DEVELOPMENT SERVICES DEPARTMENT
ENVIRONMENTAL COORDINATOR
450 110th Ave NE., P.O. BOX 90012
BELLEVUE, WA 98009-9012

OPTIONAL DETERMINATION OF NON-SIGNIFICANCE (DNS) NOTICE MATERIALS

The attached materials are being sent to you pursuant to the requirements for the Optional DNS Process (WAC 197-11-355). A DNS on the attached proposal is likely. This may be the only opportunity to comment on environmental impacts of the proposal. Mitigation measures from standard codes will apply. Project review may require mitigation regardless of whether an EIS is prepared. A copy of the subsequent threshold determination for this proposal may be obtained upon request.

File No. 19-119857-LO

Project Name/Address: Nguyen/652 W Lake Sammamish Pkwy NE

Planner: Peter Rosen

Phone Number: 425-452-5210

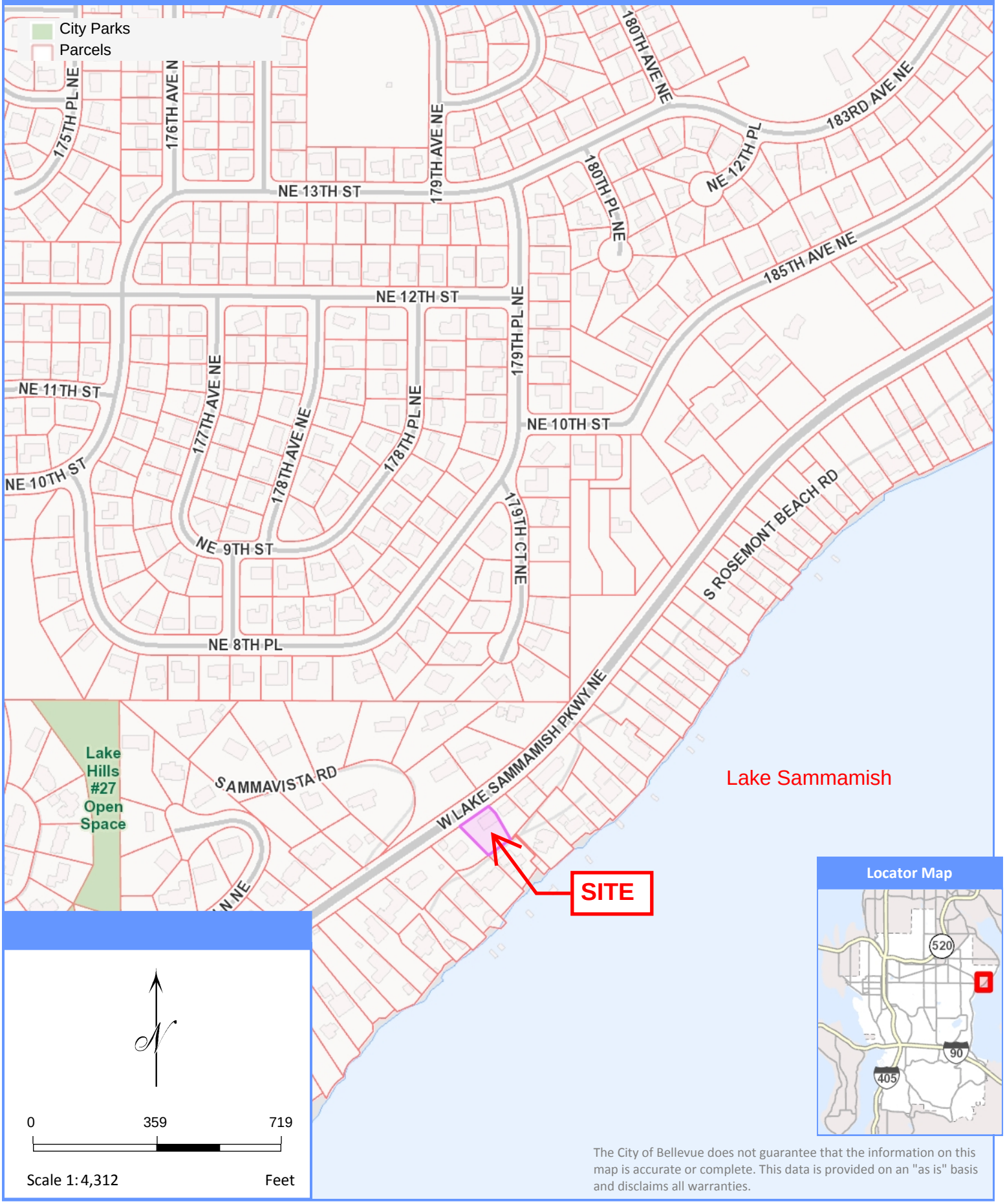
Minimum Comment Period: August 29, 2019

Materials included in this Notice:

☒ Blue Bulletin
☒ Checklist
☒ Vicinity Map
☒ Plans
☐ Other:

OTHERS TO RECEIVE THIS DOCUMENT:
☒ State Department of Fish and Wildlife / Sterwart.Reinbold@dfw.gov; Christa.Heller@dfw.wa.gov;
☒ State Department of Ecology, Shoreline Planner N.W. Region / Jobu461@ecy.wa.gov; sepaunit@ecy.wa.gov
☒ Army Corps of Engineers Susan.M.Powell@nws02.usace.army.mil
☒ Attorney General ecyolyef@atg.wa.gov
☒ Muckleshoot Indian Tribe Karen.Walter@muckleshoot.nsn.us; Fisheries.fileroom@muckleshoot.nsn.us

VICINITY MAP



The City of Bellevue does not guarantee that the information on this map is accurate or complete. This data is provided on an "as is" basis and disclaims all warranties.

Map Generated on: 08/08/2019

NGUYEN RESIDENCE
SLOPE STABILIZATION

652 W LAKE SAMMAMISH PKWY NE
BELLEVUE, WA 98008

OWNER

DZUNG NGUYEN
652 W LAKE SMMAMISH PKWY NE
BELLEVUE, WA 98008
206.930.1211
DZUNGLOAN@HOTMAIL.COM

CONSULTANTS

STRUCTURAL ENGINEER
CG ENGINEERING
250 4TH AVE S, SUITE 200
EDMONDS, WA 98020
425.778.8500 FAX 778.5536
CONTACT: GREG GUILLEN, PE, SE

GEOTECHNICAL ENGINEER
NELSON GEOTECHNICAL
17311 135TH AVE NE SUITE A-500
WOODINVILLE, WA 98072
425.486.1669
CONTACT: KHALED SHAWISH, PE

SURVEYOR
PACIFIC COAST SURVEYS
PO BOX 13619
MILL CREEK, WA 98082
425.508.4951
CONTACT: DARREN RIDDLE

BENCHMARK

FOUND CONC. MON. IN CASE W/3" C.O.B. BRASS DISK. W. LAKE SAMMAMISH PRKY.
N.E. ELEV. = 462.55'
CITY OF BELLEVUE HOR. STATION: 0510

DATUM

NAVD 88

LEGAL DESCRIPTION
THAT PORTION OF GOVERNMENT LOT 1 OF SECTION 36, TOWNSHIP 25 NORTH, RANGE 5 EAST W.M., IN KING COUNTY, WASHINGTON LYING SOUTHEASTERLY OF LAKE SAMMAMISH SHORE LINE ROAD AND LYING BETWEEN TWO LINES WHICH ARE 380 FEET AND 480 FEET RESPECTIVELY OF (MEASURED AT RIGHT ANGLES) AND PARALLEL WITH A LINE WHICH BEARS SOUTH 44°49'19" EAST FROM THE NORTHEAST CORNER OF SAID GOVERNMENT LOT 1;
EXCEPT THAT PORTION LYING SOUTHEASTERLY OF THE NORTHWESTERLY LINE OF THE FOLLOWING DESCRIBED EASEMENT. THE NORTHWESTERLY MARGIN OF SAID STRIP BEING DESCRIBED AS FOLLOWS;

COMMENCING AT THE NORTHWEST CORNER OF SAID GOVERNMENT LOT 1, SECTION 36.
THENCE SOUTH 35°52'33" WEST 742.44 FEET TO THE TRUE POINT OF BEGINNING OF SAID NORTHWESTERLY MARGIN;
THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 200 FEET, AN INITAL BEARING OF SOUTH 41°30'60" EAST AN ARC DISTANCE OF 44.69 FEET;
THENCE NORTH 10°27'11" EAST 48.38 FEET;
THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 68.18 FEET, AN ARC DISTANCE OF 81.31 FEET;
THENCE NORTH 78°47'22" EAST 30.84 FEET;
THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 90.36 FEET, AN ARC DISTANCE OF 398.36 FEET;
THENCE NORTH 53°49'47" EAST 127.41 FEET;
THENCE NORTH 41°13'08" EAST 190.55 FEET;
THENCE NORTH 26°43'56" EAST 157 FEET;
THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 48.14 FEET, AN ARC DISTANCE OF 53 FEET MORE OR LESS, TO THE LAKE SAMMAMISH SHORE LINE ROAD AND THE END OF SAID MARGIN OF SAID STRIP.
EXCEPT THAT PORTION OF THE ABOVE DESCRIBED PROPERTY LYING TO THE NORTHEAST OF THE FOLLOWING DESCRIBED LINE:
COMMENCING AT THE LAKE SAMMAMISH SHORE LINE ROAD 380 FEET (MEASURED AT RIGHT ANGLES) AND PARALLEL WITH A LINE WHICH BEARS SOUTH 44°49'19" EAST FROM THE NORTHEAST CORNER OF SAID GOVERNMENT LOT 1;
THENCE SOUTH 30°12'46" EAST 85.93 FEET TO THE NORTHWESTERLY MARGIN OF THE ABOVE DESCRIBED EASEMENT.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

PARCEL NUMBER

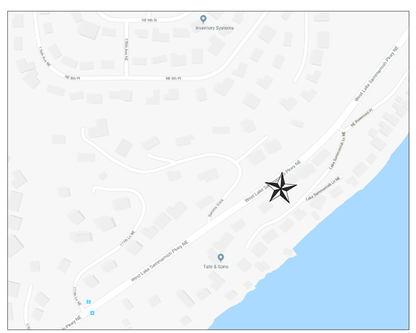
362505-9136

PROPERTY INFORMATION

TOTAL LOT AREA	= 11,761 SQFT
EX BUILDING FOOTPRINT	= 1,190 SQFT
PROPOSED BUILDING FOOTPRINT	= NOT TO CHANGE
TOTAL IMPERVIOUS SURFACE	= NOT TO CHANGE

SCOPE OF WORK

- STABILIZE EXISTING SLOPE WITH SHOTCRETE WALL NEAR TOP OF SLOPE TO PROTECT EXISTING LANDSCAPE SCARP.
- REINFORCE TOE OF SLOPE WITH ROCK SPALL BUTTRESSES TO IMPROVE SLOPE STABILITY & PROMOTE DRAINAGE.
- REPAIR EXISTING STAIR AND DECK FRAMING.



VICINITY MAP

NTS ★ = PROJECT SITE

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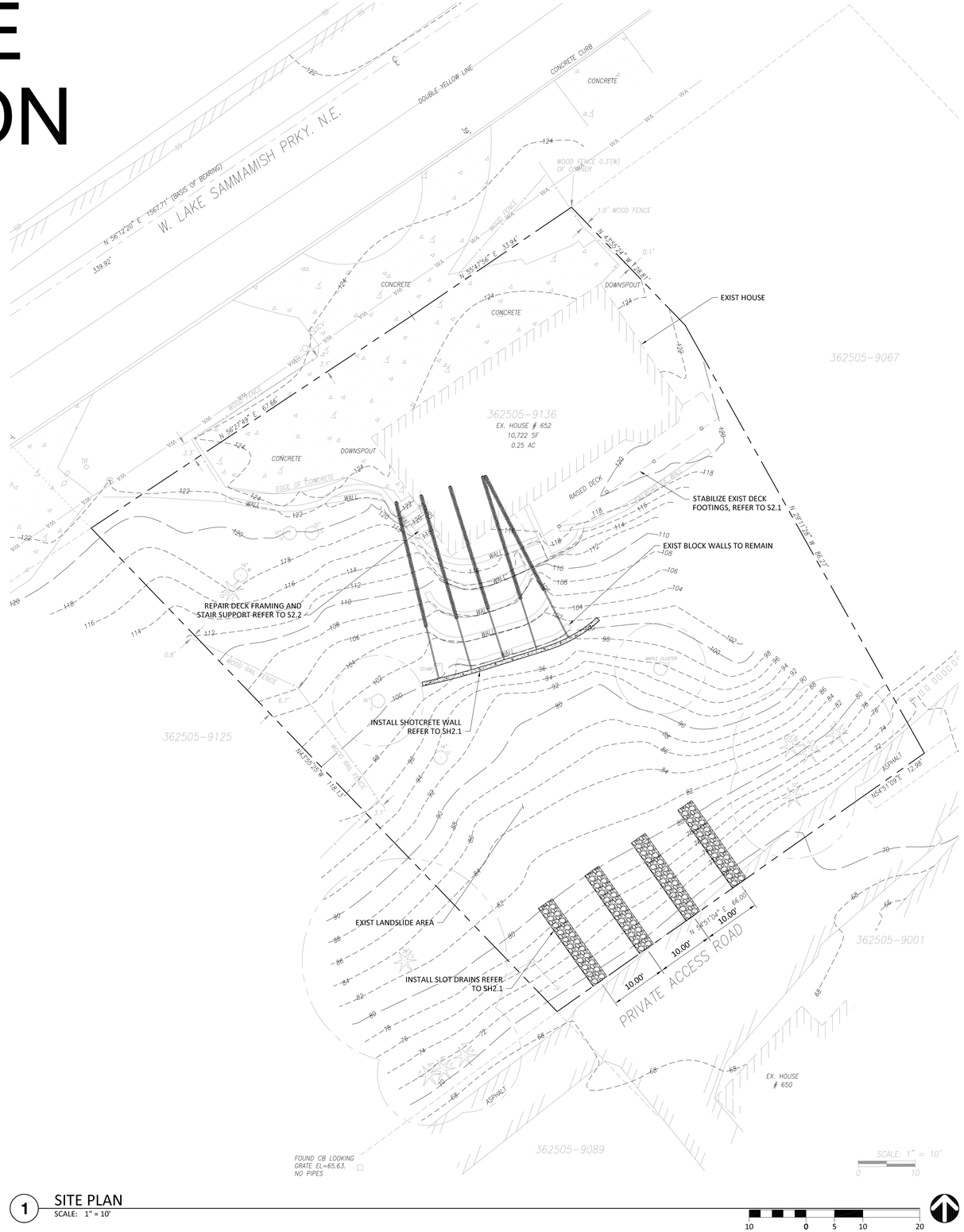
S2.2	THIRD FLOOR & ROOF FRAMING PLAN
S3.1	FOUNDATION DETAILS
S4.1	DECK FRAMING DETAILS



1 SITE PLAN
SCALE: 1" = 10'

10 0 5 10 20

ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

DENNIS M. TITUS — STATE OF WASHINGTON — 19901 — PROFESSIONAL ENGINEER

06/07/19

MARK	DATE	DESCRIPTION
	10/05/18	EMERGENCY PERMIT SUBMITTAL
	06/07/19	PERMIT SUBMITTAL

DESIGN:	MBB
DRAWN:	JCP
CHECK:	DMT
JOB NO:	18149.10
DATE:	04/22/19

NGUYEN RESIDENCE SLOPE STABILIZATION
652 W LAKE SAMMAMISH PKWY NE
BELLEVUE, WA 98008

COVER SHEET & SITE PLAN

FILE NAME:

SHEET:

C1.1

CIVIL NOTES

(THESE NOTES ARE TYPICAL UNLESS NOTED OR DETAILED OTHERWISE ON DRAWINGS)

GENERAL NOTES:

1. ALL WORK SHALL CONFORM TO THE 2018 EDITION OF THE CITY OF BELLEVUE UTILITIES DEPARTMENT ENGINEERING STANDARDS.
2. THE CONTRACTOR SHALL USE A VACUUM STREET SWEEPER TO REMOVE DUST AND DEBRIS FROM PAVEMENT AREAS.
3. WHEN WORK IS TO OCCUR IN EASEMENTS, THE CONTRACTOR SHALL NOTIFY THE EASEMENT GRANTOR AND CITY'S INSPECTOR IN WRITING A MINIMUM OF 48 HOURS IN ADVANCE OF BEGINNING WORK (NOT INCLUDING WEEKENDS OR HOLIDAYS). FAILURE TO NOTIFY GRANTOR AND THE CITY'S INSPECTOR WILL RESULT IN A STOP WORK ORDER BEING POSTED UNTIL THE MATTER IS RESOLVED TO THE SATISFACTION OF THE UTILITY. A WRITTEN RELEASE FROM THE EASEMENT GRANTOR SHALL BE FURNISHED TO THE CITY'S INSPECTOR PRIOR TO PERMIT SIGN-OFF.
4. INSTALL FLOW DIVERSION MEASURES OUTSIDE OF THE CRITICAL ROOT ZONE OF TREES TO BE PROTECTED. AT NO TIME SHALL CONSTRUCTION STORMWATER BE DIRECTED TOWARDS TREES TO BE PROTECTED. CONSTRUCTION STORMWATER SHALL NOT POND WITHIN A TREE'S CRITICAL ROOT ZONE.
5. ALL TRENCHES SHALL BE BACKFILLED. COMPACTED, AND PAVEMENT IN PLACE INPAVED AREAS, PRIOR TO TESTING STORM PIPES FOR ACCEPTANCE.

