Yes			Remove	
71	Paper Birch	8	Fair	Yes			Remove	
72	Paper Birch	13	Fair	Yes			Remove	
73	Paper Birch	9	Fair	Yes			Remove	

Chick-fil-A- Level II Tree Soil and Native Vegetation Protection and Replacement Plan

Tree #	Species	DBH (in.)	Condition	Tree Potential to Save Based only on Tree Condition? Yes or No	RPZ (ft. Radius)	Tree Units	Project Plan Save or Remove	Notes
74	Paper Birch	10	Fair	Yes			Remove	
75	Paper Birch	12	Fair	Yes			Remove	
76	Tulip Poplar	21	Good	Yes	Back of curb	5	Save	
77	Tulip Poplar	22	Good	Yes	Back of curb	6	Save	
78	Red Maple	5	Fair	Yes	Back of curb	1	Save	
79	Red Maple	5	Fair	Yes	Back of curb	1	Save	
80	Red Maple	5	Fair	Yes	Back of curb	1	Save	
81	Red Maple	5	Fair	Yes	Back of curb	1	Save	
82	Red Maple	5	Fair	Yes	Back of curb	1	Save	
83	Red Maple	5	Fair	Yes	Back of curb	1	Save	
84	Red Maple	5	Fair	Yes	Back of curb	1	Save	
85	Red Maple	5	Fair	Yes	Back of curb	1	Save	
86	Red Maple	5	Fair	Yes	Back of curb	1	Save	
87	Red Maple	5	Fair	Yes	Back of curb	1	Save	
88	Red Maple	5	Fair	Yes	Back of curb	1	Save	
89	Red Maple	5	Fair	Yes	Back of curb	1	Save	
90	Red Maple	5	Fair	Yes	Back of curb	1	Save	
91	Red Maple	5	Fair	Yes	Back of curb	1	Save	
92	Red Maple	5	Fair	Yes	Back of curb	1	Save	
93	Red Maple	5	Fair	Yes	Back of curb	1	Save	
94	Red Maple	5	Fair	Yes	Back of curb	1	Save	

Chick-fil-A- Level II Tree Soil and Native Vegetation Protection and Replacement Plan

