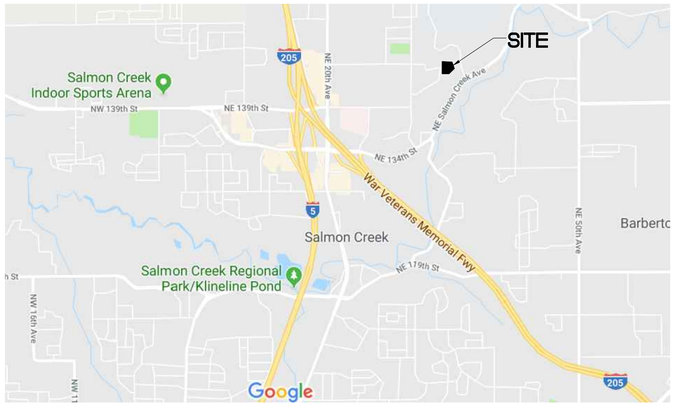
LEILANI RIDGE
APARTMENTS
EARLY GRADING PLAN



1 C0.0 **VICINITY MAP**

SCALE: NTS

SITE ADDRESS
14118 NE 35TH AVE
VANCOUVER WA 98686
PARCEL# 603269000

SITE AREA

EXISTING SITE AREA	125,576 SF/2.88 AC
GRADING EASEMENT	4,864 SF/0.11 AC
TOTAL AREA	130,440 SF/2.99 AC

LEGAL DESCRIPTION
LOCATED IN A PORTION OF THE SOUTH HALF OF THE SW 1/4 OF SECTION 24 T.3 N., R. E., W.M. CLARK COUNTY WASHINGTON

HORIZONTAL DATUM
NAD 83(2011)(EPOCH2010.000), WASHINGTON STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, US SURVEY FEET.

BENCHMARK
CLARK COUNTY BENCHMARK "BLISS-1"
ELEVATION = 204.18", CLARK COUNTY DATUM
NAVD88 CONVERSION = -3.33' TO CC DATUM

1 C0.0 **CIVIL COVER SHEET**

50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

CLARK COUNTY STANDARD NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CLARK COUNTY CODE (CCC), CLARK COUNTY STREET AND ROAD STANDARDS (CCSRS), CLARK COUNTY STANDARD DETAILS MANUAL (CCSDM) AND THE LAND USE CONDITIONS OF APPROVAL. IT SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT AND THE PROFESSIONAL CIVIL ENGINEER TO CORRECT ANY ERROR, OMISSION, OR VARIATION FROM THE ABOVE REQUIREMENTS FOUND IN THESE PLANS.
2. APPROVAL OF ROADWAYS, GRADING, EROSION CONTROL AND DRAINAGE PLAN BY CLARK COUNTY DOES NOT CONSTITUTE AN APPROVAL OF ANY OTHER CONSTRUCTION (E.G., DOMESTIC WATER CONVEYANCE, SEWER CONVEYANCE, GAS, ELECTRICAL, ETC.).
3. BEFORE ANY CONSTRUCTION OR DEVELOPMENT ACTIVITY, A PRECONSTRUCTION MEETING MUST BE HELD BETWEEN THE DEPARTMENT OF COMMUNITY DEVELOPMENT, ENGINEERING SERVICES (DCDES) CONSTRUCTION INSPECTION SECTION OF THE ENGINEERING SERVICES DIVISION, THE APPLICANT, AND THE APPLICANT'S CONSULTING ENGINEER AND CONSTRUCTION REPRESENTATIVES.
4. A COPY OF THESE APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
5. CONSTRUCTION NOISE SHALL BE LIMITED IN ACCORDANCE WITH THE NUISANCE ORDINANCE CCC 9.14.010(3); NORMALLY, THIS IS 7A.M. TO 10 P.M. SEVEN DAYS A WEEK.
6. IT SHALL BE THE APPLICANT'S/CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL CONSTRUCTION EASEMENTS AND/OR RIGHT OF ENTRIES PRIOR TO CONSTRUCTION WORK.
7. ALL FRANCHISED UTILITIES (I.E. GAS, ELECTRIC, PHONE) OR OTHER INSTALLATIONS THAT ARE NOT SHOWN ON THESE APPROVED PLANS SHALL NOT BE CONSTRUCTED UNLESS AN APPROVED SET OF PLANS THAT MEETS ALL REQUIREMENTS OF CCSRS (CCC 40.350.030) IS SUBMITTED TO THE DCDES CONSTRUCTION INSPECTION SECTION THREE DAYS PRIOR TO CONSTRUCTION.
8. DATUM SHALL BE CLARK COUNTY DATUM NGVD 1929(47) UNLESS OTHERWISE APPROVED BY DCDES.
9. ALL UTILITY TRENCHES SHALL BE BACKFILLED AND COMPACTED TO 95 PERCENT MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99, WITHIN THE ROADWAY PRISM (CCC40.350.030(C)(4)(E).
10. ALL ROADWAY SUBGRADE WITHIN THE ROADWAY PRISM SHALL BE BACKFILLED AND COMPACTED TO 95 PERCENT MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99 (WSDOT 2 06.3).
11. 1OPEN CUTTING OF EXISTING ROADWAYS IS NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY DCDES AND NOTED ON THESE APPROVED PLANS. ANY OPEN CUT SHALL BE RESTORED IN ACCORDANCE WITH CLARK COUNTY CODE (SEE STANDARD TRENCH RESTORATION NOTES OF STANDARD DETAILS MANUAL).
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR. ANY WORK WITHIN THE TRAVELED RIGHT OF WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE AT LEAST ONE FLAGGER FOR EACH LANE OF TRAFFIC AFFECTED. SECTION 1 07.23, ?TRAFFIC CONTROL,? OF THE WSDOT STANDARD SPECIFICATIONS SHALL APPLY IN ITS ENTIRETY.
13. STORM DRAIN, EROSION CONTROL, TRENCH RESTORATION, GRADING, AND SIGNING & STRIPING GENERAL NOTES PER STANDARD PLANS D1.0, ECN1 AND UGN RESPECTIVELY ARE MADE PART OF THESE NOTES, AND ARE TO BE INCLUDED IN THE CONSTRUCTION PLAN SET.
14. IF ANY CULTURAL RESOURCES AND/OR HUMAN REMAINS ARE DISCOVERED IN THE COURSE OF UNDERTAKING THE DEVELOPMENT ACTIVITY, THE DEPARTMENT OF ARCHAEOLOGY AND HISTORIC PRESERVATION IN OLYMPIA AND CLARK COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT SHALL BE NOTIFIED. FAILURE TO COMPLY WITH THESE STATE REQUIREMENTS MAY CONSTITUTE A CLASS C FELONY, SUBJECT TO IMPRISONMENT AND/OR FINES.

TRANSIT ROUTE
NUMBER #9 FELIDA RUN ALONG NE 134TH TO WEST AND DOWN TENNEY RD TO SOUTHEAST

NUMBER #134 AND #105 RUN FROM ADJACNET SALMON CREEK PARK AND RIDE.

ARCHAEOLOGY NOTE
IF ANY CULTURAL RESOURCES AND/OR HUMAN REMAINS ARE DISCOVERED IN THE COURSE OF UNDERTAKING THE DEVELOPMENT ACTIVITY, THE DEPARTMENT OF ARCHAEOLOGY AND HISTORIC PRESERVATION IN OLYMPIA SHALL BE NOTIFIED. FAILURE TO COMPLY WITH THESE STATE REQUIREMENTS MAY CONSTITUTE A CLASS C FELONY, SUBJECT TO IMPRISONMENT AND/OR FINES.

SHEET INDEX

C0.00	CIVIL COVER SHEET
C0.01	CIVIL GENERAL NOTES AND LEGEND
C1.00	EXISTING CONDITIONS AND DEMOLITION PLAN
C1.20	OVERALL GRADING PLAN
C1.40	EROSION CONTROL PLAN
C1.41	EROSION CONTROL NOTES AND DETAILS

EXISTING CONDITIONS
NO WATERCOURSES OR STREAMS ON OR ADJACENT TO SITE

NO AREAS PRONE TO FLOODING OR OR ADJACENT TO SITE

NO FEMA DESIGNATED FLOODPLAINS, FLOOD FRINGE OR FLOODWAYS ON OR ADJACENT TO SITE

NO DESIGNATED SHORELINE ON OR ADJACENT TO SITE

NO WATER BODIES OR KNOWN WETLANDS OR ADJACENT TO SITE

NO UNSTABLE SLOPES OR LANDSLIDE HAZARD AREA ON OR ADJACENT TO SITE

ONE OREGON WHITE OAK EXISTS ON SITE AND WELL BE PROTECTED W

NO SIGNIFICANT HISTORIC SITES ON OR ADJACENT TO SITE

NO ROCK OUTCROPING ON OR ADJACENT TO SITE

NO KNOWN WELLS OR SEWAGE DISPOSAL SYSTEMS ON OR WITHIN 100 FEET OF SITE

NO KNOWN WETLANDS EXIST ON SITE

PROPOSED IMPROVEMENTS
NO STEEP PROTECTED AREAS PROPOSED

NO PLANNED ENHANCEMENT AREAS PROPOSED

NO ROAD SEGMENTS IN EXCESS OF 15% PROPOSED

SITE DISTANCE STANDARDS ARE MET

NO UIC'S ARE PROPOSED

LEGEND

	EXISTING	PROPOSED
STORM SEWER LINE	ST ST	
SANITARY SEWER LINE	SS SS	
GASE LINE	G G	
WATER LINE	W W	
OVERHEAD POWER LINE	OHP	
FENCE LINE		
BOUNDARY LINE		
CURB INLET		
CONTROL VALVE		
SIGN		
POWER POLE		
STORM VAULT		
STORM SEWER MANHOLE		
WATER MANHOLE		
CATCH BASIN		
CLEANOUT		
FIRE HYDRANT ASSEMBLY		
WATER METER	WM	
BLOWOFF ASSEMBLY		
1FT CONTOUR	22	22
5FT CONTOUR	22	22
POINT ELEVATION	22.00	22.00

APPLICANT
MAJ DEVELOPMENT
ATTN: BRANDI HO
300 WEST 15TH STREET, SUITE 200
VANCOUVER WA 98660
PH: (360) 823-5112
E-MAIL: BRANDI@MAJDEVELOPMENT.COM

CONTACT PERSON
MACKENZIE
ATTN: JOHN FLOYD
101 E. 6TH STREET, SUITE #200
VANCOUVER, WA 98660
PH: (360) 695-7879
FAX: (360) 693-6637
E-MAIL: JMF@mcknze.com

SURVEYOR
MINISTER-GLAESER SURVEYING INC.
ATTN: CHRISTOPHER AVERY
2200 E. EVERGREEN BLVD.
VANCOUVER, WA 98661
PH: (360) 694-3313
E-MAIL: CSA@MGSURVEY.COM

CIVIL/PLANNING
MACKENZIE
ATTN: BOB FRENTRESS / JOHN FLOYD
101 E. 6TH STREET, SUITE #200
VANCOUVER, WA 98660
PH: (360) 695-7879
FAX: (360) 693-6637
E-MAIL: RLF@mcknze.com / JMF@mcknze.com

CLARK COUNTY WASHINGTON — proud past, promising future

COUNTY USE ONLY

ENGINEERING CASE ENGXXXXXX
HABITAT CASE
PLANNING LAND USE CASE PSRXXXXXX
WETLAND CASE

Signature	Clark County Fire Marshal	Date
Signature	Clark County Environmental Services	Date
Signature	Clark County Transportation-Concurrency	Date
Signature	Clark County Transportation-Signal	Date
Signature	Clark County Transportation-Signing and Striping	Date
Signature	Clark County Land Use Review	Date
Signature	Clark County Bldg Safety Division	Date
Signature	Clark County Development Engineering	Date

A	N/A	
☐	☐	Stormwater & Erosion Control CCC 40.380
☐	☐	Stormwater & Erosion Control CCC 40.385
☐	☐	Stormwater & Erosion Control CCC 40.386
☐	☐	Transportation & Circulation CCC 40.350
☐	☐	Within Right-of-Way Landscaping Review
☐	☐	Utility Permits CCC 13.12A & 12.20A
☐	☐	Clark County Signing & Striping
☐	☐	Clark County Traffic Signals
☐	☐	Road Modifications CCC 40.550.010
☐	☐	Critical Aquifer Recharge Areas CCC 40.410
☐	☐	Geologic Hazard Areas CCC 40.430
☐	☐	Flood Hazard Areas CCC 40.420
☐	☐	Sewer and Water Plans
☐	☐	Clark County M & O Pavement Deflection Testing
☐	☐	Private Stormwater Covenant
☐	☐	Grading, Excavation, Fill and Stockpile CCC 14.07
☐	☐	SWPPP (Stormwater Pollution Prevention Plan)

RECOMMENDED for APPROVAL

Engineering Team Leader — Date

APPROVED for CONSTRUCTION

Clark County Engineer — Date

Plans Approved for Construction by the County does not in any way relieve the applicant of responsibility to meet all requirements of the County or obligation to protect life, health and property. Plans have been reviewed and approved for compliance with Clark County Code and adopted regulations. Plans shall be revised or supplemented at any time it is determined that the full requirements of the County have not been met.

Rev. 05/30/17

CLARK COUNTY WASHINGTON — proud past, promising future

DESIGN PROFESSIONAL SHALL COMPLETE ALL LINES:
PROJECT QUANTITIES
N/A = NOT APPLICABLE √ = APPLICABLE

GRADING:
Onsite Excavation (Cut) Volume (Cubic Yards) 2,730
Fill From Off-Site Source (Cubic Yards) N/A

CONSTRUCTION INSPECTION DISTURBED AREA:
Disturbed Area (Acres) 2.60

UIC - CLASS V INJECTION WELLS:
Site Number:
Site Name:
Site Address:
EPA Well Type:
Well Count:

PUBLIC IMPROVEMENTS	PRIVATE IMPROVEMENTS
☐ **Transportation (Arterial & Collector)** Sidewalk/Curb Lineal Feet Street Lineal Feet	☐ **Transportation** Sidewalk/Curb Lineal Feet Street Lineal Feet
☐ **Transportation (Other)** Sidewalk/Curb Lineal Feet Street Lineal Feet	
☐ **Stormwater** Facility Type	☐ **Stormwater**

SUBMITTED FOR PERMIT: JULY 16, 2020

M.
Architecture ▪ Interiors
Planning ▪ Engineering

Portland, OR 503.224.9560
Vancouver, WA 360.695.7879
Seattle, WA 206.749.9993
www.mcknze.com

