2430 74TH AVE SE

HAS CONDUCTED NO INDEPENDENT TITLE SEARCH NOR IS D.R. STRONG CONSULTING ENGINEERS, LLC AWARE OF ANY TITLE ISSUES AFFECTING THE SURVEYED PROPERTY OTHER THAN THOSE SHOWN ON THE MAP AND DISCLOSED BY REFERENCED CHICAGO TITLE COMPANY OF WASHINGTON COMMITMENT. D.R. STRONG CONSULTING ENGINEERS, LLC HAS RELIED WHOLLY ON SAID CHICAGO TITLE COMPANY OF WASHINGTON REPRESENTATIONS OF THE TITLE'S CONDITION TO PREPARE THIS SURVEY AND THEREFORE D.R. STRONG CONSULTING ENGINEERS, LLC QUALIFIES THE MAP'S ACCURACY AND COMPLETENESS TO THAT EXTENT.

ALL TITLE INFORMATION SHOWN ON THIS MAP HAS BEEN EXTRACTED FROM CHICAGO TITLE COMPANY OF WASHINGTON COMMITMENT NO

0187036-16, UPDATE 2ND COMMITMENT DATED NOVEMBER 24, 2021. IN PREPARING THIS MAP, D.R. STRONG CONSULTING ENGINEERS, LLC

2. THIS SURVEY REPRESENTS VISIBLE PHYSICAL IMPROVEMENT CONDITIONS EXISTING ON APRIL 13, 2023. ALL SURVEY CONTROL INDICATED AS "FOUND" WAS RECOVERED FOR THIS PROJECT ON APRIL 6, 2023 UNLESS NOTED OTHERWISE.

3. PROPERTY AREA: $PARCEL A = 7,999 \pm SQUARE FEET (0.1836 \pm ACRES).$ PARCEL $B = 25,800 \pm SQUARE FEET (0.5923 \pm ACRES)$.

4. ALL DISTANCES ARE IN U.S. SURVEY FEET.

5. THIS IS A COMBINED FIELD TRAVERSE AND GLOBAL NAVIGATION SATELLITE SYSTEMS SURVEY. A TRIMBLE S7 ONE SECOND COMBINED ELECTRONIC TOTAL STATION AND A TRIMBLE R12i GLOBAL NAVIGATION SATELLITE SYSTEMS (GNSS) RECEIVER WERE USED TO MEASURE THE ANGULAR AND DISTANCE RELATIONSHIPS BETWEEN THE CONTROLLING MONUMENTATION AS SHOWN. CLOSURE RATIOS OF THE TRAVERSE MET OR EXCEEDED THOSE SPECIFIED IN WAC 332-130-090. ALL MEASURING INSTRUMENTS AND EQUIPMENT ARE MAINTAINED IN ADJUSTMENT ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

6. RTK GNSS OBSERVATIONS WERE MADE ON 04/06/2023 UTILIZING THE WASHINGTON STATE REFERENCE NETWORK (WSRN). THE COMBINED GRID TO GROUND SCALE FACTOR USED IS 0.999980520.

7. UTILITIES OTHER THAN THOSE SHOWN MAY EXIST ON THIS SITE. ONLY THOSE UTILITIES WITH EVIDENCE OF THEIR INSTALLATION VISIBLE AT GROUND SURFACE ARE SHOWN HEREON. UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY. UNDERGROUND CONNECTIONS ARE SHOWN AS STRAIGHT LINES BETWEEN SURFACE UTILITY LOCATIONS BUT MAY CONTAIN BENDS OR CURVES NOT SHOWN. SOME UNDERGROUND LOCATIONS SHOWN HEREON MAY HAVE BEEN TAKEN FROM PUBLIC RECORDS. D.R. STRONG CONSULTING ENGINEERS INC. ASSUMES NO LIABILITY FOR THE ACCURACY OF PUBLIC RECORDS.

8. THE BOUNDARY SHOWN HEREON IS BASED ON A FIELD SURVEY.

9. CONTOURS ARE DERIVED FROM DIRECT FIELD OBSERVATION. CONTOUR ACCURACY IS WITHIN ONE-HALF CONTOUR INTERVAL PER NATIONAL MAPPING STANDARDS.

10. THIS SURVEY WAS PERFORMED IN SUPPORT OF ENGINEERING DESIGN.

CONSTRUCTION SEQUENCE

ARRANGE AND ATTEND A PRECONSTRUCTION MEETING WITH THE CITY INSPECTOR. FLAG OR FENCE CLEARING LIMITS.

CALL ONE-CALL UTILITY LOCATE SERVICE PRIOR TO ANY EXCAVATION WORK. 4. GRADE INSTALL ROCK CONSTRUCTION ENTRANCE IF NECESSARY.

5. INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).

6. CONSTRUCT RESIDENCE AND OTHÈR SITE IMPROVEMENTS.

". MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH CITY OR COUNTY STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.

3. MAINTAIN ACCESS TO OFF-SITE ROADS AND DRIVEWAYS AT ALL TIMES DURING THE DURATION OF THE PROJECT. 9. RELOCATE EROSION CONTROL MEASURES OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE THE EROSION AND

SEDIMENT CONTROL IS ALWAYS IN ACCORDANCE WITH THE CITY TESC MINIMUM REQUIREMENTS. 10. 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. 11. STABILIZE ALL AREAS THAT REACH FINAL GRADE WITHIN SEVEN DAYS.

12. SEED OR SOD ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS. 13. UPON COMPLETION OF THE PROJECT, ALL DISTURBED AREAS MUST BE STABILIZED AND BMPS REMOVED IF APPROPRIATE AFTER

USE PROPOSED CONCRETE
DRIVEWAY AS CONSTRUCTION

ENTRANCE. SEE SHEET C2

10 115-----| 12-----

STOCKPILE AREA

ACCEPTANCE BY INSPECTOR.

LEGAL DESCRIPTION:

PARCEL B OF CITY OF MERCER ISLAND LOT LINE REVISION NO. SUB14-011, RECORDED UNDER RECORDING NUMBER 20150528900006, IN KING COUNTY WASHINGTON: SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

PARCEL B:

PARCEL A:

THE SOUTH 72.72 FEET OF THE NORTH 87.67 FEET OF THE WEST 110 FEET OF LOT 3, BLOCK 6, MCGILVRA'S ISLAND ADDITION, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 16 OF PLATS, PAGE(S) 56, IN KING COUNTY,

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

REFERENCES:

1. PLAT - MCGILVRA'S ISLAND ADDITION, VOLUME 16, PAGE 58 OF PLATS. 2. LOT LINE REVISION SUB14-011, RECORDING NO. 20150528900006.

3. SURVEY - RECORDING NO. 8501049012.

HORIZONATAL DATUM:

WASHINGTON PLANE COORDINATE SYSTEM, NORTH ZONE. NAD83-2011 EPOCH 2010.00 (SEE SURVEY NOTE 6)

VERTICAL DATUM:

NAVD 88 PER GNSS OBSERVATION (SEE SURVEY NOTE 6)

BENCHMARK:

3.5" DIA. CONCRETE MONUMENT WITH 1/2" BRASS PLUG AND PUNCH IN MONUMENT CASE AT THE INTERSECTION OF SE 24TH ST. AND 74TH AVE. SE. BENCHMARK IS TOP OF CONCRETE MONUMENT. ELEVATION = 155.20'

P.E. CERTIFICATION FOR SECTION B:

I HEREBY STATE THAT THIS CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN FOR 2430 74TH AVE SE HAS BEEN PREPARED BY ME OR UNDER MY SUPERVISION AND MEETS THE STANDARD OF CARE AND EXPERTISE WHICH IS USUAL AND CUSTOMARY IN THIS COMMUNITY FOR PROFESSIONAL ENGINEERS. UNDERSTAND THAT THE CITY OF MERCER ISLAND DOES NOT AND WILL NOT ASSUME LIABILITY FOR THE SUFFICIENCY, SUITABILITY, OR PERFORMANCE OF CONSTRUCTION SWPPP BMPS PREPARED BY ME.

TITLE RESTRICTIONS: (NOTE: NOT ALL DOCUMENTS PROVIDED.)

 EASEMENT GRANTED TO MERCER ISLAND SEWER DISTRICT FOR A SEWER PIPELINE. RECORDING NO. 4655731. AFFECTS PORTIONS OF PARCEL A AND OTHER PROPERTY

2. 4-FOOT WIDE EASEMENT FOR SIDE SEWER - AS CONSTRUCTED, RECORDING NO. 4995706. NOT PLOTTABLE. AFFECTS PORTION OF PARCEL B AND OTHER PROPERTY. [NOT PROVIDED]

AND TELEPHONE, RECORDING NO. 5601958. AFFECTS NORTHERLY PORTION OF PARCEL A. [NOT PROVIDED] 4. TEMPORARY CRANE BOOM EASEMENT, RECORDING NO. 20101007000106. EASEMENT

3. 7-FOOT WIDE EASEMENT FOR UTILITIES INCLUDING POWER, LIGHT, GAS, WATER SEWER

DOES NOT APPEAR TO IMPACT CURRENT LEGAL DESCRIPTION OF PARCEL A AND MAY HAVE SELF TERMINATED.

MAINTENANCE AND CONSTRUCTION EASEMENT, RECORDING NO. 20101007000107. DOES NOT APPEAR TO IMPACT CURRENT DESCRIPTION OF PARCEL A.