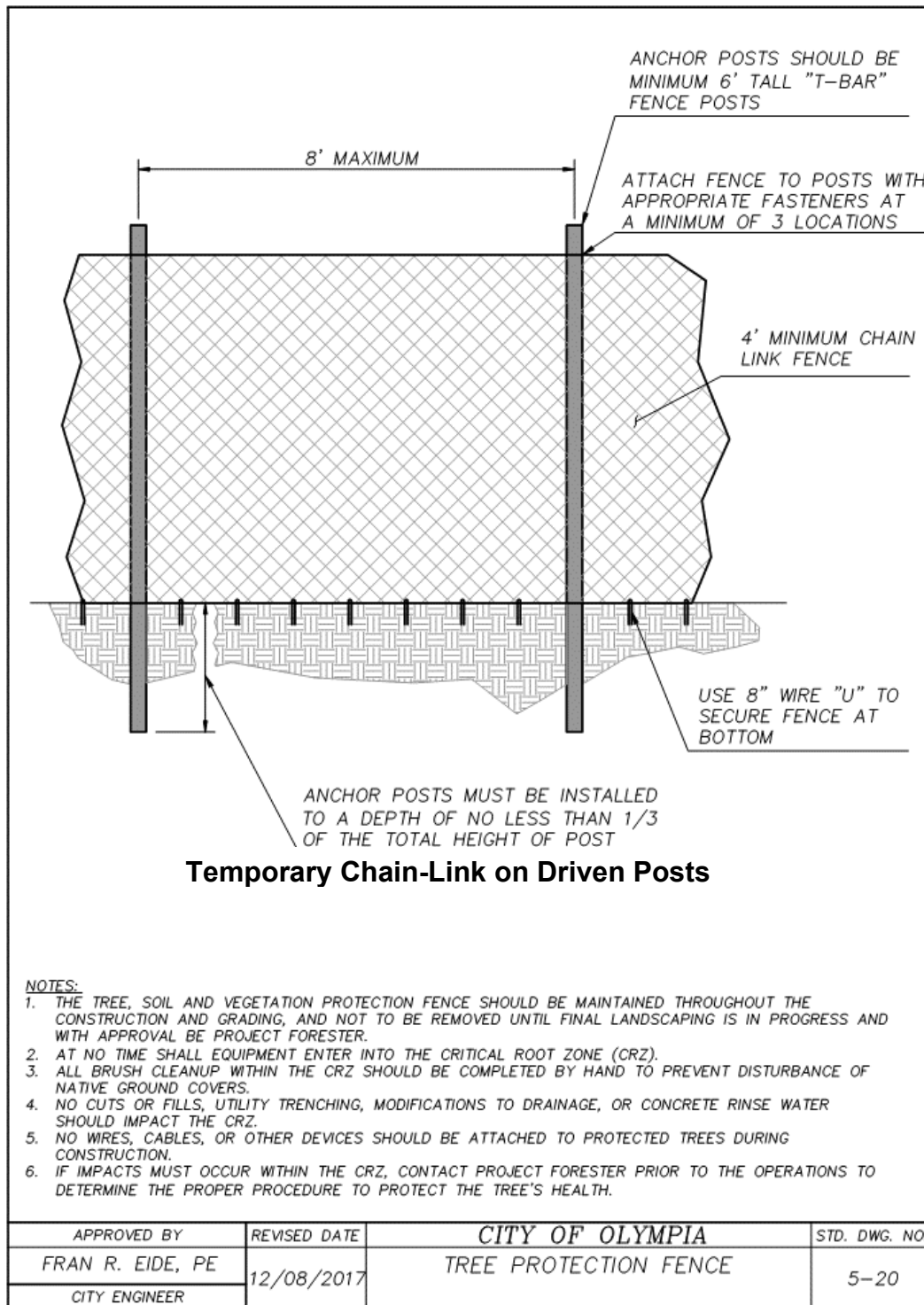
Tree #	Species	DBH (in.)	Condition	Tree Potential to Save Based only on Tree Condition? Yes or No	RPZ (ft. Radius)	Tree Units	Project Plan Save or Remove	Notes
95	Tulip Poplar	32	Fair	Yes	Back of curb	11	Save	
96	Tulip Poplar	23	Fair	Yes	Back of curb	6	Save	
97	Tulip Poplar	2	Fair	Yes	Back of curb	1	Save	
98	Tulip Poplar	7	Fair	Yes	Back of curb	1.5	Save	
99	Douglas-fir	21	Fair	Yes	Back of curb	5	Save	
100	Douglas-fir	20	Fair	Yes	Back of curb	5	Save	
101	Douglas-fir	16	Dead	No	Back of curb	3	Save	
102	Japanese Black Pine	21	Poor	No	Back of curb	5	Save	poor top
103	Japanese Black Pine	13	Fair	Yes	Back of curb	1.5	Save	
104	Douglas-fir	18	Fair	Yes	Back of curb	4	Save	
105	Douglas-fir	16	Fair	Yes	Back of curb	3	Save	
106	Douglas-fir	27	Fair	Yes	Back of curb	8	Save	
107	Douglas-fir	20	Fair	Yes	Back of curb	5	Save	decline
108	Douglas-fir	13	Fair	Yes	Back of curb	1.5	Save	
109	Douglas-fir	9	Fair	Yes	Back of curb	1.5	Save	
110	Douglas-fir	16	Fair	Yes	Back of curb	3	Save	
111	Douglas-fir	12	Fair	Yes	Back of curb	1.5	Save	
112	Douglas-fir	12	Fair	Yes	Back of curb	1.5	Save	
113	Douglas-fir	10	Very Poor	No	Back of curb	1.5	Save	
114	Douglas-fir	28	Poor	No	Back of curb	9	Save	poor co-dominant stems

Chick-fil-A- Level II Tree Soil and Native Vegetation Protection and Replacement Plan

Tree #	Species	DBH (in.)	Condition	Tree Potential to Save Based only on Tree Condition? Yes or No	RPZ (ft. Radius)	Tree Units	Project Plan Save or Remove	Notes
115	Douglas-fir	18	Fair	Yes	Back of curb	4	Save	
116	Douglas-fir	13	Fair	Yes	Back of curb	1.5	Save	
117	Douglas-fir	17	Fair	Yes	Back of curb	3	Save	
118	Douglas-fir	17	Fair	Yes	Back of curb	3	Save	
119	Douglas-fir	22	Fair	Yes	Back of curb	6	Save	
120	Douglas-fir	11	Fair	Yes	Back of curb	1.5	Save	
121	Douglas-fir	14	Fair	Yes	Back of curb	2	Save	
122	Douglas-fir	15	Fair	Yes	Back of curb	2	Save	
123	Douglas-fir	15	Fair	Yes	Back of curb	2	Save	
124	Douglas-fir	16	Fair	Yes	Back of curb	3	Save	
125	Douglas-fir	21	Fair	Yes	Back of curb	5	Save	
126	Douglas-fir	12,15	Poor	No	Back of curb	5	Save	bleeding co-dominant stems
127	Douglas-fir	22	Fair	Yes	Back of curb	6	Save	
128	Douglas-fir	29	Fair	Yes	Back of curb	9	Save	
129	Flowering Cherry	3	Fair	Yes	Back of curb	1	Save	
130	Flowering Cherry	8	Fair	Yes	Back of curb	1.5	Save	
131	Flowering Cherry	8	Fair	Yes	Back of curb	1.5	Save	
132	Tulip Poplar	23	Fair	Yes	Back of curb	6	Save	
133	Red Maple	4	Fair	Yes	Back of curb	1	Save	