STORM DRAINAGE NOTES:

1. STORM PIPE SHALL BE PVC CONFORMING TO ASTM D-3034 SDR 35 (4" - 15") OR ASTM F- 679 (18"-27"). BEDDING AND BACKFILL SHALL BE AS SHOWN IN THE STANDARD DETAILS.
2. THE FOOTING DRAINAGE SYSTEM AND THE ROOF DOWNSPOUT SYSTEM SHALL NOT BE INTERCONNECTED AND SHALL SEPARATELY CONVEY COLLECTED FLOWS TO THE CONVEYANCE SYSTEM OR TO ON-SITE STORMWATER FACILITIES.
3. PRIOR TO FINAL INSPECTION AND ACCEPTANCE OF STORM DRAINAGE WORK, PIPES AND STORM DRAIN STRUCTURES SHALL BE CLEANED AND FLUSHED. ANY OBSTRUCTIONS TO FLOW WITHIN THE STORM DRAIN SYSTEM, (SUCH AS RUBBLE, MORTAR AND WEDGED DEBRIS), SHALL BE REMOVED AT THE NEAREST STRUCTURE. WASH WATER OF ANY SORT SHALL NOT BE DISCHARGED TO THE STORM DRAIN SYSTEM OR SURFACE WATERS.
4. ENDS OF EACH STORM DRAIN STUB AT THE PROPERTY LINE SHALL BE CAPPED AND LOCATED WITH AN 8' LONG 2" X 4" BOARD, EMBEDDED TO THE STUB CAP AND EXTENDING AT LEAST 3 FEET ABOVE GRADE, AND MARKED PERMANENTLY "STORM". A COPPER 12 GA. LOCATE WIRE FIRMLY ATTACHED. THE STUB DEPTH SHALL BE INDICATED ON THE MARKER.
5. ALL GRATES IN ROADWAYS SHALL BE DUCTILE IRON, BOLT-LOCKING, VANED GRATES PER THE STANDARD DETAILS. STRUCTURES IN TRAFFIC LANES OUTSIDE OF THE CURB LINE WHICH DO NOT COLLECT RUNOFF SHALL BE FITTED WITH ROUND, BOLT-LOCKING FRAMES AND SOLID COVERS. OFF-STREET STRUCTURES WHICH DO NOT COLLECT RUNOFF SHALL BE FITTED WITH BOLT-LOCKING SOLID COVERS.
6. VEGETATION/LANDSCAPING IN THE DETENTION POND, BIORETENTION FACILITY, VEGETATED ROOF AND/OR DRAINAGE SWALE(S) ARE AN INTEGRAL PART OF THE RUNOFF TREATMENT SYSTEM FOR THE PROJECT. SUCH DRAINAGE FACILITIES WILL NOT BE ACCEPTED UNTIL PLANTINGS ARE ESTABLISHED.
7. ALL NEW MANHOLES SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES AND SHALL CONFORM TO THE STANDARD DETAILS. ALL NEW CATCH BASINS SHALL CONFORM TO THE STANDARD DETAILS.
8. STORM STUB STATIONS ARE REFERENCED FROM NEAREST DOWNSTREAM MANHOLE/ CATCH BASIN.
9. ALL TESTING AND CONNECTIONS TO EXISTING MAINS SHALL BE DONE IN THE PRESENCE OF THE CITY'S INSPECTOR.
10. ALL PUBLIC STORM DRAINS SHALL BE AIR TESTED AND HAVE A VIDEO INSPECTION PERFORMED PRIOR TO ACCEPTANCE (SEE #17 BELOW). STORM MAIN CONSTRUCTED WITH FLEXIBLE PIPE SHALL BE DEFLECTION TESTED WITH A MANDREL PRIOR TO ACCEPTANCE.
11. STORM STUBS SHALL BE TESTED FOR ACCEPTANCE AT THE SAME TIME THE STORM MAIN IS TESTED.
12. ALL MANHOLES/ CATCH BASINS IN UNPAVED AREAS SHALL INCLUDE A CONCRETE SEAL AROUND ADJUSTMENT RINGS PER STANDARD DETAILS.
13. ALL STORM MAIN EXTENSIONS WITHIN THE PUBLIC RIGHT-OF-WAY OR IN EASEMENTS MUST BE "STAKED" BY A SURVEYOR LICENSED IN WASHINGTON STATE FOR "LINE AND GRADE" AND CUT SHEETS PROVIDED TO THE CITY'S INSPECTOR, PRIOR TO STARTING CONSTRUCTION.
14. STORM DRAINAGE MAINLINES, STUBS AND FITTINGS SHALL BE CONSTRUCTED USING THE SAME PIPE MATERIAL AND MANUFACTURER. CONNECTIONS BETWEEN STUBS AND THE MAINLINE WILL BE MADE WITH A TEE FITTING. TEE FITTING SHALL BE FROM SAME MANUFACTURER AS PIPE. CUT-IN CONNECTIONS ARE ONLY ALLOWED WHEN CONNECTING A NEW STUB TO AN EXISTING MAINLINE.
15. MANHOLES, CATCH BASINS AND VAULTS ARE CONSIDERED TO BE PERMIT-REQUIRED CONFINED SPACES. ENTRY INTO THESE SPACES SHALL BE IN ACCORDANCE WITH CHAPTER 296-809 WAC.
16. PLACEMENT OF SURFACE APPURTENANCES (MH LIDS, VALVE LIDS, ETC.) IN TIRE TRACKS OF TRAFFIC LANES SHALL BE AVOIDED WHENEVER POSSIBLE.
17. THE CONTRACTOR SHALL PERFORM A VIDEO INSPECTION AND PROVIDE A DIGITAL COPY OF THE VIDEO INSPECTION FOR THE CITY'S REVIEW. THE VIDEO SHALL PROVIDE A MINIMUM OF 480 X 640 RESOLUTION AND COVER THE ENTIRE LENGTH OF THE APPLICABLE PIPE. THE CAMERA SHALL BE MOVED THROUGH THE PIPE AT A UNIFORM RATE (≤ 30 FT/MIN), STOPPING WHEN NECESSARY TO ENSURE PROPER DOCUMENTATION OF THE PIPE CONDITION. THE VIDEO SHALL BE TAKEN AFTER INSTALLATION AND CLEANING TO INSURE THAT NO DEFECTS EXIST. THE PROJECT WILL NOT BE ACCEPTED UNTIL ALL DEFECTS HAVE BEEN REPAIRED.
18. NOT USED.
19. ALL CONCRETE STRUCTURES (VAULTS, CATCH BASINS, MANHOLES, OIL/WATER SEPARATORS, ETC.) SHALL BE VACUUM TESTED.
20. MANHOLES, CATCH BASINS AND INLETS IN EASEMENTS SHALL BE CONSTRUCTED TO PROVIDE A STABLE, LEVEL GRADE FOR A MINIMUM RADIUS OF 2.5 FEET AROUND THE CENTER OF THE ACCESS OPENING TO ACCOMMODATE CONFINED SPACE ENTRY EQUIPMENT.
21. TOPS OF MANHOLES/ CATCH BASINS WITHIN PUBLIC RIGHT-OF-WAY SHALL NOT BE ADJUSTED TO FINAL GRADE UNTIL AFTER PAVING.
22. CONTRACTOR SHALL ADJUST ALL MANHOLE/ CATCH BASIN RIMS TO BE FLUSH WITH FINAL FINISHED GRADES, UNLESS OTHERWISE SHOWN.
23. DURING CONSTRUCTION, CONTRACTOR SHALL INSTALL, AT ALL CONNECTIONS TO EXISTING DOWNSTREAM MANHOLES/CATCH BASINS, SCREENS OR PLUGS TO PREVENT FOREIGN MATERIALS FROM ENTERING EXISTING STORM DRAINAGE SYSTEM. SCREENS OR PLUGS SHALL REMAIN IN PLACE THROUGHOUT THE DURATION OF THE CONSTRUCTION AND SHALL BE REMOVED ALONG WITH COLLECTED DEBRIS AT THE TIME OF FINAL INSPECTION AND IN THE PRESENCE OF THE CITY'S INSPECTOR.
24. NOT USED.
25. MINIMUM COVER OVER STORM DRAINAGE PIPE SHALL BE 2 FEET, UNLESS OTHERWISE SHOWN.
26. REDIRECT SHEET FLOW, BLOCK DRAIN INLETS AND/OR CURB OPENINGS IN PAVEMENT AND INSTALL FLOW DIVERSION MEASURES TO PREVENT CONSTRUCTION SILT LADEN RUNOFF AND DEBRIS FROM ENTERING EXCAVATIONS AND FINISH SURFACES FOR BIORETENTION FACILITIES AND PERMEABLE PAVEMENTS.
27. WHERE AMENDED SOILS, BIORETENTION FACILITIES, AND PERMEABLE PAVEMENTS ARE INSTALLED, THESE AREAS SHALL BE PROTECTED AT ALL TIMES FROM BEING OVER-COMPACTED.

UTILITY NOTES:

1. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN ESTABLISHED BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE EXCAVATOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN, AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HERE ON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN. IMMEDIATELY NOTIFY THE RESPONSIBLE PROFESSIONAL ENGINEER IF A CONFLICT EXISTS.
2. CALL 1-800-424-5555, OR 8-1-1, 72 HOURS BEFORE CONSTRUCTION FOR UTILITY LOCATES.
3. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF FIVE FEET (5') HORIZONTAL SEPARATION BETWEEN ALL WATER AND STORM DRAINAGE LINES. ANY CONFLICT SHALL BE REPORTED TO THE UTILITY AND THE RESPONSIBLE PROFESSIONAL ENGINEER PRIOR TO CONSTRUCTION.
4. AVOID CROSSING WATER OR SEWER MAINS AT HIGHLY ACUTE ANGLES. THE SMALLEST ANGLE MEASURE BETWEEN UTILITIES SHOULD BE 45 DEGREES.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT NO CONFLICTS EXIST BETWEEN STORM DRAINAGE FACILITIES AND PROPOSED OR EXISTING UTILITIES PRIOR TO CONSTRUCTION.
6. AT POINTS WHERE EXISTING THRUST BLOCKING IS FOUND, MINIMUM CLEARANCE BETWEEN CONCRETE BLOCKING AND OTHER BURIED UTILITIES OR STRUCTURES SHALL BE 5 FEET.
7. WHERE A NEW UTILITY LINE CROSSES BELOW AN EXISTING AC MAIN, THE AC PIPE SHALL BE REPLACED WITH DI PIPE TO 3 FEET PAST EACH SIDE OF THE TRENCH AS SHOWN ON STANDARD DETAIL W-8. ALTERNATIVELY, APPROVED IN WRITING BY THE UTILITY, THE TRENCH MAY BE BACKFILLED WITH CONTROLLED DENSITY FILL (CDF, AKA FLOWABLE FILL) FROM BOTTOM OF TRENCH TO BOTTOM OF AC MAIN.

EROSION CONTROL NOTES:

1. PROVIDE AND MAINTAIN TEMPORARY SEDIMENTATION COLLECTION FACILITIES TO ENSURE THAT SEDIMENT OR OTHER HAZARDOUS MATERIALS DO NOT ENTER THE STORM DRAINAGE SYSTEM IN ACCORDANCE WITH THE SITES APPROVED CSWPPP.

RESTORATION NOTES:

1. SURFACE RESTORATION OF EXISTING ASPHALT PAVEMENT SHALL BE AS REQUIRED BY THE RIGHT-OF-WAY USE PERMIT.
2. THE CONTRACTOR SHALL RESTORE THE RIGHT-OF-WAY AND EXISTING PUBLIC STORM DRAINAGE EASEMENT(S) AFTER CONSTRUCTION TO A CONDITION EQUAL OR BETTER THAN CONDITION PRIOR TO ENTRY. THE CONTRACTOR SHALL FURNISH A SIGNED RELEASE FROM ALL AFFECTED PROPERTY OWNERS AFTER RESTORATION HAS BEEN COMPLETED.

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250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

DENNIS M. TITUS — STATE OF WASHINGTON — 22901 — PROFESSIONAL ENGINEER — STRUCTURAL ENGINEER

06/07/19

MARK	DATE	DESCRIPTION
	10/05/18	EMERGENCY PERMIT SUBMITTAL
	06/07/19	PERMIT SUBMITTAL

DESIGN:	MBB
DRAWN:	JCP
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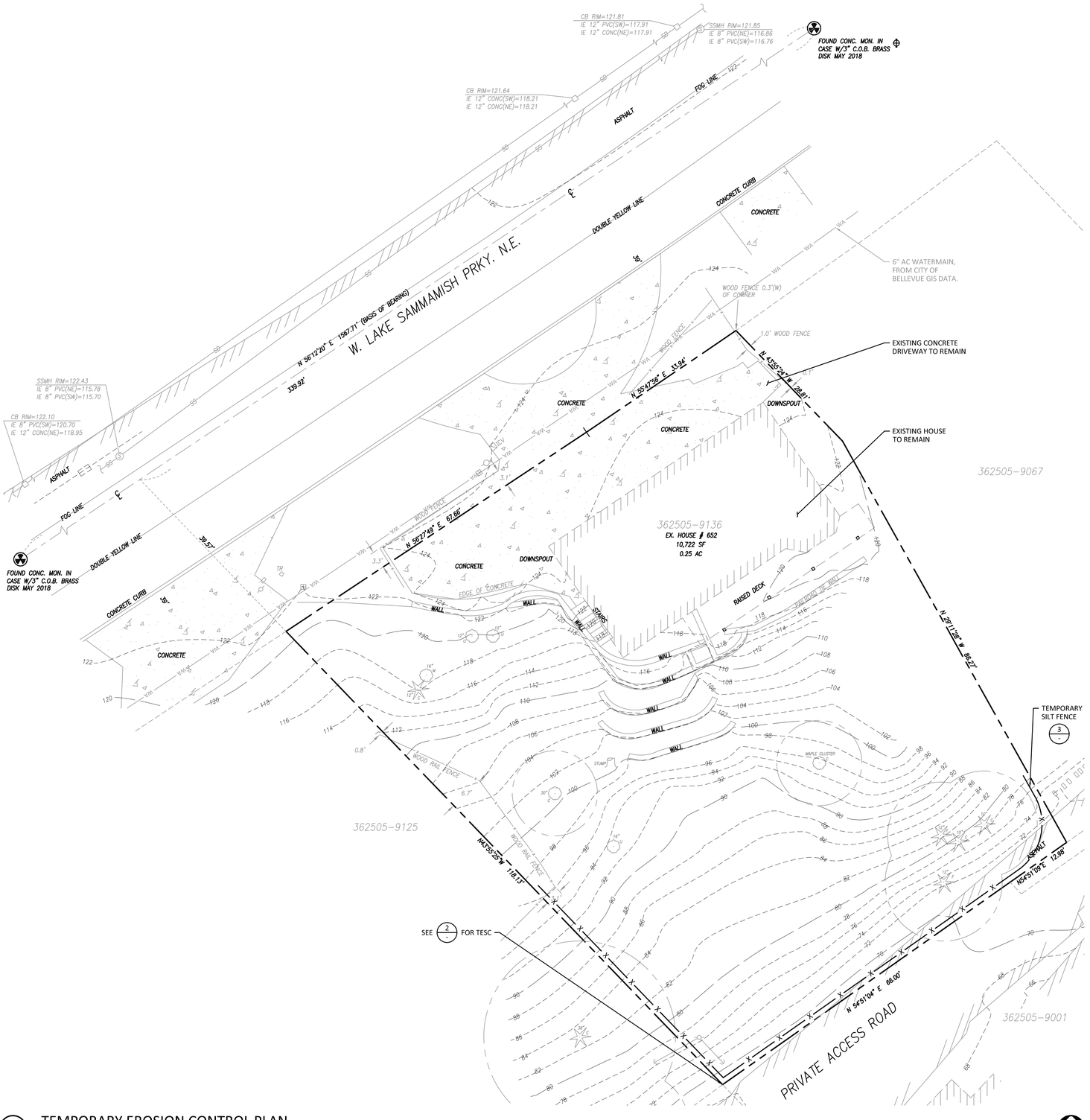
NGUYEN RESIDENCE SLOPE STABILIZATION
652 W LAKE SAMMAMISH PKWY NE
BELLEVUE, WA 98008

CIVIL NOTES

FILE NAME:

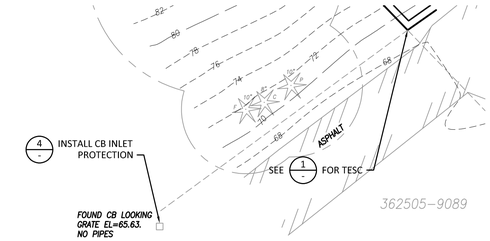
SHEET:

C1.2



1 TEMPORARY EROSION CONTROL PLAN

SCALE: 1" = 10'



2 TEMPORARY EROSION CONTROL PLAN

SCALE: 1" = 10'

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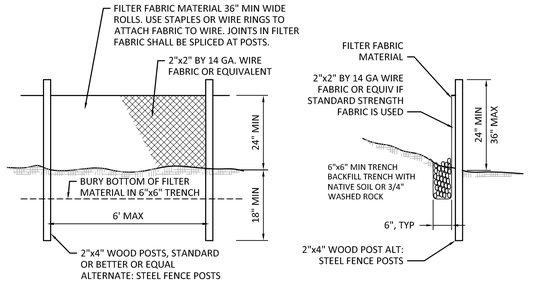
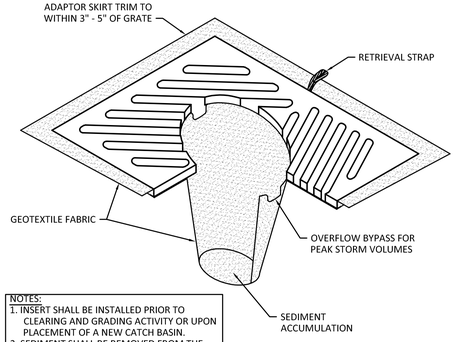


SILT FENCE NOTES:

1. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6 INCH OVERLAP, AND BOTH ENDS SECURELY FASTENED TO THE POST.
2. THE SILT FENCE SHALL BE INSTALLED TO FOLLOW THE CONTOURS (WHERE FEASIBLE). THE FENCE POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 18 INCHES).
3. A SHALLOW TRENCH SHALL BE EXCAVATED, ROUGHLY 6 INCHES WIDE AND 6 INCHES DEEP, UPSLOPE AND ADJACENT TO THE WOOD POSTS TO ALLOW THE LOWER EDGE OF THE FILTER FABRIC TO BE SECURED WITH GRAVEL.
4. WHEN FILTER FABRIC NOT AS STRONG AS MIRAFI 700X IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRES OR HOG RINGS. THE WIRE MESH SHALL EXTEND INTO THE SHALLOW TRENCH A MINIMUM OF 4 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
5. THE MIRAFI 700X FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND AT LEAST 18 INCHES OF THE FABRIC SHALL BE BURIED IN THE SHALLOW TRENCH. THE FILTER FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE AND SHALL NOT BE STAPLED TO TREES.
6. WHEN EXTRA-STRENGTH FILTER FABRIC (MIRAFI 700X OR EQUAL) AND FOUR (4') POST SPACING IS USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF NOTE 5 APPLYING.
7. THE TRENCH SHALL BE BACKFILLED WITH NATIVE SOIL OR 3/4" -1.5" WASHED ROCK.
8. FILTER FABRIC FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED. THE NEWLY DISTURBED AREAS RESULTING FROM SILT FENCE REMOVAL SHALL BE IMMEDIATELY SEEDED AND MULCHED, OR OTHERWISE PERMANENTLY STABILIZED TO THE SATISFACTION OF THE CIVIL INSPECTOR.
9. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
10. MAINTENANCE: ANY DAMAGED OR CLOGGED FENCE SHALL BE REPAIRED/REPLACED IMMEDIATELY. SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT DEPTH IS 6 INCHES OR GREATER. IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT TRAP OR POND.