6. COVENANTS, CONDITIONS AND RESTRICTIONS, IF ANY, AS PERMITTED BY APPLICABLE LAW, AS SET FORTH IN DOCUMENT RECORDING NO. 6158024. [NOT PROVIDED] 7. HOLD HARMLESS AGREEMENT, RECORDING NO. 2016012000200 [INCOMPLETE

8. COVENANTS, CONDITIONS AND RESTRICTIONS, IF ANY, AS PERMITTED BY APPLICABLE LAW, AS SET FORTH ON LOT LINE REVISION NO. SUB14-011, RECORDING NO.

TIEBACK AND SHORING EASEMENT, RECORDING NO. 20170530001254. AFFECTS

EASTERLY PORTION OF PARCELS A AND B. NO DEFINITE LOCATION DESCRIBED. MAY

HAVE SELF TERMINATED. 10. EASEMENT FOR SEWER LINE, RECORDING NO. 20170530001263. SHOWN HEREON. 11. HOLD HARMLESS AGREEMENT, RECORDING NO. 20170710000863. NOT SURVEY

12. RESTAURANT AGREEMENT, RECORDING NO. 20171113001170. NOT SURVEY RELATED. 13-16. RELATED TO TAXES AND ASSESSMENTS. NOT SURVEY RELATED.

17. NOTING ENCROACHMENT OF A "TRASH CORRAL"

N88' 29' 17"W

₽__°<u>_</u>°<u></u>°_<u>°</u>

COVERED

10' SIDE BSBL

RECORDING NO., COPY NOT PROVIDED]]

TESC LEGEND:

-(SSV)-

DC)-

CH)-

FOR ADDITIONAL TESC DETAILS REFER TO DOE 2012/ 2014 SWMMWW CONSTRUCTION LIMITS, TO BE FLAGGED OR FENCED WHEN NO SILT FENCE IS PROPOSED (BMP C103)

—— SILT FENCE IS PROPOSED (BMP C233) STABILIZED CONSTRUCTION

STREET SWEEPING & VACUUMING INLET PROTECTION (BMP C220)

ENTRANCE (BMP C105)

DUST CONTROL (BMP C140) MULCHING, MATTING, & COMPOST BLANKETS (BMP C121, BMP C125)

PERMANENT SEEDING AND PLANTING (BMP C120) POST-CONSTRUCTION SOIL QUALITY & DEPTH (BMP T5.13) SEE DETAIL ON SHEET C2

CONCRETE HANDLING (BMP C151) PLASTIC COVERING (BMP C123)

EARTHWORK VOLUME CALCULATIONS

CUT VOLUME FILL VOLUME NET VOLUME (CU. YDS.) (CU. YDS.) (CU. YDS.)

27 ALL VOLUMES ARE APPROXIMATE AND ARE PROVIDED FOR PERMITTING PURPOSES AND REPRESENT FINISH GRADE TO EXISTING GRADE AS SHOWN. CONTRACTOR SHALL RELY ON HIS/HER OWN ESTIMATES FOR DETERMINING ACTUAL FARTHWORK QUANTITIES.

THE VOLUMES DO NOT INCLUDE STRIPPING, STRUCTURAL EXCAVATION, UTILITY EXCAVATION, EXPANSION/COMPACTION FACTOR OR ANY SOIL TYPE 90

VICINITY MAP

NORTH

PROJECT CONTACTS:

PROPERTY OWNER/APPLICANT......VANN LANZ LNL BUILDS, LLC. 317 4TH STREET KIRKLAND, WA 98033 (206) 499-1277

VANN@LNLBUILDS.COM ... D.R. STRONG CONSULTING ENGINEERS, INC. CIVIL ENGINEER/SURVEYOR... 620 7TH AVENUE KIRKLAND, WASHINGTON 98033

.. (425) 827–3063 ..CONTACT: MAHER A. JOUDI, P.E. MAHER.JOUDI@DRSTRONG.COM

GEOTECHNICAL ENGINEER.. ..GEOENGINEERS, INC. . 8410 154TH AVE NE REDMOND, WASHINGTON 98052 ...(425) 861-6000

ENVIRONMENTAL ENGINEER.....ALTMANN OLIVER ASSOCIATES, LLC. .. PO BOX 578 .. CARNATION, WA 98014 ..(425) 333-4535

...CONTACT: JOHNN ALTMANN ..JOHN@ALTOLIVER.COM ..DAVEY RESOURCE GROUP, INC.

18809 10TH AVE NE SHORELINE, WA ...(253) 656-1650

PROJECT DESCRIPTION:

.2430 74TH AVE SE SITE ADDRESS:.. TAX PARCEL NUMBER:5315100458

NUMBER OF LOTS:..... …R−9.6

SITE AREA:..... .7,999 S.F. (0.184 ACRES) GROSS PROJECT AREA:. ..6,208 S.F. (0.143 ACRES) ..*5,288 S.F*. PROPOSED GROSS FLOOR AREA:. PROPOSED SITE IMPERVIOUS AREA:.. ..2,636 S.F. (33.0%)

REPLACED IMPERVIOUS AREA:..0 S.F. (0.0%) ..5,363 S.F. 67.0%) PROPOSED PERVIOUS AREA:.. ..0 S.F. (0.0%) EXISTING LOT COVERAGE:.

PROPOSED LOT COVERAGE: ..1,982 S.F. (24.8%) NUMBER OF PARKING SPACES:. ...2 MIN.

GRADING NOTE:

TOTAL AREA TO BE DISTURBED ON-SITE....4,868 S.F. TOTAL AREA TO BE DISTURBED OFF-SITE...1,340 S.F. FILL SHALL CONSIST OF SUITABLE MATERIAL ORIGINATING FROM THE SITE

CONSTRUCTION NOTES:

OR FROM AN APPROVED SUPPLIER.

1. ALL UTILITIES TO BE DISCONNECTED OR REMOVED PRIOR TO THE START OF THE PROJECT. COORDINATE WITH UTILITY COMPANIES PRIOR TO DISCONNECTION OR REMOVAL.

SOIL AMENDMENT NOTE:

AREA (A) ENCOMPASSES THE ENTIRE SITE OUTSIDE OF HARD SURFACES. SEE LANDSCAPE PLANS FOR TURF AND PLANTING BED AREAS. STOCKPILE SITE DUFF AND TOPSOIL FOR ALL DISTURBED PERVIOUS AREAS AND REAPPLY WITH SOIL AMENDMENT AFTER GRADING AND CONSTRUCTION. MINIMUM SCARIFICATION DEPTH 8-INCHES. PROVIDE A TOTAL OF 16.5 C.Y. OF AMENDMENT FOR AN AREA OF 3,052 S.F. (AREAS FOR TURF AND PLANTING BEDS TO BE DETERMINED)

GENERAL EROSION CONTROL NOTES:

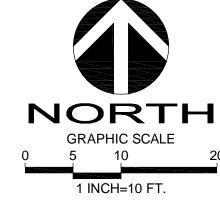
ALL DISTURBED AREAS SHALL BE STABILIZED USING TYPICAL TESC BMP'S. THE LIMITS OF DISTURBANCE WILL BE DELINEATED WITH HIGH VISIBILITY CONSTRUCTION FENCING. DURING CONSTRUCTION SILT FENCES WILL BE PLACED DOWN SLOPE OF DISTURBED AREAS ALONG WITH STRAW MATTING, NETS, OR PLASTIC COVERING OVER EXPOSED SOIL OR STOCKPILES. TREES TO BE RETAINED WILL BE PROTECTED WITH HIGH VISIBILITY CONSTRUCTION FENCING.

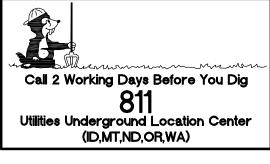
AT THE COMPLETION OF THE PROJECT ALL DISTURBED AREAS WILL BE STABILIZED WITH COMPOST AMENDED SOILS AND HYDROSEEDING OR SOD. EXPOSED SOILS SHALL BE WORKED DURING THE WEEK UNTIL THEY HAVE BEEN STABILIZED. SOIL STOCKPILES WILL BE LOCATED WITHIN THE DISTURBED AREA SHOWN ON THE SWPPP SITE MAP. SOIL EXCAVATED FOR THE

FOUNDATION WILL BE BACKFILLED AGAINST THE FOUNDATION AND GRADED TO DRAIN AWAY FROM THE BUILDING, NO SOILS SHALL REMAIN EXPOSED AND UNWORKED FOR MORE THAN 7 DAYS FROM MAY 1 TO SEPTEMBER 30 OR MORE THAN 2 DAYS FROM OCTOBER 1 TO APRIL 30. ONCE THE DISTURBED LANDSCAPE AREAS ARE GRADED, THE GRASS AREAS WILL BE AMENDED USING BMP T5.13 POST-CONSTRUCTION SOIL QUALITY AND DEPTH. ALL STOCKPILES WILL BE COVERED WITH PLASTIC OR BURLAP IF LEFT

SHEET INDEX: COVER SHEET & T.E.S.C. PLAN C2 OF 5 T.E.S.C. PLAN, NOTES & DETAILS C3 OF 5 TREE RETENTION PLAN C4 OF 5 STORM DRAINAGE PLAN C5 OF 5 NOTES & DETAILS

BASIS OF BEARINGS: N 88'29'52" W BETWEEN THE MONUMENTS FOUND IN PLACE ALONG SE 24TH ST.