Tree #	Species	DBH (in.)	Condition	Tree Potential to Save Based only on Tree Condition? Yes or No	RPZ (ft. Radius)	Tree Units	Project Plan Save or Remove	Notes
134	Red Maple	4	Fair	Yes	Back of curb	1	Save	
135	Red Maple	5	Fair	Yes	Back of curb	1	Save	
136	Tulip Poplar	21	Fair	Yes	Back of curb	5	Save	
137	Tulip Poplar	20	Fair	Yes	Back of curb	5	Save	
138	Japanese Black Pine	23	Poor	No	Back of curb	6	Save	poor co-dominant tops
139	Japanese Black Pine	21	Poor	No	Back of curb	5	Save	
140	Japanese Black Pine	14	Fair	Yes	Back of curb	2	Save	
141	Japanese Black Pine	18	Fair	Yes	Back of curb	4	Save	
142	Deciduous	9	Poor	No	Back of curb	1.5	Save	decay in stem

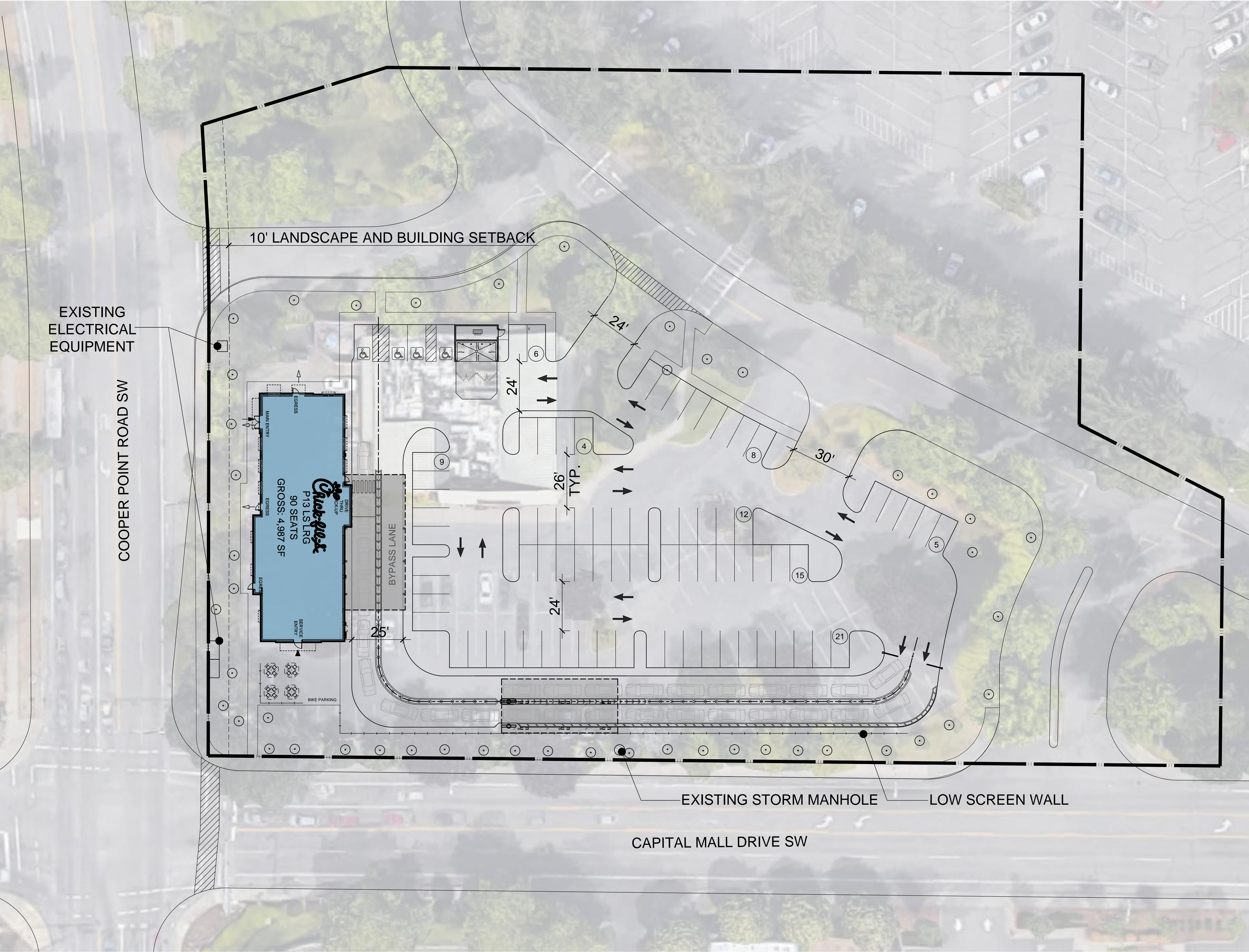
Attachment 4. Tree Protection Fence Detail