3 SILT FENCE

SCALE: 1/2" = 1'-0"



NOTES:
1. INSERT SHALL BE INSTALLED PRIOR TO CLEARING AND GRADING ACTIVITY OR UPON PLACEMENT OF A NEW CATCH BASIN.
2. SEDIMENT SHALL BE REMOVED FROM THE UNIT WHEN IT BECOMES HALF FULL.
3. SEDIMENT REMOVAL SHALL BE ACCOMPLISHED BY REMOVING THE INSERT, EMPTYING, AND RE-INSERTING INTO THE CATCH BASIN.

4 CATCH BASIN INSERT

SCALE: NTS

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250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

DENNIS M. TITUS — STATE OF WASHINGTON — 22801 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

06/01/19

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NGUYEN RESIDENCE SLOPE STABILIZATION
652 W LAKE SAMMAMISH PKWY NE
BELLEVUE, WA 98008

TEMPORARY EROSION CONTROL PLAN & DETAILS

FILE NAME:

SHEET:

C2.1

STRUCTURAL NOTES

(THESE NOTES ARE TYPICAL UNLESS NOTED OR DETAILED OTHERWISE ON DRAWINGS)

CODE

ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE INTERNATIONAL BUILDING CODE (IBC), 2015 EDITION. SPECIFICATIONS AND STANDARDS WHERE REFERENCED ON THE DRAWINGS ARE TO BE THE LATEST EDITION.

DESIGN LOADS

REFER TO PRESSURE DIAGRAM

STATEMENT OF SPECIAL INSPECTIONS

SPECIAL INSPECTIONS ARE REQUIRED AS INDICATED IN THE FOLLOWING TABLE. THE CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND OWNER PRIOR TO COMMENCEMENT OF WORK IN ACCORDANCE WITH CHAPTER 1704.4 OF THE IBC.

CONCRETE CONSTRUCTION - SPECIAL INSPECTION IS REQUIRED IN CONFORMANCE WITH IBC SECTION 1705.3 AND TABLE 1705.3.

STRUCTURAL OBSERVATION OF THE STRUCTURAL SYSTEM BY THE ENGINEER IS NOT REQUIRED.

FREQUENCY AND DISTRIBUTION OF REPORTS - INSPECTION REPORTS SHALL BE PROVIDED FOR EACH DAY ON SITE BY SPECIAL INSPECTOR. STRUCTURAL OBSERVATION REPORTS SHALL BE PROVIDED AFTER EACH OBSERVATION. REPORTS SHALL BE DISTRIBUTED TO THE CONTRACTOR, ARCHITECT, ENGINEER AND BUILDING OFFICIAL.

SPECIAL INSPECTION

OPERATION	CONT	PERIODIC	REMARKS
SOILS			
PIPE PILING INSTALLATION	X		GEOTECH ENGINEER
ANCHOR INSTALLATION	X		GEOTECH ENGINEER
ANCHOR LOAD TEST	X		GEOTECH ENGINEER
CONCRETE			
REINFORCING PLACEMENT		X	
SHOTCRETE TEST SPECIMENS	X		
SHOTCRETE PLACEMENT	X		

NOTE:
ALL ITEMS MARKED WITH AN "X" SHALL BE INSPECTED IN ACCORDANCE WITH IBC CHAPTER 17. SPECIAL INSPECTION SHALL BE PERFORMED BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE OWNER. THE ARCHITECT, STRUCTURAL ENGINEER, AND BUILDING OFFICIAL SHALL BE FURNISHED WITH COPIES OF ALL RESULTS. ANY INSPECTION FAILING TO MEET THE PROJECT SPECIFICATIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE DESIGN TEAM.

SHOP DRAWINGS

SHOP DRAWINGS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION:

1. GROUTED ANCHORS

SHOP DRAWINGS SHALL BE REVIEWED, REVISED AS REQUIRED FOR FIELD CONDITIONS, AND DATE STAMPED BY THE CONTRACTOR PRIOR TO REVIEW BY THE ENGINEER. CONTRACTOR SHALL PROVIDE (3) SETS OF SHOP DRAWINGS FOR ENGINEER'S REVIEW. ALLOW TWO WEEKS FOR SHOP DRAWING APPROVAL BY ENGINEER.

ENGINEER'S SHOP DRAWING REVIEW IS FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT AND CONTRACT DOCUMENTS. MARKINGS OR COMMENTS SHALL NOT BE CONSTRUED AS RELIEVING THE CONTRACTOR FROM COMPLIANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. THE CONTRACTOR REMAINS RESPONSIBLE FOR DETAILS AND ACCURACY, FOR CONFORMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS, FOR SELECTING FABRICATION PROCESSES, FOR TECHNIQUES OF ASSEMBLY, AND FOR PERFORMING THE WORK IN A SAFE MANNER.

ENGINEER'S SHOP DRAWING REVIEW OF STRUCTURAL COMPONENTS DESIGNED BY OTHERS IS FOR LOADS IMPOSED ON THE BASIC STRUCTURE. THE COMPONENT DESIGNER IS RESPONSIBLE FOR CODE CONFORMANCE AND ALL CONNECTIONS TO THE BASIC STRUCTURE. SHOP DRAWINGS SHALL INDICATE MAGNITUDE AND DIRECTION OF THE LOADS IMPOSED ON THE BASIC STRUCTURE AND SHALL BE STAMPED & SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE SAME STATE AS THE PROJECT.

FABRICATION SHALL BEGIN ONLY AFTER SHOP DRAWINGS BEARING THE STAMP AND SIGNATURE OF THE PROJECT ARCHITECT, ENGINEER OF RECORD, AND CONTRACTOR HAVE BEEN RECEIVED.

FOUNDATIONS: PIN PILES

SOILS REPORT: REPORT NO: 1001717
PREPARED BY: NELSON GEOTECHNICAL
DATED: 02/15/2018

SOILS REPORT: REPORT NO: 10017B18
PREPARED BY: NELSON GEOTECHNICAL
DATED: 07/11/2018

ALLOWABLE PILE CAPACITY: 2.5 TONS

LATERAL EARTH PRESSURE: SEE PRESSURE DIAGRAM

IMPORTED STRUCTURAL FILL AND BACKFILL MATERIAL SHOULD CONSIST OF CLEAN, WELL GRADED GRANULAR MATERIAL FREE OF DEBRIS OR ORGANICS WITH A MAXIMUM PARTICLE DIAMETER OF THREE INCHES AND NO MORE THAN 10% FINES (PASSING THE #200 SIEVE).

FILL AND BACKFILL MATERIAL SHOULD BE PLACED IN LEVEL LIFTS NOT EXCEEDING TWELVE (12") INCHES IN LOOSE THICKNESS AND COMPACTED TO A MINIMUM OF 95% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM TEST METHOD D1557-00.

BACKFILL BEHIND ALL RETAINING WALLS WITH WELL-DRAINING, GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE. PROVIDE DAMPPROOFING AT EXTERIOR FACE OF ALL FOUNDATION WALLS EXPOSED TO EARTH PER ARCHITECTURAL SPECIFICATIONS.

EXCAVATIONS AND DRAINAGE INSTALLATION SHALL BE OBSERVED BY A SOILS ENGINEER RETAINED BY THE OWNER. IF EXCAVATION SHOWS SOIL CONDITIONS TO BE OTHER THAN THOSE ASSUMED ABOVE, NOTIFY THE STRUCTURAL ENGINEER FOR POSSIBLE FOUNDATION REDESIGN.

2"Ø PIPE PILING INSTALLATION

2" XS PIPE SHALL CONFORM TO ASTM A53 GRADE A OR B, FY = 30 KSI (MIN)

PILES SHALL BE DRIVEN THROUGH LOOSE MATERIAL & BEAR IN COMPETENT DENSE SOIL AS DETERMINED BY THE GEOTECHNICAL SPECIAL INSPECTOR. PILES SHALL HAVE A MINIMUM OVERALL EMBEDMENT OF 10 FEET OR AS DETERMINED ADEQUATE BY THE GEOTECHNICAL SPECIAL INSPECTOR. PILES SHALL NOT EXCEED A MAXIMUM EMBEDMENT DEPTH OF 30 FEET.

PIPE PILING SHALL BE DRIVEN INTO THE SUBGRADE TO A POINT OF REFUSAL BY MEANS OF A PNEUMATIC HAMMER OR OTHER SIMILAR HYDRAULIC HAMMER SYSTEM. THE PNEUMATIC HAMMER SHOULD WEIGH AT LEAST 140 POUNDS. REFUSAL SHALL BE DEFINED AS 1" OR LESS OF PENETRATION DURING 1 MINUTE OF SUSTAINED DRIVING. PIPE SECTIONS SHALL BE CONNECTED WITH INTERNAL SLIP COUPLINGS.

THE CONTRACTOR SHALL LOCATE AND PROTECT ALL UTILITIES DURING CONSTRUCTION AND SHALL CONTACT THE UNDERGROUND UTILITIES LOCATION SERVICE (1-800-424-5555) AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY ALL UTILITIES WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THESE DRAWINGS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY AND ALL DAMAGE TO UNDERGROUND UTILITIES RESULTING FROM THEIR OPERATION.

CONCRETE

ALL CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED, AND PLACED IN ACCORDANCE WITH SECTION CHAPTER 5 OF ACI 318 AND THE AMERICAN CONCRETE INSTITUTE'S SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS (ACI 301).

ALL CONCRETE SHALL BE STONE-AGGREGATE CONCRETE HAVING A UNIT WEIGHT OF APPROXIMATELY 150 POUNDS PER CUBIC FOOT.

CONCRETE STRENGTHS AT 28 DAYS (f'c) AND MIX CRITERIA SHALL BE AS FOLLOWS:

TYPE OF CONSTRUCTION	f'c	MAXIMUM WATER/CEMENT RATIO	MIN CEMENT CONTENT PER CUBIC YARD	MAXIMUM SHRINKAGE STRAIN
WALLS	4000 PSI	0.45	5 1/2 SACK	N/A
ALL OTHER CONC	4000 PSI	0.45	5 SACK	N/A

THE MINIMUM AMOUNT OF CEMENT LISTED ABOVE MAY BE CHANGED IF A CONCRETE PERFORMANCE MIX IS SUBMITTED TO THE ENGINEER AND THE BUILDING DEPARTMENT FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE. THE PERFORMANCE MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, FINE AND COARSE AGGREGATE, WATER, AND ADMIXTURES AS WELL AS THE WATER-CEMENT RATIO, SLUMP, CONCRETE YIELD, AND SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH CHAPTER 5 OF ACI 318.

ALL CONCRETE EXPOSED TO WEATHER OR TO FREEZING TEMPERATURES SHALL BE AIR-ENTRAINED IN ACCORDANCE WITH ACI 318 TABLE 4.2.1 FOR MODERATE EXPOSURE CONDITION.

REINFORCING STEEL

REINFORCING STEEL SHALL BE DEFORMED BILLET STEEL CONFORMING TO ASTM A615, AND SHALL BE GRADE 60 (Fy = 60,000 PSI), UNLESS NOTED OTHERWISE. GRADE 60 REINFORCING BARS INDICATED ON DRAWINGS TO BE WELDED SHALL CONFORM TO ASTM A706. REINFORCING COMPLYING WITH ASTM A615 MAY BE WELDED IF MATERIAL PROPERTY REPORTS INDICATING CONFORMANCE WITH WELDING PROCEDURES SPECIFIED IN AWS D1.4 ARE SUBMITTED.

WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185. PROVIDE WELDED WIRE FABRIC IN SHEETS NOT ROLLS. LAP WELDED WIRE FABRIC 12" AT SIDES AND ENDS.

REINFORCING STEEL SHALL BE DETAILED INCLUDING HOOKS AND BENDS IN ACCORDANCE WITH SP-66 AND ACI 318R, LATEST EDITIONS. UNLESS OTHERWISE NOTED, REINFORCING SPLICE LENGTHS AND DEVELOPMENT LENGTHS SHALL BE PER SCHEDULE.

REINFORCING SHALL BE PLACED AND ADEQUATELY SUPPORTED PRIOR TO PLACING CONCRETE. WET-SETTING EMBEDDED ITEMS IS NOT ALLOWED WITHOUT PRIOR ENGINEER APPROVAL. BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL NOT BE FIELD BENT UNLESS SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER. REFER TO CHAPTER 7 OF ACI 318 FOR OTHER REINFORCING STEEL REQUIREMENTS.

MINIMUM LAPS AND EMBEDMENT

UNLESS OTHERWISE NOTED, REINFORCING SPLICE LENGTHS AND DEVELOPMENT LENGTHS SHALL BE AS TABULATED BELOW:

BAR SIZE	f'c = 4000 PSI					
	DEVELOPMENT LENGTH			LAP SPLICE		
	TENSION		COMPRESSION	TENSION		COMPRESSION
	TOP BARS	OTHER BARS	ALL BARS	TOP BARS	OTHER BARS	ALL BARS
#3	19	15	8	24	19	12
#4	25	19	10	33	25	15

NOTE:
1. ALL LENGTHS ARE IN INCHES.
2. ALL LAP SPLICES ARE CLASS B.
3. "TOP BARS" ARE HORIZONTAL REINFORCEMENT PLACED SUCH THAT MORE THAN 12 INCHES OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.

CONCRETE COVER ON REINFORCING

CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"

CONCRETE EXPOSED TO EARTH AND WEATHER:
#5 BARS AND SMALLER 1 1/2"

CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
SLABS, WALLS AND JOISTS 3/4"
COLUMN TIES OR SPIRALS AND BEAM STIRRUPS 1 1/2"

CONCRETE GENERAL NOTES

VERTICAL BARS SHALL START FROM TOP OF FOOTING. HORIZONTAL BARS SHALL START A DISTANCE OF 1/2 THE NORMAL BAR SPACING FROM TOP OF FOOTING AND TOP OF FRAMED SLABS. IN ADDITION, THERE SHALL BE A HORIZONTAL BAR AT A MAXIMUM OF 3" FROM TOP OF WALL AND BOTTOM OF FRAMED SLABS.

ALL CONSTRUCTION JOINTS SHALL BE THOROUGHLY CLEANED AND PROPERLY PREPARED IMMEDIATELY PRIOR TO POURING OF CONCRETE. DOWEL STEEL SHALL BE THE SAME SIZE AND SPACING AS MAIN REINFORCING DETAILED BEYOND JOINT.

PROVIDE CONTROL OR CONSTRUCTION JOINTS IN SLABS ON GRADE TO BREAK UP SLAB INTO RECTANGULAR AREAS OF NOT MORE THAN 400 SQUARE FEET EACH. AREAS TO BE AS SQUARE AS PRACTICAL AND HAVE NO ACUTE ANGLES. JOINT LOCATIONS TO BE APPROVED BY THE ARCHITECT.

SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND DIMENSIONS OF OPENINGS IN CONCRETE WALLS, FLOORS AND ROOF. UNLESS INDICATED OTHERWISE, REINFORCE AROUND OPENINGS GREATER THAN 12" IN EITHER DIRECTION WITH (2) #5 EACH SIDE AND (1) #5 x 4'-0" DIAGONAL AT EACH CORNER. EXTEND BARS 2'-0" BEYOND EDGE OF OPENING. IF 2'-0" IS UNAVAILABLE, EXTEND AS FAR AS POSSIBLE AND HOOK. HOOK ALL REINFORCING INTERRUPTED BY OPENINGS.

BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL NOT BE FIELD BENT UNLESS SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER.

SEE ARCHITECTURAL DRAWINGS FOR ALL GROOVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE AND OTHER FINISH DETAILS AT ALL EXPOSED CONCRETE SURFACES. PROVIDE 3/4" CHAMFER AT ALL CORNERS EXCEPT AS NOTED.

UTILITY LOCATION/EXISTING CONDITIONS

THE LOCATIONS OF EXISTING UTILITIES AND SITE FEATURES SHOWN HEREON HAVE BEEN FURNISHED BY OTHERS BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN AND TO FURTHER DISCOVER AND PROTECT ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN. CG ENGINEERING ASSUMES NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF THE EXISTING UTILITIES AND SITE FEATURES PRESENTED ON THESE DRAWINGS.

CONTRACTOR SHALL LOCATE AND PROTECT ALL UTILITIES DURING CONSTRUCTION AND SHALL CONTACT THE UNDERGROUND UTILITIES LOCATION SERVICE (1-800-424-5555) AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE PROJECT SITE BEFORE STARTING WORK AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

IF THE ACTUAL FIELD VERIFIED LOCATION OF UTILITIES COULD RESULT IN A CONFLICT WITH THE SHORING, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.

PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY THAT OVERHEAD OBSTRUCTIONS, INCLUDING ELECTRICAL LINES, DO NOT INTERFERE WITH USE OF THE CONTRACTOR'S DRILLING EQUIPMENT.

COORDINATE AND ARRANGE FOR ALL UTILITY RELOCATIONS AND/OR SERVICE INTERRUPTIONS WITH THE AFFECTED OWNERS AND APPROPRIATE UTILITY COMPANIES. INTERRUPTIONS TO EXISTING UTILITIES SHALL BE MADE ONLY WITH THE WRITTEN APPROVAL OF THE AUTHORITIES GOVERNING SAID UTILITIES AND WITH A MINIMUM 48 HOURS ADVANCE NOTICE.

EXISTING UTILITY LINES IN SERVICE WHICH ARE DAMAGED DUE TO CONSTRUCTION WORK SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE AND INSPECTED AND ACCEPTED BY OWNER'S REPRESENTATIVE PRIOR TO BACKFILLING.

EROSION AND SEDIMENTATION CONTROL

ALL DISTURBED SOIL AREAS SHALL BE SEEDED OR STABILIZED BY OTHER ACCEPTABLE METHODS FOR THE PREVENTION OF ON-SITE EROSION AFTER THE COMPLETION OF CONSTRUCTION.

THE CONTRACTOR SHALL KEEP OFF-SITE STREETS CLEAN AT ALL TIMES BY SWEEPING. WASHING OF STREETS WILL NOT BE ALLOWED WITHOUT PRIOR APPROVAL.

REFER TO CIVIL DRAWINGS FOR ADDITIONAL EROSION CONTROL INFORMATION.

TEMPORARY SHORING

CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL INSTALL AND MAINTAIN TEMPORARY SHORING AND BRACING IN ADDITION TO SHORING SHOWN ON THESE PLANS AS NECESSARY TO PROTECT WORKERS, EXISTING BUILDINGS, STREETS, WALKWAYS, UTILITIES AND OTHER EXISTING AND PROPOSED IMPROVEMENTS AND EXCAVATIONS AGAINST LOSS OF GROUND OR CAVING EMBANKMENTS. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR REMOVAL OF ANY TEMPORARY SHORING AND BRACING, AS REQUIRED.

ANCHOR/GROUT

ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 19 OF THE INTERNATIONAL BUILDING CODE. CONCRETE STRENGTHS SHALL BE VERIFIED BY 28-DAY STANDARD CYLINDER TESTS, UNLESS APPROVED OTHERWISE. GROUT STRENGTHS SHALL BE VERIFIED BY 2-INCH CUBE TESTS PER ASTM C109.

CONCRETE MIX DESIGNS SHALL CONFORM TO THE UNIFORM BUILDING CODE. COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE AS FOLLOWS:

GROUTED ANCHOR
GROUTED ANCHOR f'c = 3000 PSI MIN

GROUTED ANCHORS

GROUTED ANCHORS SHALL BE MANUFACTURED BY DYWIDAG SYSTEMS INTERNATIONAL OR ENGINEER APPROVED EQUAL. ANCHORS SHALL BE FACTORY DOUBLE CORROSION PROTECTED. REFER TO ANCHOR SCHEDULE FOR GROUTED DIAMETER AND ANCHOR ROD DIAMETER.

ANCHOR RODS SHALL CONFORM TO ASTM A722, fu = 150 KSI

ALL ANCHORS SHALL BE LOCKED OFF PER THE ANCHOR SCHEDULE

STRUCTURAL STEEL

STRUCTURAL STEEL DESIGN, FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", LATEST EDITION.

SHAPES SHALL CONFORM TO ASTM A992, Fy = 50 KSI.

PLATES, ANGLES, AND RODS SHALL CONFORM TO ASTM A36, Fy = 36 KSI.

STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B, Fy = 46 KSI.

STEEL PIPE SHALL CONFORM TO ASTM A53 GRADE B, Fy = 35 KSI.

BOLTS CONNECTING STEEL MEMBERS SHALL CONFORM TO ASTM A325-N. BOLTS SHALL BE 3/4"Ø MINIMUM, UNO ANCHOR BOLTS SHALL CONFORM TO ASTM A307.

CONTRACTOR SHALL PROVIDE CONNECTION ADJUSTMENT TOLERANCES TO SATISFY THE REQUIREMENTS OF AISC MANUAL OF STEEL CONSTRUCTION.

UNLESS SPECIFIED AS STAINLESS STEEL, ALL STEEL MEMBERS, SHAPES, BOLTS, AND ACCESSORIES EXPOSED TO WEATHER SHALL BE HOT DIP GALVANIZED.

WELDING

WELDING SHALL CONFORM TO AWS "STRUCTURAL WELDING CODE", LATEST EDITION. ALL WELDING SHALL BE DONE WITH 70 KSI LOW HYDROGEN ELECTRODES. WHERE NOT CALLED OUT, MINIMUM FILLET WELD SIZE SHALL BE PER TABLE 5.8 IN AWS D1.1, LATEST EDITION.

WELDING OF REINFORCING BARS SHALL NOT BE PERMITTED UNLESS SPECIFICALLY CALLED OUT ON DRAWINGS OR APPROVED BY STRUCTURAL ENGINEER. WELDING OF GRADE 60 REINFORCING BARS SHALL BE PERFORMED USING LOW HYDROGEN ELECTRODES. WELDING OF GRADE 40 REINFORCING BARS SHALL BE PERFORMED USING E70XX ELECTRODES. SEE REINFORCING NOTES FOR MATERIAL REQUIREMENTS OF WELDED BARS. WELDING WITHIN 4" OF COLD BENDS IN REINFORCING BARS IS NOT PERMITTED.

ALL WELDING SHALL BE DONE BY WASHINGTON ASSOCIATION OF BUILDING OFFICIALS (WABO) CERTIFIED WELDERS.

ANCHOR TESTING

EACH GROUND ANCHOR SHALL BE TESTED. THE MAXIMUM TEST LOAD SHALL NOT EXCEED THE MANUFACTURER RECOMMENDED MAXIMUM LOAD. TENDON ANCHORS SHALL BE LOADED SIMULTANEOUSLY TO THE ENTIRE TENDON. STRESSING OF A SINGLE ELEMENT OF MULTI-ELEMENT TENDONS WILL NOT BE PERMITTED.

A DIAL GAUGE OR VERNIER SCALE CAPABLE OF MEASURING TO 0.001 INCHES SHALL BE USED TO MEASURE THE GROUND ANCHOR MOVEMENT. THE MOVEMENT MEASURING DEVICE SHALL HAVE A MINIMUM TRAVEL EQUAL TO THE THEORETICAL ELASTIC ELONGATION OF THE TOTAL ANCHOR LENGTH AT THE MAXIMUM TEST LOAD PLUS 1 INCH. THE DIAL GAUGE OR VERNIER SCALE SHALL BE SUPPORTED INDEPENDENT OF THE JACKING SYSTEM & RETAINED STRUCTURE & SHALL BE ALIGNED SO THAT ITS AXIS IS WITHIN 5° FROM THE AXIS OF THE GROUND ANCHOR.

A HYDRAULIC JACK OR RAM SHALL BE USED TO APPLY THE TEST LOAD. THE JACK & PRESSURE GAUGE SHALL BE CALIBRATED BY AN INDEPENDENT TESTING LABORATORY AS A UNIT. THE PRESSURE GAUGE SHALL BE GRADUATED IN 100 PSI INCREMENTS OR LESS. THE RAM TRAVEL OF THE JACK SHALL NOT BE LESS THAN THE THEORETICAL ELASTIC ELONGATION OF THE TOTAL ANCHOR LENGTH AT THE MAXIMUM TEST LOAD PLUS 1 INCH. THE JACK SHALL BE INDEPENDENTLY SUPPORTED & CENTERED OVER THE ANCHOR SO THAT THE ANCHOR DOES NOT CARRY THE WEIGHT OF THE JACK.

ANCHOR LOAD TEST

AT LEAST (2) ANCHOR SHALL BE PERFORMANCE TESTED TO 200% OF THE DESIGN LOAD. ANCHORS TO BE TESTED SHALL BE SELECTED BY THE GEOTECHNICAL ENGINEER. ADDITIONAL ANCHOR TESTS MAY BE REQUIRED AT THE REQUEST OF THE GEOTECHNICAL SPECIAL INSPECTOR. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF WHALERS IF REQUIRED TO LIMIT PILE DEFLECTION DURING TESTING. THE PERFORMANCE TEST SHALL BE COMPLETED BY INCREMENTALLY LOADING THE GROUND ANCHOR IN ACCORDANCE WITH THE FOLLOWING TABLE.

ANCHOR LOADING		ANCHOR UNLOADING	
LOAD	HOLD TIME	LOAD	HOLD TIME
ALIGNMENT LOAD	1 MINUTE	150% DESIGN LOAD	UNTIL STABLE
50% DESIGN LOAD	5 MINUTES	100% DESIGN LOAD	UNTIL STABLE
100% DESIGN LOAD	5 MINUTES	50% DESIGN LOAD	UNTIL STABLE
150% DESIGN LOAD	5 MINUTES	ALIGNMENT LOAD	UNTIL STABLE
200% DESIGN LOAD	60 MINUTES		

THE ALIGNMENT LOAD (AL) SHOULD BE THE MINIMUM LOAD REQUIRED TO ALIGN THE TESTING APPARATUS & SHOULD NOT EXCEED 5% OF THE DESIGN LOAD. DIAL GAUGES SHOULD BE SET TO ZERO AFTER THE ALIGNMENT LOAD HAS BEEN APPLIED.

A CREEP TEST SHALL BE PERFORMED DURING THE 200% DL HOLD TIME. ANCHOR MOVEMENT DURING THE CREEP TEST SHALL BE MEASURED & RECORDED AT 1, 2, 3, 5, 6, 10, 20, 30, 40, 50 & 60 MINUTES OF ELAPSED TIME FROM WHEN THE LOAD INCREMENT WAS APPLIED.

ANCHOR PROOF TEST

ALL OTHER ANCHORS SHALL BE PROOF TESTED TO 130% OF THE DESIGN LOAD BY INCREMENTALLY LOADING THE ANCHORS IN ACCORDANCE WITH THE FOLLOWING SCHEDULE. AT LOAD INCREMENTS OTHER THAN THE MAXIMUM TEST LOAD THE LOAD SHALL BE HELD LONG ENOUGH TO OBTAIN A STABLE READING.

ANCHOR LOADING	
LOAD	HOLD TIME
50% DESIGN LOAD	UNTIL STABLE
100% DESIGN LOAD	UNTIL STABLE
130% DESIGN LOAD	10 MINUTES

THE ALIGNMENT LOAD (AL) SHOULD BE THE MINIMUM LOAD REQUIRED TO ALIGN THE TESTING APPARATUS & SHOULD NOT EXCEED 5% OF THE DESIGN LOAD. DIAL GAUGES SHOULD BE SET TO ZERO AFTER THE ALIGNMENT LOAD HAS BEEN APPLIED.

THE MAXIMUM TEST LOAD SHALL BE HELD PER THE SCHEDULE. THE LOAD HOLD PERIOD SHALL START AS SOON AS THE MAXIMUM TEST LOAD IS APPLIED & THE ANCHOR MOVEMENT SHALL BE RECORDED AT 1, 2, 3, 5, 6, & 10 MINUTES. IF THE TOTAL ANCHOR MOVEMENT EXCEEDS 0.04 INCHES, THE MAXIMUM TEST LOAD SHALL BE HELD FOR AN ADDITIONAL 50 MINUTES & ANCHOR MOVEMENT SHALL BE RECORDED AT 20, 30, 50 & 60 MINUTES. IF ANCHOR FAILS IN CREEP, RETESTING WILL NOT BE ALLOWED.

ACCEPTABLE ANCHOR TESTS

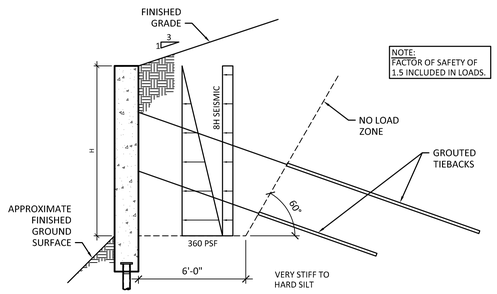
A LOAD TESTED OR PROOF TESTED ANCHOR WITH A 10 MINUTE HOLD CREEP TEST IS CONSIDERED ACCEPTABLE WHEN: THE ANCHOR CARRIES THE MAXIMUM TEST LOAD WITH LESS THAN 0.04" OF MOVEMENT BETWEEN THE 1 & 10 MINUTE READINGS.

A LOAD TEST OR PROOF TESTED ANCHOR WITH A 60 MINUTE HOLD CREEP TEST IS CONSIDERED ACCEPTABLE WHEN: THE ANCHOR CARRIES THE MAXIMUM TEST LOAD WITH LESS THAN 0.08" OF MOVEMENT PER LOG CYCLE OF THE TIME & THE CREEP RATE IS LINEAR OR DECREASING.

IN ADDITION TO THE ABOVE, A TESTED ANCHOR SHALL NOT EXPERIENCE A PULLOUT FAILURE AT THE MAXIMUM TEST LOAD. A PULLOUT FAILURE IS DEFINED AS THE LOAD AT WHICH ATTEMPTS TO INCREASE THE TEST LOAD RESULT IN CONTINUED PULLOUT MOVEMENT OF THE TEST ANCHOR.

ANCHORS THAT HAVE CREEP RATES GREATER THAN SPECIFIED CAN BE INCORPORATED IN THE FINISHED WORK AT A LOAD EQUAL TO 1/2 OF THE FAILURE LOAD. THE FAILURE LOAD IS THE MAXIMUM LOAD CARRIED BY THE ANCHOR AFTER THE LOAD HAS BEEN ALLOWED TO STABILIZE FOR 10 MINUTES.

IF AN ANCHOR FAILS, THE CONTRACTOR SHALL BE RESPONSIBLE TO MODIFY THE DESIGN AND/OR THE INSTALLATION METHODS USED IN CONSTRUCTION. ANY MODIFICATIONS BY THE CONTRACTOR THAT REQUIRE CHANGES TO THE STRUCTURE SHALL HAVE PRIOR APPROVAL PER THE ENGINEER.



1 EARTH PRESSURE DIAGRAM
SCALE: NTS

CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

DENNIS M. TYTUS — STATE OF WASHINGTON — 22001 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
04/22/19

MARK	DATE	DESCRIPTION
	10/05/18	EMERGENCY PERMIT SUBMITTAL
	04/22/19	PERMIT SUBMITTAL

DESIGN: MBB
DRAWN: JCP
CHECK: DMT
JOB NO: 18149.10
DATE: 04/22/19

NGUYEN RESIDENCE SLOPE STABILIZATION
652 W LAKE SAMMAMISH PKWY NE
BELLEVUE, WA 98008

SHORING NOTES

FILE NAME:

SHEET:
SH1.1

STRUCTURAL NOTES

(THESE NOTES ARE TYPICAL UNLESS NOTED OR DETAILED OTHERWISE ON DRAWINGS)

PROCEDURE/CONSTRUCTION SEQUENCING:

PRECONSTRUCTION MEETING

CONTRACTOR SHALL CALL THE ENGINEERING INSPECTION LINE TO SET UP A PRECONSTRUCTION MEETING PRIOR TO ANY SITE WORK.

DRIVE PILES

CONTRACTOR SHALL DRIVE PILES PER THE STRUCTURAL NOTES AND DRAWINGS AND THE GEOTECHNICAL ENGINEERING REPORT.

GROUTED ANCHOR TIEBACKS

CONTRACTOR SHALL INSTALL AND TEST GROUTED ANCHOR TIEBACKS PER THE STRUCTURAL NOTES AND DRAWINGS AND THE GEOTECHNICAL ENGINEERING REPORT.