MACKENZIE.
DESIGN DRIVEN | CLIENT FOCUSED

Client
MAJ

Project
LEILANI RIDGE APARTMENTS

ROBERT L. FRENTRESS — STATE OF WASHINGTON — 45069 — REGISTERED PROFESSIONAL ENGINEER
DATE: 7/16/20

© MACKENZIE 2019
ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

REVISION SCHEDULE

Delta	Issued As	Issue Date

SHEET TITLE:
CIVIL COVER SHEET

DRAWN BY: MAF
CHECKED BY: RLF
SHEET:
C0.00

JOB NO. 2180271.00

CLARK COUNTY STANDARD NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CLARK COUNTY CODE (CCC), CLARK COUNTY STREET AND ROAD STANDARDS (CCSRS), CLARK COUNTY STANDARD DETAILS MANUAL (CCSDM) AND THE LAND USE CONDITIONS OF APPROVAL. IT SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT AND THE PROFESSIONAL CIVIL ENGINEER TO CORRECT ANY ERROR, OMISSION, OR VARIATION FROM THE ABOVE REQUIREMENTS FOUND IN THESE PLANS.
2. APPROVAL OF ROADWAYS, GRADING, EROSION CONTROL AND DRAINAGE PLAN BY CLARK COUNTY DOES NOT CONSTITUTE AN APPROVAL OF ANY OTHER CONSTRUCTION (E.G., DOMESTIC WATER CONVEYANCE, SEWER CONVEYANCE, GAS, ELECTRICAL, ETC.).
3. BEFORE ANY CONSTRUCTION OR DEVELOPMENT ACTIVITY, A PRECONSTRUCTION MEETING MUST BE HELD BETWEEN THE DEPARTMENT OF COMMUNITY DEVELOPMENT, ENGINEERING SERVICES (DCDES) CONSTRUCTION INSPECTION SECTION OF THE ENGINEERING SERVICES DIVISION, THE APPLICANT, AND THE APPLICANT'S CONSULTING ENGINEER AND CONSTRUCTION REPRESENTATIVES.
4. A COPY OF THESE APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
5. CONSTRUCTION NOISE SHALL BE LIMITED IN ACCORDANCE WITH THE NUISANCE ORDINANCE CCC 9.14.010(3); NORMALLY, THIS IS 7A.M. TO 10 P.M. SEVEN DAYS A WEEK.
6. IT SHALL BE THE APPLICANT'S/CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL CONSTRUCTION EASEMENTS AND/OR RIGHT OF ENTRIES PRIOR TO CONSTRUCTION WORK.
7. ALL FRANCHISED UTILITIES (I.E. GAS, ELECTRIC, PHONE) OR OTHER INSTALLATIONS THAT ARE NOT SHOWN ON THESE APPROVED PLANS SHALL NOT BE CONSTRUCTED UNLESS AN APPROVED SET OF PLANS THAT MEETS ALL REQUIREMENTS OF CCSRS (CCC 40.350.030) IS SUBMITTED TO THE DCDES CONSTRUCTION INSPECTION SECTION THREE DAYS PRIOR TO CONSTRUCTION.
8. DATUM SHALL BE CLARK COUNTY DATUM NGVD 1929(47) UNLESS OTHERWISE APPROVED BY DCDES.
9. ALL UTILITY TRENCHES SHALL BE BACKFILLED AND COMPACTED TO 95 PERCENT MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99, WITHIN THE ROADWAY PRISM (CCC40.350.030(C)(4)(E).
10. ALL ROADWAY SUBGRADE WITHIN THE ROADWAY PRISM SHALL BE BACKFILLED AND COMPACTED TO 95 PERCENT MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99 (WSDOT 2 06.3).
11. OPEN CUTTING OF EXISTING ROADWAYS IS NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY DCDES AND NOTED ON THESE APPROVED PLANS. ANY OPEN CUT SHALL BE RESTORED IN ACCORDANCE WITH CLARK COUNTY CODE (SEE STANDARD TRENCH RESTORATION NOTES OF STANDARD DETAILS MANUAL).
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR. ANY WORK WITHIN THE TRAVELED RIGHT OF WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE AT LEAST ONE FLAGGER FOR EACH LANE OF TRAFFIC AFFECTED. SECTION 1 07.23, "TRAFFIC CONTROL," OF THE WSDOT STANDARD SPECIFICATIONS SHALL APPLY IN ITS ENTIRETY.
13. STORM DRAIN, EROSION CONTROL, TRENCH RESTORATION, GRADING, AND SIGNING & STRIPING GENERAL NOTES PER STANDARD PLANS D1.0, ECN1 AND UGN RESPECTIVELY ARE MADE PART OF THESE NOTES, AND ARE TO BE INCLUDED IN THE CONSTRUCTION PLAN SET.
14. IF ANY CULTURAL RESOURCES AND/OR HUMAN REMAINS ARE DISCOVERED IN THE COURSE OF UNDERTAKING THE DEVELOPMENT ACTIVITY, THE DEPARTMENT OF ARCHAEOLOGY AND HISTORIC PRESERVATION IN OLYMPIA AND CLARK COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT SHALL BE NOTIFIED. FAILURE TO COMPLY WITH THESE STATE REQUIREMENTS MAY CONSTITUTE A CLASS C FELONY, SUBJECT TO IMPRISONMENT AND/OR FINES.
15. THE SIGNING, STRIPING, PAVEMENT MARKINGS AND OTHER TRAFFIC CONTROL DEVICES SHALL BE CONTIGUOUS WITH THE EXISTING TRAFFIC CONTROL AND TRAFFIC OPERATIONS.
16. THE CONTRACTOR SHALL MAINTAIN EXISTING PERMANENT SIGNING, STRIPING, PAVEMENT MARKINGS, AND TUBULAR MARKERS IN ACCORDANCE WITH SECTION 1-07.23(1) OF THE SPECIFICATIONS.
17. ANY LOOPS DAMAGED OR DESTROYED DURING WORK PERFORMED IN COUNTY RIGHT-OF-WAY SHALL BE REPLACED IN ACCORDANCE WITH CCC 12.20A. SPLICES WILL NOT BE ALLOWED.
18. ALL NEW STRIPING, PAVEMENT MARKINGS, TUBULAR MARKERS, SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR.
19. THE CONTRACTOR SHALL REMOVE STRIPING AND PAVEMENT MARKINGS AS SHOWN IN THE CONTRACT PLANS OR AS DIRECTED BY THE ENGINEER.
20. ALL PAVEMENT MARKINGS WILL BE LAID OUT IN THE FIELD BY THE ENGINEER.
21. PAVEMENT MARKING SYMBOLS MUST BE TYPE B PRE-FORMED FUSED THERMOPLASTIC PER 9-34.3(2) OF WSDOT STANDARD SPECIFICATIONS UNLESS OTHERWISE SPECIFIED. SEE CLARK COUNTY SPECIAL PROVISIONS FOR INSTALLATION DETAILS.
22. SEE CLARK COUNTY SPECIAL PROVISIONS FOR DETAILS REGARDING GREEN PAVEMENT MATERIAL, IF APPLICABLE.
23. THE STRIPING AND PAVEMENT MARKING REMOVAL PROCESS SHALL CONFORM TO SECTION 8-22.3(6) OF WSDOT STANDARD SPECIFICATIONS.
24. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY PAVEMENT MARKINGS IN ACCORDANCE WITH SECTION 8-23 OF THE SPECIFICATIONS.
25. ALL NEW SIGNING SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR.
26. THE CONTRACTOR SHALL REMOVE SIGNS AS SHOWN IN THE CONTRACT PLANS OR AS DIRECTED BY THE ENGINEER.
27. ALL SIGNS WILL BE FIELD STAKED BY THE ENGINEER.
28. R1-1 SIGN SHALL BE 3M DG3 SHEETING 4000 SERIES WITH 3M 1160 PROTECTIVE.
29. ALL SIGNS INSTALLED ON TRAFFIC SIGNAL POLES AND MASTARMS SHALL BE TYPE IX PRISMATIC SHEETING MATERIAL.
30. S1-1, S4-3P, W11-2, W16-9P, W16-7P SIGNS SHALL BE FLUORESCENT YELLOW GREEN SIGNS WITH TYPE IX SHEETING MATERIAL.
31. SIGNS SHALL BE INSTALLED ON TRAFFIC SIGNAL AND LIGHT STANDARDS AS SHOWN ON WSDOT STANDARD PLAN G-30.10-04.
32. THE CONTRACTOR SHALL SURPLUS ALL SIGNS (EXCEPT BARRICADES) AND POSTS TO CLARK COUNTY PUBLIC WORKS AT NO COST TO THE CONTRACT. THE SIGNS AND POSTS SHALL BE RETURNED TO THE COUNTY 149TH STREET MAINTENANCE STATION, LOCATED AT 11608-B NE 149TH STREET, BRUSH PRAIRIE, WA, 98606, AND CONTACTED AT (360) 397-2348.
33. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN CONSTRUCTION SIGNS IN ACCORDANCE WITH SECTION 1-10 OF THE SPECIFICATIONS.

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND THE REQUIREMENTS OF CLARK COUNTY AND THE CURRENT AMERICAN PUBLIC WORKS ASSOCIATION STANDARDS FOR PUBLIC WORKS CONSTRUCTION.

2. THE WORKING DRAWINGS ARE GENERALLY DIAGRAMMATIC. THEY DO NOT SHOW EVERY OFFSET, BEND OR ELBOW REQUIRED FOR INSTALLATION IN THE SPACE PROVIDED. THEY DO NOT SHOW EVERY DIMENSION, COMPONENT PIECE, SECTION, JOINT OR FITTING REQUIRED TO COMPLETE THE PROJECT. ALL LOCATIONS FOR WORK SHALL BE CHECKED AND COORDINATED WITH EXISTING CONDITIONS IN THE FIELD BEFORE BEGINNING CONSTRUCTION. EXISTING UNDERGROUND UTILITIES LAYING WITHIN THE LIMITS OF EXCAVATION SHALL BE VERIFIED AS TO CONDITION, SIZE AND LOCATION BY UNCOVERING, PROVIDING SUCH IS PERMITTED BY LOCAL PUBLIC AUTHORITIES WITH JURISDICTION, BEFORE BEGINNING CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IF THERE ARE ANY DISCREPANCIES.

3. EFFECTIVE EROSION CONTROL IS REQUIRED. EROSION CONTROL DEVICES MUST BE INSTALLED AND MAINTAINED TO MEET THE COUNTY REQUIREMENTS. THE GOVERNING JURISDICTION MAY, AT ANY TIME, ORDER CORRECTIVE ACTION AND STOPPAGE OF WORK TO ACCOMPLISH EFFECTIVE EROSION CONTROL.

4. EFFECTIVE DRAINAGE CONTROL IS REQUIRED. DRAINAGE SHALL BE CONTROLLED WITHIN THE WORK SITE AND SHALL BE ROUTED SO THAT ADJACENT PRIVATE PROPERTY, PUBLIC PROPERTY, AND THE RECEIVING SYSTEM ARE NOT ADVERSELY IMPACTED. THE GOVERNING JURISDICTION MAY, AT ANY TIME, ORDER CORRECTIVE ACTION AND STOPPAGE OF WORK TO ACCOMPLISH EFFECTIVE DRAINAGE CONTROL.

5. CONTRACTOR SHALL ADJUST ALL STRUCTURES IMPACTED BY CONSTRUCTION IMPROVEMENTS TO NEW FINISH GRADES.

6. EXCAVATION: EXCAVATE FOR SLABS, PAVING, AND OTHER IMPROVEMENTS TO SIZES AND LEVELS SHOWN OR REQUIRED. ALLOW FOR FORM CLEARANCE AND FOR PROPER COMPACTION OF REQUIRED BACKFILLING MATERIAL. EXCAVATOR(S) SHALL NOTIFY ALL UTILITY COMPANIES FOR LINE LOCATIONS SEVENTY-TWO (72) HOURS (MINIMUM) PRIOR TO START OF WORK. DAMAGE TO UTILITIES SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. (CLARK COUNTY UTILITIES COORDINATING COUNCIL: 1-800-424-5555)

7. WHERE CONNECTING TO AN EXISTING PIPE, AND PRIOR TO ORDERING MATERIALS, THE CONTRACTOR SHALL EXPOSE THE END OF THE EXISTING PIPE VERIFY THE LOCATION, SIZE, AND ELEVATION. NOTIFY ENGINEER OF ANY DISCREPANCIES.

WALL NOTES

1. WALLS SHOWN ON PLANS ARE FOR REFERNCE ONLY. STRUCTURAL ENGINEER WILL PROVIDE DESIGN AND CALCULATIONS FOR ALL SITE WALL GREATER THAN 3' IN HEIGHT.

2. IMPACTS FROM GUARDRAIL ADJACENT TO DRIVEWAY ACCESS TO BE INCLUDED IN THE WALL DESIGN, DUE TO THE CLOSE PROXIMITY OF THE TWO STRUCTURES.

3. FENCING SHALL BE DESIGNED AND INCORPORATED INTO THE WALL DESIGN.

GRADING NOTES

1. ROUGH GRADING: BRING ALL FINISH GRADES TO APPROXIMATE LEVELS INDICATED. WHERE GRADES ARE NOT OTHERWISE INDICATED, FINISH GRADES ARE TO BE THE SAME AS ADJACENT SIDEWALKS, CURBS, OR THE OBVIOUS GRADE OF ADJACENT STRUCTURE. GRADE TO UNIFORM LEVELS OR SLOPES BETWEEN POINTS WHERE GRADES ARE GIVEN. ROUND OFF SURFACES, AVOID ABRUPT CHANGES IN LEVELS. ROUGH GRADE TO ALLOW FOR DEPTH OF CONCRETE SLABS, WALKS, AND THEIR BASE COURSES. GRADE FOR PAVED DRIVES AND PAVED PARKING AREAS AS INDICATED AND SPECIFIED HEREIN, AND PROVIDE FOR SURFACE DRAINAGE AS SHOWN, ALLOWING FOR THICKNESS OF SURFACING MATERIAL.
   FINISH GRADING: AT COMPLETION OF JOB AND AFTER BACKFILLING BY OTHER CRAFTS HAS BEEN COMPLETED, REFILL AND COMPACT AREAS WHICH HAVE SETTLED OR ERODED TO BRING TO FINAL GRADES.
   GRADING TOLERANCES:
   ROUGH GRADE AT PAVED OR LANDSCAPED AREAS: ±0.1 FT.
   FINISH GRADE PRIOR TO PLACING FINAL SURFACING: ±0.03 FT.

2. EFFECTIVE EROSION PREVENTION AND SEDIMENT CONTROL IS REQUIRED. EROSION CONTROL DEVICES MUST BE INSTALLED AND MAINTAINED MEETING THE COUNTY AND DEPART. OF ECOLOGY REQUIREMENTS. THE GOVERNING JURISDICTION MAY, AT ANY TIME, ORDER CORRECTIVE ACTION AND STOPPAGE OF WORK TO ACCOMPLISH EFFECTIVE EROSION CONTROL.

3. EFFECTIVE DRAINAGE CONTROL IS REQUIRED. DRAINAGE SHALL BE CONTROLLED WITHIN THE WORK SITE AND SHALL BE SO ROUTED THAT ADJACENT PRIVATE PROPERTY, PUBLIC PROPERTY, AND THE RECEIVING SYSTEM ARE NOT ADVERSELY IMPACTED. THE GOVERNING JURISDICTION MAY, AT ANY TIME, ORDER CORRECTIVE ACTION AND STOPPAGE OF WORK TO ACCOMPLISH EFFECTIVE DRAINAGE CONTROL.

4. SITE TOPSOIL SHALL BE STOCKPILED DURING CONSTRUCTION AND USED FOR LANDSCAPING.

5. THE SURVEY INFORMATION SHOWN AS A BACKGROUND SCREEN ON THIS SHEET IS BASED ON A SURVEY BY MINISTER AND GLAESER SURVEYING INC., AND IS SHOWN FOR REFERENCE ONLY. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS WITH HIS OWN RESOURCES PRIOR TO START OF ANY CONSTRUCTION.

6. CONTRACTOR TO COORDINATE GRADES AT BUILDING ENTRANCES WITH ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION.

7. 2% MAXIMUM SLOPE AT ALL ADA-COMPLIANT PARKING SPACES AND LOADING ZONES.

8. 5% MAX SLOPE (EXCLUDING RAMPS) AT PEDESTRIAN SIDEWALK CONNECTIONS BETWEEN PUBLIC R.O.W. AND BUILDING ENTRANCES.