Attachment 5. Assumptions and Limiting Conditions

- 1) Any legal description provided to the Washington Forestry Consultants, Inc. is assumed to be correct. Any titles and ownership's to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.
- 2) It is assumed that any property is not in violation of any applicable codes, ordinances, statutes, or other governmental regulations, unless otherwise stated.
- 3) Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, Washington Forestry Consultants, Inc. can neither guarantee nor be responsible for the accuracy of information.
- 4) Washington Forestry Consultants, Inc. shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.
- 5) Loss or alteration of any part of this report invalidated the entire report.
- 6) Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of Washington Forestry Consultants, Inc.
- 7) Neither all or any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales or other media, without the prior expressed written or verbal consent of Washington Forestry Consultants, Inc. -- particularly as to value conclusions, identity of Washington Forestry Consultants, Inc., or any reference to any professional society or to any initialed designation conferred upon Washington Forestry Consultants, Inc. as stated in its qualifications.
- 8) This report and any values expressed herein represent the opinion of Washington Forestry Consultants, Inc., and the fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence neither of a subsequent event, nor upon any finding in to reported.
- 9) Sketches, diagrams, graphs, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys.
- 10) Unless expressed otherwise: 1) information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection; and 2) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the tree or other plant or property in question may not arise in the future.

Note: Even healthy trees can fail under normal or storm conditions. The only way to eliminate all risk is to remove all trees within reach of all targets. Annual monitoring by an ISA Certified Arborist or Certified Forester will reduce the potential of tree failures. It is impossible to predict with certainty that a tree will stand or fail, or the timing of the failure. It is considered an 'Act of God' when a tree fails, unless it is directly felled or pushed over by man's actions.



PROJECT DATA:			
SITE AREA:			
GROSS:		3.49 AC	
		152,215 SF	
BUILDING FOOTPRINT:		4,987 SF	
COVERAGE:			
GROSS:		3%	
PARKING REQUIRED:			
FAST FOOD		1/100 SF	50 STALLS
PARKING PROVIDED:			
AUTO:		80 STALLS	
		@16.04/1000 SF	
		REQ. ACCESSIBLE	
		4 STALLS	

DT CAR STACK:	38 CARS
OP CANOPY:	9TH CAR AT INNER LANE

DEVELOPMENT STANDARDS:

ZONING: [HDC-4](#)

MAX. F.A.R.:	n/a
MAX. COVERAGE:	70% ¹
MAX. HEIGHT:	75 FT

BUILDING SETBACKS:	
FRONT:	10 FT
SIDE:	0 FT
REAR:	10 FT

LANDSCAPE SETBACKS:	
FRONT:	5 FT
SIDE:	5 FT
REAR:	5 FT

LANDSCAPE REQ.:	10% ²
-----------------	------------------

OFF-STREET PARKING:	
STANDARD:	9X18
COMPACT:	8X16
COMPACT %:	30%
DRIVE AISLE:	24 FT
FIRE LANE:	26 FT
OVERHANG:	2 FT
TREE WELL:	5 FT