SHOTCRETE

CONTRACTOR SHALL INSTALL AND TEST SHOTCRETE PER THE STRUCTURAL NOTES & DRAWINGS.

EXCAVATIONS SHALL NOT REMAIN UNLAGGED OVERNIGHT.

GENERAL

STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS FOR COMPATIBILITY BEFORE PROCEEDING. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING.

CONTRACTOR TO SEE ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATION OF PIPE, VENT, DUCT AND OTHER OPENINGS AND DETAILS NOT SHOWN ON THESE DRAWINGS.

CONTRACTOR SHALL BE RESPONSIBLE FOR ERECTION STABILITY AND TEMPORARY SHORING AS NECESSARY UNTIL PERMANENT SUPPORT AND STIFFENING ARE INSTALLED.

CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.

DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF A SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER.

SHOTCRETE NOTES

(THESE NOTES ARE TYPICAL UNLESS NOTED OR DETAILED OTHERWISE ON DRAWINGS)

GENERAL NOTES

ALL SHOTCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE IBC SECTION 1908, AMERICAN CONCRETE INSTITUTE (ACI) 506R-05 GUIDE TO SHOTCRETE, ACI 5-6.2-95 SPECIFICATIONS FOR SHOTCRETE, AND ACI 506.4R-94 GUIDE FOR THE EVALUATION OF SHOTCRETE.

A PRE-CONSTRUCTION MEETING WITH THE CONTRACTOR, SPECIAL INSPECTOR, AND BUILDING OFFICIAL IS REQUIRED TO DISCUSS AND REVIEW THE SHOTCRETE PROCEDURES, WHICH SHALL INCLUDE THE LIFT HEIGHT, NOZZLER APPROVAL, NOZZLER'S ASSISTANT (BLOW PIPE OPERATOR) APPROVAL, EQUIPMENT, METHOD OF TAKING COMPRESSION TEST SAMPLES, DESIGN MIX, SLUMP, AND PRE-CONSTRUCTION TESTING.

ANY SHOTCRETE COMPRISED OF COARSE AGGREGATE SHALL NOT USE COARSE AGGREGATE EXCEEDING 3/4 INCH.

ANY REBOUND OR ACCUMULATED LOOSE AGGREGATE SHALL BE REMOVED FROM THE SURFACES TO BE COVERED PRIOR TO PLACING THE INITIAL OR ANY SUCCEEDING LAYERS OF SHOTCRETE. REBOUND SHALL NOT BE USED AS AGGREGATE.

UNFINISHED WORK SHALL NOT BE ALLOWED TO STAND FOR MORE THAN 30 MINUTES UNLESS EDGES ARE SLOPED TO A THIN EDGE. BEFORE PLACING ADDITIONAL MATERIAL ADJACENT TO PREVIOUSLY APPLIED WORK, SLOPING AND SQUARE EDGES SHALL BE CLEANED AND WETTED.

IN-PLACE SHOTCRETE THAT EXHIBITS SAGS, SLOUGHS, SEGREGATION, HONEYCOMBING, SAND POCKETS OR OTHER OBVIOUS DEFECTS SHALL BE REMOVED AND REPLACED. SHOTCRETE ABOVE SAGS AND SLOUGHS SHALL BE REMOVED AND REPLACED WHILE STILL PLASTIC.

SHOTCRETE SHALL BE KEPT CONTINUOUSLY MOIST FOR 24 HOURS AFTER SHOTCRETING IS COMPLETE OR SHALL BE SEALED WITH AN APPROVED CURING COMPOUND. FINAL CURING SHALL CONTINUE FOR SEVEN DAYS AFTER SHOTCRETING, OR FOR THREE DAYS IF HIGH-EARLY-STRENGTH CEMENT IS USED, OR UNTIL THE SPECIFIED STRENGTH IS OBTAINED.

WHERE IT WILL TAKE MORE THAN ONE 8 HOUR WORK DAY TO COMPLETE THE SHOTCRETE ON A PROJECT, MORE THAN ONE NOZZLER MAY BE REQUIRED TO PASS A MOCK-UP PANEL BEFORE THE SHOTCRETING MAY START. NO SHOTCRETE SHALL BE PLACED BY ANY PERSON OTHER THAN A NOZZLER PRE-QUALIFIED AND APPROVED FOR THE PROJECT. IF ONLY ONE NOZZLER IS APPROVED FOR THE PROJECT AND THAT PERSON IS UNABLE TO COMPLETE IT FOR ANY REASON, WORK SHALL STOP UNTIL ANOTHER NOZZLER IS APPROVED.

REINFORCING

REINFORCING BARS USED IN SHOTCRETE CONSTRUCTION SHALL USE NO. 5 OR SMALLER BARS. NO. 6 BARS AND LARGER MAY BE USED IF DEMONSTRATED THROUGH PRE-CONSTRUCTION TESTS THAT ADEQUATE ENCASEMENT OF LARGER BARS CAN BE ACHIEVED.

THE MINIMUM CLEARANCE BETWEEN PARALLEL REINFORCING SHALL BE 2 INCHES MINIMUM FOR NO. 5 OR SMALLER BARS; WHEN BARS LARGER THAN NO. 5 ARE PERMITTED, THE MINIMUM CLEARANCE BETWEEN PARALLEL BARS SHALL BE EQUAL TO SIX BAR DIAMETERS OF THE BAR BEING USED. WHEN TWO CURTAINS OF STEEL ARE PROVIDED, THE CURTAIN NEARER THE SHOTCRETE NOZZLE SHALL HAVE A MINIMUM SPACING EQUAL TO 12 BAR DIAMETERS AND THE REMAINING CURTAIN SHALL HAVE A MINIMUM SPACING OF SIX BAR DIAMETERS. LAP SPLICES OF REINFORCING BARS SHALL UTILIZE THE NONCONTACT LAP SPLICE METHOD WITH A MINIMUM CLEARANCE OF 2 INCHES BETWEEN BARS.

STRENGTH TESTS

STRENGTH TESTS FOR SHOTCRETE SHALL BE MADE BY AN APPROVED AGENCY ON SPECIMENS THAT ARE REPRESENTATIVE OF THE WORK AND WHICH HAVE BEEN WATER SOAKED FOR AT LEAST 24 HOURS PRIOR TO TESTING. WHEN THE MAXIMUM-SIZE AGGREGATE IS LARGER THAN 3/8 INCH, SPECIMENS SHALL CONSIST OF NOT LESS THAN THREE 3-INCH-DIAMETER CORES OR 3-INCH CUBES. WHEN THE MAXIMUM-SIZE AGGREGATE IS 3/8 INCH OR SMALLER, SPECIMENS SHALL CONSIST OF NOT LESS THAN 2-INCH-DIAMETER CORES OR 2-INCH CUBES. SPECIMENS SHALL BE TAKEN FROM THE IN-PLACE WORK OR FROM TEST PANELS, AND SHALL BE TAKEN AT LEAST ONCE EACH SHIFT, BUT NOT LESS THAN ONE FOR EACH 50 CUBIC YARDS OF SHOTCRETE.

WHEN THE MAXIMUM-SIZE AGGREGATE IS LARGER THAN 3/8 INCH, THE TEST PANELS SHALL HAVE MINIMUM DIMENSIONS OF 18 INCHES BY 18 INCHES. WHEN THE MAXIMUM SIZE AGGREGATE IS 3/8 INCH OR SMALLER, THE TEST PANELS SHALL HAVE MINIMUM DIMENSIONS OF 12 INCHES BY 12 INCHES. PANELS SHALL BE SHOT IN THE SAME POSITION AS THE WORK, DURING THE COURSE OF THE WORK AND BY THE NOZZLEMEN DOING THE WORK. THE CONDITIONS UNDER WHICH THE PANELS ARE CURED SHALL BE THE SAME AS THE WORK.

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04/22/19

MARK	DATE	DESCRIPTION
	10/05/18	EMERGENCY PERMIT SUBMITTAL
	04/22/19	PERMIT SUBMITTAL

DESIGN:	MBB
DRAWN:	JCP
CHECK:	DMT
JOB NO:	18149.10
DATE:	04/22/19

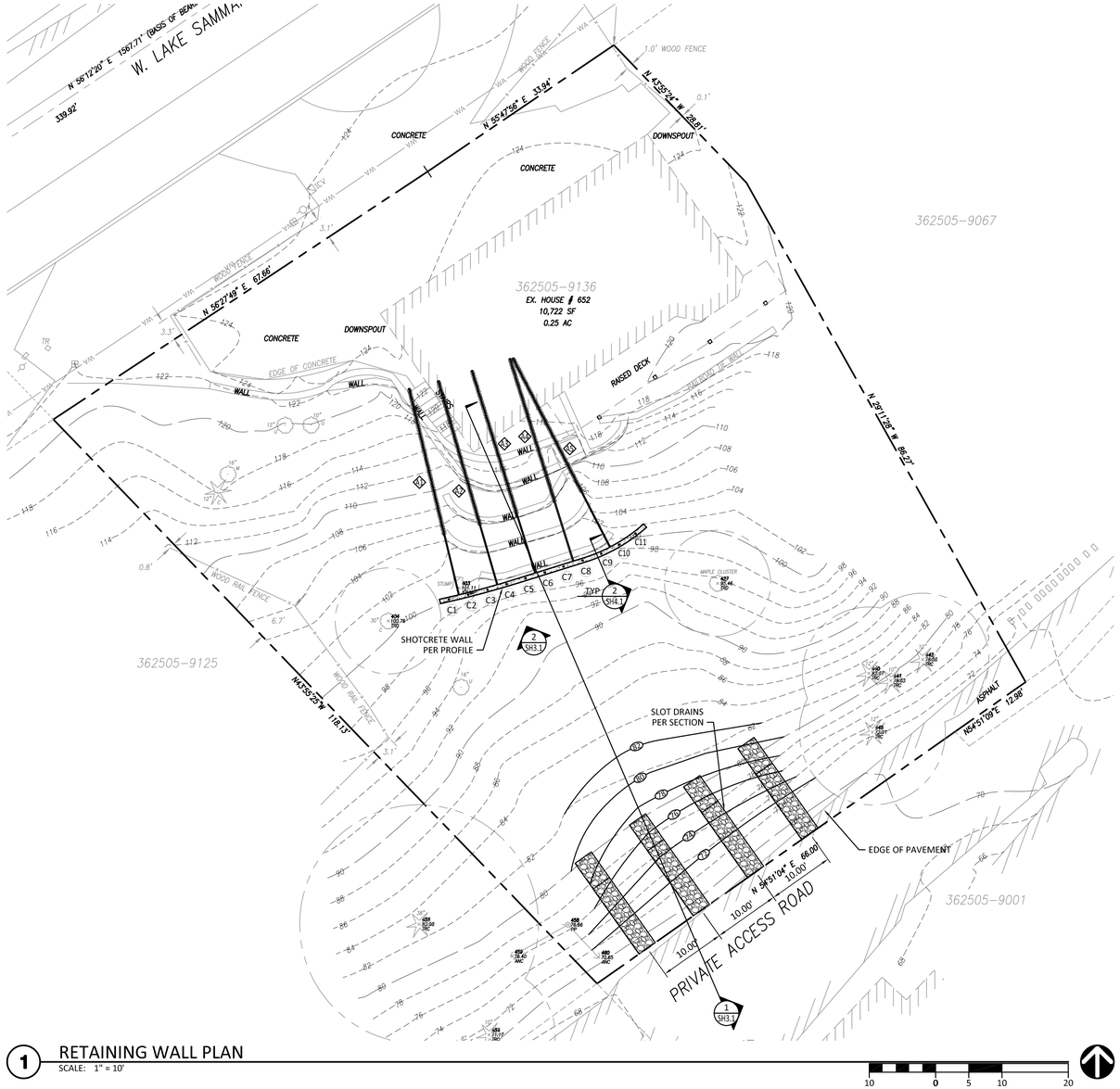
NGUYEN RESIDENCE SLOPE STABILIZATION
652 W LAKE SAMMAMISH PKWY NE
BELLEVUE, WA 98008

SHORING NOTES

FILE NAME:

SHEET:

SH1.2



1 RETAINING WALL PLAN
SCALE: 1" = 10'

10 0 5 10 20

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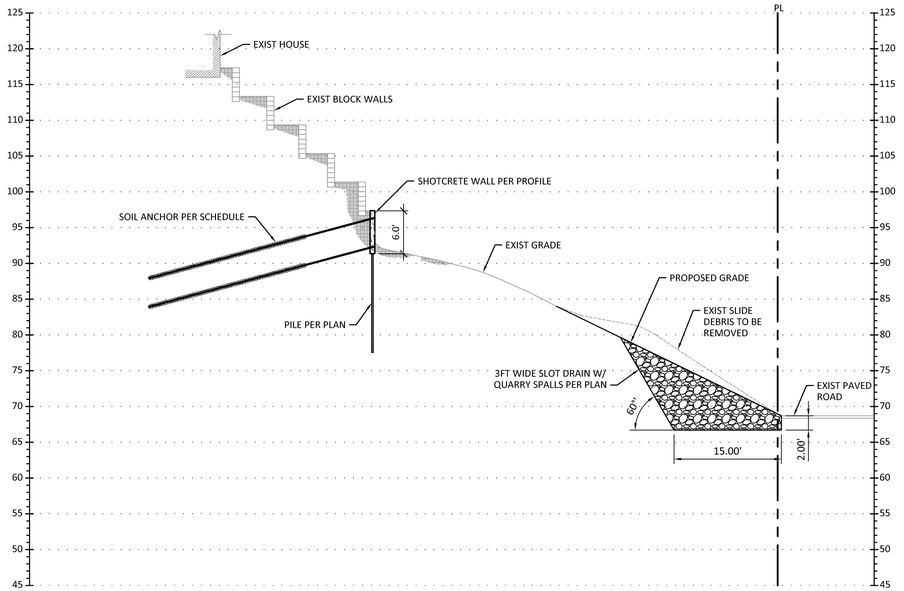
NGUYEN RESIDENCE SLOPE STABILIZATION
652 W LAKE SAMMAMISH PKWY NE
BELLEVUE, WA 98008

RETAINING WALL PLAN

FILE NAME:

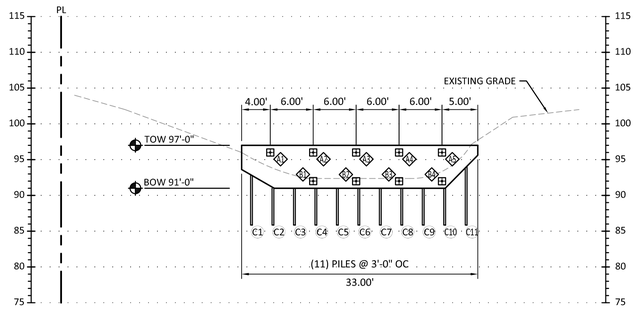
SHEET:

SH2.1



1 WALL SECTION

SCALE: 1" = 10'



2 WALL PROFILE

SCALE: 1" = 10'

TIEBACK SCHEDULE

	PIPE PILES	C1-C11
	MAX RETAINED HEIGHT	6'-0"
UPPER ROW	ANCHOR	A1-A5
	TIEBACK DIA	3"Ø
	DESIGN LOAD (K)	5.0 K
	LOCK OFF LOAD (K)	2.0 K
	L-TOTAL	25'
	L-BONDED	15'
	L-UNBONDED	10'
	A(DEG)	20°
	L-HORIZ	26.6'
LOWER ROW	ANCHOR	B1-B4
	TIEBACK DIA	3"Ø
	DESIGN LOAD (K)	10.0 K
	LOCK OFF LOAD (K)	4.0 K
	L-TOTAL	20'
	L-BONDED	15'
	L-UNBONDED	5'
	A(DEG)	20°
	L-HORIZ	16'

NOTES:
1. CONTRACTOR TO FIELD VERIFY THAT THE MAX. RETAINED HEIGHT IS NOT EXCEEDED.
2. F = AXIAL TIEBACK FORCE IN KIPS.
3. ALTERNATE TIEBACK TYPES MAY BE SUBMITTED FOR REVIEW.
4. REFER TO DETAIL 2/SH4.1 FOR ALL INFORMATION NOT SPECIFIED.