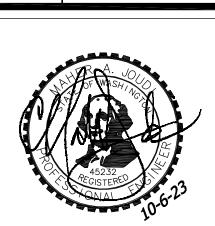


D.R. STRONG **CONSULTING ENGINEERS** ENGINEERS PLANNERS SURVEYORS

620 - 7th AVENUE KIRKLAND, WA 98033

O 425.827.3063 F 425.827.2423

VANN LANZ IL BUILDS, LL



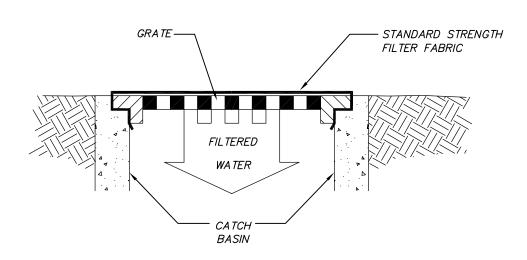
DRAFTED BY: RMF DESIGNED BY: RMF PROJECT ENGINEER: MAJ DATE: **9.26.23** PROJECT NO.: 23001

DRAWING: C1 SHEET: **1** OF **5**

R: \2023\0\23001\3\Drawings\Plots\Engineering\Lot 1\01_02-3N-ER_ERDET23001.dwg 10/6/2023 9:56:23 AM COPYRIGHT © 2023, D.R. STRONG CONSULTING ENGINEERS INC

AREA A ROOF OVERHANG TREE TO BE REMOVED, TYP BUILDING RESIDENCE BASEMENT FFE: 139.28' <u>REE PROTECTION</u> 1ST FLOOR FFE: 149.33' GARAGE FFE: 151.08' DRIVEWAY O' SIDE BSBL WALKWAY ▎<mark>█</mark>▐▄▄▄▟▐▃▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▕▄▄▄▄▄▄┝▄▄▄▄▄┝<u>┾</u>▄▄▄▄▄▄┡<mark>┆</mark>

2430 74TH AVE SE



CATCH BASIN INSERT MAINTENANCE STANDARDS

- 1. ANY ACCUMULATED SEDIMENT ON OR AROUND THE FILTER FABRIC PROTECTION SHALL BE REMOVED IMMEDIATELY. SEDIMENT SHALL NOT BE REMOVED WITH WATER, AND ALL SEDIMENT MUST BE DISPOSED OF AS FILL ON SITE OR HAULED OFF SITE.
- 2. ANY SEDIMENT IN THE CATCH BASIN INSERT SHALL BE REMOVED WHEN
 THE SEDIMENT HAS FILLED ONE—THIRD OF THE AVAILABLE STORAGE.
 THE FILTER MEDIA FOR THE INSERT SHALL BE CLEANED OR REPLACED AT
- 3. REGULAR MAINTENANCE IS CRITICAL FOR BOTH FORMS OF CATCH BASINS PROTECTION. UNLIKE MANY FORMS OF PROTECTION THAT FAIL GRADUALLY, CATCH BASIN PROTECTION WILL FAIL SUDDENLY AND COMPLETELY IF NOT MAINTAINED PROPERLY.

OVERFLOW WILL NOR RESULT IN EROSION OF SLOPES.

NOTE: ONLY TO BE USED WHERE PONDING OF WATER ABOVE THE

CATCH BASIN WILL NOT CAUSE TRAFFIC PROBLEMS AND WHERE

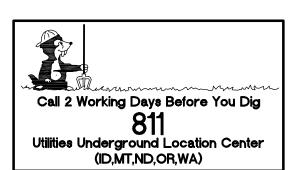
CATCH BASIN INLET FILTER

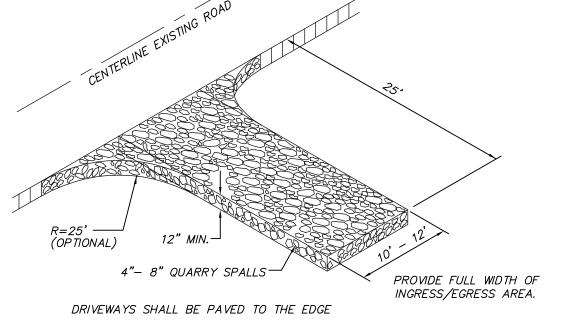
JOINTS IN FILTER FABRIC MATERIAL SHALL BE SPLICED AT POSTS. USE STAPLES, WIRE RINGS, OR EQUIVALENT TO ATTACH FABRIC TO POSTS. – 2"X 2" BY 14 Ga. WIRE OR — EQUIVALENT, IF STANDARD STRENGTH FABRIC USED. 1. ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY. FILTER FABRIC -2. IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT TRAP OR POND. 3. IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGNS OF THE FENCE CLOGGING AND ACTING AS A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO | *6' MAX*. THE FENCE. IF THIS OCCURS, REPLACE THE MINIMUM 4"x4" TRENCH FENCE OR REMOVE THE TRAPPED SEDIMENT. BACKFILL TRENCH WITH / 4. SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT NATIVE SOIL OR 3/4"-1.5" IS 6 INCHES HIGH. NOTE: FILTER FABRIC FENCES SHALL BE WASHED GRAVEL. 5. IF THE FILTER FABRIC (GEOTEXTILE) HAS INSTALLED ALONG CONTOUR WHENEVER POSSIBLE. - 2"X 4" WOOD POST, STEEL FENCE DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, POSTS, REBAR, OR EQUIVALENT. IT SHALL BE REPLACED.

SILT FENCE DETAIL

Crown drip line or other limit of Tree Protection area. See Site/Utility Plan for fence alignment. 1. No pruning shall be performed unless under the direction of an arborist. 2. No equipment shall be stored or operated inside the protective fencing including during fence installation and removal. 3. No storage of materials shall occur inside the protective fencing. 4. Refer to Site/Utility Plan for any modifications to the Tree Protection Area. 5. Unauthorized activities in tree protection area may require evaluation by private arborist to identify impacts and mitigation required. 6. Exposed Roots: For roots >1" damaged during construction, make a clean straight cut to removed damaged portion and inform city arborist. Tree Protection fence: High density polyethylene fencing with 3.5" x 1.5" openings; Colororange. Steel posts installed at 8' o.c. 2" x 6' steel posts laminated in or approved equal. plastic spaced every 50' 5" thick KEEP OUT along the layer of mulch. TREE PROTECTION Maintain existing AREA grade with the tree protection fence unless otherwise indicated on the plans. SECTION VIEW TREE PROTECTION DETAIL

TREE PROTECTION FENCING





DRIVEWAYS SHALL BE PAVED TO THE EDGE
OF R-O-W PRIOR TO INSTALLATION OF THE
CONSTRUCTION ENTRANCE TO AVOID
DAMAGING OF THE ROADWAY
IT IS RECOMMENDED THAT THE

IT IS RECOMMENDED THAT THE ENTRANCE BE CROWNED SO THAT RUNOFF DRAINS OFF THE PAD

GRAVEL CONSTRUCTION ENTRANCE

- EROSION AND SEDIMENT CONTROL NOTES:

 1. APPROVAL OF THIS EROSION AND SEDIMENT CONTROL (ESC.) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES,
- UTILITIES, ETC.).

 2. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.

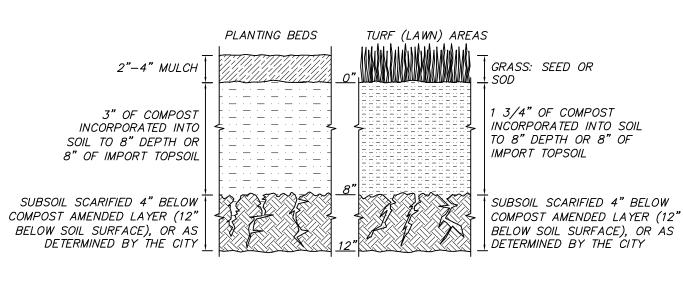
 3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED BY A CONTINUOUS LENGTH OF SURVEY TAPE (OR FENCING, IF REQUIRED) PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO
- APPLICANT/ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.

 4. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.

DISTURBANCE BEYOND THE CLEARING LIMITS SHALL BE PERMITTED. THE CLEARING LIMITS SHALL BE MAINTAINED BY THE

- 5. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G. ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.).
- 6. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE TESC FACILITIES DURING THE WET SEASON (OCT. 1 TO APRIL 30) AND OF MONTHLY REVIEWS DURING THE DRY SEASON (MAY 1 TO SEPT. 30).
- THE WET SEASON (OCT. I TO APRIL 30) AND OF MONTHLY REVIEWS DURING THE DRY SEASON (MAY I TO SEPT. 30).

 7. ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
- 8. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
- 9. ALL DISTURBED AREAS SHALL BE STABILIZED USING TYPICAL TESC BMP'S. THE LIMITS OF DISTURBANCE WILL BE DELINEATED WITH HIGH VISIBILITY CONSTRUCTION FENCING. DURING CONSTRUCTION SILT FENCES WILL BE PLACED DOWN SLOPE OF DISTURBED AREAS ALONG WITH STRAW MATTING, NETS, OR PLASTIC COVERING OVER EXPOSED SOIL OR STOCKPILES. TREES TO BE RETAINED WILL BE PROTECTED WITH HIGH VISIBILITY CONSTRUCTION FENCING.
- 10. ALL SOIL STOCKPILES TO BE COVERED WITH PLASTIC SHEETING UNTIL SUCH TIME THAT THE SOIL IS EITHER USED OR REMOVED. PILES SHOULD BE SITUATED AND LOCATED SUCH THAT SEDIMENT DOES NOT RUN INTO THE STREET OR ONTO ADJOINING PROPERTIES
- 11. ALL EXPOSED SOIL AREAS SHALL BE COVERED OR PROTECTED USING AN APPROPRIATE BMP. STABILIZE DENUDED AREAS OF THE SITE BY MULCHING, SEEDING, PLANTING, OR SODDING.
- 12. ALL ADJACENT PROPERTIES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION BY APPROPRIATE USE OF VEGETATION BUFFER STRIPS, SEDIMENT BARRIERS, OR FILTERS, DIKES, MULCHING, OR BY A COMBINATION OF THESE MEASURES AND OTHER APPROPRIATE BMP'S
- 13. PROVIDE FOR PERIODIC STREET CLEANING TO REMOVE ANY SEDIMENT THAT MAY HAVE BEEN TRACKED OFF—SITE. SEDIMENT SHOULD BE REMOVED BY SHOVELING OR SWEEPING AND CAREFULLY REMOVED TO A SUITABLE DISPOSAL AREA WHERE IT WILL NOT BE RE—ERODED.
- 14. ALL INSTALLED EROSION AND SEDIMENT CONTROL BMP'S SHALL BE INSPECTED REGULARLY BY THE GENERAL CONTRACTOR ESPECIALLY AFTER ANY LARGE STORM. MAINTENANCE, INCLUDING REMOVAL AND PROPER DISPOSAL OF SEDIMENT SHOULD BE A NECESSARY TO INSURE THAT SEDIMENT AND EROSION IS CONTROLLED ON SITE.



