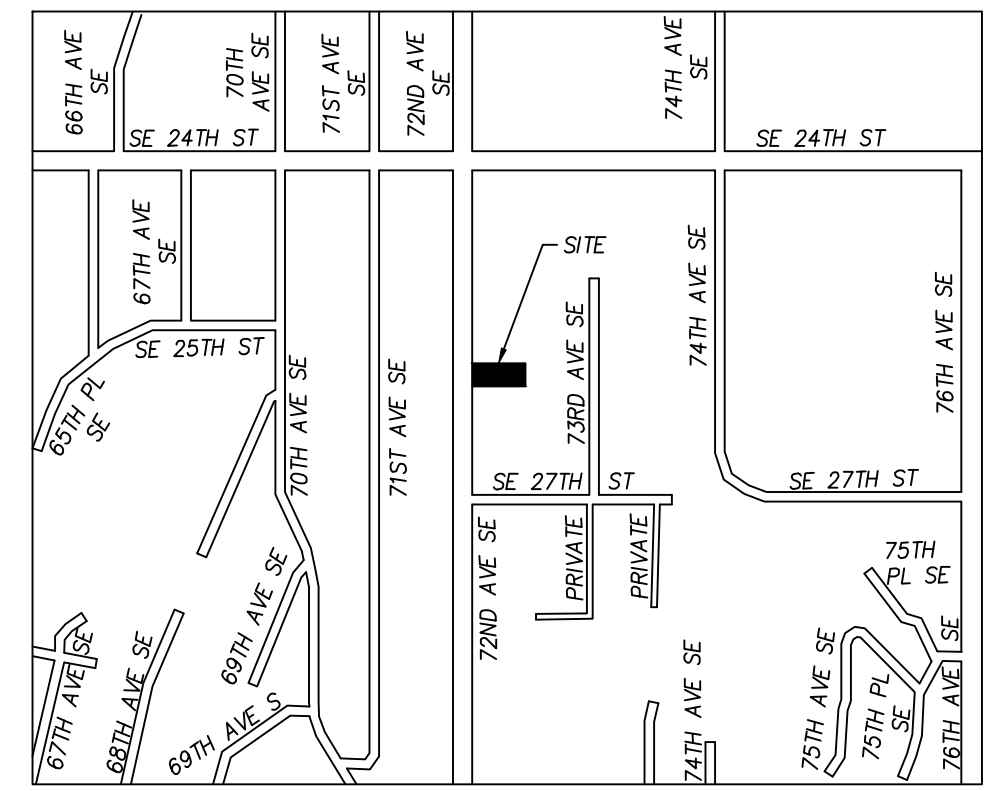


SCALE 1" = 10'

# HU RESIDENCE

SE 1/4 OF SE 1/4 OF SECTION 12, T. 24 N., R. 04 E., W.M.  
CITY OF MERCER ISLAND, KING COUNTY, STATE OF WASHINGTON



VICINITY MAP  
NTS

### PROJECT TEAM:

**OWNER:** HU MU  
2448 72ND AVE SE  
MERCER ISLAND, WA 98040  
(425) 396-6167

**CIVIL ENGINEER/  
SURVEYOR:** BRIANA BENNINGTON, PE / KEVIN REESE, PLS  
ENCOMPASS ENGINEERING & SURVEYING  
165 N.E. JUNIPER STREET, SUITE 201  
ISSAQUAH, WA 98027  
(425) 392-0250

**ARCHITECT:** PAUL MONSEF, RA  
ATERA DESIGN STUDIO, LLC  
451 DUVALL AVE NE, SUITE 115  
RENTON, WA 98059  
(425) 306-2758

**GEOTECHNICAL  
ENGINEER:** MARC MCGINNIS, PE  
GEOTECH CONSULTANTS, INC.  
2401 10TH AVE E  
SEATTLE, WA 98102  
(425) 747-5618

### SITE DATA:

**SITE ADDRESS:** 2448 72ND AVE SE  
MERCER ISLAND, WA 98040

**SITE AREA:** 7,200 SF (0.165 AC) - AS SURVEYED

**TAX PARCEL:** 531510-0366

### UTILITY DISTRICT INFORMATION:

**WATER/SEWER:** CITY OF MERCER ISLAND (206) 275-7608

**FIRE DISTRICT:** MERCER ISLAND FIRE DEPARTMENT (206) 275-7607

**CABLE TV:** COMCAST (800) 934-6489

**GAS/ELECTRIC:** PUGET SOUND ENERGY (888) 321-7779

### ZONING INFORMATION:

**ZONING:** R-9.6

**FRONT YARD SETBACK:** 20'

**SIDE YARD SETBACK:** 10'

**REAR YARD SETBACK:** 25'

### ON-SITE IMPERVIOUS COVERAGE:

**HOUSE (ROOF):** 2,343 SF

**UNCOVERED PAVEMENT:** 45 SF

**UNCOVERED CONCRETE DRIVEWAY (ON-SITE):** 444 SF

**TOTAL:** 2,832 SF (39.33%)

\*NOTE: AN ADDITIONAL 312 SF OF PROPOSED ASPHALT DRIVEWAY IS LOCATED OFF-SITE IN THE PUBLIC ROW.

### LEGAL DESCRIPTION:

THE SOUTH 60 FEET OF THE WEST 120 FEET OF LOT 4, BLOCK 5, MCGILVRA'S ISLAND ADDITION, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 16 OF PLATS, PAGE 58, IN KING COUNTY, WASHINGTON;

TOGETHER WITH AN EASEMENT FOR ROAD AND UTILITY PURPOSES OVER THE SOUTH 17.33 FEET OF THE NORTH 77.33 FEET OF THE WEST 120 FEET OF SAID LOT 4, BLOCK 5, MCGILVRA'S ISLAND ADDITION.