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06/07/19

MARK	DATE	DESCRIPTION
	10/05/18	EMERGENCY PERMIT SUBMITTAL
	06/07/19	PERMIT SUBMITTAL

DESIGN:	MBB
DRAWN:	JCP
CHECK:	DMT
JOB NO:	18149.10
DATE:	04/22/19

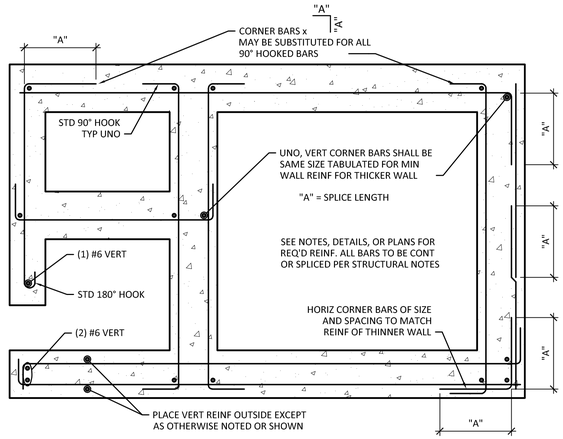
NGUYEN RESIDENCE SLOPE STABILIZATION
652 W LAKE SAMMAMISH PKWY NE
BELLEVUE, WA 98008

WALL SECTION AND PROFILE

FILE NAME:

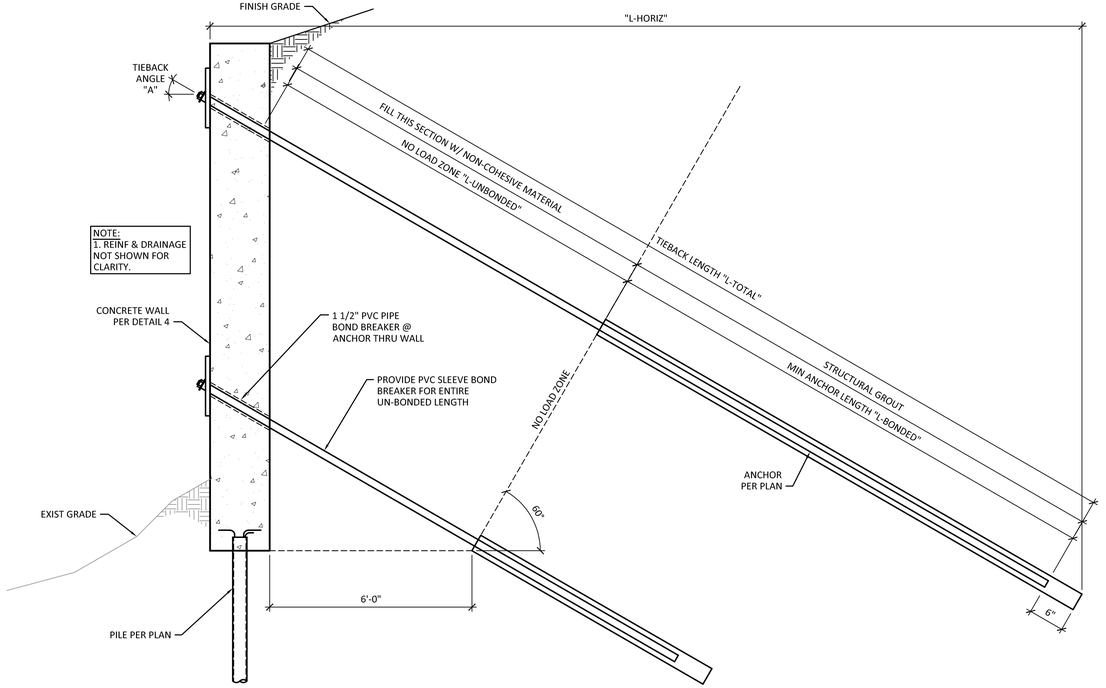
SHEET:

SH3.1



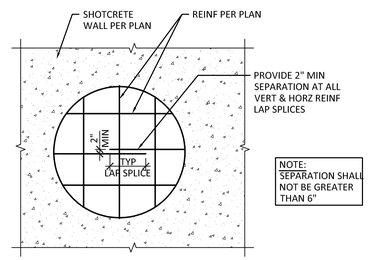
1 TYPICAL CONCRETE WALL REINFORCING DETAIL

SCALE: NTS



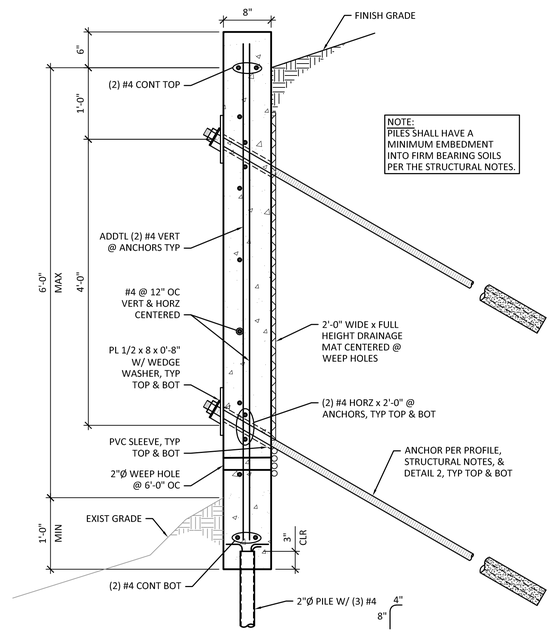
2 TYPICAL ANCHOR SECTION

SCALE: 1" = 1'-0"



3 TYPICAL NONCONTACT LAP SPLICE

SCALE: NTS



4 LOWER RETAINING WALL SECTION

SCALE: 1" = 1'-0"

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	04/22/19	PERMIT SUBMITTAL

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JOB NO:	18149.10
DATE:	04/22/19

NGUYEN RESIDENCE SLOPE STABILIZATION
652 W LAKE SAMMAMISH PKWY NE
BELLEVUE, WA 98008

DETAILS

FILE NAME:

SHEET:

SH4.1

STRUCTURAL NOTES

(THESE NOTES ARE TYPICAL UNLESS NOTED OR DETAILED OTHERWISE ON DRAWINGS)

CODE

ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE INTERNATIONAL BUILDING CODE (IBC), 2015 EDITION. SPECIFICATIONS AND STANDARDS WHERE REFERENCED ON THE DRAWINGS ARE TO BE THE LATEST EDITION.

DESIGN LOADS

DEAD LOADS:
- ROOF 12 PSF
- FLOOR 12 PSF

LIVE LOADS:
- ROOF (SNOW LOAD) 25 PSF
- FLOOR (RESIDENTIAL) 40 PSF

(LIVE LOADS ARE REDUCED WHERE PERMISSIBLE PER IBC SECTION 1607.10).

STATEMENT OF SPECIAL INSPECTIONS

SPECIAL INSPECTIONS ARE REQUIRED AS INDICATED IN THE FOLLOWING TABLE. THE CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND OWNER PRIOR TO COMMENCEMENT OF WORK IN ACCORDANCE WITH CHAPTER 1704.4 OF THE IBC.

FREQUENCY AND DISTRIBUTION OF REPORTS - INSPECTION REPORTS SHALL BE PROVIDED FOR EACH DAY ON SITE BY SPECIAL INSPECTOR. STRUCTURAL OBSERVATION REPORTS SHALL BE PROVIDED AFTER EACH OBSERVATION. REPORTS SHALL BE DISTRIBUTED TO THE CONTRACTOR, ARCHITECT, ENGINEER AND BUILDING OFFICIAL.

SPECIAL INSPECTION

OPERATION	CONT	PERIODIC	REMARKS
SOILS			
PIPE PILING INSTALLATION	X		GEOTECH ENGINEER
PILING REFUSAL VERIFICATION	X		GEOTECH ENGINEER
CONCRETE			
ADHESIVE ANCHORS	X		IF REQ'D

NOTE:
ALL ITEMS MARKED WITH AN "X" SHALL BE INSPECTED IN ACCORDANCE WITH IBC CHAPTER 17. SPECIAL INSPECTION SHALL BE PERFORMED BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE OWNER. THE ARCHITECT, STRUCTURAL ENGINEER, AND BUILDING OFFICIAL SHALL BE FURNISHED WITH COPIES OF ALL RESULTS. ANY INSPECTION FAILING TO MEET THE PROJECT SPECIFICATIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE DESIGN TEAM.

SHOP DRAWINGS

NOT REQUIRED

FOUNDATIONS: PIN PILES

SOILS REPORT: REPORT NO: 1001717
PREPARED BY: NELSON GEOTECHNICAL ASSOCIATES, INC.
DATED: 02/15/18

ALLOWABLE PILE CAPACITY: 6,000 LBS (TO BE FIELD VERIFIED BY NELSON GEOTECHNICAL)

IMPORTED STRUCTURAL FILL AND BACKFILL MATERIAL SHOULD CONSIST OF CLEAN, WELL GRADED GRANULAR MATERIAL FREE OF DEBRIS OR ORGANICS WITH A MAXIMUM PARTICLE DIAMETER OF THREE INCHES AND NO MORE THAN 10% FINES (PASSING THE #200 SIEVE).

FILL AND BACKFILL MATERIAL SHOULD BE PLACED IN LEVEL LIFTS NOT EXCEEDING TWELVE (12") INCHES IN LOOSE THICKNESS AND COMPACTED TO A MINIMUM OF 95% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM TEST METHOD D1557-00.

BACKFILL BEHIND ALL RETAINING WALLS WITH WELL-DRAINING, GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE. PROVIDE DAMPPROOFING AT EXTERIOR FACE OF ALL FOUNDATION WALLS EXPOSED TO EARTH PER ARCHITECTURAL SPECIFICATIONS.

2"Ø PIPE PILING INSTALLATION

2" XS PIPE SHALL CONFORM TO ASTM A53 GRADE A OR B, FY = 30 KSI (MIN)

PILES SHALL BE DRIVEN THROUGH LOOSE MATERIAL & BEAR IN COMPETENT DENSE SOIL AS DETERMINED BY THE GEOTECHNICAL SPECIAL INSPECTOR. PILES SHALL HAVE A MINIMUM OVERALL EMBEDMENT OF 15 FEET OR AS DETERMINED ADEQUATE BY THE GEOTECHNICAL SPECIAL INSPECTOR. PILES SHALL NOT EXCEED A MAXIMUM EMBEDMENT DEPTH OF 30 FEET.

PIPE PILING SHALL BE DRIVEN INTO THE SUBGRADE TO A POINT OF REFUSAL BY MEANS OF A PNEUMATIC HAMMER OR OTHER SIMILAR HYDRAULIC HAMMER SYSTEM. THE PNEUMATIC HAMMER SHOULD WEIGH AT LEAST 140 POUNDS. REFUSAL SHALL BE DEFINED AS 1" OR LESS OF PENETRATION DURING 1 MINUTE OF SUSTAINED DRIVING. PIPE SECTIONS SHALL BE CONNECTED WITH INTERNAL SLIP COUPLINGS.

THE CONTRACTOR SHALL LOCATE AND PROTECT ALL UTILITIES DURING CONSTRUCTION AND SHALL CONTACT THE UNDERGROUND UTILITIES LOCATION SERVICE (1-800-424-5555) AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY ALL UTILITIES WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THESE DRAWINGS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY AND ALL DAMAGE TO UNDERGROUND UTILITIES RESULTING FROM THEIR OPERATION.

CONCRETE

ALL CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED, AND PLACED IN ACCORDANCE WITH SECTION CHAPTER 5 OF ACI 318 AND THE AMERICAN CONCRETE INSTITUTE'S SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS (ACI 301).

ALL CONCRETE SHALL BE STONE-AGGREGATE CONCRETE HAVING A UNIT WEIGHT OF APPROXIMATELY 150 POUNDS PER CUBIC FOOT.

CONCRETE STRENGTHS AT 28 DAYS (f'c) AND MIX CRITERIA SHALL BE AS FOLLOWS:

TYPE OF CONSTRUCTION	f'c	MAXIMUM WATER/CEMENT RATIO	MIN CEMENT CONTENT PER CUBIC YARD	MAXIMUM SHRINKAGE STRAIN
SLABS ON GRADE	3000 PSI	0.55	5 1/2 SACK	N/A
FOOTINGS	3000 PSI	0.55	5 1/2 SACK	N/A
ALL OTHER CONC.	2500 PSI	0.45	5 SACK	N/A

THE MINIMUM AMOUNT OF CEMENT LISTED ABOVE MAY BE CHANGED IF A CONCRETE PERFORMANCE MIX IS SUBMITTED TO THE ENGINEER AND THE BUILDING DEPARTMENT FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE. THE PERFORMANCE MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, FINE AND COARSE AGGREGATE, WATER, AND ADMIXTURES AS WELL AS THE WATER-CEMENT RATIO, SLUMP, CONCRETE YIELD, AND SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH CHAPTER 5 OF ACI 318.

ALL CONCRETE EXPOSED TO WEATHER OR TO FREEZING TEMPERATURES SHALL BE AIR-ENTRAINED IN ACCORDANCE WITH ACI 318 TABLE 4.2.1 FOR MODERATE EXPOSURE CONDITION.

REINFORCING STEEL

REINFORCING STEEL SHALL BE DEFORMED BILLET STEEL CONFORMING TO ASTM A615, AND SHALL BE GRADE 60 (Fy = 60,000 PSI), UNLESS NOTED OTHERWISE. GRADE 60 REINFORCING BARS INDICATED ON DRAWINGS TO BE WELDED SHALL CONFORM TO ASTM A706. REINFORCING COMPLYING WITH ASTM A615 MAY BE WELDED IF MATERIAL PROPERTY REPORTS INDICATING CONFORMANCE WITH WELDING PROCEDURES SPECIFIED IN AWS D1.4 ARE SUBMITTED.

WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185. PROVIDE WELDED WIRE FABRIC IN SHEETS NOT ROLLS. LAP WELDED WIRE FABRIC 12" AT SIDES AND ENDS.

REINFORCING STEEL SHALL BE DETAILED INCLUDING HOOKS AND BENDS IN ACCORDANCE WITH SP-66 AND ACI 318R, LATEST EDITIONS. UNLESS OTHERWISE NOTED, REINFORCING SPLICE LENGTHS AND DEVELOPMENT LENGTHS SHALL BE PER SCHEDULE.

MECHANICAL SPLICING OF REINFORCING BARS, WHERE INDICATED ON THE DRAWINGS, SHALL BE BY AN ICBO APPROVED SYSTEM, SHALL DEVELOP 125% OF THE SPECIFIED YIELD STRENGTH OF THE BAR, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

REINFORCING SHALL BE PLACED AND ADEQUATELY SUPPORTED PRIOR TO PLACING CONCRETE. WET-SETTING EMBEDDED ITEMS IS NOT ALLOWED WITHOUT PRIOR ENGINEER APPROVAL. BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL NOT BE FIELD BENT UNLESS SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER. REFER TO CHAPTER 7 OF ACI 318 FOR OTHER REINFORCING STEEL REQUIREMENTS.

MINIMUM LAPS AND EMBEDMENT

UNLESS OTHERWISE NOTED, REINFORCING SPLICE LENGTHS AND DEVELOPMENT LENGTHS SHALL BE AS TABULATED BELOW:

f'c = 2500 PSI						
BAR SIZE	DEVELOPMENT LENGTH			LAP SPLICE		
	TENSION		COMPRESSION	TENSION		COMPRESSION
	TOP BARS	OTHER BARS	ALL BARS	TOP BARS	OTHER BARS	ALL BARS
#3	24	18	9	30	23	12
#4	31	24	12	41	31	15
#5	39	30	15	51	39	19
#6	47	36	18	61	47	23
#7	68	53	21	89	68	27
#8	78	60	24	102	78	30

f'c = 3000 PSI						
BAR SIZE	DEVELOPMENT LENGTH			LAP SPLICE		
	TENSION		COMPRESSION	TENSION		COMPRESSION
	TOP BARS	OTHER BARS	ALL BARS	TOP BARS	OTHER BARS	ALL BARS
#3	22	17	9	28	22	12
#4	29	22	11	37	29	15
#5	36	28	14	47	36	19
#6	43	33	17	56	43	23
#7	63	48	20	81	63	27
#8	72	55	22	93	72	30

NOTE:
1. ALL LENGTHS ARE IN INCHES.
2. ALL LAP SPLICES ARE CLASS B.
3. "TOP BARS" ARE HORIZONTAL REINFORCEMENT PLACED SUCH THAT MORE THAN 12 INCHES OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.

CONCRETE GENERAL NOTES

VERTICAL BARS SHALL START FROM TOP OF FOOTING. HORIZONTAL BARS SHALL START A DISTANCE OF 1/2 THE NORMAL BAR SPACING FROM TOP OF FOOTING AND TOP OF FRAMED SLABS. IN ADDITION, THERE SHALL BE A HORIZONTAL BAR AT A MAXIMUM OF 3" FROM TOP OF WALL AND BOTTOM OF FRAMED SLABS.

PROVIDE CORNER BARS TO MATCH THE HORIZONTAL REINFORCING WITH TENSION LAP SPLICE AT EACH SIDE PER TABLE, OR BEND ONE SIDE OVER TO PROVIDE TENSION LAP.

PROVIDE CONTROL OR CONSTRUCTION JOINTS IN SLABS ON GRADE TO BREAK UP SLAB INTO RECTANGULAR AREAS OF NOT MORE THAN 400 SQUARE FEET EACH. AREAS TO BE AS SQUARE AS PRACTICAL AND HAVE NO ACUTE ANGLES. JOINT LOCATIONS TO BE APPROVED BY THE ARCHITECT.

ALL CONSTRUCTION JOINTS SHALL BE THOROUGHLY CLEANED AND PROPERLY PREPARED IMMEDIATELY PRIOR TO POURING OF CONCRETE. DOWEL STEEL SHALL BE THE SAME SIZE AND SPACING AS MAIN REINFORCING DETAILED BEYOND JOINT.

SEE ARCHITECTURAL DRAWINGS AND MECHANICAL DRAWINGS FOR EXACT LOCATIONS AND DIMENSIONS OF OPENINGS IN CONCRETE WALLS, FLOORS AND ROOF. UNLESS INDICATED OTHERWISE, REINFORCE AROUND OPENINGS GREATER THAN 12" IN EITHER DIRECTION WITH (2) #5 EACH SIDE AND (1) #5 x 4'-0" DIAGONAL AT EACH CORNER. EXTEND BARS 2'-0" BEYOND EDGE OF OPENING. IF 2'-0" IS UNAVAILABLE, EXTEND AS FAR AS POSSIBLE AND HOOK. HOOK ALL REINFORCING INTERRUPTED BY OPENINGS.

BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL NOT BE FIELD BENT UNLESS SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER.