9. WHERE SLOPES ARE STEEPER THAN 3:1, CONTRACTOR SHALL INSTALL JUTE MATTING. SLOPE SHALL BE PREPARED TO ENSURE COMPLETE AND DIRECT CONTACT OF MATTING WITH SOIL. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

EROSION CONTROL NOTES

STRUCTURAL NOTES:

THESE PLANS ARE APPROVED FOR STANDARD ROAD AND DRAINAGE IMPROVEMENTS ONLY. PLANS FOR STRUCTURES SUCH AS BRIDGES, VAULTS, AND RETAINING WALLS REQUIRE A SEPARATE REVIEW AND APPROVAL BY CLARK COUNTY BUILDING DEPARTMENT AND/OR PUBLIC WORKS DEPARTMENT.

RECOMMENDED CONSTRUCTION SEQUENCE FOR EROSION CONTROL:

1. PRE-CONSTRUCTION MEETING
2. FLAG OR FENCE CLEARING LIMITS
3. POST NOTICE OF CONSTRUCTION ACTIVITY SIGN WITH NAME AND PHONE NUMBER OF EROSION SEDIMENT CONTROL SUPERVISOR.
4. INSTALL CATCH BASIN PROTECTION.
5. GRADE AND INSTALL CONSTRUCTION ENTRANCE.
6. INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.)
7. CONSTRUCT SEDIMENT PONDS AND TRAPS, IF REQUIRED.
8. GRADE AND STABILIZE CONSTRUCTION ROADS.
9. CONSTRUCT SUFRACE WATER CONTROLS (INTERCEPTOR DIKES, PIPE SLOPE DRAINS, ETC.) SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.
10. MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH CLARK COUNTY STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
11. RELOCATE SURFACE WATER CONTROLS AND EROSION CONTROL MEASURES OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE THE EROSION AND SEDIMENT CONTROL IS ALWAYS IN ACCORDANCE WITH THE CLARK COUNTY EROSION AND SEDIMENT CONTROL STANDARDS.
12. COVER ALL AREAS THAT WILL BE UNWORKED FOR MORE THAN SEVEN DAYS DURING THE DRY SEASON OR TWO DAYS DURING THE WET SEASON WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING OR EQUIVALENT.
13. STABILIZE ALL AREAS THAT REACH FINAL GRADE WITHIN SEVEN DAYS.
14. SEED OR SOD ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.
15. UPON COMPLETION OF THE PROJECT, ALL DISTRUBED AREAS MUST BE STABILIZED AND BEST MANAGEMENT PRACTICES REMOVED IF APPROPRIATE.

LEGEND

	EXISTING	PROPOSED
FOUND PROPERTY CORNER MONUMENT		
SANITARY SEWER MANHOLE	S	
SANITARY SEWER CLEANOUT		
SANITARY SEWER 2-WAY CLEANOUT		
STORM DRAINAGE CATCH BASIN	CB	
STORM DRAINAGE MANHOLE	ST	
FIRE HYDRANT		
FIRE DEPARTMENT CONNECTION		
WATER METER	WM	
WATER VALVE	WV	
STREET LIGHT		
UTILITY POLE		
GUY WIRE ANCHOR		
ELECTRIC JUNCTION BOX	E	
WATER VAULT		
ELECTRIC METER	EM	
ELECTRIC VAULT	T	T
TRANSFORMER	TP	
TELEPHONE/TELEVISION VAULT		
TELEPHONE/TELEVISION JUNCTION BOX		
SIGN		
MAIL BOX	MB	
DECIDUOUS TREE		
CONIFEROUS TREE		
WATER BLOWOFF		
DOUBLE CHECK VALVE	CV	
AIR RELEASE VALVE		
STORM CLEAN OUT		
GAS METER	GM	
GAS VALVE	GV	
GAS RISER	GR	
TELEPHONE/TELEVISION RISER		
SIGNAL JUNCTION BOX		
BOLLARD		
UNDERGROUND STORM DRAINAGE LINE		
UNDERGROUND SANITARY SEWER LINE		
UNDERGROUND WATER LINE		
UNDERGROUND POWER LINE		
OVERHEAD UTILITY LINE		
UNDERGROUND TV CABLE LINE		
SAWCUT		
SPOT GRADE		29.14
FLOW LINE		
SURFACE ELEVATION CONTOUR		30
VERTICAL CURB		
HEAVY ASPHALT PAVING		
LIGHT ASPHALT PAVING		
CONCRETE PAVING		
CONCRETE SIDEWALK		
RIGHT-OF-WAY LINE		
BOUNDARY LINE		
PROPERTY LINE		
CENTERLINE		
DITCH		
CURB		
EDGE OF PAVEMENT		
EASEMENT		
FENCE LINE		
GRAVEL EDGE		
TELEPHONE LINE		
GAS LINE		
TRAFFIC SIGNAL WIRE		

RIM=RIM ELEVATION
TC=TOP OF CURB ELEVATION
P=PAVEMENT ELEVATION
EX=EXISTING ELEVATION
TW=TOP OF WALL ELEV.
BW=BOTTOM OF WALL ELEV. (AT GRADE)

SUBMITTED FOR PERMIT: JULY 16, 2020

Architecture ▪ Interiors
Planning ▪ Engineering

Portland, OR
503.224.9560
Vancouver, WA
360.695.7879
Seattle, WA
206.749.9993
www.mcknze.com

MACKENZIE.
DESIGN DRIVEN | CLIENT FOCUSED

Client
MAJ

Project
LEILANI RIDGE APARTMENTS

ROBERT L. FRENTESS
STATE OF WASHINGTON
45069
REGISTERED PROFESSIONAL ENGINEER
DATE: 7/16/20

© MACKENZIE 2019
ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

REVISION SCHEDULE

Delta	Issued As	Issue Date

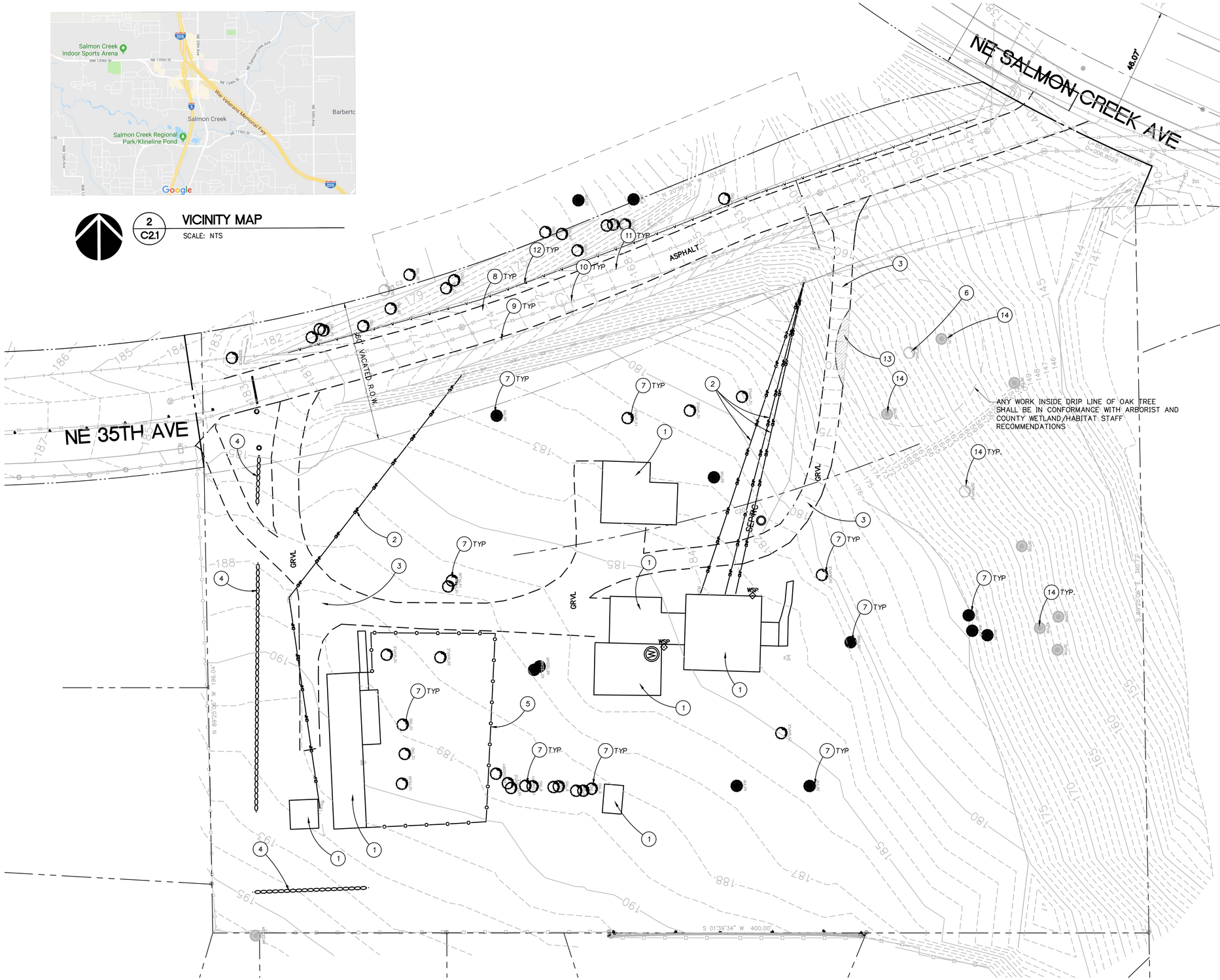
SHEET TITLE:
CIVIL GENERAL NOTES AND LEGEND

DRAWN BY: MAF
CHECKED BY: RLF
SHEET:
C0.01

JOB NO. 2180271.00

2 C2.1 VICINITY MAP

SCALE: NTS



1 C1.00 EXISTING CONDITIONS + DEMOLITION PLAN

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

KEYNOTES

1. EXISTING BUILDING TO BE REMOVED
2. EXISTING OVERHEAD WIRE TO BE REMOVED
3. EXISTING GRAVEL DRIVEWAY TO BE REMOVED
4. EXISTING HEDGE TO BE REMOVED
5. EXISTING FENCE TO BE REMOVED
6. EXISTING TREE TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION
7. EXISTING TREE TO BE REMOVED
8. EXISTING ASPHALT ROAD TO BE REMOVED
9. CONTRACTOR SHALL COORDINATE WITH NW NATURAL GAS FOR RELOCATION OF GAS LINE
10. PROTECT EXISTING SANITARY LINE
11. PROTECT EXISTING STORM LINE
12. EXISTING WATERLINE TO REMAIN OPERATIONAL UNTIL NEW LINE IS INSTALLED.
13. GRAVEL DRIVEWAY UNDER DRIP LINE OF THE TREE TO REMAIN. DO NOT DISTURB.
14. TREE TO REMAIN

DEMOLITION NOTES

1. INSTALL EROSION CONTROL MEASURES AND TEMPORARY FENCING PRIOR TO ANY DEMOLITION ACTIVITIES.
2. DEMOLISH AND REMOVE ALL STRUCTURES AND ASSOCIATED FEATURES (APPURTENANCES), AS SHOWN.
3. DEMOLISH ALL PAVED AREAS ON SITE AS SHOWN, DOWN TO NATIVE SUBGRADE.
4. PROTECT ALL EXISTING LANDSCAPING TO THE MAXIMUM EXTENT PRACTICABLE.
5. PROTECT ALL UNDERGROUND UTILITY SERVICES AND CONDUIT UNLESS NOTED OTHERWISE.
6. WHERE APPLICABLE, VERIFY DISCONNECT OF GAS AND ELECTRIC WITH UTILITY. CUT/CAP UTILITY SERVICES (STORMWATER AND SANITARY WITHIN 5 FEET OF EDGE OF R.O.W.) CAP WATERLINE ON OWNER'S SIDE OF METER AND PERFORM OTHER DEMOLITION TASKS AS REQUIRED.
7. DEMOLITION WITHIN THE RIGHT-OF-WAY REQUIRES AN ENCROACHMENT PERMIT FROM THE AUTHORITY HAVING JURISDICTION.
8. NOT ALL DEMOLITION REQUIRED TO COMPLETE PROJECT UPDATES MAY BE SHOWN. ADDITIONAL DEMO MAY BE REQUIRED IN ORDER TO INSTALL PROPOSED PROJECT.
9. CONTRACTOR TO FIND STORM PIPE/CONNECTOR TO SALMON CREEK AVE.

SUBMITTED FOR PERMIT: JULY 16, 2020

Architecture ▪ Interiors
Planning ▪ Engineering

Portland, OR
503.224.9560
Vancouver, WA
360.695.7879
Seattle, WA
206.749.9993
www.mcknze.com

MACKENZIE.
DESIGN DRIVEN | CLIENT FOCUSED

Client
MAJ

Project
LEILANI RIDGE APARTMENTS

RICHARD L. FRENTRESS
STATE OF WASHINGTON
45069
REGISTERED PROFESSIONAL ENGINEER
DATE: 7/16/20

© MACKENZIE 2019
ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

REVISION SCHEDULE

Delta	Issued As	Issue Date

SHEET TITLE:
EXISTING CONDITIONS + DEMOLITION PLAN

DRAWN BY:

CHECKED BY:

SHEET:
C1.00

JOB NO. 2180271.00

ARBORIST NOTES

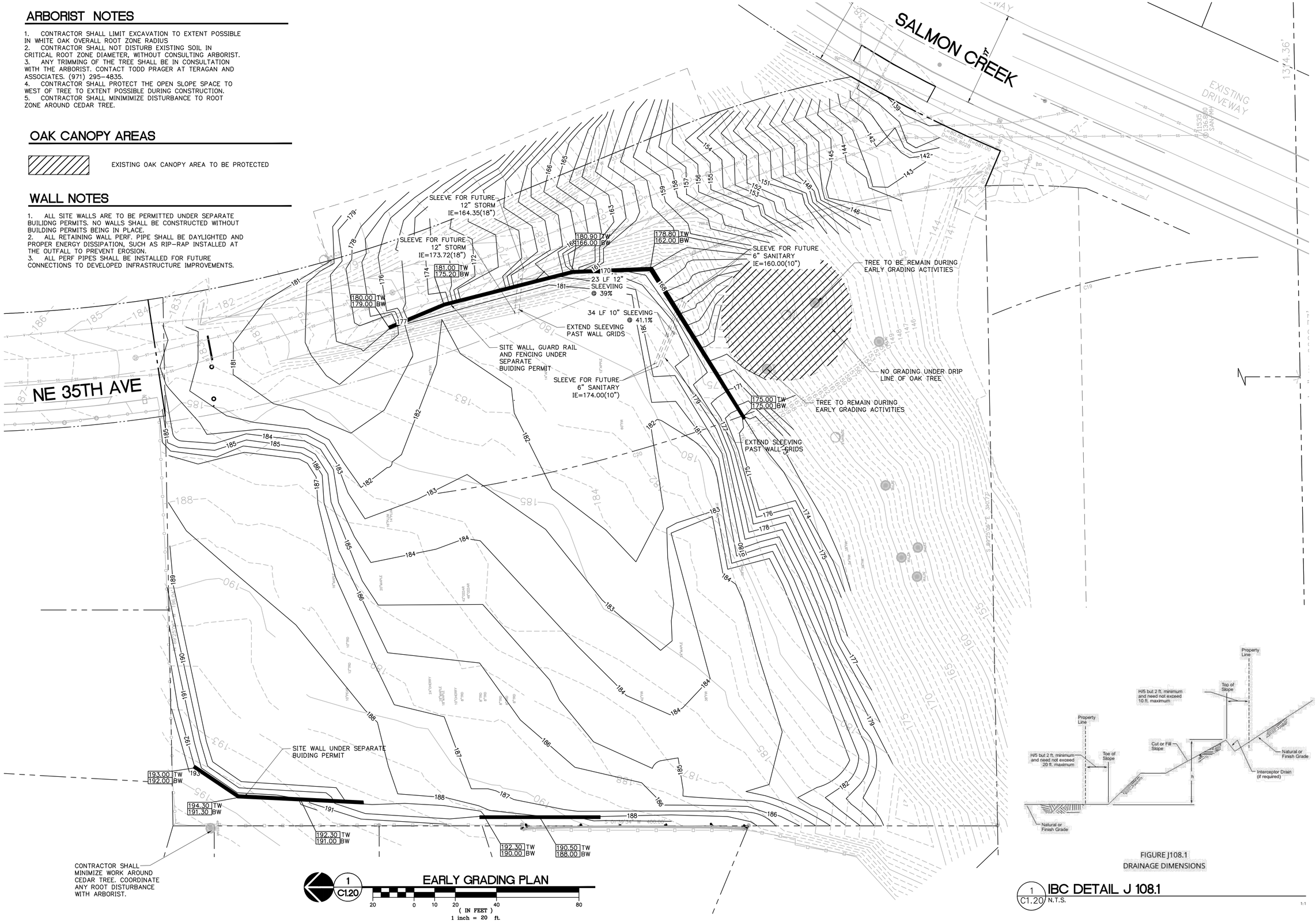
1. CONTRACTOR SHALL LIMIT EXCAVATION TO EXTENT POSSIBLE IN WHITE OAK OVERALL ROOT ZONE RADIUS
2. CONTRACTOR SHALL NOT DISTURB EXISTING SOIL IN CRITICAL ROOT ZONE DIAMETER, WITHOUT CONSULTING ARBORIST.
3. ANY TRIMMING OF THE TREE SHALL BE IN CONSULTATION WITH THE ARBORIST. CONTACT TODD PRAGER AT TERAGAN AND ASSOCIATES. (971) 295–4835.
4. CONTRACTOR SHALL PROTECT THE OPEN SLOPE SPACE TO WEST OF TREE TO EXTENT POSSIBLE DURING CONSTRUCTION.
5. CONTRACTOR SHALL MINIMIMIZE DISTURBANCE TO ROOT ZONE AROUND CEDAR TREE.