### EXISTING UTILITY NOTE:

ALL LOCATIONS OF 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 CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN.

### CONTRACTOR RESPONSIBILITY:

CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY, DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

### DISCREPANCIES:

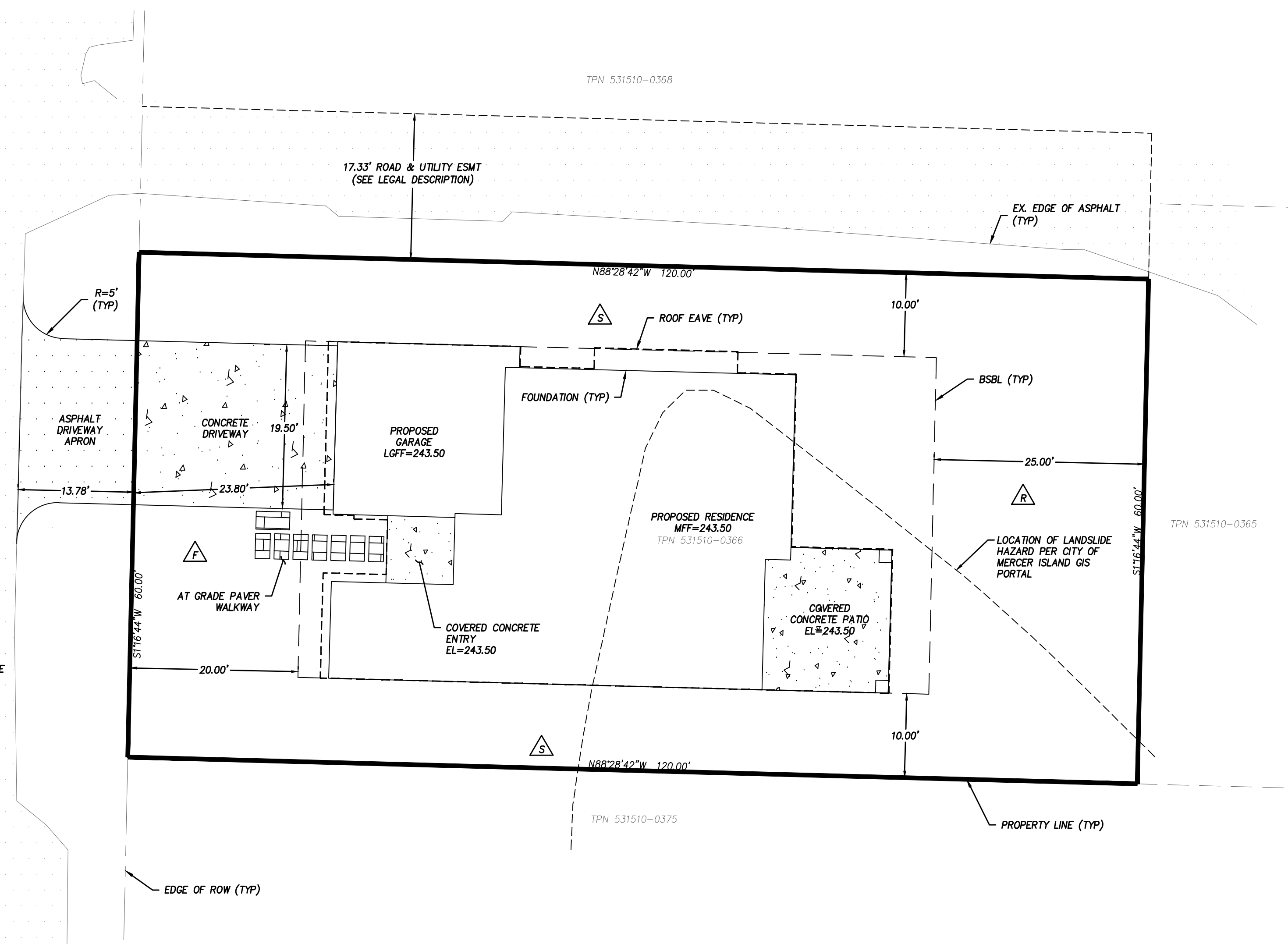
IF THERE ARE ANY DISCREPANCIES BETWEEN DIMENSIONS IN DRAWINGS AND EXISTING CONDITIONS WHICH WILL AFFECT THE WORK, THE CONTRACTOR SHALL BRING SUCH DISCREPANCIES TO THE ATTENTION OF THE ENGINEER FOR ADJUSTMENT BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FITTING OF ALL WORK AND FOR THE COORDINATION OF ALL TRADES, SUBCONTRACTORS, AND PERSONS ENGAGED UPON THIS CONTRACT.

### GENERAL NOTES:

- SPECIAL INSPECTIONS BY CITY INSPECTOR ARE REQUIRED DURING CONSTRUCTION. GENERAL CONTRACTOR TO COORDINATE.
- ALL EXISTING ON-SITE STRUCTURES AND ASSOCIATED UTILITIES TO BE DEMOLISHED, REMOVED, AND/OR ABANDONED PER APPLICABLE JURISDICTIONAL REQUIREMENTS.
- DEFICIENCIES, WHETHER CAUSED BY CONTRACTOR OPERATIONS OR NOT CAUSED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED IMMEDIATELY.
- THE CONTRACTOR SHALL MAINTAIN ROADS AND STREETS ADJACENT TO THE PROJECT LIMITS WHEN AFFECTED BY THE CONTRACTOR'S OPERATION. THE CONTRACTOR SHALL REMOVE OR REPAIR ANY CONDITION RESULTING FROM THE WORK THAT MIGHT IMPEDE TRAFFIC OR CREATE A HAZARD. PUBLIC ROADWAYS SHALL BE BROOMED CLEAN AT THE END OF EACH WORK DAY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, AND ANY OTHER DEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC AND PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF THE WORK COVERED BY THE CONTRACT.
- ROCKERIES AND/OR RETAINING WALLS TO BE CONSTRUCTED PER GEOTECHNICAL AND/OR STRUCTURAL ENGINEER'S PLANS AND SPECIFICATIONS.
- ALL CONSTRUCTION TECHNIQUES AND MATERIALS SHALL BE PER CITY OF MERCER ISLAND STANDARDS/SPECIFICATIONS.