SEE ARCHITECTURAL DRAWINGS FOR ALL GROOVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE AND OTHER FINISH DETAILS AT ALL EXPOSED CONCRETE SURFACES. PROVIDE 3/4" CHAMFER AT ALL CORNERS EXCEPT AS NOTED.

STRUCTURAL STEEL

STRUCTURAL STEEL DESIGN, FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", LATEST EDITION.

PLATES, ANGLES, AND RODS SHALL CONFORM TO ASTM A36, Fy = 36 KSI.

STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B, Fy = 46 KSI.

STEEL PIPE SHALL CONFORM TO ASTM A53 GRADE B, Fy = 35 KSI.

BOLTS CONNECTING STEEL MEMBERS SHALL CONFORM TO ASTM A325-N. BOLTS SHALL BE 3/4"Ø MINIMUM, UNO ANCHOR BOLTS SHALL CONFORM TO ASTM A307.

CONTRACTOR SHALL PROVIDE CONNECTION ADJUSTMENT TOLERANCES TO SATISFY THE REQUIREMENTS OF AISC MANUAL OF STEEL CONSTRUCTION.

UNLESS SPECIFIED AS STAINLESS STEEL, ALL STEEL MEMBERS, SHAPES, BOLTS, AND ACCESSORIES EXPOSED TO WEATHER SHALL BE HOT DIP GALVANIZED.

EXISTING BUILDING

CONTRACTOR SHALL VERIFY ALL DIMENSIONS, MEMBER SIZES AND CONDITIONS OF THE EXISTING BUILDING DEPICTED IN THE DRAWINGS, AND NOTIFY THE STRUCTURAL ENGINEER OF ANY DISCREPANCIES FOR POSSIBLE REDESIGN.

CONTRACTOR RESPONSIBLE FOR COMPLETELY SEALING ALL AREAS WHERE EXISTING ROOF MATERIAL IS PENETRATED OR REMOVED. PROVIDE WATER PROOFING AS REQUIRED BY THE ARCH.

GENERAL

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS FOR COMPATIBILITY BEFORE PROCEEDING. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING.

CONTRACTOR SHALL BE RESPONSIBLE FOR ERECTION STABILITY AND TEMPORARY SHORING AS NECESSARY UNTIL PERMANENT SUPPORT AND STIFFENING ARE INSTALLED.

CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.

DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF A SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER.

LEGEND

DEFINITION	SYMBOL	DEFINITION	SYMBOL
DIRECTION OF FRAMING		NATIVE SOIL	
EXTENT OF FRAMING		GRANULAR FILL	
COLUMNS		STRUCTURAL STEEL	
COLUMN BEARING ON BEAM	(A)	RATED SHEATHING	
BEAM CONTINUOUS OVER SUPPORT	(B)	SHEAR WALL (SEE SCHEDULE)	SWX
CONCRETE WALL		COLUMN MARK (SEE SCHEDULE)	C#
BEARING STUD WALL		FOOTING MARK (SEE SCHEDULE)	FX
NON-BEARING STUD WALL		HOLDOWN MARK (SEE SCHEDULE)	HD
BEARING STUD SHEAR WALL		HANGER MARK (SEE SCHEDULE)	X
NON-BEARING STUD SHEAR WALL		FLAG NOTE (SEE PLAN NOTES)	X
CMU WALL		STEEL MOMENT FRAME CONN.	

ABBREVIATIONS

(A)	ABOVE	GLB	GLUE-LAMINATED BEAM
AB	ANCHOR BOLT	HORIZ	HORIZONTAL
ALT	ALTERNATE	KP	KING POST
ARCH	ARCHITECT	KSI	KIPS PER SQUARE INCH
(B)	BELOW	L	ANGLE
BD	BAR DIAMETER	MECH	MECHANICAL
BLKG	BLOCKING	MF	MOMENT FRAME
BM	BEAM	MTL	METAL
BOT	BOTTOM	NS	NEAR SIDE
BRNG	BEARING	OC	ON CENTER
BTWN	BETWEEN	OPP	OPPOSITE
CJP	COMPLETE JOINT PENETRATION	PL	PLATE
CLR	CLEAR	PLCS	PLACES
CMU	CONCRETE MASONRY UNIT	PSI	POUNDS PER SQUARE INCH
COL	COLUMN	PSF	POUNDS PER SQUARE FOOT
CONC	CONCRETE	P/T	POST TENSIONED
CONN	CONNECTION	PT	PRESSURE TREATED
CONT	CONTINUOUS	REINF	REINFORCING
COORD	COORDINATE	REQ'D	REQUIRED
DBL	DOUBLE	SCHED	SCHEDULE
DET	DETAIL	SIM	SIMILAR
DIA	DIAMETER	SOG	SLAB ON GRADE
DIM	DIMENSION	STD	STANDARD
DIR	DIRECTION	STIFF	STIFFENER
EA	EACH	STL	STEEL
ELEV	ELEVATION	SYMM	SYMMETRICAL
ES	EACH SIDE	SW	SHEARWALL
EX	EXISTING	TOC	TOP OF CONCRETE
EXP	EXPANSION	TOS	TOP OF STEEL
FLR	FLOOR	TOW	TOP OF WALL
FDN	FOUNDATION	TYP	TYPICAL
FTG	FOOTING	UNO	UNLESS NOTED OTHERWISE
FS	FAR SIDE	VERT	VERTICAL
GC	GENERAL CONTRACTOR	WF	WIDE FLANGE

CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

DENNIS M. TITUS — STATE OF WASHINGTON — 22901 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

04/22/19

MARK	DATE	DESCRIPTION
	10/05/18	EMERGENCY PERMIT SUBMITTAL
	04/22/19	PERMIT SUBMITTAL

DESIGN: RMK
DRAWN: ATD
CHECK: DMT
JOB NO: 18149.10
DATE: 10/05/18

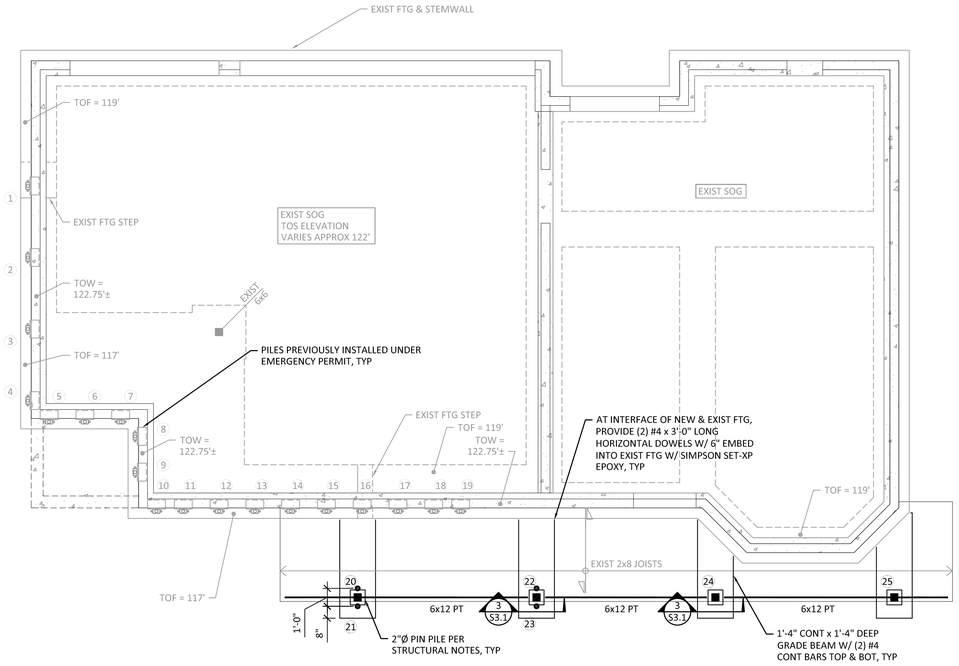
NGUYEN RESIDENCE EMERGENCY FOUNDATION REPAIR
652 W LAKE SAMMAMISH PKWY NE
BELLEVUE, WA 98008

STRUCTURAL NOTES

FILE NAME:

SHEET:

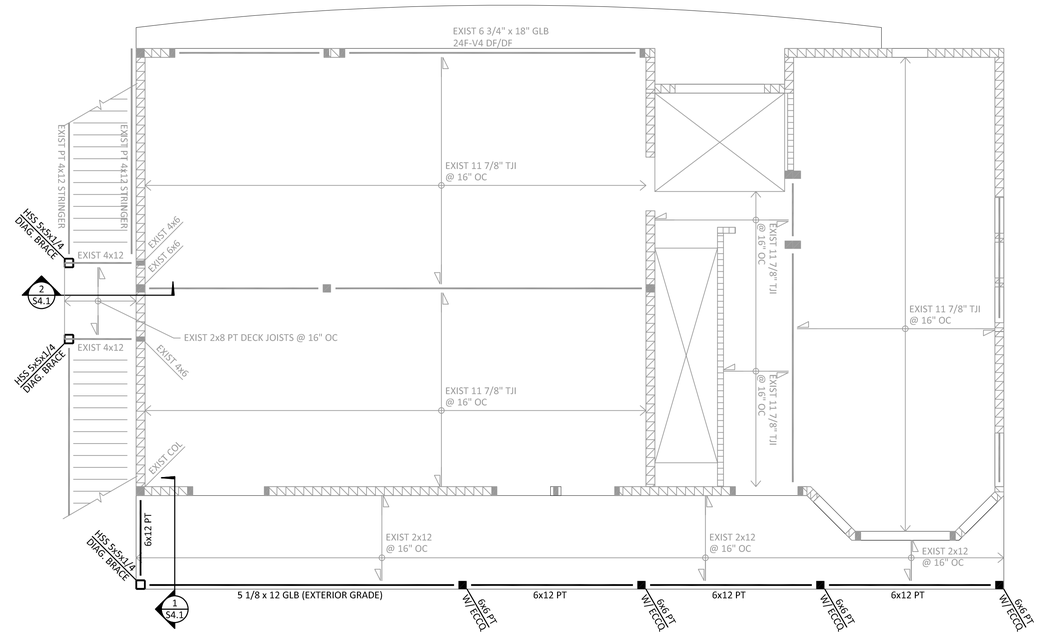
S1.1



1 FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

4'-0" 0 2'-0" 4'-0" 8'-0"



2 SECOND FLOOR FRAMING PLAN

SCALE: 1/4" = 1'-0"

4'-0" 0 2'-0" 4'-0" 8'-0"

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EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

DENNIS M. TITUS
STATE OF WASHINGTON
22001
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER

04/22/19

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	04/22/19	PERMIT SUBMITTAL

DESIGN:	RMK
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JOB NO:	1811.10
DATE:	10/05/18

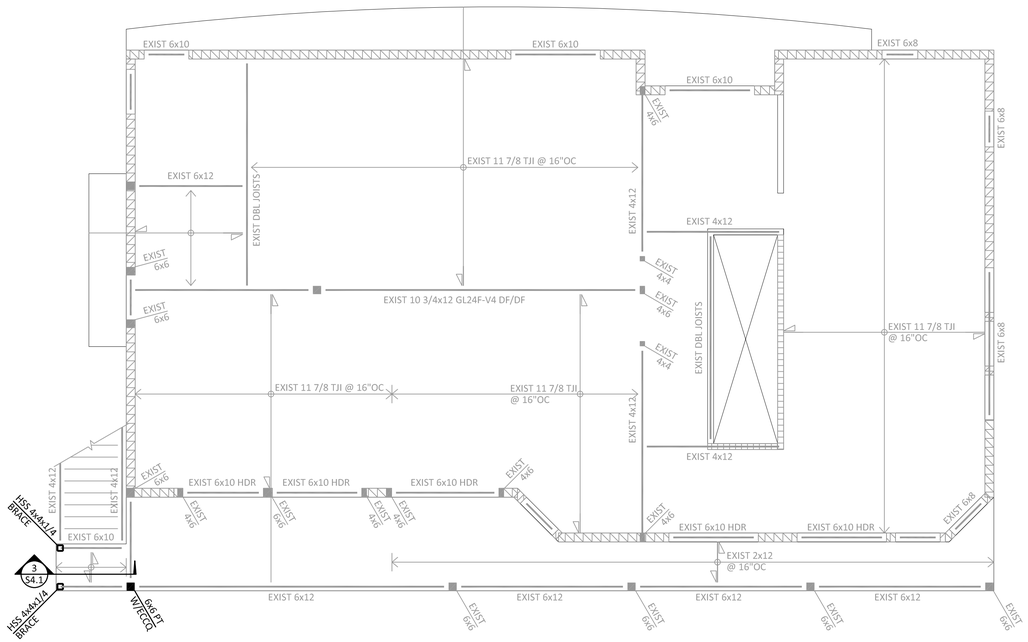
NGUYEN RESIDENCE EMERGENCY FOUNDATION REPAIR
652 W LAKE SAMMAMISH PKWY NE
BELLEVUE, WA 98008

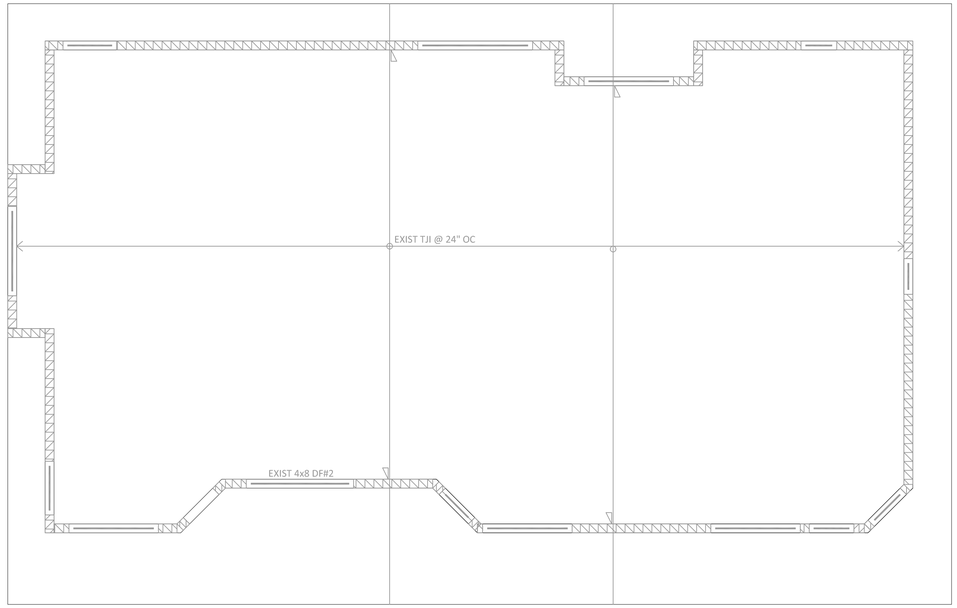
FOUNDATION & SECOND FLOOR FRAMING PLAN

FILE NAME:

SHEET:

S2.1





1 THIRD FLOOR FRAMING PLAN
SCALE: 1/4" = 1'-0"

4'-0" 0 2'-0" 4'-0" 8'-0"

2 ROOF FLOOR FRAMING PLAN
SCALE: 1/4" = 1'-0"

4'-0" 0 2'-0" 4'-0" 8'-0"

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DENNIS M. TITUS — STATE OF WASHINGTON — 22901 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

04/22/19

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NGUYEN RESIDENCE EMERGENCY FOUNDATION REPAIR
652 W LAKE SAMMAMISH PKWY NE
BELLEVUE, WA 98008

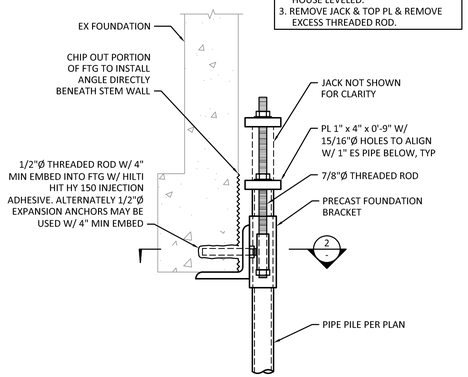
THIRD FLOOR AND ROOF FRAMING PLAN

FILE NAME:

SHEET:

S2.2

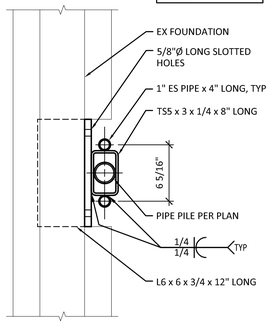
CONSTRUCTION SEQUENCE NOTES:
1. JACK EXISTING STRUCTURE FROM PILE AFTER REFUSAL IS COMPLETED & CRITERIA MET.
2. TIGHTEN NUTS AFTER PORTION OF HOUSE LEVELED.
3. REMOVE JACK & TOP PL & REMOVE EXCESS THREADED ROD.