PER BMP T5.13

SOIL AMENDMENT

SOIL AMENDMENT NOTES

*SOIL RETENTION: RETAIN, IN AN UNDISTURBED STATE, THE DUFF LAYER AND NATIVE TOPSOIL TO THE MAXIMUM EXTENT PRACTICABLE. IN ANY AREAS REQUIRING GRADING REMOVE AND STOCKPILE THE DUFF LAYER AND TOPSOIL ON SITE IN A DESIGNATED, CONTROLLED AREA, NOT ADJACENT TO PUBLIC RESOURCES AND CRITICAL AREAS, TO BE REAPPLIED TO OTHER PORTIONS OF THE SITE WHERE

SOIL QUALITY: ALL AREAS SUBJECT TO CLEARING AND GRADING THAT HAVE NOT BEEN COVERED BY IMPERVIOUS SURFACE, INCORPORATED INTO A DRAINAGE FACILITY OR ENGINEERED AS STRUCTURAL FILL OR SLOPE SHALL, AT PROJECT COMPLETION, DEMONSTRATE THE FOLLOWING:

- 1. A TOPSOIL LAYER WITH A MINIMUM ORGANIC MATTER CONTENT OF 10% DRY WEIGHT IN PLANTING BEDS, AND 5% ORGANIC MATTER CONTENT IN TURF AREAS, AND A PH FROM 6.0 TO 8.0 OR MATCHING THE PH OF THE UNDISTURBED SOIL. THE TOPSOIL LAYER SHALL HAVE A MINIMUM DEPTH OF EIGHT INCHES EXCEPT WHERE TREE ROOTS LIMIT THE DEPTH OF INCORPORATION OF AMENDMENTS NEEDED TO MEET THE CRITERIA. SUBSOILS BELOW THE TOPSOIL LAYER SHOULD BE SCARIFIED AT LEAST 4 INCHES WITH SOME INCORPORATION OF THE UPPER MATERIAL TO AVOID STRATIFIED LAYERS, WHERE FEASIBLE.
- 2. MULCH PLANTING BEDS WITH 2-4 INCHES OF ORGANIC MATERIAL
 3. USE COMPOST AND OTHER MATERIALS THAT MEET THESE ORGANIC CONTENT REQUIREMENTS:
- A. THE ORGANIC CONTENT FOR "PRE-APPROVED" AMENDMENT RATES CAN BE MET ONLY USING COMPOST MEETING THE COMPOST SPECIFICATION FOR BIORETENTION (BMP T7.30), WITH THE EXCEPTION THAT THE COMPOST MAY HAVE UP TO 35% BIOSOLIDS OR MANURE. THE COMPOST MUST ALSO HAVE AN ORGANIC MATTER CONTENT OF 40% TO 65%, AND A CARBON TO NITROGEN RATIO BELOW 25:1. THE CARBON TO NITROGEN RATIO MAY BE AS HIGH AS 35:1 FOR PLANTINGS COMPOSED ENTIRELY OF PLANTS NATIVE TO THE PUGET SOUND LOWLANDS REGION.
- B. CALCULATED AMENDMENT RATES MAY BE MET THROUGH USE OF COMPOSTED MATERIAL MEETING (A.) ABOVE; OR OTHER ORGANIC MATERIALS AMENDED TO MEET THE CARBON TO NITROGEN RATIO REQUIREMENTS, AND NOT EXCEEDING THE CONTAMINANT LIMITS IDENTIFIED IN TABLE 220-B, TESTING PARAMETERS, IN WAC 173-350-220.

 THE RESULTING SOIL SHOULD BE CONDUCIVE TO THE TYPE OF VEGETATION TO BE ESTABLISHED.

• IMPLEMENTATION OPTIONS: THE SOIL QUALITY DESIGN GUIDELINES LISTED ABOVE CAN BE MET BY USING ONE OF THE METHODS LISTED BELOW:

- 1. LEAVE UNDISTURBED NATIVE VEGETATION AND SOIL, AND PROTECT FROM COMPACTION DURING CONSTRUCTION.

 2. AMEND EXISTING SITE TOPSOIL OR SUBSOIL EITHER AT DEFAULT "PRE—APPROVED" RATES, OR AT CUSTOM CALCULATED RATES

 BASED ON TESTS OF THE SOIL AND AMENDMENT
- BASED ON TESTS OF THE SOIL AND AMENDMENT.
 3. STOCKPILE EXISTING TOPSOIL DURING GRADING, AND REPLACE IT PRIOR TO PLANTING. STOCKPILED TOPSOIL MUST ALSO BE AMENDED IF NEEDED TO MEET THE ORGANIC MATTER OR DEPTH REQUIREMENTS, EITHER AT A DEFAULT "PRE—APPROVED" RATE OR AT A CUSTOM CALCULATED RATE.
 4. IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH TO MEET THE REQUIREMENTS.

MORE THAN ONE METHOD MAY BE USED ON DIFFERENT PORTIONS OF THE SAME SITE. SOIL THAT ALREADY MEETS THE DEPTH AND ORGANIC MATTER QUALITY STANDARDS, AND IS NOT COMPACTED, DOES NOT NEED TO BE AMENDED.

MAINTENANCE:
•ESTABLISH SOIL QUALITY AND DEPTH TOWARD THE END OF CONSTRUCTION AND ONCE ESTABLISHED, PROTECT FROM COMPACTION, SUCH AS FROM LARGE MACHINERY USE, AND FROM EROSION.

*PLANT VEGETATION AND MULCH THE AMENDED SOIL AREA AFTER INSTALLATION.

*LEAVE PLANT DEBRIS OR ITS EQUIVALENT ON THE SOIL SURFACE TO REPLENISH ORGANIC MATTER.

*REDUCE AND ADJUST, WHERE POSSIBLE, THE USE OF IRRIGATION, FERTILIZERS, HERBICIDES AND PESTICIDES, RATHER THAN CONTINUING

TO IMPLEMENT FORMERLY ESTABLISHED PRACTICES.

R: \2023\0\23001\3\Drawings\Plots\Engineering\Lot 1\01_02-3N-ER_ERDET23001.dwg 10/6/2023 9:56:43 AM COPYRIGHT © 2023, D.R. STRONG CONSULTING ENGINEERS INC.