### SITE IMPROVEMENT NOTES:

- THE PROPOSED PROJECT CONSISTS OF INSTALLING SITE UTILITIES, INSTALLING THE STRUCTURE FOUNDATIONS, BACKFILLING AND FINAL GRADING. THE WORK WILL REQUIRE THE CONSTRUCTION OF TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES. ANY TEMPORARY SHORING AND/OR PERMANENT RETAINING WALLS THAT MAY BE REQUIRED SHALL BE ADDRESSED BY THE PROJECT STRUCTURAL AND GEOTECHNICAL ENGINEERS.
- EXISTING UTILITIES HAVE BEEN SHOWN FOR CONVENIENCE BASED ON SURVEY MAPPING OF THE PROJECT SITE AND ADJACENT CITY RIGHT-OF-WAY. THE CONTRACTOR SHALL LOCATE ALL PRIMARY AND SECONDARY UTILITIES (I.E.: VIA SEWERS, GAS, ELECTRICAL, COMMUNICATIONS, WATER, STORM DRAINAGE, ETC.) SIDE POTHOLING PRIOR TO CONSTRUCTION. CONFLICTS WITH ANY PROPOSED CONSTRUCTION ELEMENTS SHALL BE RESOLVED PRIOR TO BEGINNING CONSTRUCTION. A CONFLICT IS GENERALLY DEFINED AS A UTILITY THAT IS LOCATED WITHIN A ZONE 3 FEET OR LESS BELOW OR BESIDE, OR 5 FEET OR LESS ABOVE ANY UTILITY.
- PROTECTION OF CITY IMPROVEMENTS WITHIN ROW SHALL TAKE PLACE AT ALL TIMES DURING CONSTRUCTION.
- ANY WORK BEYOND THE LIMITS OF THE PROPERTY LINES SHALL REQUIRE A CONSTRUCTION EASEMENT TO BE REVIEWED AND APPROVED BY THE CITY PRIOR TO BEGINNING CONSTRUCTION.
- SOIL SHALL BE AMENDED PER CITY STANDARDS. SEE SOIL AMENDMENT NOTES ON SHEET 2.
- THE CONTRACTOR SHALL HAVE APPROVED PLANS, STANDARD NOTES, STANDARD DETAILS AND SPECIFICATIONS AVAILABLE ON JOBSITE.



| TITLE                   | NO. |
|-------------------------|-----|
| COVER SHEET & SITE PLAN | 1   |
| TESC PLAN               | 2   |
| TESC DETAILS            | 3   |
| GRADING & UTILITY PLAN  | 4   |
| CONSTRUCTION DETAILS    | 5   |



04/05/2024

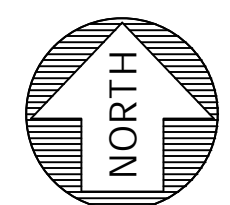
HU RESIDENCE  
2448 72ND AVE SE - MERCER ISLAND, WA 98040  
COVER SHEET & SITE PLAN



|          |            |
|----------|------------|
| JOB NO.  | 21782      |
| DATE     | 04/05/2024 |
| SCALE    | 1"=10'     |
| DESIGNED | BLB        |
| DRAWN    | PMS        |
| CHECKED  | CP         |
| APPROVED | CP         |
| SHEET    | 1 of 5     |



FILENAME: J:\21782 - HU\ENGINEERING\PLAN SHEETS\1 - COVER.DWG



SCALE 1" = 10'