OAK CANOPY AREAS

EXISTING OAK CANOPY AREA TO BE PROTECTED

WALL NOTES

1. ALL SITE WALLS ARE TO BE PERMITTED UNDER SEPARATE BUILIDNG PERMITS. NO WALLS SHALL BE CONSTRUCTED WITHOUT BUILDING PERMITS BEING IN PLACE.
2. ALL RETAINING WALL PERF. PIPE SHALL BE DAYLIGHTED AND PROPER ENERGY DISSIPATION, SUCH AS RIP–RAP INSTALLED AT THE OUTFALL TO PREVENT EROSION.
3. ALL PERF PIPES SHALL BE INSTALLED FOR FUTURE CONNECTIONS TO DEVELOPED INFRASTRUCTURE IMPROVEMENTS.



1 C1.20 EARLY GRADING PLAN

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

FIGURE J108.1
DRAINAGE DIMENSIONS

1 C1.20 IBC DETAIL J 108.1
N.T.S.

1:1

SUBMITTED FOR PERMIT: JULY 16, 2020

Architecture ▪ Interiors
Planning ▪ Engineering

Portland, OR
503.224.9560
Vancouver, WA
360.695.7879
Seattle, WA
206.749.9993
www.mcknze.com

MACKENZIE.
DESIGN DRIVEN | CLIENT FOCUSED

Client
MAJ

Project
LEILANI RIDGE APARTMENTS

ROBERT L. FRENTRESS
STATE of WASHINGTON
45069
REGISTERED PROFESSIONAL ENGINEER
DATE: 7/16/20

© MACKENZIE 2019
ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

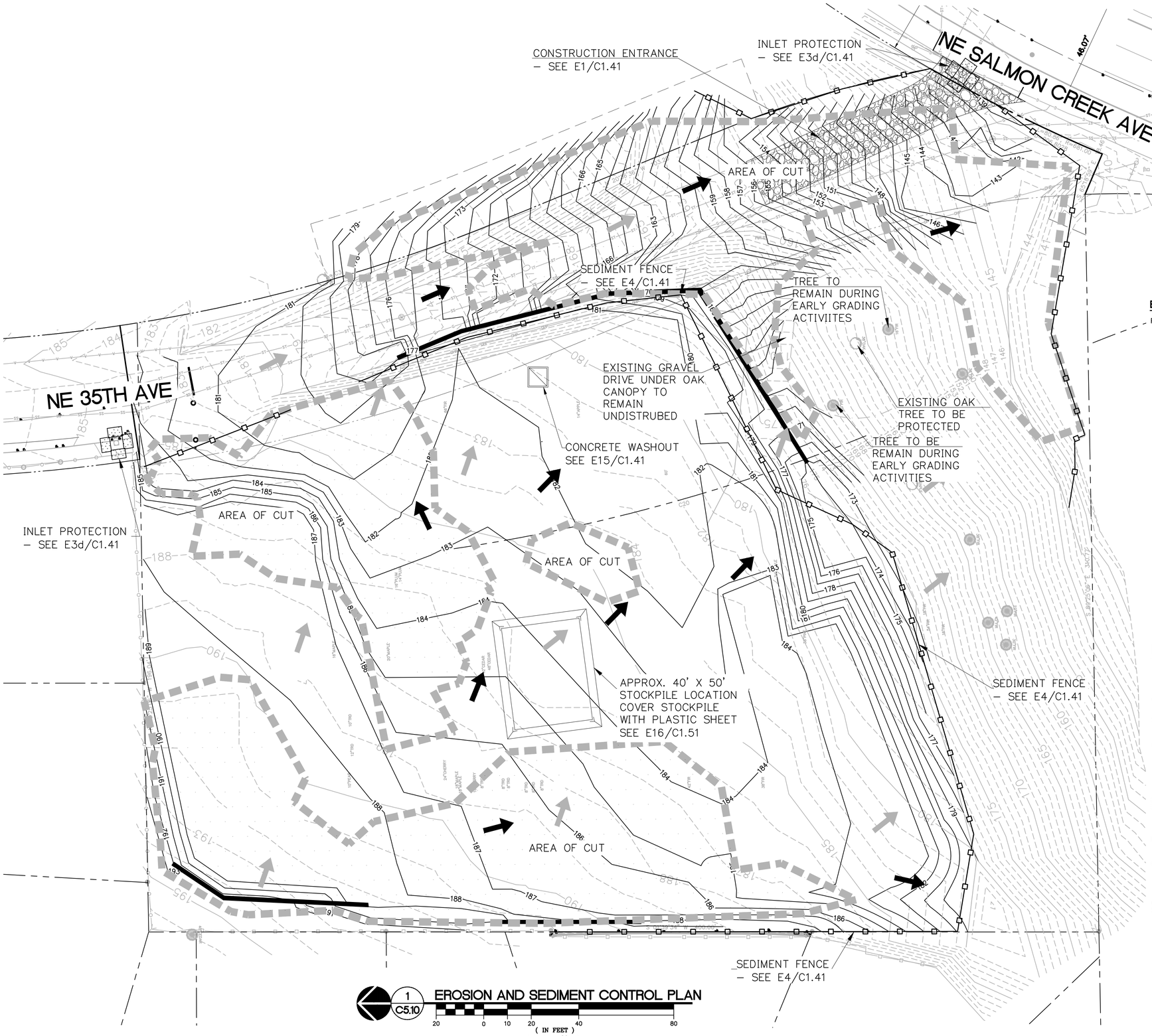
SHEET TITLE:
EARLY GRADING PLAN

DRAWN BY:

CHECKED BY:

SHEET:
C1.20

JOB NO. 2180271.00



1 C5.10 EROSION AND SEDIMENT CONTROL PLAN

20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

EROSION CONTROL NOTES

RECOMMENDED CONSTRUCTION SEQUENCE FOR EROSION CONTROL:

1. PRE-CONSTRUCTION MEETING
2. FLAG OR FENCE CLEARING LIMITS
3. POST NOTICE OF CONSTRUCTION ACTIVITY SIGN WITH NAME AND PHONE NUMBER OF EROSION SEDIMENT CONTROL SUPERVISOR.
4. INSTALL CATCH BASIN PROTECTION.
5. GRADE AND INSTALL CONSTRUCTION ENTRANCE.
6. INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.)
7. CONSTRUCT SEDIMENT PONDS AND TRAPS, IF REQUIRED.
8. GRADE AND STABILIZE CONSTRUCTION ROADS.
9. CONSTRUCT SUFRACE WATER CONTROLS (INTERCEPTOR DIKES, PIPE SLOPE DRAINS, ETC.) SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.
10. MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH CLARK COUNTY STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
11. RELOCATE SURFACE WATER CONTROLS AND EROSION CONTROL MEASURES OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE THE EROSION AND SEDIMENT CONTROL IS ALWAYS IN ACCORDANCE WITH THE CLARK COUNTY EROSION AND SEDIMENT CONTROL STANDARDS.
12. COVER ALL AREAS THAT WILL BE UNWORKED FOR MORE THAN SEVEN DAYS DURING THE DRY SEASON OR TWO DAYS DURING THE WET SEASON WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING OR EQUIVALENT.
13. STABILIZE ALL AREAS THAT REACH FINAL GRADE WITHIN SEVEN DAYS.
14. SEED OR SOD ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.
15. UPON COMPLETION OF THE PROJECT, ALL DISTRUBED AREAS MUST BE STABILIZED AND BEST MANAGEMENT PRACTICES REMOVED IF APPROPRIATE.

LEGEND

CATCH BASIN INLET PROTECTION

SEDIMENT FENCE – SEE E4/C1.41

EXISTING DRAINAGE FLOW PATTERN

PROPOSED DRAINAGE FLOW PATTERN

CONSTRUCTION ENTRANCE
SEE DETAIL E1/C1.41

RIGHT-OF-WAY/PROPERTY LINE

CUT/FILL LINE

CUT
FILL

CONCRETE WASHOUT
SEE DETAIL 1/C1.41

SUBMITTED FOR PERMIT: JULY 16, 2020

Architecture ▪ Interiors
Planning ▪ Engineering

Portland, OR
503.224.9560
Vancouver, WA
360.695.7879
Seattle, WA
206.749.9993
www.mcknze.com

MACKENZIE.
DESIGN DRIVEN | CLIENT FOCUSED

Client
MAJ

Project
LEILANI RIDGE APARTMENTS

ROBERT L. FRENTRESS
STATE of WASHINGTON
45069
REGISTERED PROFESSIONAL ENGINEER

DATE: 7/16/20

© MACKENZIE 2019
ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

REVISION SCHEDULE

Delta	Issued As	Issue Date

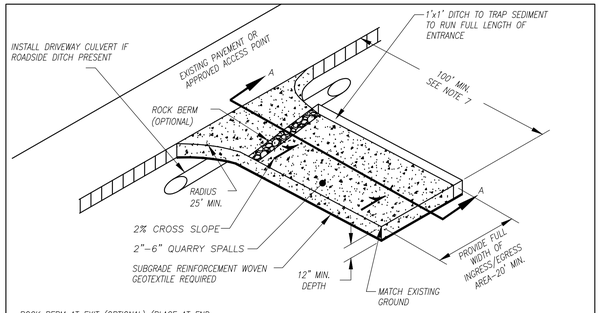
SHEET TITLE:
EROSION AND SEDIMENT CONTROL PLAN

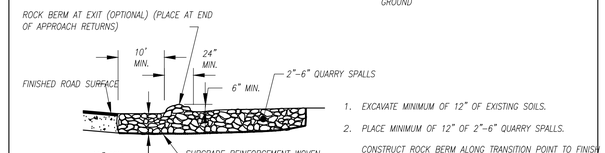
DRAWN BY: JAZ

CHECKED BY: RLF

SHEET:
C1.40

JOB NO. 2180271.00





SECTION A–A

1. EXCAVATE MINIMUM OF 12" OF EXISTING SOILS.
2. PLACE MINIMUM OF 12" OF 2"-6" QUARRY SPALLS.
3. CONSTRUCT ROCK BERM ALONG TRANSITION POINT TO FINISH ROAD SURFACES, DIVERT RUNOFF TO ONSITE AREA (OPTIONAL).

NOTES:

1. FOR DEVELOPMENT PROJECTS REVIEWED BY ENGINEERING SERVICES. NOT FOR USE WITH SINGLE FAMILY OR DUPLEX RESIDENTIAL BUILDING PERMITS. SEE BUILDING DEPT. FOR GRAVEL CONSTRUCTION ENTRANCE PLAN.
2. NSTALL WOVEN GEOTEXTILE FABRIC TO PREVENT SUB-SOIL PUMPING.
3. VEHICLE WASHDOWN AREA, IF REQUIRED, IS TO BE INSTALLED AND USED TO REMOVE SEDIMENT FROM VEHICLES THAT ARE ABOUT TO ENTER AN ESTABLISHED ROAD.
4. WASHDOWN AREA TO BE MADE UP OF CLEAN 2"- 6" QUARRY SPALLS, 12" DEEP (MIN) OVER WOVEN GEOTEXTILE FABRIC. WASHDOWN AREA TO BE FULL WIDTH OF ENTRANCE AND 50' LENGTH (MIN.), AND 100' IF EXPOSED SOIL IS OVER 5 ACRES.
5. AT TIME OF PRECONSTRUCTION MEETING, THE COUNTY INSPECTOR MAY REQUIRE THE ENTRANCE TO BE PAVED TO THE EDGE OF THE RIGHT-OF-WAY PRIOR TO THE INSTALLATION OF A WASHDOWN ENTRANCE TO AVOID DAMAGE TO THE EXISTING ROADWAY.
6. THE RESPONSIBLE EROSION CONTROL INDIVIDUAL IS TO ENSURE THAT ALL VEHICLES USE THIS ENTRANCE AND ARE TO BE INSPECTED AND CLEANED OF SOILS BEFORE LEAVING PROJECT, AND THAT THE ENTRANCE IS TO BE KEPT CLEAN AT ALL TIMES.
7. THE 100' MINIMUM LENGTH OF ENTRANCE SHALL BE REDUCED TO THE MAXIMUM PRATICABLE SIZE WHEN THE SIZE OR CONFIGURATION OF THE SITE DOES NOT ALLOW THE FULL LENGTH (100').

NO.	REVISIONS	DATE	BY
1	STORMWATER UPDATES	11/06/08	PC

DWG: E1.DWG

Department of Public Works
CLARK COUNTY WASHINGTON
proud past, promising future

STABILIZED CONSTRUCTION ENTRANCE

APPROVED
PETER CAPEN 5/23/08
COUNTY ENGINEER DATE

STANDARD E1 DETAIL
DESIGNED
DRAWN
DATE 05/23/08

---

1. STANDARD NOTES FOR EROSION CONTROL PLAN

THE CONTRACTOR SHALL INSTALL AND MAINTAIN BMP'S AS SHOWN AND PERFORM ALL ACTIONS NECESSARY TO PREVENT EROSION, AND CONTROL SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. CONTRACTOR SHALL COMPLY WITH CLARK COUNTY CODE CHAPTER 40.386.

2. ALL EROSION CONTROL MEASURES SHALL BE IN-PLACE AND IN WORKING CONDITION PRIOR TO DISTURBING AND EXPOSING ANY SOIL SURFACES (I.E. SILT FENCE, CONSTRUCTION ENTRANCE, SEDIMENTATION BARRIERS, SEDIMENTATION TRAPS). REFER TO CCC 13.26A AND CLARK COUNTY STORMWATER MANUAL, BOOK 2 BMP'S.