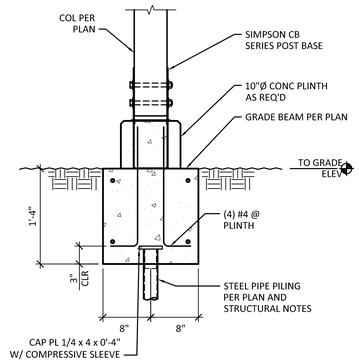
A. TYPICAL SECTION

1 TYPICAL DETAIL
SCALE: 1 1/2" = 1'-0"

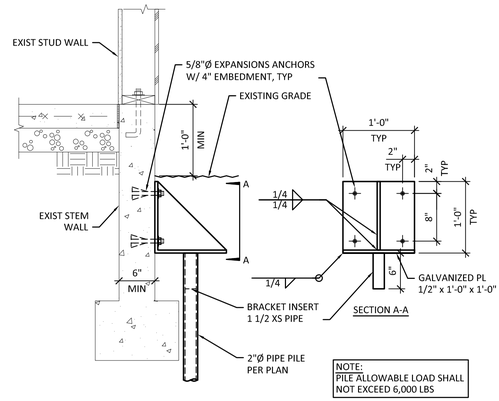
NOTE:
TOP PL & THREADED ROD NOT SHOWN FOR CLARITY



2 TYPICAL DETAIL
SCALE: 1 1/2" = 1'-0"



3 SECTION
SCALE: 1" = 1'-0"



4 FACE MOUNT BRACKET DETAIL
SCALE: 1" = 1'-0"

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FAX (425) 778-5536

DENNIS M. TITUS
STATE OF WASHINGTON
22001
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER

04/22/19

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	04/22/19	PERMIT SUBMITTAL

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JOB NO:	18149.10
DATE:	10/05/18

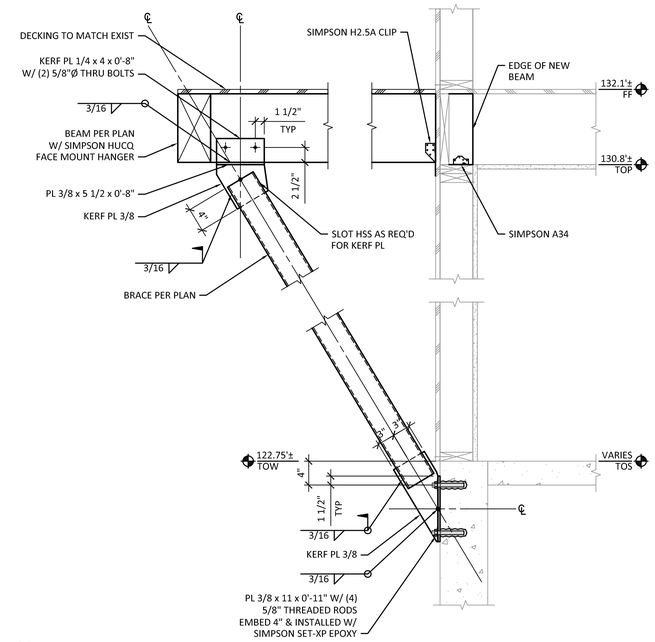
NGUYEN RESIDENCE EMERGENCY FOUNDATION REPAIR
652 W LAKE SAMMAMISH PKWY NE
BELLEVUE, WA 98008

FOUNDATION DETAILS

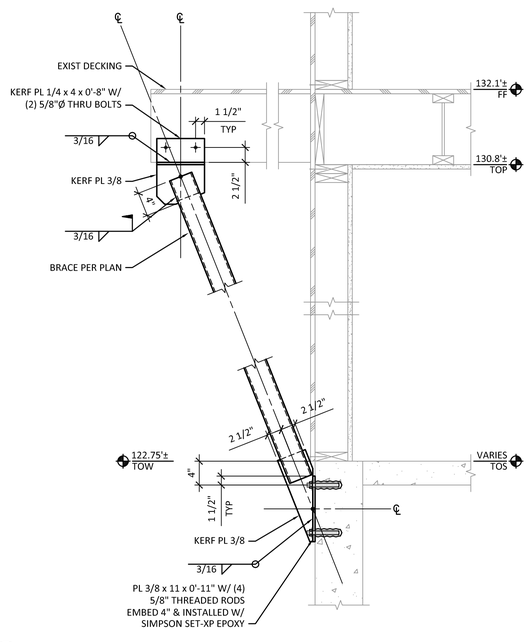
FILE NAME:

SHEET:

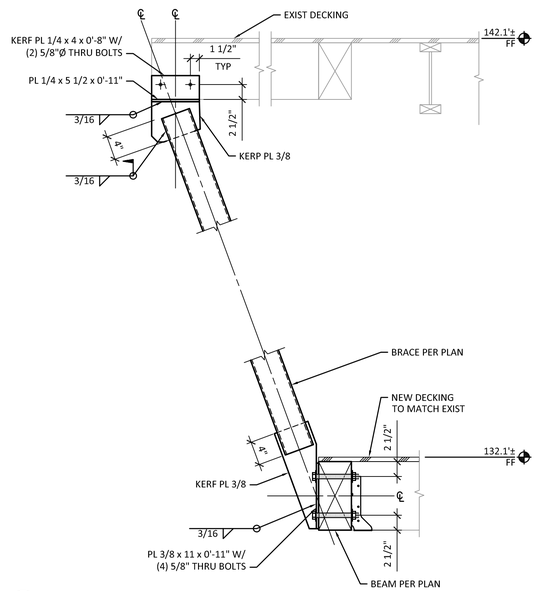
S3.1



1 SECTION
SCALE: 1" = 1'-0"



2 SECTION
SCALE: 1" = 1'-0"



3 SECTION
SCALE: 1" = 1'-0"

ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

DENNIS M. TITUS — STATE OF WASHINGTON — 53901 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

04/22/19

MARK	DATE	DESCRIPTION
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	04/22/19	PERMIT SUBMITTAL

DESIGN:	RMK
DRAWN:	ATD
CHECK:	DMT
JOB NO:	18149.10
DATE:	10/05/18

NGUYEN RESIDENCE EMERGENCY FOUNDATION REPAIR
652 W LAKE SAMMAMISH PKWY NE
BELLEVUE, WA 98008

STAIR DETAILS

FILE NAME:

SHEET:

S4.1

DEVELOPMENT SERVICES DEPARTMENT
450 110TH AVENUE NE
BELLEVUE, WA 98009-9012

Environmental Checklist reviewed by Peter Rosen (PR) 8/13/2019

SEPA Environmental Checklist

If you need assistance in completing the checklist or have any questions regarding the environmental review process, please visit the Land Use Desk in the Permit Center between 8 a.m. and 4 p.m., Monday through Friday (Wednesday, 10 to 4) or call or email the Land Use Division at 425-452-4188 or landusereview@bellevuewa.gov. Assistance for the hearing impaired: Dial 711 (Telecommunications Relay Service).

Purpose of checklist:
The City of Bellevue uses this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:
This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies and reports. Please make complete and accurate answers to these questions to the best of your ability in order to avoid delays.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The City may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

PLEASE REMEMBER TO SIGN THE CHECKLIST. Electronic signatures are also acceptable.

A. Background [help]

1. Name of proposed project, if applicable: [help]
   Nguyen Steep Slope Stabilization and Restoration Project

2. Name of applicant: [help]
   Dzung Nguyen

3. Address and phone number of applicant and contact person: [help]
   Applicant & Contact person: Dzung Nguyen
   652 West Lake Sammamish Pkwy NE, Bellevue WA 98008
   206-930-1211

4. Date checklist prepared: [help]
   July 17, 2019

5. Agency requesting checklist: [help]
   City of Bellevue

6. Proposed timing or schedule (including phasing, if applicable): [help]
   The hopeful timing for approval of the Critical Areas Land Use permit by the City of Bellevue is 10/1/2019 before the beginning of the rain season.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. [help]
   None

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. [help]
   A report on the geotechnical review of the civil and structural plan was completed by Nelson Geotechnical Associates, Inc.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. [help]
   There are no other pending applications affecting this property.

10. List any government approvals or permits that will be needed for your proposal, if known. [help]
    Critical Areas Land Use permit approval from the City of Bellevue.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.) [help]
    A mud/land slide had occurred on the steep slope behind the single-family home on this property in April 2017. This proposal seeks to repair the damage caused by the landslide and to

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stabilize the steep slope by building a 6-foot high shotcrete retaining wall, at the landslide headscarp, that is attached to anchors driven 20-25 feet into the slope. At the bottom of the slope, 4 3-ft wide slot drains will be installed to support and stabilize the toe of slope. Finally, vegetation will be planted over the slide area on the slope in accordance with the steep slope planting template from the Bellevue Critical Areas Handbook.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. [help]
The site's tax parcel number 362505-9136. It is located at 652 West Lk Sammamish Pkwy NE. A legal description, vicinity map and topographic survey are attached with this submittal.

B. Environmental Elements [help]

1. Earth [help]

a. General description of the site: [help] (select one): ☐Flat, ☐rolling, ☐hilly, ☒steep slopes, ☐mountainous, other: *There is a steep slope behind the residential building on the lot*

b. What is the steepest slope on the site (approximate percent slope)? [help]
A near vertical scarp approximately five to six feet in height is present (approx. 2,860%) on the steep slopes, surrounding slopes up to 53% are present where disturbed by landslide activity. Adjacent undisturbed slopes occupy gradients up to 142%.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils. [help]
Weathered interglacial deposits consisting of interbedded sands, silts, and gravels. Generally congruent with Alderwood and Kitsap soils. Soils do not have commercial or agricultural significance.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe. [help]
Interbedded interglacial soils on the slopes adjacent to Lake Sammamish are generally unstable; geologic mapping shows the site to lie within an ancient landslide approximately 1,500 feet in width and extending upslope from the shoreline 1,000

PR 8/13/2019

feet. The project is to stabilize a landslide.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill. [help]
Approximately 2.5 cubic yards of debris and surficial soil will be removed from the crest of the toe of the slidemass for minimal grading purposes. Four rock buttresses will be installed into the toe of the landslide for stabilization and drainage, consisting of approximately 12.5 cubic yards of debris and soil removal and replacement with quarry spalls each, for a total of approximately 50 cubic yards of removal and replacement. Source of quarry spalls to be determined, likely imported from a local aggregate facility.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. [help]
Necessary grading and construction will displace soil; however, the project will include short and long-term erosion control measures consisting of BMPs during construction and erosion control fabric coverage and restoration plantings upon completion. Further erosion risk will be eliminated by design.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? [help]
The property has historically been covered by approximately 22% impervious surfaces. Besides the vertical shotcrete wall alignment, no additional impervious surfaces are proposed.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: [help]
Temporary measures during construction will include silt fencing, catch basin inserts, and straw wattles where needed. Work should be completed during the dry season if possible to reduce risk of erosion. Long-term measures will include erosion control fabric within disturbed areas, as well as restoration according to the Land Use Code.

Erosion control regulated by BCC 23.76

2. Air [help]

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known. [help]
Not applicable

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe. [help]
No

c. Proposed measures to reduce or control emissions or other impacts to air, if any: [help]
Not applicable

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3. Water [help]

a. Surface Water:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. [help]
Lake Sammamish
Site is approximately 150 feet from Lake Sammamish

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans. [help]
Construct a 6-ft high retaining wall; build 4 3-ft wide slot drains at bottom of slope; remove slide debris from slope.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material. [help]
None

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. [help]
No

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan. [help]
No

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge. [help]
No

b. Ground Water:

1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known. [help]
No

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals…; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve. [help]
None

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection

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and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe. [help]
Surface runoff disperses through the slidemass area and enters a private storm drain on the adjacent lower driveway. No changes will occur post-construction.

2) Could waste materials enter ground or surface waters? If so, generally describe. [help]
No waste materials could enter ground or surface waters.

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe. [help]
No. The proposed slot drains will not contribute more surface water to existing infrastructure than pre-April 2017 conditions.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any: [help]
During construction, BMPs will be employed to reduce impacts to drainage patterns. Post-construction, restoration plans will allow natural patterns to remain, and reduce erosion potential through transpiration once plantings are established.

Project will comply with erosion and sediment controls per BCC 23.76

4. Plants [help]

a. Check the types of vegetation found on the site: [help]
☒deciduous tree: alder, maple, aspen, other: *Click here to enter text.*
☒evergreen tree: fir, cedar, pine, other: *Click here to enter text.*
☒shrubs
☐grass
☐pasture
☐crop or grain
☐Orchards, vineyards or other permanent crops.
☐wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other: *Click here to enter text.*
☐water plants: water lily, eelgrass, milfoil, other: *Click here to enter text.*
☐other types of vegetation: *Click here to enter text.*

b. What kind and amount of vegetation will be removed or altered? [help]
None

c. List threatened and endangered species known to be on or near the site. [help]
None to our knowledge

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: [help]
The slide area on the slope will be re-vegetated in accordance to the planting template for steep slope as found in the Bellevue Critical Areas Handbook, Appendix B

PR 8/13/2019

e. List all noxious weeds and invasive species known to be on or near the site. [help]
Himalayan blackberry

5. Animals [help]

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. [help]

Examples include:

birds: ☐hawk, ☐heron, ☐eagle, ☐songbirds, other: *Click here to enter text*
mammals: ☐deer, ☐bear, ☐elk, ☐beaver, other: *Cli*
fish: ☐bass, ☐salmon, ☐trout, ☐herring, ☐shellfish, o
text.

Potential for Puget Sound Chinook Salmon, Coastal Puget Sound Bull Trout, Puget Sound Strait of Georgia Coho Salmon, Puget Sound Steelhead

b. List any threatened and endangered species known to be on or near the site. [help]
None to our knowledge

c. Is the site part of a migration route? If so, explain. [help]
Not to our knowledge

Western Washington is part of Pacific Flyway

d. Proposed measures to preserve or enhance wildlife, if any: [help]
The steep slope vegetation restoration plan will provice new native shrubs and trees which will enhance wildlife habitat

e. List any invasive animal species known to be on or near the site. [help]
None to our knowledge

6. Energy and Natural Resources [help]

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc. [help]
None

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe. [help]
No

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any: [help]
None

7. Environmental Health [help]

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe. [help]
No

PR 8/13/2019

1) Describe any known or possible contamination at the site from present or past uses. [help]
None known

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity. [help]
None known

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project. [help]
None

4) Describe special emergency services that might be required. [help]
None

5) Proposed measures to reduce or control environmental health hazards, if any: [help]
None

b. Noise [help]

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? [help]
None

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indi-cate what hours noise would come from the site. [help]
Noise will be from a commercial-grade 210-cfm diesel air compressor with full muffler that generates less noise than a running lawnmower.

3) Proposed measures to reduce or control noise impacts, if any: [help]
The air compressor will be in a truck parked on the front of the property right next to Lk Samm Pkwy. Traffic noise from this busy parkway will be louder than the sound of the air compressor.

Noise from construction activity is limited to the hours between 7 a.m. to 6 p.m. on weekdays and 9 a.m. to 6 p.m. on Saturdays and prohibited on Sundays and other legal holidays (BCC 9.18)

8. Land and Shoreline Use [help]

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe. [help]
Currently, there is a single-family residence on site. The parcel is surrounded by other single-family homes and the proposed restoration won't directly impact adjacent properties.

b. Has the project site been used as working farmlands or working forest lands? If so,

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describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use? [help]
Not to our knowledge

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how: [help]
No

c. Describe any structures on the site. [help]
A 3-story, 2,961 SF single-family home

d. Will any structures be demolished? If so, what? [help]
None

e. What is the current zoning classification of the site? [help]
R-2.5

f. What is the current comprehensive plan designation of the site? [help]
Single-family residential

Single Family Medium Density (SF-M)

g. If applicable, what is the current shoreline master program designation of the site? [help]
Not applicable

Shoreline Residential

h. Has any part of the site been classified as a critical area by the city or county? If so, specify. [help]
Yes, a steep slope is located on the site

i. Approximately how many people would reside or work in the completed project? [help]
One family

j. Approximately how many people would the completed project displace? [help]
None

k. Proposed measures to avoid or reduce displacement impacts, if any: [help]
Not applicable

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: [help]
None

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any: [help]
Not applicable

9. Housing [help]

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or

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low-income housing. [help]
None

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. [help]
None

c. Proposed measures to reduce or control housing impacts, if any: [help]
Not applicable

10. Aesthetics [help]

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? [help]
6 feet; shotcrete

b. What views in the immediate vicinity would be altered or obstructed? [help]
None

c. Proposed measures to reduce or control aesthetic impacts, if any: [help]
Climbing vine will be planted at the foot of the retaining wall so the wall surface will be covered as the vine grows

11. Light and Glare [help]

a. What type of light or glare will the proposal produce? What time of day would it mainly occur? [help]
None

b. Could light or glare from the finished project be a safety hazard or interfere with views? [help]
No

c. What existing off-site sources of light or glare may affect your proposal? [help]
None

d. Proposed measures to reduce or control light and glare impacts, if any: [help]
None

12. Recreation [help]

a. What designated and informal recreational opportunities are in the immediate vicinity? [help]
None

b. Would the proposed project displace any existing recreational uses? If so, describe. [help]
None

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: [help]

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None

13. Historic and cultural preservation [help]

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe. [help]
No

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources. [help]
No

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc. [help]
Not applicable

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required. [help]
None

14. Transportation [help]

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any. [help]
Access to the site is from West Lk Samm Pkwy

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop? [help]
Yes. King County Metro Transit Bus 888

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? [help]
None added; none eliminated

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private). [help]
No

e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. [help]
No

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume

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would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates? [help]
None

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe. [help]
No

h. Proposed measures to reduce or control transportation impacts, if any: [help]
Not applicable

15. Public Services [help]

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe. [help]
No

b. Proposed measures to reduce or control direct impacts on public services, if any. [help]
Not applicable

16. Utilities [help]

a. Circle utilities currently available at the site: [help]
electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other
electricity, natural gas, water, refuse service, telephone, sanitary sewer

c. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed. [help]
Water from City of Bellevue

C. Signature [help]

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: _____

Name of signee: *Dzung Nguyen*
Position and Agency/Organization: *Owner*
Date Submitted: *July 29, 2019*

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