# HU RESIDENCE

SE 1/4 OF SE 1/4 OF SECTION 12, T. 24 N., R. 04 E., W.M.  
CITY OF MERCER ISLAND, KING COUNTY, STATE OF WASHINGTON

### EROSION & SEDIMENT CONTROL NOTES:

- APPROVAL OF THIS EROSION/SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
- THE IMPLEMENTATION OF THIS ESC PLAN AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE PERMITTEE/CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED.
- THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE SET BY SURVEY AND CLEARLY FLAGGED IN THE FIELD BY A CLEARING CONTROL FENCE PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE OR REMOVAL OF ANY GROUND COVER BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE PERMITTEE/CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
- THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS. WHEREVER POSSIBLE, MAINTAIN NATURAL VEGETATION FOR SILT CONTROL.
- THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED (E.G. ADDITIONAL SUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.) AS NEEDED FOR UNEXPECTED STORM EVENTS. ADDITIONALLY, MORE ESC FACILITIES MAY BE REQUIRED TO ENSURE COMPLETE SILTATION CONTROL. THEREFORE, DURING THE COURSE OF CONSTRUCTION IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY HIS ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES OVER AND ABOVE THE MINIMUM REQUIREMENTS AS MAY BE NEEDED.
- THE ESC FACILITIES SHALL BE INSPECTED BY THE PERMITTEE/CONTRACTOR DAILY DURING NON-RAINFALL PERIODS, EVERY HOUR (DAYLIGHT) DURING A RAINFALL EVENT, AND AT THE END OF EVERY RAINFALL, AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING. IN ADDITION, TEMPORARY SILTATION PONDS AND ALL TEMPORARY SILTATION CONTROLS SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED. PERMANENT DRAINAGE FACILITIES ARE OPERATIONAL, AND THE POTENTIAL FOR EROSION HAS PASSED. WRITTEN RECORDS SHALL BE KEPT DOCUMENTING THE REVIEWS OF THE ESC FACILITIES.
- THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN 48 HOURS FOLLOWING A STORM EVENT.
- ALL DENUDE SOILS MUST BE STABILIZED WITH AN APPROVED TESC METHOD (E.G. SEEDING, MULCHING, PLASTIC COVERING, CRUSHED ROCK) WITHIN THE FOLLOWING TIMELINES:
  - \* APRIL 1 TO OCTOBER 31 - SOILS MUST BE STABILIZED WITHIN 7 DAYS OF GRADING.
  - \* NOVEMBER 1 TO MARCH 31 - SOILS MUST BE STABILIZED WITHIN 2 DAYS OF GRADING.
- AT NO TIME SHALL MORE THAN 1' OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.
- STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
- ANY PERMANENT RETENTION/DETENTION FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE PERMANENT FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION OR DISPERSION SYSTEM, THE FACILITY SHALL NOT BE USED AS A TEMPORARY SETTLING BASIN. NO UNDERGROUND DETENTION TANK, DETENTION VAULT, OR SYSTEM WHICH BACKS UNDER OR INTO A POND SHALL BE USED AS A TEMPORARY SETTLING BASIN.
- WHERE SEEDING FOR TEMPORARY EROSION CONTROL IS REQUIRED, FAST GERMINATING GRASSES SHALL BE APPLIED AT AN APPROPRIATE RATE (EXAMPLE: ANNUAL OR PERENNIAL RYE APPLIED AT APPROXIMATELY 80 POUNDS PER ACRE).
- WHERE STRAW MULCH IS REQUIRED FOR TEMPORARY EROSION CONTROL, IT SHALL BE APPLIED AT A MINIMUM THICKNESS OF 2".
- ALL EROSION/SEDIMENTATION CONTROL PONDS WITH A DEAD STORAGE DEPTH EXCEEDING 6" MUST HAVE A PERIMETER FENCE WITH A MINIMUM HEIGHT OF 3'.
- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF MERCER ISLAND STANDARDS AND SPECIFICATIONS.
- THE ESC FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS ON THE APPROVED PLANS. LOCATIONS MAY BE MOVED TO SUIT FIELD CONDITIONS, SUBJECT TO APPROVAL BY THE ENGINEER AND THE CITY OF MERCER ISLAND INSPECTOR.
- A COPY OF THE APPROVED EROSION CONTROL PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- ALL LOTS ADJOINING OR HAVING ANY NATIVE GROWTH PROTECTION EASEMENTS (NGPE) SHALL HAVE A 4' HIGH TEMPORARY CONSTRUCTION FENCE (CYCLONE OR PLASTIC MESH) SEPARATING THE LOT (OR BUILDABLE PORTIONS OF THE LOT) FROM THE AREA RESTRICTED BY THE NGPE AND SHALL BE INSTALLED PRIOR TO ANY GRADING OR CLEARING AND REMAIN IN PLACE UNTIL A DWELLING IS CONSTRUCTED AND OWNERSHIP TRANSFERRED TO THE FIRST OWNER/OCCUPANT.
- CLEARING LIMITS SHALL BE DELINEATED WITH A CLEARING CONTROL FENCE. THE CLEARING CONTROL FENCE SHALL CONSIST OF A 6-FT. HIGH CHAIN LINK FENCE ADJACENT THE Drip LINE OF TREES TO BE SAVED, WETLAND OR STREAM BUFFERS, AND SENSITIVE SLOPES. CLEARING CONTROL FENCES ALONG WETLAND OR STREAM BUFFERS OR UPSLOPE OF SENSITIVE SLOPES SHALL BE ACCOMPANIED BY AN EROSION CONTROL FENCE. IF APPROVED BY THE CITY, A FOUR-FOOT HIGH ORANGE MESH CLEARING CONTROL FENCE MAY BE USED TO DELINEATE CLEARING LIMITS IN ALL OTHER AREAS.
- OFF-SITE STREETS MUST BE KEPT CLEAN AT ALL TIMES. IF DIRT IS DEPOSITED ON THE PUBLIC STREET SYSTEM, THE STREET SHALL BE IMMEDIATELY CLEANED WITH POWER SWEEPER OR OTHER EQUIPMENT. ALL VEHICLES SHALL LEAVE THE SITE BY WAY OF THE CONSTRUCTION ENTRANCE AND SHALL BE CLEANED OF ALL DIRT THAT WOULD BE DEPOSITED ON THE PUBLIC STREETS.
- ANY CATCH BASINS COLLECTING RUNOFF FROM THE SITE, WHETHER THEY ARE ON OR OFF THE SITE, SHALL HAVE THEIR GRATES COVERED WITH FILTER FABRIC DURING CONSTRUCTION. CATCH BASINS DIRECTLY DOWNSTREAM OF THE CONSTRUCTION ENTRANCE OR ANY OTHER CATCH BASIN AS DETERMINED BY THE CITY INSPECTOR SHALL BE PROTECTED WITH A "FILTER FABRIC SOCK" OR EQUIVALENT.
- THE WASHED GRAVEL BACKFILL ADJACENT TO THE FILTER FABRIC FENCE SHALL BE REPLACED AND THE FILTER FABRIC CLEANED IF IT IS NONFUNCTIONAL BY EXCESSIVE SILT ACCUMULATION AS DETERMINED BY THE CITY OF KIRKLAND. ALSO, ALL INTERCEPTOR SWALES SHALL BE CLEANED IF SILT ACCUMULATION EXCEEDS ONE-QUARTER DEPTH.
- ROCK FOR EROSION PROTECTION OF ROADWAY DITCHES, WHERE REQUIRED, MUST BE OF SOUND QUARRY ROCK, PLACED TO A DEPTH OF 1' AND MUST MEET THE FOLLOWING SPECIFICATIONS: 4"-8" ROCK/40 %-70 % PASSING; 2"-4" ROCK/30 %-40 % PASSING; AND 1"-2" ROCK/10 %-20 % PASSING.
- IF ANY PART(S) OF THE CLEARING LIMIT BOUNDARY OR TEMPORARY EROSION/SEDIMENTATION CONTROL PLAN IS/ARE DAMAGED, IT SHALL BE REPAIRED IMMEDIATELY.
- ALL PROPERTIES ADJACENT TO THE PROJECT SITE SHALL BE PROTECTED FROM SEDIMENT DEPOSITION AND RUNOFF.
- DO NOT FLUSH CONCRETE BY-PRODUCTS OR TRUCKS NEAR OR INTO THE STORM DRAINAGE SYSTEM. IF EXPOSED AGGREGATE IS FLUSHED INTO THE STORM SYSTEM, IT COULD MEAN RE-CLEANING THE ENTIRE DOWNSTREAM STORM SYSTEM, OR POSSIBLY RE-LAYING THE STORM LINE.
- PRIOR TO OCTOBER 1 OF EACH YEAR (THE BEGINNING OF THE WET SEASON), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. THE IDENTIFIED DISTURBED AREA SHALL BE SEEDED WITHIN ONE WEEK AFTER OCTOBER 1. A SITE PLAN DEPICTING THE AREAS TO BE SEEDED AND THE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED TO THE PUBLIC WORKS CONSTRUCTION INSPECTOR. THE INSPECTOR CAN REQUIRE SEEDING OF ADDITIONAL AREAS IN ORDER TO PROTECT SURFACE WATERS, ADJACENT PROPERTIES, OR DRAINAGE FACILITIES.
- IF A SEDIMENT POND IS NOT PROPOSED, A BAKER TANK OR OTHER TEMPORARY GROUND AND/OR SURFACE WATER STORAGE TANK MAY BE REQUIRED DURING CONSTRUCTION, DEPENDING ON WEATHER CONDITIONS.
- ANY AREA TO BE USED FOR INFILTRATION OR PERVIOUS PAVEMENT (INCLUDING A 5-FOOT BUFFER) MUST BE SURROUNDED BY SILT FENCE PRIOR TO CONSTRUCTION AND UNTIL FINAL STABILIZATION OF THE SITE TO PREVENT SOIL COMPACTION AND SILTATION BY CONSTRUCTION ACTIVITIES.