3. ALL EROSION PREVENTION AND CONTROL BMP'S SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO INSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. NEEDED REPAIRS SHALL BE MADE AS SOON AS PRACTICABLE. THEY ARE TO REMAIN IN PLACE AND OPERATIONAL DURING ALL PHASES OF CONSTRUCTION. CONSTRUCTION ACTIVITIES SHALL NOT CONTINUE OR RESUME UNTIL REPAIRS TO EROSION CONTROL FACILITIES ARE MADE AND THE FACILITIES ARE FUNCTIONAL. ANY SEDIMENT LEAVING THE SITE OR DISCHARGING TO A SENSITIVE AREA SHALL BE STOPPED AND CONTROLLED IMMEDIATELY. CONTAMINATED AREAS SHALL BE CLEANED AND RESTORED.

CLEARING LIMITS AND WORK AREA LIMITS SHALL BE DELINEATED AND MARKED. DO NOT DISTURB MORE AREA THAN NEEDED FOR CONSTRUCTION REQUIREMENTS.

4. ALL SENSITIVE OR CRITICAL AREAS (WETLANDS, STEEP SLOPES, NATURAL WATERWAYS), AND BUFFERS SHALL ALL BE CLEARLY DELINEATED AND CLEARLY MARKED, AND PROTECTED FROM SEDIMENT DEPOSITION.

5. SEDIMENT LADEN RUNOFF SHALL BE PREVENTED FROM ENTERING ALL EXISTING STORM WATER CATCH BASINS, INLETS AND PERVIOUS DRAINAGE SYSTEMS AFFECTED BY CONSTRUCTION.

6. NO EXPOSED, BARE SOILS SHALL REMAIN UNSTABILIZED FOR MORE THAN **TWO** DAYS DURING THE PERIOD OCTOBER 1 THRU APRIL 30 OR FOR MORE THAN **SEVEN** DAYS DURING THE PERIOD OF MAY 1 THROUGH SEPTEMBER 30. ALL DISTURBED SOIL SURFACES SHALL BE STABILIZED BY A SUITABLE APPLICATION OF "BEST MANAGEMENT PRACTICES".

7. WHERE FEASIBLE, NO MORE THAN 500 FEET OF TRENCH SHALL BE OPEN AT ONE TIME. EXCAVATED MATERIAL SHALL BE PLACED ON THE UP-HILL SIDE OF TRENCHES PROVIDED IT DOES NOT CONFLICT WITH SAFETY REQUIREMENTS.

8. DEWATERING DEVICES SHALL DISCHARGE INTO A SEDIMENT TRAP OR SEDIMENT POND. NO DISCHARGE SHALL BE MADE TO A PAVED STREET OR STORMWATER COLLECTION SYSTEM WITHOUT APPROVAL AND REMOVING SEDIMENT.

9. CUT AND FILL SLOPES SHALL BE CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. EROSION SHALL BE CONTROLLED AND PREVENTED BY SUCH MEASURES AS ROUGHENING THE SURFACE, INSTALLATION OF INTERCEPTOR DITCHES, TERRACING, COVERING WITH MATTING, MULCH OR PLASTIC SHEETING. RUNOFF SHALL BE PREVENTED FROM ENTERING A SLOPE AND FROM UNDERCUTTING THE BASE OF SLOPES.

10. ANY SOIL OR DEBRIS TRANSPORTED ONTO ROADWAYS AND SIDEWALKS SHALL BE REMOVED. DEPOSITS SHALL BE COMPLETELY REMOVED BY SHOVELING AND/OR SWEEPING. WASHING SHALL NOT BE UTILIZED UNLESS SPECIFICALLY APPROVED IN WRITING BY THE COUNTY.

11. ALL PERMANENT INFILTRATION SYSTEMS SHALL BE ISOLATED AND PROTECTED FROM SEDIMENT LADEN RUNOFF ENTERING TO AVOID RISK OF REDUCING THE ABILITY OF THE SYSTEMS TO INFILTRATE. ISOLATION AND PROTECTION SHALL NOT BE REMOVED UNTIL THE DRAINAGE AREA TRIBUTARY TO THE SYSTEM IS COMPLETELY STABILIZED.

12. ALL CONVEYANCE CHANNELS, BOTH TEMPORARY AND PERMANENT SHALL BE STABILIZED TO PREVENT EROSION OF THE CHANNEL. STABILIZATION SHALL EXTEND TO AREAS AT OUTLETS AND DOWNSTREAM REACHES VULNERABLE TO EROSION RESULTING FROM FLOW DISCHARGING FROM THE CHANNEL.

13. IF BMP'S SHOWN ARE UTILIZED BUT ARE INSUFFICIENT TO PREVENT SEDIMENT FROM REACHING WATER BODIES, ADJACENT PROPERTIES, OR PUBLIC RIGHTS-OF-WAY; ADDITIONAL BMP'S SHALL BE IMPLEMENTED IMMEDIATELY TO PREVENT FURTHER ENCROACHMENT OF SEDIMENT.

13. ALL CONVEYANCE CHANNELS, BOTH TEMPORARY AND PERMANENT SHALL BE STABILIZED TO PREVENT EROSION OF THE CHANNEL. STABILIZATION SHALL EXTEND TO AREAS AT OUTLETS AND DOWNSTREAM REACHES VULNERABLE TO EROSION RESULTING FROM FLOW DISCHARGING FROM THE CHANNEL.

14. IF BMP'S SHOWN ARE UTILIZED BUT ARE INSUFFICIENT TO PREVENT SEDIMENT FROM REACHING WATER BODIES, ADJACENT PROPERTIES, OR PUBLIC RIGHTS-OF-WAY; ADDITIONAL BMP'S SHALL BE IMPLEMENTED IMMEDIATELY TO PREVENT FURTHER ENCROACHMENT OF SEDIMENT.

SHEET 1 OF 2

NO.	REVISIONS	DATE	BY

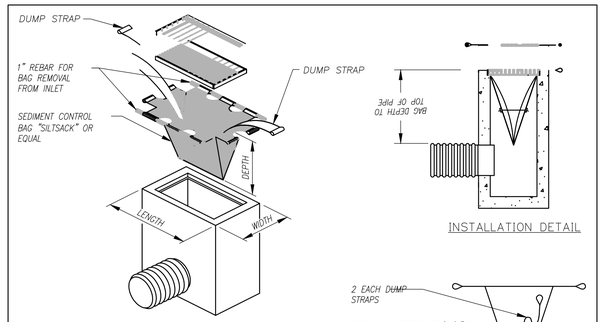
DWG: ECN.DWG

Department of Public Works
CLARK COUNTY WASHINGTON
proud past, promising future

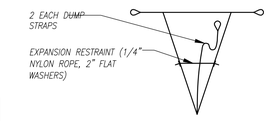
STANDARD NOTES FOR EROSION CONTROL PLAN

APPROVED
COUNTY ENGINEER 01/30/15
DATE

STANDARD ECN1 DETAIL
DESIGNED
DRAWN
DATE 01/30/15



INSTALLATION DETAIL



BAG DETAIL

CB STYLE	LENGTH	WIDTH	DEPTH
TYPE 1 CB	24"	20"	VARIES
TYPE 1 CCI	29.5"	24"	VARIES
USA G2	32.5"	27.5"	VARIES

INLET SEDIMENT CONTROL DEVICE – SILT SACK

NOTES:

1. THE DIMENSION CHART ABOVE IS FOR STANDARD CATCH BASINS AND INLETS ONLY. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE CORRECT SIZE DEVICE FOR EACH INLET.
2. FOR NON-STANDARD CATCH BASINS AND INLETS, THE CONTRACTOR SHALL MEASURE DIMENSIONS IN THE FIELD AND ORDER THE APPROPRIATE SIZE(S).
3. THE INLET SEDIMENT CONTROL DEVICE SHALL BE OF HIGH FLOW DESIGN (200 GAL/MIN/FT), AS PER THE MANUFACTURER'S SPECS.
4. THE SEDIMENT CONTROL DEVICE SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED A MINIMUM ONCE PER MONTH OR WITHIN THE 48 HOURS FOLLOWING A STORM EVENT. FILTER SHALL BE CLEANED IN A MANNER WHICH ENSURES THAT ALL SEDIMENT REMAINS ON SITE.
5. SUBSTITUTION OF A SHEET OF FILTER FABRIC PLACED OVER THE OPENING OF THE INLET IS NOT APPROVED.
6. RECESSED CURB INLET CATCH BASINS MUST BE BLOCKED WHEN USING FILTER FABRIC INLET SACKS, SIZE OF FILTER INLET SACK TO BE DETERMINED BY MANUFACTURER.
7. THE FILTER SHALL BE REPLACED OR CLEANED WHEN THE BAG BECOMES HALF FULL.
8. SEE INLET PROTECTION NOTES STD. DETAIL E3.

NO.	REVISIONS	DATE	BY

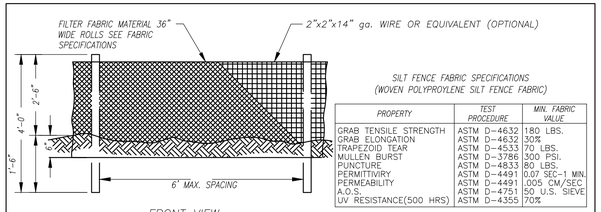
DWG: E3d.DWG

Department of Public Works
CLARK COUNTY WASHINGTON
proud past, promising future

INLET PROTECTION TYPE 5 SILT SACK

APPROVED
PETER CAPEN 5/23/08
COUNTY ENGINEER DATE

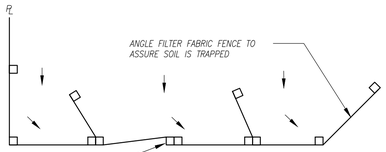
STANDARD E3d DETAIL
DESIGNED
DRAWN
DATE 05/23/08



FRONT VIEW

SILT FENCE FABRIC SPECIFICATIONS (WOVEN POLYPROYLENE SILT FENCE FABRIC)

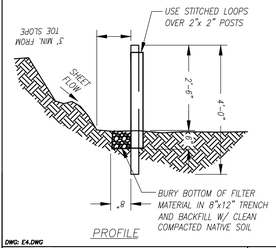
PROPERTY	TEST PROCEDURE	MIN. FABRIC VALUE
GRAB TENSILE STRENGTH	ASTM D-4632	180 LBS.
GRAB ELONGATION	ASTM D-4632	30%
TRAPEZOID TEAR	ASTM D-4533	70 LBS.
MULLEN BURST	ASTM D-3786	300 PSI.
PUNCTURE	ASTM D-4833	80 LBS.
PERMITTIVIRY	ASTM D-4491	0.07 SEC-1 MIN.
PERMEABILITY	ASTM D-4491	.005 CM/SEC
A.O.S.	ASTM D-4751	150 U.S. SIEVE
UV RESISTANCE(500 HRS)	ASTM D-4355	70%



PLAN VIEW

NOTES:

1. THIS SEDIMENT BARRIER UTILIZES STANDARD STRENGTH OR EXTRA STRENGTH SYNTHETIC FILTER FABRICS, IT IS DESIGNED FOR SITUATIONS IN WHICH ONLY SHEET OR OVERLAND FLOWS ARE EXPECTED. (SEE FABRIC SPECIFICATIONS ABOVE).
2. BURY BOTTOM OF FILTER FABRIC 6" VERTICALLY BELOW FINISHED GRADE.
3. POST ARE TO BE 2"x2" FIR, PINE OR STEEL FENCE POSTS.
4. POST TO BE INSTALLED ON UPHILL SIDE OF SLOPE FOR FENCING WITH STITCHED LOOP. FOR STAPLED FENCING, POST TO BE INSTALLED ON DOWNHILL SLOPE.
5. COMPACT BOTH SIDES OF FILTER FABRIC TRENCH.
6. SEDIMENT FENCE TO BE SPACED ON SLOPES PER TABLE BELOW.



PROFILE

INSTALL PARALLEL ALONG CONTOURS AS FOLLOWS		
% SLOPE	SLOPE	MAX. SPACING ON SLOPE
10% FLATTER	10:1 OR FLATTER	300 ft.
10>%<15	10:1>x<7.5:1	150 ft.
15>%<20	7.5:1>x<5:1	100 ft.
20>%<30	5:1>x<3.5:1	50 ft.
30>%<50	3.5:1>x<2:1	25 ft.

NO.	REVISIONS	DATE	BY

DWG: E4.DWG

Department of Public Works
CLARK COUNTY WASHINGTON
proud past, promising future

SILT FENCE

APPROVED
PETER CAPEN 5/23/08
COUNTY ENGINEER DATE

STANDARD E4 DETAIL
DESIGNED
DRAWN
DATE 05/23/08

STANDARD NOTES FOR EROSION CONTROL PLAN (CONTINUED)

15. STABILIZED AREAS SHALL BE PROVIDED FOR EMPLOYEE PARKING AND STORAGE OF CONSTRUCTION MATERIALS. ERODIBLE STOCKPILES OF EARTHEN MATERIALS, SUCH AS TOPSOIL, SILTY AND CLAYEY SOILS; AND LANDSCAPE MATERIALS, SHALL BE COVERED WHEN NOT BEING INCORPORATED IN THE WORK. EROSION CONTROL BMP'S SHALL BE UTILIZED AS NECESSARY TO PREVENT SEDIMENT LADEN RUNOFF FROM LEAVING OR SEDIMENT BEING TRANSPORTED FROM THESE AREAS FROM VEHICLE ACTIVITY.

16. ALL POLLUTANTS OTHER THAN SEDIMENT THAT OCCUR DURING CONSTRUCTION SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORM WATER.

17. THE CONTRACTOR SHALL KEEP AN INSPECTION LOG OF THE CONDITION OF THE EROSION CONTROL FACILITIES. EROSION CONTROL FACILITIES SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RAINFALL. THE INSPECTION LOG SHALL BE KEPT AT THE PROJECT SITE AT A DESIGNATED LOCATION AND SHALL BE AVAILABLE FOR REVIEW BY THE COUNTY. AN INDIVIDUAL THAT HAS SUCCESSFULLY COMPLETED THE COUNTY'S EROSION CONTROL CERTIFICATION COURSE SHALL PERFORM INSPECTIONS AND MAINTAIN THE LOG.

18. ALL TEMPORARY BMP'S SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED. TRAPPED SEDIMENT SHALL BE DEPOSITED AND STABILIZED ON SITE. AREAS DISTURBED RESULTING FROM REMOVAL SHALL BE PERMANENTLY STABILIZED.

19. CONSTRUCTION SHALL NOT BE CONSIDERED COMPLETE AND ACCEPTABLE UNTIL ALL DISTURBED SOIL SURFACES HAVE BEEN PROTECTED FROM EROSION WITH PERMANENT LANDSCAPING, COVERING WITH IMPERVIOUS SURFACES, RESTORED TO ORIGINAL UNDISTURBED CONDITION OR PERMANENTLY STABILIZED.

20. VEGETATED STABILIZATION AND LANDSCAPING SHALL BE FERTILIZED, WATERED AND MAINTAINED TO INSURE THAT GROWTH OF VEGETATION IS ESTABLISHED AND SUSTAINED.

21. DURING DRY WEATHER CONSTRUCTION PERIODS THE CONTRACTOR SHALL PROVIDE PROJECT-SPECIFIC DUST CONTROL MEASURES THAT MAY INCLUDE: SEEDING, MULCHING, MATTING, WATER, TACKIFIER, OR CHEMICAL SOIL STABILIZERS. THE CONTRACTOR SHALL MAINTAIN THE DUST CONTROL MEASURES THROUGH DRY WEATHER PERIODS UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED. IMMEDIATELY RE-STABILIZE AREAS DISTURBED BY CONTRACTOR'S OPERATIONS OR OTHER ACTIVITIES (WIND, WATER, VANDALISM, ETC.).