D.R. STRONG
CONSULTING ENGINEERS
ENGINEERS PLANNERS SURVEYORS
620 - 7th AVENUE KIRKLAND, WA 98033

O 425.827.3063 F 425.827.2423

? DETAILS SE

S.C. PLAN, NOTES & D. 2430 74TH AVE SE MERCER ISLAND WASHINGON 98040

VANN LANZ NL BUILDS, LLC

317 4TH STREE KIRKLAND, WASHINGT



APR

REVISION INTAKE COMMENTS

DA TE 10.6.23

DRAFTED BY: RMF

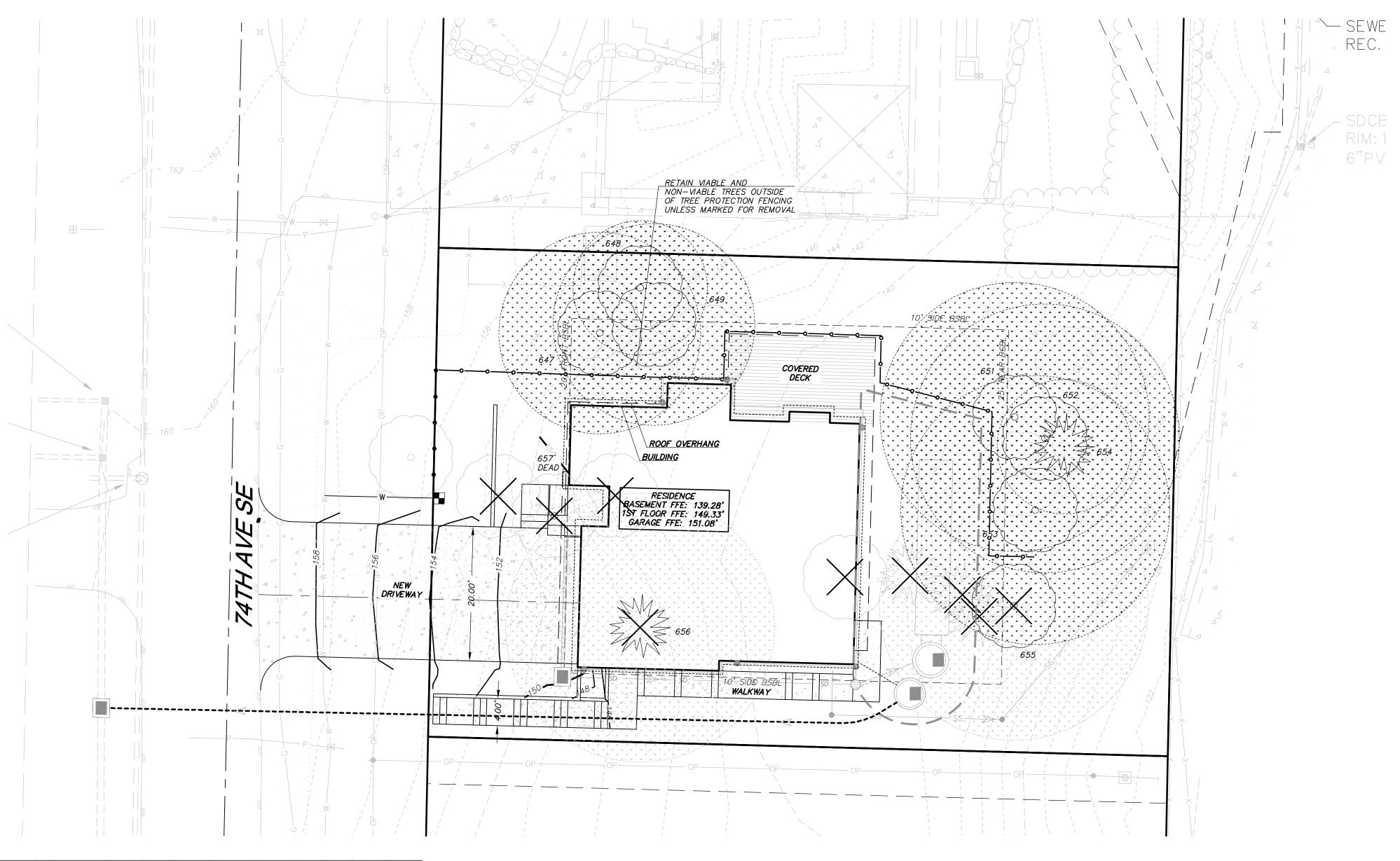
DESIGNED BY: RMF

PROJECT ENGINEER: MAJ

DATE: 9.26.23

PROJECT NO.: 23001

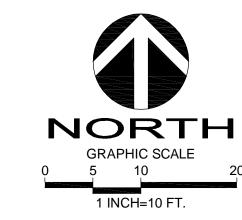
DRAWING: **C2** SHEET: **2** OF **5**

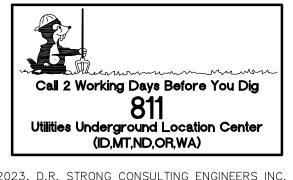


2	3	4	5	6	7	8	9	9	10	11
Tree ID	Species	MICC Status	DBH (in)	Height (ft)	Avg. Canopy Radius (ft)	Condition	Preservation Priority	Canopy Notes	Trunk Notes	Root Notes
647	Maple, Bigleaf (Acer macrophyllum)	Exceptional (Grove)	17	70	15	Fair	2	Full, minor deadwood	Ivy	Steep slope, blackberry
648	Maple, Bigleaf (Acer macrophyllum)	Exceptional (Grove)	10	35	10	Poor	3	Onesided to the north, broken top	Ivy	Steep slope, blackberry, stump sprout
649	Maple, Bigleaf (Acer macrophyllum)	Exceptional (Grove)	14	70	15	Fair	2	Onesided to the south, minor deadwood	Ivy, codominant stem	Steep slope, blackberry
651	Cottonwood, Black (Populus trichocarpa)	Exceptional (Grove)	28	90	20	Fair	2	Onesided to the SE	Ivy, slight lean	Steep slope, blackberry
652	Cottonwood, Black (Populus trichocarpa)	Exceptional	39	90	20	Fair	2	Full	Ivy, codominant stem	Steep slope, blackberry
653	Cottonwood, Black (Populus trichocarpa)	Exceptional (Grove)	38	90	20	Fair	2	Full	Ivy, codominant stem	Steep slope, blackberry
654	Douglas-fir (Pseudotsuga menziesii)	Exceptional (Grove)	12	70	10	Fair	2	Onesided to the west, suppressed	Ivy, lean to west (corrected)	Steep slope, blackberry
655	Cottonwood, Black (Populus trichocarpa)	Exceptional (Grove)	24	90	20	Fair	2	Full		Steep slope, blackberry
656	Cedar, Western-red (Thuja pilcata)	Large	28	90	20	Good	1	Full		Steep slope, blackberry

<u>LEGEND</u>	
123 · 124	VIABLE TREE
123	NON VIABLE TREE
123 124 126	TREE TO BE REMOVED
123-1	DRIPLINE OF EXCEPTIONAL VIABLE TREE TO BE RETAINED
123	DRIPLINE OF EXCEPTIONAL VIABLE TREE TO BE REMOVED
 00-	TREE PROTECTION FENCING (SEE SHEET C2 FOR DETAIL)

TREE RETENTION CALCULATION TOTAL NUMBER OF EXCEPTIONAL TREES: TOTAL LARGE TREES: TOTAL VIABLE ONSITE TREES: REQUIRED: 30% VIABLE TREES: PROPOSED VIABLE TREES RETAINED:

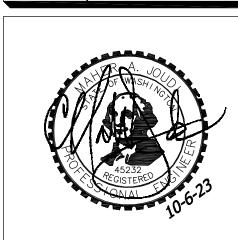




D.R. STRONG CONSULTING ENGINEERS

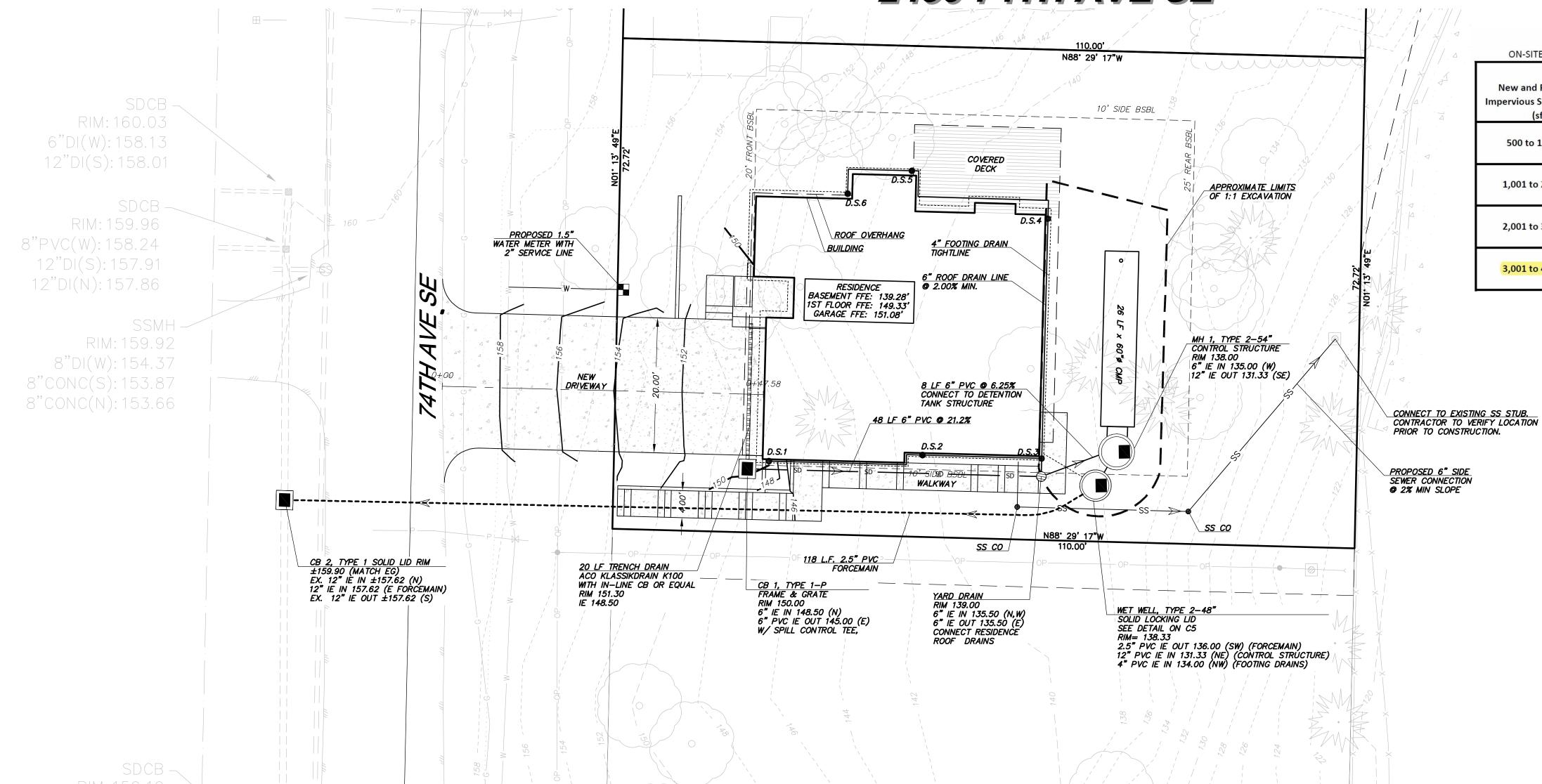
620 - 7th AVENUE KIRKLAND, WA 98033 O 425.827.3063 F 425.827.2423