### CONSTRUCTION NOTES:

- ACCESS EASEMENT MUST BE MAINTAINED AT ALL TIMES. NO CONSTRUCTION VEHICLES OR CONSTRUCTION INTERRUPTIONS WITHOUT PERMISSION. CONSTRUCTION ENTRANCE TO BE LOCATED OFF OF 72ND AVE. SE.
- EXISTING HEDGES, WALLS, AND FENCE IN ROW TO BE REMOVED. THESE EXISTING ELEMENTS SHALL NOT BE REINSTALLED OR REPLACED IN ROW.
- IF OFF-SITE FENCING IS TO BE REMOVED, PROVIDE DOCUMENTATION TO THE CITY THAT NEIGHBOR TO SOUTH AGREES TO SUCH REMOVAL AND WILL ALLOW ACCESS TO PROPERTY.

### SOIL MANAGEMENT AREAS:

- (A) STOCKPILE EXISTING TOP SOIL (3,406 SF), REPLACE AND AMEND AS NEEDED
- (B) UNDISTURBED EXISTING SOIL (1,715 SF)

### POST-CONSTRUCTION SOIL MANAGEMENT

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

BMP TS.13: POST-CONSTRUCTION SOIL QUALITY AND DEPTH (FROM 2014 DEPT. OF ECOLOGY SIMMWW) NATURALLY OCCURRING (UNDISTURBED) SOIL AND VEGETATION PROVIDE IMPORTANT STORMWATER FUNCTIONS INCLUDING: WATER INFILTRATION; NUTRIENT, SEDIMENT, AND POLLUTANT ADSORPTION; SEDIMENT AND POLLUTANT BIOFILTRATION; WATER INTERFLOW STORAGE AND TRANSMISSION; AND POLLUTANT DECOMPOSITION. THESE FUNCTIONS ARE LARGELY LOST WHEN DEVELOPMENT STRIPS AWAY NATIVE SOIL AND VEGETATION AND REPLACES IT WITH MINIMAL TOPSOIL AND SOD, NOT ONLY ARE THESE IMPORTANT STORMWATER FUNCTIONS LOST, BUT SUCH LANDSCAPES THEMSELVES BECOME POLLUTION GENERATING PERVIOUS SURFACES DUE TO INCREASED USE OF PESTICIDES, FERTILIZERS AND OTHER LANDSCAPING AND HOUSEHOLD/INDUSTRIAL CHEMICALS, THE CONCENTRATION OF PET WASTES, AND POLLUTANTS THAT ACCOMPANY ROADSIDE LITTER.