22. ENTRY ONTO THE CONSTRUCTION SITE SHALL BE RESTRICTED TO A SINGLE APPROVED ENTRANCE AS SHOWN ON THE APPROVED PLAN.

23. MAINTENANCE AND REPAIR OF HEAVY EQUIPMENT AND VEHICLES WHICH INVOLVE POTENTIAL CONTAMINANTS (OIL,SOLVENTS,HYDRAULIC FLUID, ETC.) MUST BE CONDUCTED IN A MANNER WHICH PREVENTS CONTAMINATION OF SOILS, SURFACE WATER AND GROUND WATER. TARPS, DRIP PANS, OR OTHER APPROPRIATE MEASURES SHALL BE USED AS NECESSARY.

24. STRIPPING, TOPSOIL, AND UNSUITABLE MATERIAL STOCKPILES SHALL BE HYDROSEEDED WITH "REGREEN WHEAT X WHEAT GRASS HYBRID" BY HOBBS AND HOBKINS (OR APPROVED EQUAL). MAINTENANCE OF STOCKPILE AREAS AND REAPPLICATION OF HYDROSEED COVERING SHALL BE REQUIRED IF BARE SOIL IS PRESENT. DURING WINTER AND WET WEATHER CONDITIONS, STOCKPILES SHALL BE COVERED WITH PLASTIC SHEETING PER DETAIL E-16.

25. SIGNIFICANT VARIATION AND DEGREE OF EROSION CONTROL EFFORT WILL BE DICTATED BY WEATHER CONDITIONS. THE DEVELOPER AND CONTRACTOR SHOULD BE PREPARED TO PROVIDE EXTRA EROSION CONTROL PROVISIONS AND EFFORT DURING WINTER AND WET WEATHER CONDITIONS BEYOND THAT NORMALLY REQUIRED DURING SUMMER AND DRY WEATHER CONDITIONS. FINE GRAINED AND UNCONSOLIDATED SOILS ON SLOPING SITES MAY BECOME UNSTABLE WHEN SUBJECT TO EXCESSIVE MOISTURE.

SHEET 2 OF 2

NO.	REVISIONS	DATE	BY

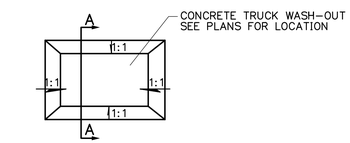
DWG: ECN.DWG

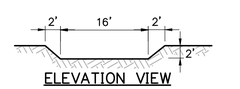
Department of Public Works
CLARK COUNTY WASHINGTON
proud past, promising future

STANDARD NOTES FOR EROSION CONTROL PLAN (CONTINUED)

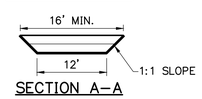
APPROVED
COUNTY ENGINEER 01/30/15
DATE

STANDARD ECN2 DETAIL
DESIGNED
DRAWN
DATE 01/30/15





ELEVATION VIEW



SECTION A–A

NOTES:

1. CONCRETE WASHOUT AREA. LOCATED SO RUNOFF CANNOT ENTER STORM SYSTEM. IF WASH-OUT CANNOT BE LOCATED MINIMUM OF 50' FROM ENTRY TO STORM SYSTEM, THAN SECONDARY MEASURES SUCH AS BERMS AND TEMPORARY SETTLING PITS MAY BE REQUIRED.
2. CONTRACTOR SHALL CLEAN OUT CONCRETE TRUCK WASH-OUT AREA WHEN WHEN DEPTH REACHES 1'.

1 / C1.41 CONCRETE WASHOUT
N.T.S.

CONCRETE WASHOUT
1:1

SUBMITTED FOR PERMIT: JULY 16, 2020

M.
Architecture ▪ Interiors
Planning ▪ Engineering

Portland, OR
503.224.9560
Vancouver, WA
360.695.7879
Seattle, WA
206.749.9993
www.mckinze.com

MACKENZIE.
DESIGN DRIVEN | CLIENT FOCUSED

Client
MAJ

Project
LEILANI RIDGE APARTMENTS

ROBERT L. FRENTESS
STATE OF WASHINGTON
45060
REGISTERED PROFESSIONAL ENGINEER
DATE: 7/16/20

© MACKENZIE 2019
ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

REVISION SCHEDULE

Delta	Issued As	Issue Date

SHEET TITLE:
EROSION AND SEDIMENT CONTROL DETAILS

DRAWN BY: CTL
CHECKED BY: RLF
SHEET:
C1.41

JOB NO. 2180271.00

MACKENZIE.

DESIGN DRIVEN | CLIENT FOCUSED

LEILANI RIDGE APARTMENTS EARLY GRADING NARRATIVE

To
Clark County

Applicant
MAJ Development
300 West 15th St., Suite 200
Vancouver, WA 98660
brandi@majdevelopment.com
360-921-0593

Dated
June 23, 2020
Revised July 21, 2020

Project Number
2180271.00

MACKENZIE
Since 1960

The Hudson Building | 101 E 6th Street, #200, Vancouver, WA 98660
T 360.695.7879 | T 360.693.6637 | www.mcknze.com

TABLE OF CONTENTS

I. PROJECT SUMMARY 1

II. INTRODUCTION 2

Description of Request 2

Existing Site & Surrounding Land Use 2

Description of Proposed Development 3

III. NARRATIVE & COMPLIANCE 5

Title: 14 BUILDINGS AND STRUCTURES 5

Title 15: FIRE PREVENTION 5

Title 40: Clark County, Washington, Unified Development Code [Land Use] 5

40.320 LANDSCAPING AND SCREENING 5

40.386 STORMWATER AND EROSION CONTROL PLAN 6

40.430 GEOLOGIC HAZARD AREAS 9

40.440 HABITAT CONSERVATION 15

40.570 State Environmental Policy Act (SEPA) 19

IV. CONCLUSION 20

ATTACHMENTS

A. Signed Application Forms
B. Proposed Early Grading Plans
C. Geotechnical Report (HartCrowser; January 6, 2020) including Addendum #1 (April 21, 2020)
D. Preliminary Stormwater Technical Information Report & Project Engineer Statement of Completeness and Feasibility
E. SEPA Checklist
F. Archaeological Pre-Determination (WillametteCRA; October 2, 2018)
G. Arborist Report and Tree Removal Recommendation (Teragan & Associates (April 1, 2020)
H. Report Evaluating Snag Habitat Potential of Deceased Domestic Pine (ELS; February 3, 2020)
I. Email from DAHP confirming receipt of Archaeological Report (October 12, 2018)
J. Email providing written concurrence of Report Evaluating Snag Habitat (WDFW, July 13, 2020).

I. PROJECT SUMMARY

Owner:	Leilani Ridge LLC 300 West 15th Street, Suite 200 Vancouver, WA 98660 DEA Properties-7 LLC ET AL 16420 SE McGillivray BV PMB 364 VANCOUVER WA, 98683
Applicant:	MAJ Development 300 West 15th Street, Suite 200 Vancouver, WA 98660
Site Address:	14118 NE 35th Avenue Vancouver, WA 98686
Assessor Site Acreage:	Total acreage: 2.88 Acres
Zoning:	Office Residential – 30 (OR-30) University - U
Comprehensive Plan:	Urban High Density Residential (UH) Public Facility (PF)
Adjacent Zoning:	Single Family Residential (R1-10) to the north and west. University (U) to the east and Office Residential (OR-30) to the south.
Existing Structures:	The site has two existing residential structures and associated outbuildings – these include a single-family house in the approximately center of the site and a manufactured home on the northerly side.
Request:	Grading permit with concurrent critical areas permits (Geologic and Habitat), and SEPA.
Project Contact:	John Floyd Mackenzie 101 E 6th Street, #200 Vancouver, WA 98660 (360) 787-7360 jfloyd@mcknze.com

II. INTRODUCTION

Description of Request

Demolition, grading, and construction of retaining walls to prepare an approximately 2.99 acre site located at 14118 NE 35th Avenue for future redevelopment. Associated with the grading and building permits is a critical area permit for development within a geologic hazard (liquification). Existing habitat on site associated with an Oregon white oak will be avoided during grading activities and any ground-disturbing activities will proceed under future permits.

Existing Site & Surrounding Land Use

The project site is approximately 2.88 acres in size. Improvements on the site include a single-family house, a manufactured home, and multiple accessory buildings. Primary access is currently obtained from NE Salmon Creek Avenue. In general, vegetation includes a mix of trees, shrubs and grasses. Species of note on or immediately adjacent to the project site include a 38-inch diameter Oregon white oak in the southeast corner of the site.

The site fronts two public streets, NE 35th Avenue to the North (presently barricaded) and NE Salmon Creek Avenue to the South. The site also includes land that was previously within the right-of-way of NE 35th Avenue. On January 21, 2020, the Clark County Council approved a Final Order of Vacation for the adjoining segment of NE 35th Avenue with one-half of the right-of-way transferred to the applicant and the other half to Washington State University (WSU). Subsequent to the street vacation, WSU quit-claimed their half of the right-of-way to the applicant, placing the entirety of the former roadway within a single ownership. As a result of these actions, the site has approximately 57' of frontage on NE 35th Avenue, which is classified as a local access road and presently terminated at a barricade. To the south, the site has approximately 98 feet of frontage along NE Salmon Creek, a collector/minor arterial possessing a 60-foot roadway right-of-way improved with a three-lane road and eight-foot sidewalk on both sides of the street. As part of the street vacation, the County reserved easements for utilities and a continuous walkway and biking connection from the terminus of NE 35th Avenue to NE Salmon Creek Parkway.

TABLE II-1. SURROUNDING ZONING AND LAND USE		
	Zone	**Land Use**
Site:	OR-30 Office Residential / U University	Tax lot 185961000: Single family residential
South:	OR-30 Office Residential	Light industrial
North	R1-10 Single Family Residential	Single family residential
West:	R1-10 Single Family Residential	Single family residential
East:	U University	Vacant

Clark County GIS indicates slopes exceeding 15% along the south boundary of the property. Clark County GIS has labeled an area running from the southwest to northeast as a *Severe Erosion Hazard* area. Finally, 62% of site is designated as moderate in the archaeological predictive model and 38% of the site is designated as moderate to high.

Description of Proposed Development

The proposed development generally consists of the following scope of work:

- Demolition of all existing structures and asphalt.
- Grading and stabilization of the site consisting of approximately 2,730 cubic yards of soil.
- Critical areas review to authorize work within the dripline of an Oregon white oak (Garry oak), necessary to protect life and property and the health of the oak tree.
- Critical areas review to authorize work within a geologic hazard area.
- Construction of three retaining walls (under separate permit).

Aerial Image – Project Site

III. NARRATIVE & COMPLIANCE

Title: 14 BUILDINGS AND STRUCTURES

Response: The applicant will submit building plans for the proposed retaining walls, and the plans will be reviewed for compliance with the applicable standards by County officials prior to beginning construction. With approval of the building plans, these standards will be met.

Title 15: FIRE PREVENTION

Response: Building plans will be reviewed for compliance with the applicable standards by County officials, including the fire marshal, prior to beginning construction on the project. These standards are met.

Title 40: Clark County, Washington, Unified Development Code [Land Use]

40.320 LANDSCAPING AND SCREENING

40.320.010 Landscaping and Screening on Private Property

F. Establishing Setback Standards for Retaining Walls and Fences.

1. This section regulates the height of retaining walls and fences along the perimeter of sites. Building codes specify the circumstances under which retaining walls and fences require building and grading permits. Changes to stormwater runoff resulting from construction of retaining walls are subject to Chapter 40.386.

Response: The proposal includes the use of retaining walls. These standards apply.

2. Construction of private retaining walls or fences within public rights-of-way is prohibited. Exceptions to this prohibition require approval of the Public Works Director.

Response: The proposed retaining walls are not located within a public right-of-way. This standard is met.

3. The construction of retaining walls four (4) feet or less in height and fences seven (7) feet or less in height may be constructed within easements. This subsection does not exempt retaining walls or fences from otherwise applicable easement provisions.

Response: The proposed development does not include the construction of retaining walls within easements. This standard does not apply.

4. The construction of retaining walls in excess of four (4) feet in height and fences in excess of seven (7) feet in height shall meet the setback requirements of the underlying zone, except as authorized below. The height of a fence on top of retaining walls shall be measured to the grade at the bottom of the wall. Each of the following is an exception to the height and setback requirements of Section 40.320.010(F)(4):

a. Retaining walls taller than four (4) feet may be placed within setbacks by using a series of retaining walls four (4) feet high or less that are separated a minimum of eight (8) feet, provided the area between walls is maintained in ground cover or shrubs. The total height of a series of walls within the building setback shall not exceed eight (8) feet. Landscaping shall be maintained consistent with

Section 40.320.010(G)(6). Fences are allowed on top of such walls consistent with Section 40.320.010(F)(4)(h) and Figure 40.320.010-8;

b. The exposed faces of retaining walls over four (4) feet in height must be directed toward the interior of the lot;

c. The retaining walls and/or fences are constructed as part of the site improvements prior to a final plat, and located between lots within the development. Retaining walls on the perimeter of the plat may not use this exception, except as allowed under subsection (F)(4)(d) of this section;

d. Retaining walls and/or fences abutting a road right-of-way or road easement; subject to the following:

(1) The wall or fence does not block required sight distance;

(2) Walls and/or fences over twelve (12) feet in height will be reviewed for potential shading and visual impacts beyond the right-of-way or easement. The Community Development Director may impose conditions on the design and setbacks of such walls if needed to mitigate impacts;

e. The retaining wall and/or fence is constructed between lots under the same ownership;

f. Permission to exceed the height limits within the setback is granted in writing from the abutting property owner;

g. The retaining wall and/or fence is abutting commercial or industrial zoned property or legally permitted nonresidential uses;

h. Non-sight-obscuring fences such as chain link or wrought iron seven (7) feet high or less and sight-obscuring fences forty-two (42) inches high on top of retaining walls no greater than four (4) feet tall are allowed within setbacks per Figure 40.320.010-8.

Response: The proposed development includes one retaining wall that will be located within a setback. The exposed face of the wall is no greater than 4 feet in height and is directed inward towards future building pads. One retaining wall exceeds 4 feet in height but is located within the approximate center of the site and faces the interior of the site. These standards are met.

5. Building codes for retaining walls may require setbacks that are greater than those required by Section 40.320.010(F)(4).

Response: Proposed retaining walls are not anticipated to require setbacks beyond those listed in Clark County Code 40.320.010(F)(4). This standard does not apply.

6. These height and setback limitations do not apply to fences required by state law to enclose public utilities, or to chain link fences enclosing school grounds or public recreation areas.

Response: The proposed development does not include fences required by state law to enclose public utilities, or to chain link fences enclosing school grounds or public recreation area This standard does not apply.

40.386 STORMWATER AND EROSION CONTROL PLAN

40.386.020 Standards – Stormwater Control

A. The Clark County Stormwater Manual is adopted by reference, and the requirements contained therein will be the minimum standards for this chapter except as modified in this chapter.