VANN LANZ LNL BUILDS, LLC



DRAFTED BY: RMF DESIGNED BY: RMF PROJECT ENGINEER: MAJ DATE: **9.26.23** PROJECT NO.: **23001**

DRAWING: C3 SHEET: **3** OF **5**



EXISTING FIRE

Table 1

ON-SITE DETENTION DESIGN FOR PROJECTS BETWEEN 500 SF AND 9,500 SF NEW PLUS REPLACED IMPERVIOUS SURFACE AREA

New and Replaced		Detention Pipe Length (ft)		Lowest Orifice Diameter (in) ⁽³⁾		Distance from Outlet Invert to Second Orifice (ft)		Second Orifice Diameter (in)	
Impervious Surface Area (sf)	Detention Pipe Diameter (in)	B soils	C soils	B soils	C soils	B soils	C soils	B soils	C soils
	36"	30	22	0.5	0.5	2.2	2.0	0.5	0.8
500 to 1,000 sf	48"	18	11	0.5	0.5	3.3	3.2	0.9	0.8
	60"	11	7	0.5	0.5	4.2	3.4	0.5	0.6
	36"	66	43	0.5	0.5	2.2	2.3	0.9	1.4
1,001 to 2,000 sf	48"	34	23	0.5	0.5	3.2	3.3	0.9	1.2
	60"	22	14	0.5	0.5	4.3	3.6	0.9	0.9
	36"	90	66	0.5	0.5	2.2	2.4	0.9	1.9
2,001 to 3,000 sf	48"	48	36	0.5	0.5	3.1	2.8	0.9	1.5
	60"	30	20	0.5	0.5	4.2	3.7	0.9	1.1
	36"	120	78	0.5	0.5	2.4	2.2	1.4	1.6
3,001 to 4,000 sf	48"	62	42	0.5	0.5	2.8	2.9	0.8	1.3
	60"	42	26	0.5	0.5	3.8	3.9	0.9	1.3

GENERAL NOTES:

1. SITE PLAN PROVIDED BY CLIENT ON JANUARY 5, 2023.

2. WALL/ FOOTING/ LAWN UNDERDRAIN DRAINAGE SYSTEM AND ROOF DOWNSPOUT SYSTEM SHALL NOT BE INTERCONNECTED UNLESS SUCH CONNECTION IS MADE AT LEAST ONE FOOT BELOW THE WALL/FOOTING/ UNDERDRAIN DRAINAGE SYSTEM AND DOWN SLOPE OF THE WALL/BUILDING FOUNDATION AND DOWNSTREAM OF THE DETENTION TANK.

3. EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES SHOWN, OR NOT SHOWN IN THEIR PROPER LOCATION.

- 4. CONTRACTOR SHALL POT-HOLE LOCATION OF EXISTING UTILITIES TO BE RECONNECTED PRIOR TO BEGINNING CONSTRUCTION. NOTIFY ENGINEER OF ANY CONFLICTS.
- 5. CONTRACTOR TO VERIFY CONDITION AND GOOD WORKING ORDER OF ALL EXISTING UTILITIES TO BE RECONNECTED OR RE-USED PRIOR TO START OF CONSTRUCTION.
- 7. ROOF DRAINS SHALL BE 4" OR 6" PVC AS SHOWN AND HAVE A MINIMUM SLOPE OF
- 8. ALWAYS CALL 811 TWO WORKING DAYS BEFORE YOU DIG.

STORM DRAINAGE NOTES:

- 1. FRAME AND GRATE FOR CONTROL STRUCTURE SHALL BE SET DIRECTLY OVER THE LADDER AND OFFSET SO THAT THE OVERFLOW PIPE SHALL BE VISIBLE AT THE EDGE OF THE ACCESS OPENING.
- 2. THE FLOW CONTROL MANHOLE SHALL BE A STANDARD TYPE II CATCH BASIN. LADDER RUNS SHALL BE UNIFORMLY SPACED 12" TO 16 1/2 "
- 3. ALL STEEL PIPE AND PARTS SHALL BE GALVANIZED. 4. THE STORAGE PIPE SHALL GENERALLY HAVE A MINIMUM OF 2 FEET OF
- 5. 6" & 8" PVC PIPE SHALL MEET ASTM D3034 SDR-35 6. FOOTING/ WALL DRAINAGE SYSTEM AND ROOF DOWNSPOUT SYSTEM SHALL NOT BE INTERCONNECTED UNLESS SUCH CONNECTION IS MADE AT LEAST ONE FOOT BELOW THE FOOTING/ WALL DRAINAGE SYSTEM AND DOWN SLOPE OF THE BUILDING FOUNDATION. PROVIDE BACKWATER VLAVES WHERE NOTED. A PUMP MAY BE REQUIRED FOR THE POOL FOOTING
- APPLICANTS ARE REQUIRED TO CALL FOR INSPECTIONS. IF THE WORK DOES NOT CONFORM TO THE APPROVED PLANS, OR THE INSPECTION REVEALS OTHER CONDITIONS THAT REQUIRE MODIFICATIONS OR ADDITIONAL INFORMATION, THAT PORTION OF THE WORK WILL BE STOPPED. NO FINAL OCCUPANCY SHALL BE PERMITTED UNTIL ALL ON-SITE STORMWATER
- MANAGEMENT BMPS AND OTHER DRAINAGE CONTROL FACILITIES ARE COMPLETED, INSPECTED AND APPROVED. 8. APPLICANTS MAY BE REQUIRED TO OBTAIN A STREET OPENING PERMIT IF DRAINAGE WORK IS TO BE DONE IN THE CITY'S RIGHT-OF-WAY. IF THE IMPROVEMENTS INCLUDE A CONCRETE DRIVEWAY THAT IS TO EXTEND INTO THE PUBLIC RIGHT-OF-WAY, A PUBLIC PLACE USE PERMIT IS REQUIRED FOR THAT PORTION OF THE DRIVEWAY LOCATED WITHIN THE PUBLIC RIGHT-OF-WAY.
- 9. FIELD ADJUST AREA DRAIN LOCATIONS. GRADE TO DRAIN. 10. SLEEVE ALL PIPES UNDER/ THROUGH WALLS.

UTILITY LEGEND:

SD	PROPOSED STORM LINE
c	PROPOSED COMMUNICATION LINE
W	PROPOSED WATER LINE
P	PROPOSED POWER LINE
SS	PROPOSED SEWER LINE

LAWN AND LANDSCAPE AREA NOTE:

THE LAWN AND LANDSCAPE AREAS ARE REQUIRED TO PROVIDE POST-CONSTRUCTION SOIL QUALITY AND DEPTH IN ACCORDANCE WITH BMP T5.13. THE PROJECT CIVIL ENGINEER MUST PROVIDE A LETTER OF CERTIFICATION TO ENSURE THAT THE LAWN AND LANDSCAPE AREAS ARE MEETING THE POST-CONSTRUCTION SOIL QUALITY AND DEPTH REQUIREMENTS SPECIFIED ON THE APPROVED PLAN SET PRIOR TO FINAL INSPECTION OF THE PROJECT.

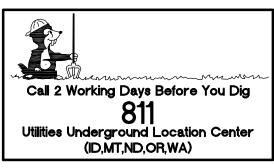
AREA BREAKDOWN: LOT SIZE: 7,999 S.F. (0.184 AC.)

FX HARD SURFACES ON LOT: 0 S.F.

EX. HARD SURFACES UN LUT.	U 3.F.
NEW HARD SURFACES ON LOT:	
MAIN HOUSE ROOF:	1,982 S.F.
DRIVEWAY:	384 S.F.
WALKS & PATIOS	270 S.F.
TOTAL NEW ON LOT:	2,636 S.F. (33.0%)
NEW HARD SURFACES:	2,636 S.F.
LOT PERVIOUS:	5,363 S.F.
OFFSITE DRIVEWAY:	520 S.F.
TOTAL PROJECT HARD SURFACES:	3,156 S.F.
TOTAL P.G.I.S.:	904 S.F.

DOWNSPOUT ELEVATIONS					
DOWNSPOUT #	INVERT ELEV.				
1	135.94				
2	1 <i>35</i> .45				
3	135.05				
4	135.78				
5	136.34				
6	136.60				

NORTH **GRAPHIC SCALE** 1 INCH = 10 FT.



D.R. STRONG **CONSULTING ENGINEERS**

ENGINEERS PLANNERS SURVEYORS

620 - 7th AVENUE KIRKLAND, WA 98033 O 425.827.3063 F 425.827.2423

VANN LANZ INL BUILDS, LLO

DRAFTED BY: RMF

DESIGNED BY: RMF

PROJECT NO.: **23001**

SHEET: **4** OF **5**

DATE: **9.26.23**

DRAWING: C4

PROJECT ENGINEER: MAJ

155 EXISTING GRADE
AT CENTERLINE - *3.00%* PROPOSED GRADE AT CENTERLINE *−8.00%* ✓ -5.00% -DRIVEWAY 1 INCH = 20 FT.HORIZONTAL 1 INCH = 5 FT.VERTICAL -0+*2*0 0+40 0+60