ESTABLISHING SOIL QUALITY AND DEPTH REGAINS GREATER STORMWATER FUNCTIONS IN THE POST DEVELOPMENT LANDSCAPE. PROVIDES INCREASED TREATMENT OF POLLUTANTS AND SEDIMENTS THAT RESULT FROM DEVELOPMENT AND HABITATION, AND MINIMIZES THE NEED FOR SOME LANDSCAPING CHEMICALS, THUS REDUCING POLLUTION THROUGH PREVENTION. ESTABLISHING A MINIMUM SOIL QUALITY AND DEPTH IS NOT THE SAME AS PRESERVATION OF NATURALLY OCCURRING SOIL AND VEGETATION. HOWEVER, ESTABLISHING A MINIMUM SOIL QUALITY AND DEPTH WILL PROVIDE IMPROVED ON-SITE MANAGEMENT OF STORMWATER FLOW AND WATER QUALITY. SOIL ORGANIC MATTER CAN BE ATTAINED THROUGH NUMEROUS MATERIALS SUCH AS COMPOST, COMPOSTED WOODY MATERIAL, BIOSOLIDS, AND FOREST PRODUCT RESIDUALS. IT IS IMPORTANT THAT THE MATERIALS USED TO MEET THE SOIL QUALITY AND DEPTH BMP BE APPROPRIATE AND BENEFICIAL TO THE PLANT COVER TO BE ESTABLISHED. LIKEWISE, IT IS IMPORTANT THAT IMPORTED TOPSOILS IMPROVE SOIL CONDITIONS AND DO NOT HAVE AN EXCESSIVE PERCENT OF CLAY FINES.

STEP 1 IDENTIFY AREAS OF THE SITE THAT WILL NOT BE DISTURBED DURING CONSTRUCTION (CLEARED, GRADED, OR DRIVEN ON). FENCE THOSE AREAS TO PREVENT IMPACTS DURING CONSTRUCTION. IF NEITHER SOILS NOR VEGETATION ARE DISTURBED, THESE AREAS DO NOT REQUIRE AMENDMENT.

STEP 2 IN DISTURBED AREAS (COMPACTED BY CONSTRUCTION TRAFFIC):

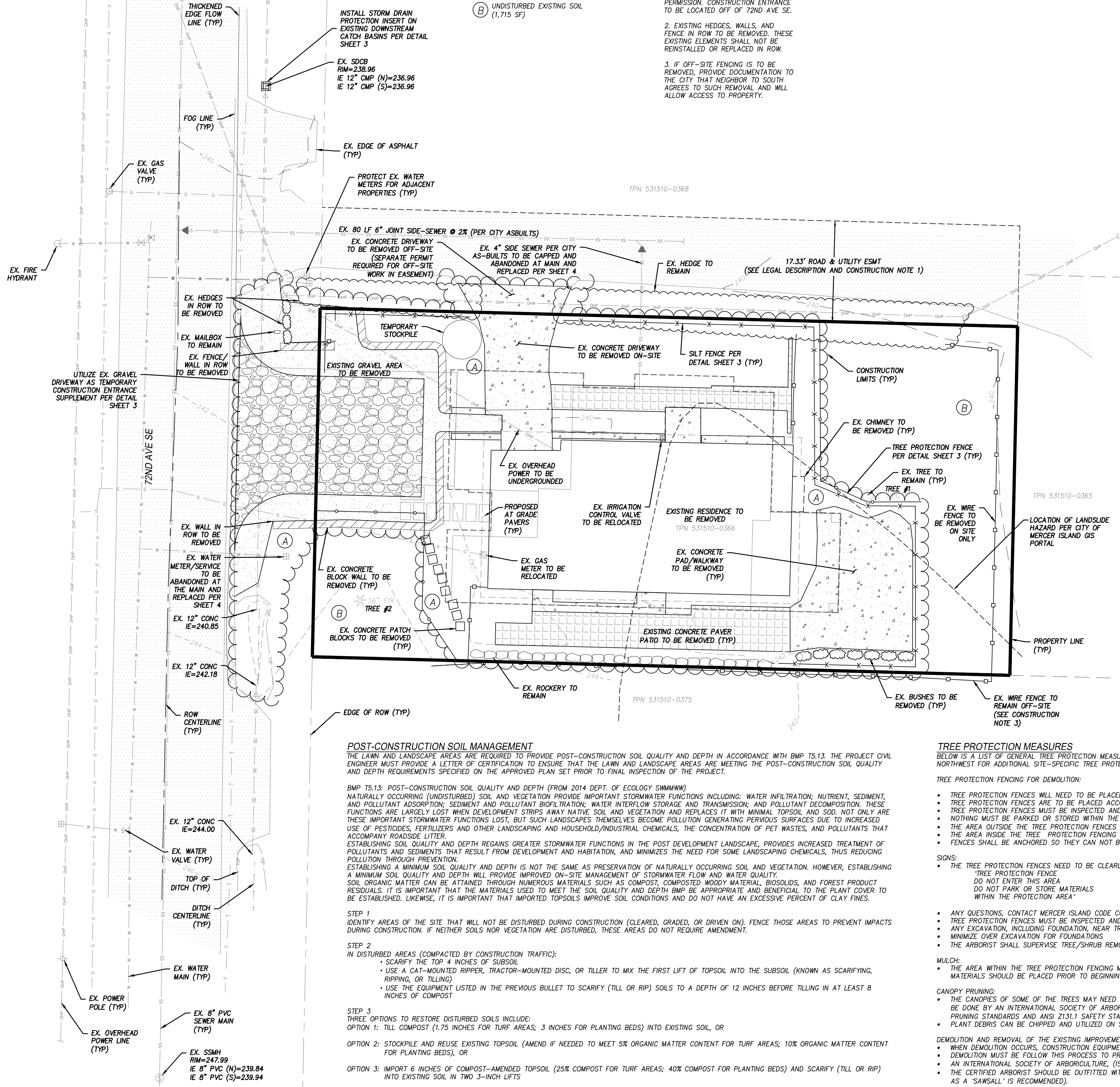
- SCARIFY THE TOP 4 INCHES OF SUBSOIL
- USE A CAT-MOUNTED RIPPER, TRACTOR-MOUNTED DISC, OR TILLER TO MIX THE FIRST LIFT OF TOPSOIL INTO THE SUBSOIL (KNOWN AS SCARIFYING, RIPPING, OR TILLING)
- USE THE EQUIPMENT LISTED IN THE PREVIOUS BULLET TO SCARIFY (TILL OR RIP) SOILS TO A DEPTH OF 12 INCHES BEFORE TILLING IN AT LEAST 8 INCHES OF COMPOST