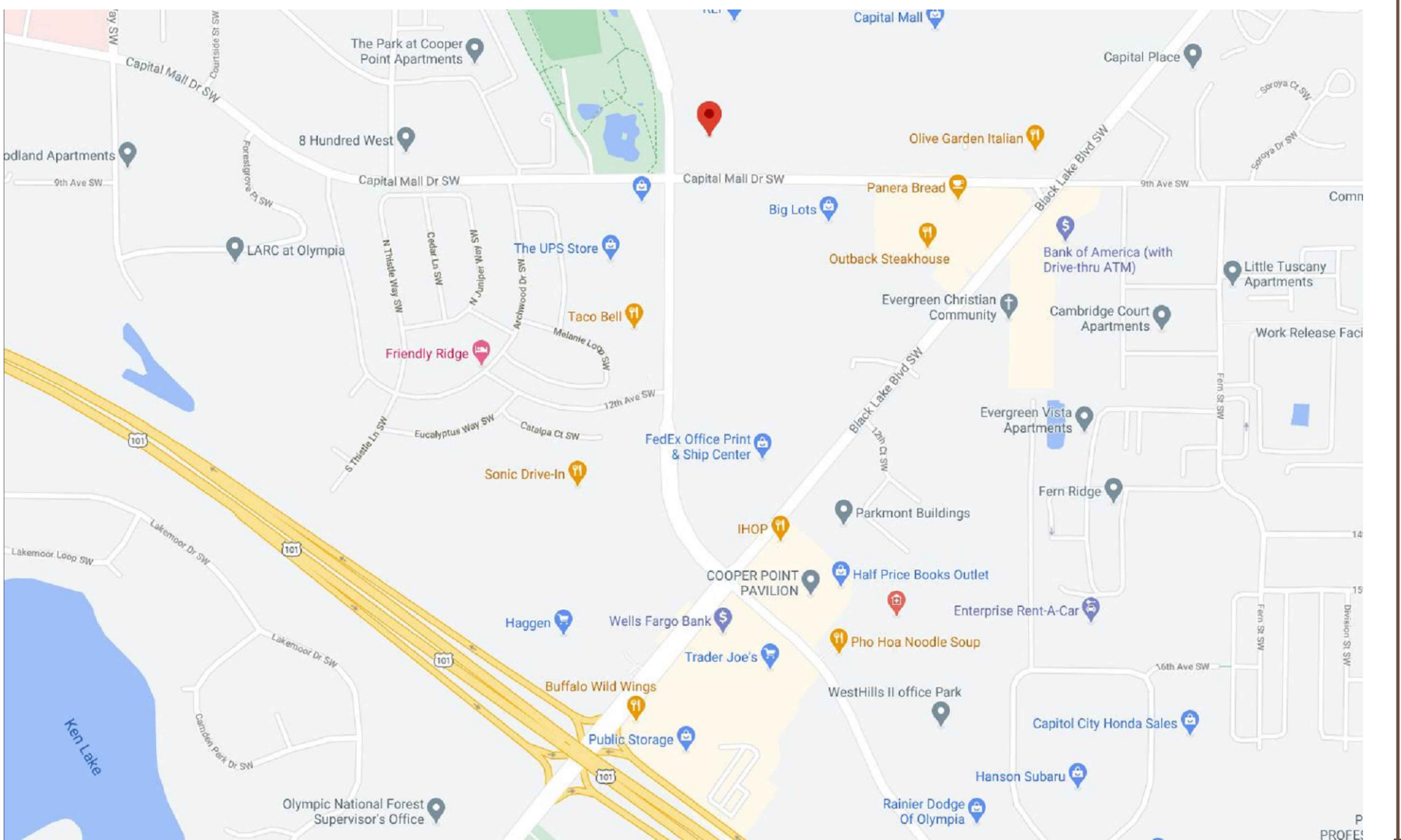
REQ. PARKING RATIO BY USE:	
RETAIL:	3.5/1000
FAST FOOD:	1/100 SF ³

NOTES:

- Maximum impervious coverage - 85%.
- 1-20 stalls: 8.25%; 21-30 stalls: 9.75%; 31-40 stalls: 11.25%; 41+ 12.75%.
- Plus one lane for each drive-up window with stacking space for 6 vehicles before the menu board.

This conceptual design is based upon a preliminary review of entitlement requirements and on unverified and possibly incomplete site and/or building information, and is intended merely to assist in exploring how the project might be developed.

Boundary Source:
GIS MAP & AERIAL IMAGE



scheme:5

Conceptual Site Plan

2930 Capital Mall Drive SW
Olympia, WA 98502

WARE MALCOMB

LAX20-0000-00
01.28.2021
SHEET
PSP 05