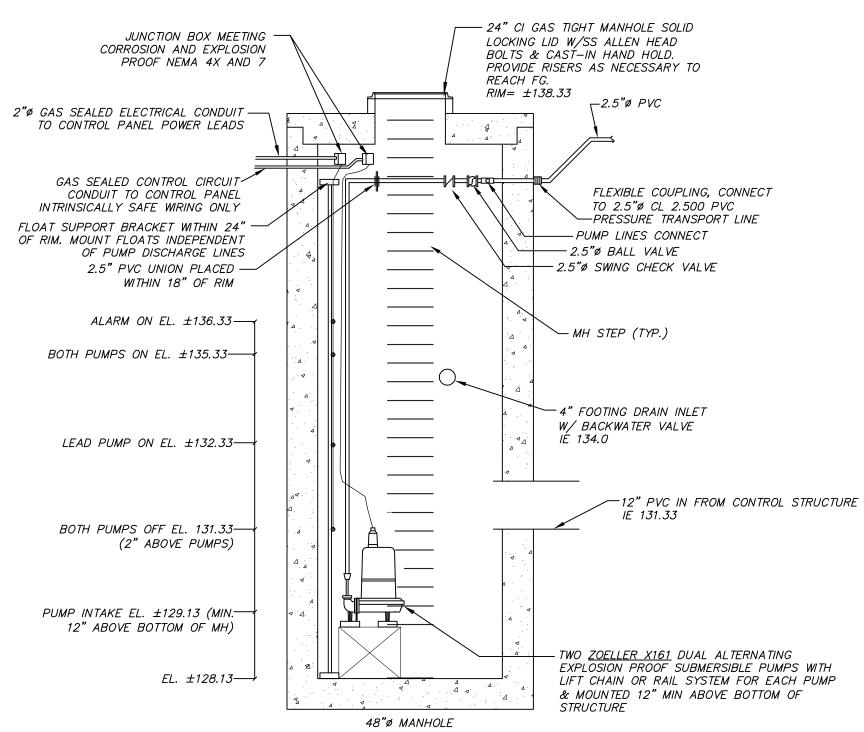
2430 74TH AVE SE

STANDARD DETENTION SYSTEM NOTES:

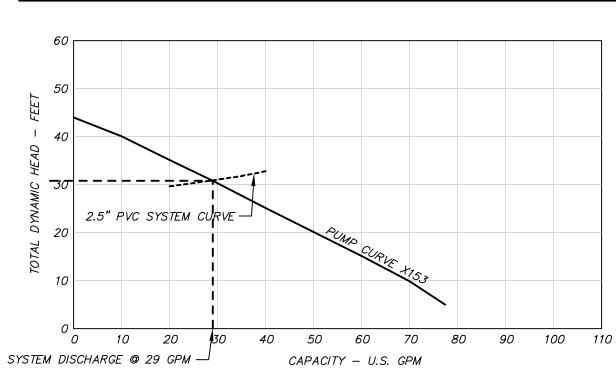
- . CALL DEVELOPMENT SERVICES (206-275-7605) 24 HOURS IN ADVANCE FOR A DETENTION SYSTEM INSPECTION BEFORE BACKFILLING AND FOR FINAL INSPECTIONS. 2. RESPONSIBILITY FOR OPERATION AND MAINTENANCE OF DRAINAGE SYSTEMS ON PRIVATE PROPERTY IS RESPONSIBILITY OF THE PROPERTY OWNER. MATERIAL ACCUMULATED IN THE STORAGE PIPE MUST BE REMOVED FROM CATCH BASINS TO ALLOW PROPER OPERATION. THE OUTLET CONTROL ORIFICE MUST BE KEPT OPEN AT
- 3. PIPE MATERIAL, JOINT, AND PROTECTIVE TREATMENT SHALL BE IN ACCORDANCE WITH SECTION 7.04 AND 9.05 OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, LATEST VERSION. SUCH MATERIALS INCLUDE THE FOLLOWING, LINED CORRUGATED POLYETHYLENE PIPE (LCPE), ALUMINIZED TYPE 2 CORRUGATED STEEL PIPE AND PIPE ARCH (MEETS AASHTO DESIGNATIONS M274 AND M36). CORRUGATED OR SPIRAL RIB ALUMINUM PIPE, OR REINFORCED CONCRETE PIPE, CORRUGATED STEEL PIPE IS NOT ALLOWED.
- 4. FOOTING DRAINS SHALL NOT BE CONNECTED TO THE DETENTION SYSTEM.

RESTRICTOR CATCH BASIN NOTES:

- USE A MINIMUM OF A 72 IN. DIAM. TYPE 2 CATCH BASIN WHEN CONNECTING PIPE MATERIAL IS CONCRETE OR LCPE. A 54 IN. DIAM. TYPE 2 CATCH BASIN MAY BE USED FOR OTHER CIRCULAR SINGLE WALL PIPE (SUCH AS CORRUGATED ALUMINUM PIPE).
- 2. OUTLET PIPE: MIN. 6 INCH. 3. METAL PARTS: CORROSION RESISTANT NON-GALVANIZED PARTS PREFERRED.
- GALVANIZED PIPE PARTS TO HAVE ASPHALT TREATMENT 1. 4. FRAME AND LADDER OR STEPS OFFSET SO:
- A. CLEANOUT GATE IS VISIBLE FROM TOP;
- B. CLIMB-DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE; C. FRAME IS CLEAR OF CURB.
- 5. IF METAL OUTLET PIPE CONNECTS TO CEMENT CONCRETE PIPE, OUTLET PIPE TO HAVE SMOOTH O.D. EQUAL TO CONCRETE PIPE I.D. LESS 1/4 IN. 6. PROVIDE AT LEAST ONE 3 X 0.090 GAUGE SUPPORT BRACKET ANCHORED TO CONCRETE WALL WITH 5/8 IN. STAINLESS STEEL EXPANSION BOLTS OR EMBEDDED SUPPORTS 2 IN. INTO CATCH BASIN WALL (MAXIMUM 3"-0" VERTICAL
- 7. THE SHEAR GATE SHALL BE MADE OF ALUMINUM ALLOY IN ACCORDANCE WITH ASTM B 26M AND ASTM B 275, DESIGNATION ZG32A; OR CAST IRON IN ACCORDANCE WITH ASTM A 48, CLASS 30B. THE LIFT HANDLE SHALL BE MADE OF SIMILAR METAL TO THE GATE (TO PREVENT GALVANIC CORROSION). IT MAY BE SOLID ROD OR HOLLOW TUBING, WITH ADJUSTABLE HOOK AS REQUIRED. A NEOPRENE RUBBER GASKET IS REQUIRED BETWEEN THE RISER MOUNTING FLANGE AND THE GATE FLANGE. INSTALL THE GATE SO THAT THE LEVEL-LINE MARK IS LEVEL WHEN THE GATE IS CLOSED. THE MATING SURFACES OF THE LID AND THE BODY SHALL BE MACHINED FOR PROPER FIT. ALL SHEAR GATE BOLTS SHALL
- BE STAINLESS STEEL 8. THE UPPER CATCH BASIN IS REQUIRED IF THE LENGTH OF THE DETENTION PIPE IS GREATER THAN 50 FEET.



WET WELL 1



PUMP PERFORMANCE CURVE

ZOELLER X153- 1/2 HP

FRAME, GRATE & 24" SOLID COVER WITH LOCKING BOLTS; $RIM = \pm 138.00$ (MATCH FINISH GRADE) MARKED DRAIN. SEE NOTE 3. UNDER F.G. 16" MAX STORM INLET IE=135.00- CLEANOUT/ VENT TO SURFACE - 2" AIR VENT CROWN= 135.83 TOP OF RISER= 135.83 UPPER ELBOW RESTRICTOR (SEE DETAIL LEFT) IE = 134.66PIPE SUPPORTS. SEE NOTE (6) SEE NOTES 2 & 5 INVERT = 131.336" DEAD STORAGE IE 130.83 @ 0.0% 8"ø CMP RISER — @ 0.0% 1' SECTION OF PIPE 2' MAX 26 LF x 60"ø CMP ATTACHED BY GASKETED -BAND TO ALLOW REMOVAL RESTRICTOR PLATE W/ 0.5"ø ORIFICE SMOOTH EDGE - 8" SHEAR GATE WITH CONTROL ROD FOR CLEANOUT/ DRAIN (ROD RESTRICTOR CATCH BASIN-BENT AS REQUIRED FOR VERTICAL ALIGNMENT WITH COVER. SEE - 54**"**ø -CB 2 RESTRICTOR CB

DETENTION TANK & RESTRICTOR CB

REMOVABLE WATERTIGHT -COUPLING OR FLANGE PLATE WELDED TO ELBOW ----WITH 1.3"Ø ORIFICE

ELBOW RESTRICTOR DETAIL

ASTM D2241 SDR-21.

DETENTION TANK PUMP SYSTEM NOTES:

3. EACH PUMP SHALL PROVIDE 29 GPM @ 31.0 FT OF HEAD.

6. PROVIDE LIFT CHAIN OR RAIL SYSTEM FOR PUMP ACCESS.

- 1. THERE IS A TOTAL OF 28.49 FT. OF ELEVATION HEAD FROM THE PUMP TO CB 2 AND 31.0 FT OF TDH THROUGH THE PIPE AND FITTINGS AT 29 GPM. 2. PUMP LINE SHALL BE CLASS 200 PVC AND MEET THE REQUIREMENTS OF
- 4. PUMPS SHALL OPERATE IN AN "ON-DEMAND" CONFIGURATION, WITH EACH PUMP ALTERNATELY SELECTED BY THE CONTROL PANEL AS THE "LEAD PUMP" OR "LAG PUMP". CONTROLS FOR EACH PUMP SHALL INCLUDE: PUMP ON; PUMP OFF; HIGH WATER LEVEL ALARM.
- 5. DUPLEX CONTROL PANEL SHALL HAVE AUDIO/VISUAL ALARM ON SEPARATE CIRCUITS AND BE MOUNTED IN DIRECT LINE OF SIGHT OF THE PUMP ACCESS
- 7. FLOATS/ PUMP CONTROL SWITCHES SHALL BE MOUNTED INDEPENDENT OF THE PUMP AND TRANSPORT LINES. 8. THE STORMWATER PUMPING SYSTEM SHALL BE OWNED, OPERATED, MAINTAINED, REPAIRED, AND REPLACED (AS NEEDED) BY PROPERTY
- OWNER(S) SERVED BY SUCH SYSTEM. 9. PROPERTY OWNER(S) SHALL BE RESPONSIBLE FOR ANY/ALL CLAIMS FOR INJURIES AND DAMÁGE DUE TO THE OPERATION OR NÓN-OPERATION OF THE PUMP SYSTEM AND EMERGENCY OVERFLOW. 10.IT IS HIGHLY RECOMMENDED THAT THE PUMP AND PUMP CONTROLS ARE
- RATED FOR CLASS 1 DIVISION 1 ENVIRONMENT (EXPLOSION PROOF). 11.IT IS HIGHLY RECOMMENDED THAT AUTOMATIC EMERGENCY BACKUP POWER GENERATOR BE PROVIDED FOR PUMP AND ALARM CIRCUITS (BY OTHERS). 12.IT IS HIGHLY RECOMMENDED THAT THE PROPERTY OWNER(S) CONTRACT WITH A PRIVATE SECURITY/ MONITORING SERVICE TO MONITOR AND TROUBLESHOOT THE PUMP SYSTEM IN THE EVENT OF A TOTAL SYSTEM FAILURE (E.G., POWER OUTAGE AND GENERATOR FAILURE).