STEP 3 THREE OPTIONS TO RESTORE DISTURBED SOILS INCLUDE:

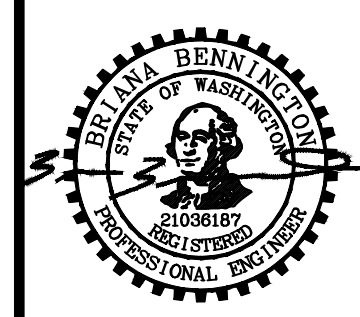
OPTION 1: TILL COMPOST (1.75 INCHES FOR TURF AREAS; 3 INCHES FOR PLANTING BEDS) INTO EXISTING SOIL, OR

OPTION 2: STOCKPILE AND REUSE EXISTING TOPSOIL (AMEND IF NEEDED TO MEET 5% ORGANIC MATTER CONTENT FOR TURF AREAS; 10% ORGANIC MATTER CONTENT FOR PLANTING BEDS), OR

OPTION 3: IMPORT 6 INCHES OF COMPOST-AMENDED TOPSOIL (25% COMPOST FOR TURF AREAS; 40% COMPOST FOR PLANTING BEDS) AND SCARIFY (TILL OR RIP) INTO EXISTING SOIL IN TWO 3-INCH LIFTS



| DATE       | BY  | REVISIONS                     |
|------------|-----|-------------------------------|
| 10/27/2022 | BLB | DESIGNED PER CITY COMMENTS #1 |
| 03/06/2023 | BLB | REVISED PER CITY COMMENTS #2  |
| 05/07/2023 | BLB | REVISED PER CITY COMMENTS #3  |
| 06/09/2023 | BLB | REVISED PER CITY COMMENTS #4  |
| 04/05/2024 | BLB | REVISED SS SERVICE            |



04/05/2024

**HU RESIDENCE**  
2448 72ND AVE SE - MERCER ISLAND, WA 98040  
**TESC PLAN**

**Encompass**  
ENGINEERING & SURVEYING

Western Washington Division  
165 NE Juniper Street, Suite 201 Issaquah, WA 98027 Phone: (425) 392-0250  
Eastern Washington Division  
407 Southwest Blvd. Cle Elum, WA 98922 Phone: (509) 674-7433

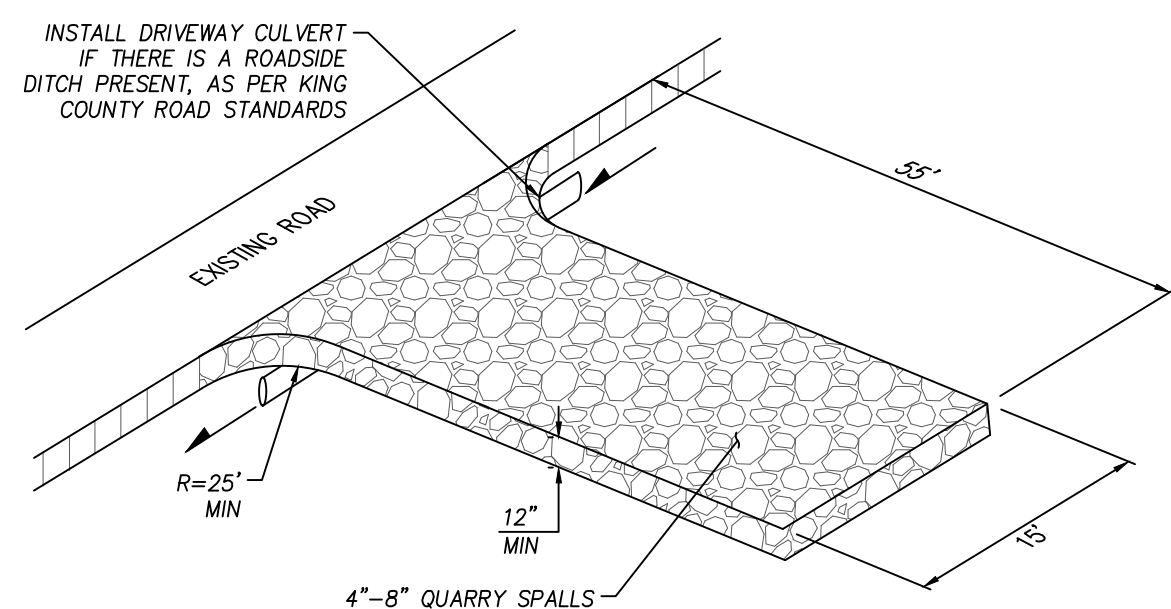
|          |            |
|----------|------------|
| JOB NO.  | 21782      |
| DATE     | 04/05/2024 |
| SCALE    | 1"=10'     |
| DESIGNED | BLB        |
| DRAWN    | PMS        |
| CHECKED  | CP         |
| APPROVED | CP         |
| SHEET    | 2 of 5     |