B. Where provisions of this chapter conflict with other Title 40 requirements, the more stringent shall apply.

40.386.030 Administration

A. General.

1. An *applicant proposing any new development, redevelopment, land-disturbing activity or drainage project governed by this chapter shall submit to Clark County the plans, studies, and information described in the Clark County Stormwater Manual. The purpose of the stormwater plan is to determine whether a proposal can meet the requirements set forth in this chapter.*
2. *All plans, studies, and reports submitted pursuant to this chapter must be stamped, signed and dated by an engineer, and other licensed professionals if appropriate, responsible for their preparation.*
3. *Stormwater site plans are exempt from the requirement to be prepared by an engineer for projects that only apply minimum requirements No. 1 through No. 5 for construction of agricultural or residential buildings and their appurtenances on an existing lot. Alterations to an existing site plan prepared by a licensed engineer are not exempt.*

Response: As required for land-disturbing activity, a stormwater development plan and stormwater technical information report have been prepared according to the standards of the Clark County Stormwater Manual and signed by an engineer licensed in the State of Washington. This standard is met.

B. Preliminary Stormwater Plan.

1. *As part of a land use application, the applicant shall submit a preliminary stormwater plan meeting the requirements of the Clark County Stormwater Manual for all new development, redevelopment, land-disturbing activities or drainage projects not exempted by Section 40.386.010(C).*
2. *A preliminary stormwater plan submittal shall consist of a preliminary development plan and a preliminary technical information report (TIR). The engineer shall include a statement that all required information is included and that the proposed stormwater facilities are feasible.*

Response: A Stormwater TIR with the required statement of feasibility has been prepared according to the standards of the Clark County Stormwater Manual. This standard is met.

C. Final Stormwater Plan.

1. *The applicant shall submit a final stormwater plan and shall obtain approval of the final stormwater plan from the responsible official prior to beginning construction related to any new development, redevelopment, land-disturbing activity or drainage project not exempted by Section 40.386.010(C). The final stormwater plan provides final engineering design and construction drawings in accordance with the Clark County Stormwater Manual.*

Response: A Final Stormwater TIR with the final engineering and construction drawings will be submitted for approval prior to any construction related development. This standard will be met.

2. *The final stormwater plan must include a construction stormwater pollution prevention plan (SWPPP) prepared in accordance with the Clark County Stormwater Manual for any new development, redevelopment, land-disturbing activity or drainage project not exempted by Section 40.386.010(C).*

Response: A final stormwater plan containing a SWPPP has been prepared in accordance with the Clark County Stormwater Manual. This standard will be met.

3. *If a final stormwater plan differs from the approved preliminary stormwater plan in a manner that, in the opinion of the responsible official, raises significant water quality or quantity control issues, it shall require another SEPA determination (if subject to the State Environmental Policy Act (SEPA)) and a post-decision review, in accordance with Section 40.520.060.*

Response: This provision guides post-land use approval implementation and review of construction permit submittals. Additionally, a final stormwater plan has been submitted with this application. No evidence, submittal or response from the applicant is required.

D. Plan Review Process.

1. *For a land use application requiring a public hearing, the Hearings Examiner shall consider the preliminary stormwater plan in accordance with the procedures applicable to the land use application. All other preliminary stormwater plans shall be acted on by the responsible official within the timeline for the preliminary land use decision.*

Response: A public hearing is not required for this application. This standard does not apply.

E. Inspection. The responsible official shall inspect all new development, redevelopment and drainage projects to ensure compliance with this chapter and the standards of the Clark County Stormwater Manual.

1. *The project applicant must schedule a preconstruction conference and preconstruction inspection to ensure that stormwater and erosion control BMPs are in place and access to public right-of-way is properly installed.*
2. *The project applicant shall obtain approval on all inspections necessary to manage the project and comply with the Clark County Stormwater Manual.*
3. *The project applicant shall inspect all temporary erosion and sedimentation BMPs throughout construction to verify proper installation and maintenance of required soil erosion and sediment controls.*
4. *The responsible official shall inspect new development, redevelopment and drainage projects sites upon completion of construction and before final approval/occupancy to verify proper installation of permanent erosion controls, stormwater facilities, and BMPs and compliance with Chapter 40.386 and the Clark County Stormwater Manual.*

Response: The requirement for a preconstruction conference and inspection is noted and will be requested by the applicant. All necessary inspections shall be requested, and approval obtained necessary to manage the project. All BMPs will be properly installed and maintained. These standards will be met.

F. Acceptance. *When* the project applicant requests construction acceptance of stormwater facilities the applicant shall follow the procedures set forth in the Clark County Stormwater Manual.

Response: The applicant will follow the procedures of the Clark County Stormwater Manual. This standard will be met.

G. Record *Drawings*.

1. Upon *completion of the construction of conveyance systems, stormwater treatment facilities, flow control facilities and structural source control BMPs (excluding the construction of on-site stormwater management BMPs) and prior to final inspection approval, the applicant shall submit to Clark County record drawings of the full stormwater plan prepared and stamped by a licensed engineer.*
2. *The drawings must accurately represent the project as constructed. They must depict the actual vertical and horizontal locations of roads and drainage facilities constructed on and*

off site as part of the development, redevelopment, land-disturbing activity or drainage project. Record drawings must be stamped, signed and dated by an engineer and must meet the standards contained in the Clark County Stormwater Manual.

Response: Record drawings accurately representing the project will be submitted for all required locations, and will be stamped, signed, and dated by an engineer. This standard will be met.

40.430 GEOLOGIC HAZARD AREAS

40.430.010 Introduction

B. Applicability and Exemptions.

1. Applicability. This chapter applies to all construction, development, earth movement, clearing, or other site disturbance which requires a permit, approval or authorization from the county in or within one hundred (100) feet of a geologic hazard area except for exempt activities listed in Section 40.430.010(B)(3). Regulated geologic hazards include steep slope hazard areas, landslide hazard areas, seismic hazard areas, and volcanic hazard areas.

Response: The project will result in construction, development, clearing, and earth movement within geologic hazard area. A Geotechnical report submitted with this application concluded there are no areas on the project site that meet the definition of steep slope hazard areas or landslide hazard areas. The site is, however, susceptible to liquefaction. Therefore, these standards apply.

40.430.020 Standards

A. General.

The following requirements for development activities in geologic hazard areas list prohibited activities, buffer requirements, and setback requirements. The following section describes required buffers and setbacks, and general requirements for development activities in geologic hazard areas.

1. Development on steep slope hazard areas is regulated to prevent potential landslide damage by placing improvements away from steep slopes and leaving steep slopes in natural vegetation.

2. Development in landslide hazard areas is generally not allowed, and requires buffers that keep vegetation in a natural state on and around the landslide hazard area.

3. Seismic hazards due to liquefaction, ground shaking amplification and landslides exist for large areas of the county. Only detailed site analysis can determine how soils and structures will respond at a particular site. Site investigation requirements of the International Building Code are used to ensure that structures are built to minimum safety standards based on existing knowledge of earthquake hazard. Section 40.430.020(F) provides additional guidelines describing where site investigations should be required for seismic design.

4. If an applicant wishes to perform development activities not allowed by Sections 40.430.020(D) and (E), a geologic hazard area study meeting the requirements of Section 40.430.030(C)(5) must be completed. The development proposal may be approved, approved with conditions, or denied based on the responsible official's evaluation of the suitability of the mitigation measures proposed by the geologic hazard area study to protect life, safety, and slope stability on abutting properties.

Response: A geologic hazard study has been completed and submitted with this application. As previously noted, the report concluded there are no areas on the project site that meet the definition of steep slope

hazard areas or landslide hazard areas. The site is, however, susceptible to liquefaction and the report included site specific recommendations to mitigate for this hazard. This standard is met.

B. Erosion Requirements.

All activities on hillsides subject to severe erosion hazard must minimize erosion by following management practices prescribed by the erosion control standards of Chapter 40.386.
Response: The stormwater and erosion control standards required in Chapter 40.386 will be followed. These standards will be met.

C. Stormwater Requirements.

For projects within one hundred (100) feet of steep slope hazard areas or landslide hazard areas, runoff shall not be infiltrated into the ground. Runoff should be directed through a water-tight pipe beyond the base of the slope or landslide area and discharged to a suitable drainage way. An energy dissipating device shall be placed at the discharge point.
Response: All stormwater runoff will be directed off-site to a public storm drain system with no proposed infiltration on site. This standard is met.

D. Steep Slope Hazard Areas.

1. Except for mineral extraction practices, development activity on or within one hundred (100) feet of slopes steeper than forty percent (40%) that do not have a mapped or designated landslide hazard shall comply with the requirements of this section.

2. Buffer and Setback Distances.

a. Activities at the base of ascending slopes (building at the bottom of a steep slope):
(1) For slopes greater than or equal to forty percent (40%) and less than one hundred percent (100%), buffers shall extend a distance away from the toe of the slope that is equal to the vertical height of the slope divided by two, but not to exceed fifteen (15) feet (Figure 40.430.020-1). For slopes less than one hundred percent (100%), the toe of the slope is defined as a distinct break in slope at the base of a steep slope.
(2) For slopes greater than one hundred percent (100%), the buffer shall extend a distance back from the toe of the slope equal to the height of the slope divided by two, not to exceed fifteen (15) feet. The buffer shall be measured horizontally from a plane, drawn tangent to the top of the slope at an angle of forty-five (45) degrees to the proposed structure (Figure 40.430.020-3).
(3) The setback shall be eight (8) feet beyond the buffer.

b. Activities at the tops of descending slopes (building at the top of a steep slope):
(1) For slopes greater than or equal to forty percent (40%) and less than one hundred percent (100%), buffers shall extend a distance back from the top of the slope equal to the vertical height of the slope divided by three (3), but not to exceed forty (40) feet. The top of the slope is defined as a distinct break in slope at the top of a steep slope (Figure 40.430.020-1).
(2) For slopes greater than one hundred percent (100%), the buffer shall extend a distance back from the top of the slope equal to the height of the slope divided by three (3), but not to exceed forty (40) feet. The buffer shall be measured horizontally from a plain drawn at forty-five (45) degrees (one hundred percent

(100%) slope) from the toe of the slope to the proposed structure (Figure 40.430.020-2).

(3) The setback shall be eight (8) feet beyond the buffer.

c. For projects not required to have a landslide protection area under Section 40.430.030(B), the setback from the steep slope shall be equal to the buffer distance set in this subsection.

3. The responsible official may approve buffers and setbacks which differ from those required by Section 40.430.020(D)(1) if the applicant submits a geologic hazard area study described in Section 40.430.030(C), which technically demonstrates and illustrates that the alternative buffer provides protection which is greater than or equal to that provided by the buffer required in Section 40.430.020(D)(1).

4. The responsible official may increase buffers or setbacks where necessary to meet requirements of the International Building Code.

5. All portions of steep slope hazard areas and steep slope buffers on the site which are planned to be undisturbed by permitted development activities shall be designated as landslide protection areas in accordance with Section 40.430.030(B).

6. Other than for exemptions listed in Sections 40.430.010(B)(3) and 40.430.030(B), vegetation removal is not allowed on slopes over forty percent (40%) without an approved geologic hazard area study described in Section 40.430.030(C)(5).

Response: A geologic hazard study has been completed and submitted with this application. As previously noted, the report concluded there are no areas on the project site that meet the definition of steep slope hazard area. These standards do not apply.

E. Landslide Hazard Areas.

1. A development proposal on a site containing a landslide hazard area shall meet the following requirements:

a. A minimum buffer of fifty (50) feet shall be established from all edges of the landslide hazard area. The buffer shall be extended as required to mitigate a steep slope or erosion hazard or as otherwise necessary to protect the public health, safety and welfare. In cases where the diameter of the landslide area is smaller than fifty (50) feet, the buffer width may be reduced to less than fifty (50) feet at the discretion of the department;

b. All portions of landslide hazard areas and buffers shall be designated as landslide protection areas in accordance with Section 40.430.030(B).

2. Other than exempt activities, clearing or alteration of a landslide is allowed only if the following are met:

a. A development proposal does not decrease slope stability on contiguous properties;

b. Mitigation is based on best available engineering and geological practice and is described in an approved geologic hazard area study as specified in Section 40.430.030(C)(5);

c. Such clearing or alteration of a landslide is certified safe as designed and under anticipated conditions by a registered geotechnical engineer or geologist licensed in the state of Washington.

3. *Neither buffers nor a landslide protection area will be required if the activity meets the requirements of Section 40.430.020(E)(2).*

Response: A geologic hazard study has been completed and submitted with this application. As previously noted, the report concluded there are no areas on the project site that meet the definition of a landslide hazard area. This standard does not apply.

F. Seismic Hazard Areas.

1. Development activity in a seismic hazard area shall meet all applicable provisions of the most recently adopted version of the International Building Code, as adopted by the county.

2. Buffers are not required for seismic hazard areas, except for fault rupture hazard areas where the buffer will be a minimum of fifty (50) feet and shall be one hundred (100) feet for critical facilities.

Response: The site contains areas prone to liquefaction which are included in the definition of a seismic hazard area. Development on the site will meet the most recently adopted version of the IBC. A fault rupture hazard area is not located on the site, nor is a critical facility. These standards are met.

40.430.030 Administration

A. Binding Pre-Determination.

Prior to submittal of a triggering application, a person may request from the responsible official, through a Type II application process described in Section 40.510.020, a written binding pre-determination of whether a probable regulated geologic hazard area exists on or within one hundred (100) feet of any parcel less than forty (40) acres. The pre-determination shall be binding on the responsible official for a period of three (3) years; provided, that such pre-determination shall be subject to administrative appeal upon its application in conjunction with a triggering application. The fee for a pre-determination is set forth in Chapter 6.110A. A complete pre-determination shall include a list of the submittal requirements for a site description under Section 40.430.030(C)(4). Additional submittal requirements may later be required as a part of a geologic hazard area study under Section 40.430.030(C)(5) if the proposal intends to develop within a steep slope or landslide hazard area, or their buffers.

Response: This is an optional process that has not been requested.

B. Establishment of Landslide Protection Areas.

1. *Steep slope hazard areas and landslide hazard areas and buffers for which permanent protection is required pursuant to Sections 40.430.020(D) and (E) shall be designated landslide protection areas.*
2. *Landslide protection area requirements apply only to site plans and land divisions.*
3. *For all development activities subject to this section, landslide protection areas shall be delineated on binding site plans and plots which shall be recorded with the County Auditor.*
4. *A conservation covenant applicable to the designated landslide protection area shall be recorded in a form approved by the Prosecuting Attorney as adequate to incorporate the restrictions of this chapter.*
5. *Prior to any site development activity, the applicant shall mark with temporary markers in the field the boundary of all landslide protection areas required by this chapter, or the limits of the proposed site disturbance outside of the landslide protection areas, using methods and materials acceptable to the county.*

6. *Landslide protection area boundaries shall be permanently marked on the site prior to final inspection by the county using methods and materials acceptable to the county.*

7. *Vegetation clearing requirements for development in landslide protection areas, steep slope hazard areas and landslide hazard areas.*

   a. *Clearing or vegetation removal in landslide protection areas, steep slope hazard areas or landslide hazard areas or their buffers is prohibited except for:*

      (1) Activities included in an approved geologic hazard area study as defined in Section 40.430.030(C)(5);

      (2) Limited vegetation removal for surveying and testing necessary for development approvals;

      (3) Emergency or fire hazard removal authorized by the fire marshal;

      (4) Removal of nuisance vegetation using methods which minimize disruption of soil and non-nuisance vegetation;

      (5) Clearing necessary for placement or maintenance of fencing;

      (6) Clearing necessary for hillside vegetation restoration;

      (7) Clearing necessary for vegetation or resource conservation projects authorized by a public agency; and

      (8) Clearing for three (3) foot wide or narrower foot paths surfaced with wood, soil or gravel.

   b. *Proposals for clearing may also be subject to other critical areas regulations. Wildlife habitat near streams, which have clearing requirements under the habitat conservation regulations, often overlap with steep slopes included in geologic hazard areas.*

Response: A geologic hazard study has been completed and submitted with this application. As previously noted, the report concluded there are no areas on the project site that meet the definition of steep slope hazard areas or landslide hazard areas. These standards do not apply.