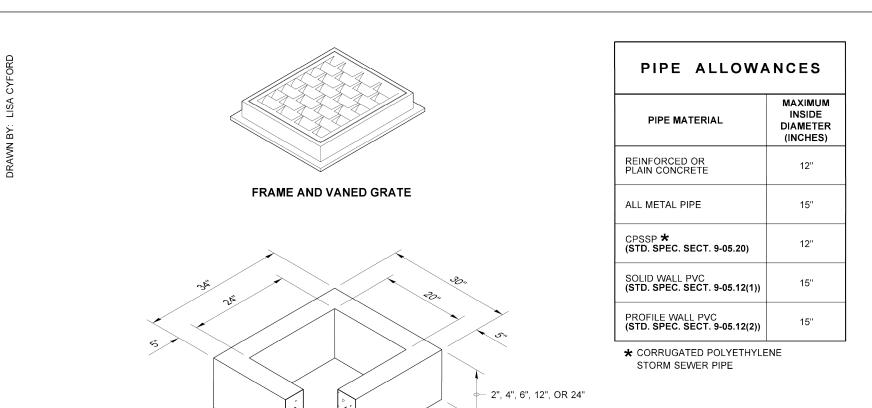
PUMP SYSTEM OPERATION AND MAINTENANCE:

IN A PUMP-TO-GRAVITY STORMWATER SYSTEM, A PUMP IS USED TO CONVEY STORMWATER COLLECTED IN A PUMP CHAMBER (WET WELL) TO THE APPROVED DISCHARGE LOCATION. THE WET WELL CONTAINS A PUMP OPERATING IN AN "ON-DEMAND" CONFIGURATION. THIS SYSTEM CONTAINS MINIMAL EMERGENCY STORAGE IN THE EVENT OF A SYSTEM FAILURE. A 2.5-INCH DIAMETER FORCE MAIN FROM THE WET WELL DISCHARGES TO A YARD DRAIN LOCATED AT THE EASTERN PROPERTY LINE OF THE LOT. THE DISCHARGE PIPE IN THE YARD DRAIN INCLUDES A DOWN ELBOW TO PROVIDE ENERGY DISSIPATION.

CONTROLS FOR THE PUMP INCLUDE: PUMP ON; PUMP OFF; AND HIGH WATER LEVEL ALARM. WHEN STORMWATER IN THE WET WELL RISES TO THE LEVEL OF THE "ON" FLOAT SETTING, THE PUMP IS ACTIVATED AND PUMPS THE LEVEL OF THE STORMWATER DOWN UNTIL IT REACHES THE "OFF" FLOAT SETTING. IF THE WATER LEVEL EXCEEDS THE "ALARM" LEVEL, A RED LIGHT AND AN AUDIBLE BUZZER WILL TURN ON AT THE CONTROL PANEL. PRESSING THE "SILENCE" BUTTON ON THE CONTROL PANEL WILL ONLY SILENCE THE AUDIBLE ALARM AND IS NOT A SOLUTION TO THE ALARM CONDITION. THE ALARM LIGHT WILL REMAIN LIT UNTIL THE ALARM CONDITION HAS BEEN RESOLVED. WE RECOMMEND THAT THE CONTROL PANEL BE EQUIPPED FOR REMOTE MONITORING BY A PRIVATE O&M FIRM TO ENSURE RESOLUTION OF ALARM CONDITIONS IN A TIMELY MANNER. CODE REQUIRES THAT THE PUMP AND ALARM BE ON DIFFERENT CIRCUITS SO THAT IF THE PUMP BREAKER TRIPS, THE ALARM CAN STILL OPERATE.

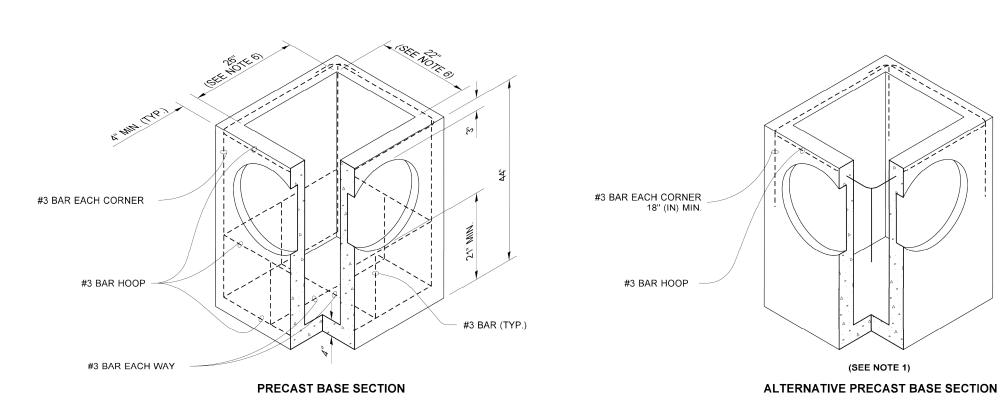
RECOMMENDED MAINTENANCE:

THE PUMP SHOULD BE SUBMERGED DURING NORMAL OPERATION BECAUSE HEAT GENERATED BY THE PUMP IS DISSIPATED IN THE SURROUNDING WATER. OTHERWISE, THE PUMP COULD BURN OUT IF ALLOWED TO OPERATE IN A NON-SUBMERGED CONDITION. CHECK TO SEE THAT THE FLOAT SWITCHES ARE CLEAN AND FREE IN THEIR MOVEMENTS, AND TEST THE HIGH ALARM FLOAT BY LIFTING IT, OR BY PUSHING DOWN ON THE LOW ALARM FLOAT (IF PRESENT). IF THE ALARM DOES NOT SOUND AND THE CIRCUIT BREAKER IS NOT TRIPPED, CONTACT A QUALIFIED ELECTRICIAN FOR SERVICING. PERFORM FLOAT TESTING QUARTERLY DURING THE FIRST YEAR OF OPERATION, THEN AT SEMI-ANNUALLY



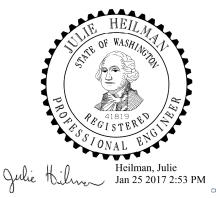
ONE #3 BAR FOR 6" (IN) HEIGHT

RECTANGULAR ADJUSTMENT SECTION



NOTES

- 1. As acceptable alternatives to the rebar shown in the **PRECAST BASE SECTION**, fibers (placed according to the Standard Specifications), or wire mesh having a minimum area of 0.12 square inches per foot shall be used with the minimum required rebar shown in the ALTERNATIVE PRECAST BASE SECTION. Wire mesh shall not be placed in the knockouts.
- 2. The knockout diameter shall not be greater than 20" (in). Knockouts shall have a wall thickness of 2" (in) minimum to 2.5" (in) maximum. Provide a 1.5" (in) minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with Standard Specification Section 9-04.3.
- 3. The maximum depth from the finished grade to the lowest pipe invert shall be 5' (ft).
- 4. The frame and grate may be installed with the flange down, or integrally cast into the adjustment section with flange up.
- 5. The Precast Base Section may have a rounded floor, and the walls may be sloped at a rate of 1:24 or steeper.
- 6. The opening shall be measured at the top of the **Precast Base Section**.
- 7. All pickup holes shall be grouted full after the basin has been placed.



CATCH BASIN TYPE 1

STANDARD PLAN B-5.20-02

Washington State Department of Transportation

SHEET 1 OF 1 SHEET APPROVED FOR PUBLICATION Jan 26 2017 6:48 AM



Call 2 Working Days Before You Dig Utilities Underground Location Center (ID.MT.ND.OR.WA)

NORTH **GRAPHIC SCALE** 1 INCH = 20 FT.

DRAWING: **C5** SHEET: **5** OF **5**

R:\2023\0\23001\3\Drawings\Plots\Engineering\Lot 1\04_05-3N-UT23001.dwg 10/6/2023 9:59:19 AM COPYRIGHT © 2023, D.R. STRONG CONSULTING ENGINEERS INC



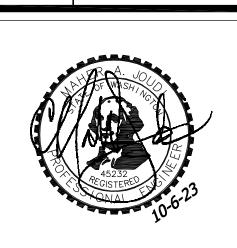
D.R. STRONG **CONSULTING ENGINEERS**

ENGINEERS PLANNERS SURVEYORS

620 - 7th AVENUE KIRKLAND, WA 98033

O 425.827.3063 F 425.827.2423

VANN LANZ .NL BUILDS, LLO



DRAFTED BY: RMF DESIGNED BY: RMF PROJECT ENGINEER: MAJ DATE: **9.26.23**

PROJECT NO.: 23001