C. Submittal Requirements.

1. *For development activity regulated by this chapter, submittal requirements will vary depending on the type of project and the type of hazard mitigations that are proposed. Pursuant to Section 40.500.010, a review of a geologic hazard area will be conducted in conjunction with the primary development application. Projects are required to submit a basic site description sufficient to verify that the location of proposed building and access road improvements comply with buffers, setbacks, and vegetation preservation required by Sections 40.430.020(D) and (E). If a regulated activity is proposed within a geologic hazard area, additional information in the form of a geologic hazard area study must be provided to assure the project is feasible and will not cause an increased geologic hazard. The information required for a site description is included in Section* 40.430.030*(C)(4). The requirements for a geologic hazard area study for projects wishing to build in a geologic hazard area are included in Section* 40.430.030*(C)(5). To avoid duplication, the information required by this section shall be coordinated by the county with the assessments and requirements for other associated permits.*

Response: A geologic hazard study has been submitted in compliance with this section. This standard is met.

4. *Site Description. As part of the development permit application, the following information describing the subject property and areas within twenty-five (25) feet of the property lines*

or smaller area of concern as deemed appropriate by the responsible official, drawn to an engineering scale no larger than one (1) inch equals twenty (20) feet (1" = 20') and no smaller than one (1) inch equals one hundred (100) feet (1" = 100') as deemed appropriate by the responsible official:

a. The site boundary lines;
b. The topography at contour interval of no greater than five (5) feet;
c. The location and size of all existing and proposed site improvements including structures, wells, drainfields, drainfield reserve areas, public and private right-of-way easements, and utilities;
d. The location of all drainage-flow characteristics, streams, groundwater seeps, springs, and evidence of seasonal surface water runoff or groundwater;
e. The location and extent of all existing and proposed grading activities and existing natural or artificial drainage control facilities and systems;
f. The location and description of all geologic hazards located on the site and observed on properties within one hundred (100) feet of site boundaries;
g. The general location of all vegetation and the general location, number and description of all trees over six (6) inch diameter measured three (3) feet above the ground; and
h. The location of all proposed buffers and setbacks.

Response: The information requested above has been provided within the proposed plans and Geological Technical Report. This standard is met.

5. Geologic Hazard Area Study. A geologic hazard area study is required if the proposed development does not comply with requirements of Sections 40.430.020(D) and (E). Geologic investigation may also be required in some cases to meet International Building Code requirements for foundations and for seismic design. Geologic hazard area studies shall be prepared, stamped and signed by a registered geotechnical engineer or geologist who meets the requirements defined in Section 40.100.070. Based on the site characteristics and the information submitted by the applicant, the responsible official may require all or part of the following information to be included in a geotechnical report:

a. The requirements for the site description listed above in Section 40.430.030(C)(4);
b. Site geology information:
(1) Topographic contours at two (2) foot intervals or as specified by the responsible official;
(2) Subsurface data that includes the exploration method, location of soil borings, borings, logs, soil and rock stratigraphy and groundwater levels including seasonal changes;
(3) The location of landslides, or down-slope soil movement, faults, and geologic contacts on the subject property and adjacent properties;
(4) A site history that describes any prior grading, soil instability or slope failure; and
(5) A description of the site vulnerability to seismic events;
c. Geotechnical Information and Plan Requirements.
(1) A slope stability study and opinion of slope stability on the subject property and adjacent properties;
(2) Grading plan;
(3) Structural foundation requirements and estimated foundation settlements;

(4) Soil compaction criteria;
(5) Allowable soil-bearing pressure for foundations, minimum footing widths, piling recommendations for foundations, and design pressure for retaining walls;
(6) Laboratory data and soil index properties for soil samples;
(7) Suitability for fill;
(8) Lateral earth pressures;
(9) Description of erosion vulnerability and an erosion control plan as required in Chapter 40.386*;*
(10) An evaluation of proposed surface and subsurface drainage in a stormwater control plan as required in Chapter 40.386*;*
(11) Building limitations; and
(12) A vegetation management and restoration plan or other means for maintaining long-term stability of slopes;

d. A site evaluation that describes the suitability of the site to accommodate the proposed activity;

e. Such additional information describing existing physical features for the site and surrounding area as required by the responsible official to complete review of the project under standards of the International Building Code.

Response: A geotechnical report containing the information above has been prepared and submitted with this application. This standard is met.

40.440 HABITAT CONSERVATION

40.440.010 Introduction

A. Purpose.

The purpose of this chapter is to further the goal of no net loss of habitat functions and values within designated habitat areas by protecting environmentally distinct, fragile and valuable fish and wildlife habitat areas, as defined in Section 40.440.010(C), for present and future generations, while also allowing for reasonable use of private property. This chapter intends to conserve the functional integrity of the habitats needed to perpetually support fish and wildlife populations.

1. These purposes are to be carried out by reviewing impacts of proposed activities within designated habitat areas, and through the development of education, outreach and incentive programs. Review under this chapter shall be based on best available science and the mandates of the Washington Growth Management Act, and shall include consultation with the Washington Department of Fish and Wildlife (WDFW). The county shall emphasize education and voluntary conservation options prior to regulatory enforcement.

2. Within areas designated by this chapter, development or clearing activities which degrade habitat should generally be avoided where possible. However, activities listed as exempt in this chapter can be undertaken in habitat areas without additional review. Activities not listed as exempt can be undertaken following county review if they do not substantially diminish the habitat functions and values present.

3. It is the intent of the board that this chapter be administered with flexibility and attention to site-specific characteristics.

4. *The provisions of this chapter dealing with existing agricultural activities are designed to balance conflicting Growth Management Act goals to preserve both agricultural uses and habitat areas, and recognize:*

   a. *That the maintenance and enhancement of natural resource-based industries, including agriculture, is a goal of the state Growth Management Act;*
   b. *That any regulation should be consistent with the "right to farm" provisions in Chapter 9.26 of this code;*
   c. *That agricultural lands can provide habitat;*
   d. *That habitat protection must relate to the baseline of existing functions and values given historic agricultural practices, rather than seeking to restore pre-agricultural conditions;*
   e. *That since agricultural activities are dynamic, habitat functions and values can be expected to fluctuate during the course of an agricultural cycle, which fluctuation must be considered in identifying existing functions and values; and*
   f. *That it is expected that continuation of existing agriculture will not degrade existing functions and values unless sediment, nutrients, or chemicals are allowed to enter streams, or existing beneficial canopy in close proximity to streams is significantly degraded.*

Response: Clark County GIS does not indicate any habitat areas on the subject parcel; however, there is a 38" Oregon White Oak located in the southerly portion of the site. This species of tree is considered a priority non-riparian habitat by the Washington Department of Fish and Wildlife. No development, vegetation removal, or other ground disturbing activities are proposed within the dripline of the Oak tree, thereby avoiding any impacts. Additionally, during the pre-application meeting, County staff flagged the potential presence of snag habitat on the property. A qualified biologist conducted a survey of the tree and found the tree in question did not have habitat value. WDFW provided a concurrence of this option in an email dated July 13, 2020. Therefore, the project is consistent with the purpose of this chapter.

B. Applicability.

1. *General. Review under the standards of this chapter shall apply to any proposed development or non-development clearing activities within designated habitat areas, defined in Section 40.440.010(C), which are not listed as exempt, pursuant to Table 40.440.010-1.*

   a. *Development activities are those proposals already subject to existing county land division, building, grading or other review processes.*
   b. *Non-development clearing activities are proposals which are not otherwise subject to county review, but involve the alteration or removal of vegetation in designated habitat areas.*

Response: As previously noted, the project site contains an Oregon white oak. This species of tree is considered a priority non-riparian habitat by the Washington Department of Fish and Wildlife. No development or clearing activities are proposed within the dripline of the tree. Therefore, this chapter does not apply.

2. *Shoreline Master Program. Within shoreline jurisdiction, development may be allowed for those uses in the Shoreline Master Program (Chapter 40.460) either through a statement of exemption or through an application with a habitat review as part of the shoreline permit process.*

Response: The project is not within a shoreline area. These standards do not apply.

3. *Activities Adjacent to Certain Designated Habitat Areas. Proposed new single-family residential development occurring immediately outside but within three hundred (300) feet of designated priority species polygons or within one hundred (100) feet of designated non-riparian priority habitat polygons shall require consultation with WDFW prior to issuance of a development permit. In such cases, further review under this chapter is not required unless WDFW finds that there are potential adverse impacts. Agricultural activities adjacent to designated agricultural riparian areas are subject to Section 40.440.040(B). Other proposed land divisions and nonresidential development adjacent to designated wildlife sites shall be subject to SEPA as normally required by Chapter 40.570 (State Environmental Policy Act), and mitigative measures established if there are adverse impacts to the adjacent designated habitat areas.*

Response: The project does not include single-family residential development, agricultural activity, a land division, or non-residential development. Therefore, this standard does not apply.

C. *Habitat Areas Covered by This Chapter.*

1. *Categories. This chapter shall apply to nonexempt activities as defined in Table 40.440.010-1 that are proposed within the following habitat areas:*

   a. *Riparian Priority Habitat. Areas extending outward on each side of the stream (as defined in Section 40.100.070, Definitions) from the ordinary high water mark to the edge of the one hundred (100) year floodplain, or the following distances, if greater:*
   (1) DNR Type S waters, two hundred fifty (250) feet;
   (2) DNR Type F waters, two hundred (200) feet;
   (3) DNR Type Np waters, one hundred (100) feet;
   (4) DNR Type Ns waters, seventy-five (75) feet.

Water types are defined and mapped based on WAC 222-16-030, (Forest Practices Rules). Type S streams include shorelines of the state and have flows averaging twenty (20) or more cubic feet per second; Type F streams are those that are not Type S but still provide fish habitat; and Type N streams do not have fish habitat and are either perennial (Np) or seasonal (Ns). All streams are those areas where surface waters flow sufficiently to produce a defined channel or bed as indicated by hydraulically sorted sediments or the removal of vegetative litter or loosely rooted vegetation by the action of moving water. Ns streams must connect to another stream above ground. Seasonal or intermittent streams are surface streams with no measurable flow during thirty (30) consecutive days in a normal water year.

Response: The project is not within a riparian habitat area. These standards do not apply.

b. Other Priority Habitats and Species (PHS). Areas identified by and consistent with WDFW priority habitats and species criteria, including areas within one thousand (1,000) feet of individual species point sites. The county shall defer to WDFW in regards to classification, mapping and interpretation of priority habitat species.
c. Locally Important Habitats and Species. Areas legislatively designated and mapped by the county because of unusual or unique habitat warranting protection because of qualitative species diversity or habitat system health indicators. This subsection shall not apply to areas which have not been designated on official mapping. The criteria for

mapping of these areas are that they possess unusual or unique habitat warranting protection because of qualitative species diversity or habitat system health indicators. Recommendations for mapping areas meeting these criteria may be submitted by any person or group, and shall be reviewed annually by the county in conjunction with the plan amendments docket process as specified by Section 40.560.030 (Amendments Docket). Notice of any such recommendations deemed to merit formal consideration shall be provided to impacted property owners pursuant to Section 40.510.030(E)(3) (Type III Process). Such recommendations will not be reviewed as part of individual development requests.

Response: The only identified habitat on or adjacent to the site is the presence of an Oregon White Oak, which are considered priority non-riparian habitat by the Washington Department of Fish and Wildlife (WDFW). This tree is identified on the site plan and within a report by Teragan & Associates.

D. Activities Reviewed Under This Chapter.

This chapter applies to activities within designated priority and locally important habitat areas as described in Table 40.440.010-1.

Table 40.440.010-1. Exempt and Reviewed Activities [abbreviated]		
Proposal	***Is a clearing review required?***	***Are any additional fees or review timelines required?***
New home or other construction in habitat areas	*Review required*	*No additional timelines. Applicable review (building permit, etc.) must comply with ordinance standards. Fees pursuant to Title 6*

Response: This project avoids any development or ground disturbance within the dripline of the Oregon White Oak. Therefore, this chapter does not apply.

40.440.020 Standards and Nonregulatory Measures

A. Approval Criteria.

Approval shall be granted for all proposals demonstrating compliance with the following criteria. Approval shall be required prior to clearing or development.

1. *Intent. Designated habitats are to be protected through avoidance or reduction of the impacts of activities. This section provides standards for the review of proposed nonexempt activities within designated habitat areas.*
2. *Basic Criteria. Applicants proposing activities subject to this chapter shall demonstrate that the activity:*
   - *a. Substantially maintains the level of habitat functions and values as characterized and documented using best available science; and*
   - *b. Minimizes habitat disruption or alteration beyond the extent required to undertake the proposal.*
3. *Mitigation Measures.*
   - *a. Mitigation measures may be established pursuant to the above basic criteria.*

b. Disrupted functions and values shall be mitigated on-site as a first priority, and off-site thereafter.

c. An up-to-date science-based guide such as the "Clark County Guide to Best Management Practices for Permitted Development in Habitat Areas" should be used to guide on-site mitigation. Off-site mitigation should be guided by applicable watershed, fish recovery, sub-basin or other science-based plans. Any science used to guide mitigation actions, whether on-site or off-site, must meet the criteria and characteristics of best available science listed in WAC 365-195-905 (Criteria for determining which information is the "best available science"), or the state standards in effect at the time of application.

d. Subject to individual circumstances, potential mitigation measures may include, but are not limited to, the following:

(3) Preserving important vegetation and natural habitat features by establishing buffers or by limiting clearing or alteration;

(6) Enhancing, restoring or replacing vegetation or other habitat features and functions. In riparian areas, this may include riparian zone averaging as specified in Section 40.440.020(C)(3);

(8) Managing access to habitat areas, including exclusionary fencing for livestock if needed;

(11) Implementing best management practices and integrated management practices;

(15) Utilizing low impact development techniques;

(17) Avoiding topsoil removal and minimizing topsoil compaction;

Response: The project has been designed to prevent the removal or degradation of a 38" Oregon White Oak and ensure its long-term health and survival by avoiding any grading or other ground disturbing activities within the dripline and pushing buildings northerly of the tree. Therefore, no mitigation measures are necessary and this standard is met.

40.440.030 Administration

A. Coordination with Other Permits.

1. Development proposals requiring review under this chapter which involve other county permits shall be reviewed under the timelines of the existing review; provided, that application information required under this chapter (Section 40.440.030*(C)) is submitted and approval criteria (Section* 40.440.020*(A)) are addressed.*

Response: This permit is being requested concurrent with the site plan application and will be reviewed accordingly.

40.570 State Environmental Policy Act (SEPA)

Section 40.570.040 Threshold Determinations

B. Environmental Checklist.

1. A completed environmental checklist (or a copy), substantially in the form provided in WAC 197-11-960, shall be filed at the same time as an application for a permit, license, certificate, or other approval not specifically exempted in this chapter; except, a checklist is not needed if the county and applicant agree an EIS is required, SEPA compliance has been completed, or SEPA compliance has been initiated by another agency. The county shall use the environmental checklist to determine the lead agency and, if the county is

the lead agency, for determining the responsible official and for making the threshold determination.

Response: A completed environmental checklist is included with this application. This standard is met.

IV. CONCLUSION

This narrative and the included exhibits demonstrate that the proposed development is designed in compliance with the applicable standards; therefore, the applicant requests approval of the full set of requests for early grading and critical areas approval.