# HU RESIDENCE

SE 1/4 OF SE 1/4 OF SECTION 12, T. 24 N., R. 04 E., W.M.  
CITY OF MERCER ISLAND, KING COUNTY, STATE OF WASHINGTON

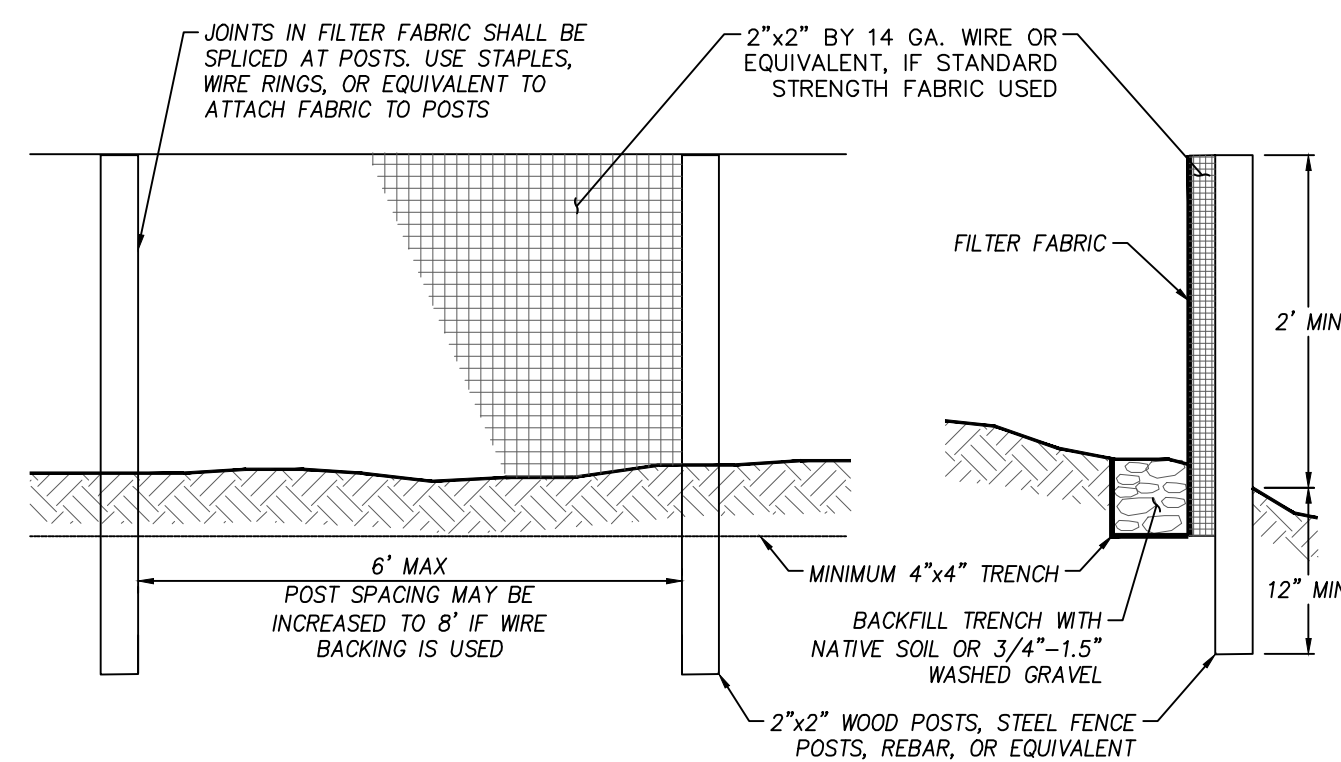


**MAINTENANCE:**

- QUARRY SPALLS (OR HOG FUEL) SHALL BE ADDED IF THE PAD IS NO LONGER IN ACCORDANCE WITH THE SPECIFICATIONS.
- IF THE ENTRANCE IS NOT PREVENTING SEDIMENT FROM BEING TRACKED ONTO PAVEMENT, THEN ALTERNATIVE MEASURES TO KEEP THE STREETS FREE OF SEDIMENT SHALL BE USED. THIS MAY INCLUDE STREET SWEEPING, AN INCREASE IN THE DIMENSIONS OF THE ENTRANCE, OR THE INSTALLATION OF A WHEEL WASH. IF WASHING IS USED, IT SHALL BE DONE ON AN AREA COVERED WITH CRUSHED ROCK, AND WASH WATER SHALL DRAIN TO A SEDIMENT TRAP OR POND.
- ANY SEDIMENT THAT IS TRACKED ONTO PAVEMENT SHALL BE REMOVED IMMEDIATELY BY SWEEPING. THE SEDIMENT COLLECTED BY SWEEPING SHALL BE REMOVED OR STABILIZED ON SITE. THE PAVEMENT SHALL NOT BE CLEANED BY WASHING DOWN THE STREET, EXCEPT WHEN SWEEPING IS INEFFECTIVE AND THERE IS A THREAT TO PUBLIC SAFETY. IF IT IS NECESSARY TO WASH THE STREETS, A SMALL SUMP MUST BE CONSTRUCTED. THE SEDIMENT WOULD THEN BE WASHED INTO THE SUMP WHERE IT CAN BE CONTROLLED. WASH WATER MUST BE PUMPED BACK ONTO THE SITE AND CAN NOT DISCHARGE TO SYSTEMS TRIBUTARY TO SURFACE WATERS.
- ANY QUARRY SPALLS THAT ARE LOOSENED FROM THE PAD AND END UP ON THE ROADWAY SHALL BE REMOVED IMMEDIATELY.
- IF VEHICLES ARE ENTERING OR EXITING THE SITE AT POINTS OTHER THAN THE CONSTRUCTION ENTRANCE(S), FENCING SHALL BE INSTALLED TO CONTROL TRAFFIC.

**CONSTRUCTION ENTRANCE DETAIL**

NO SCALE

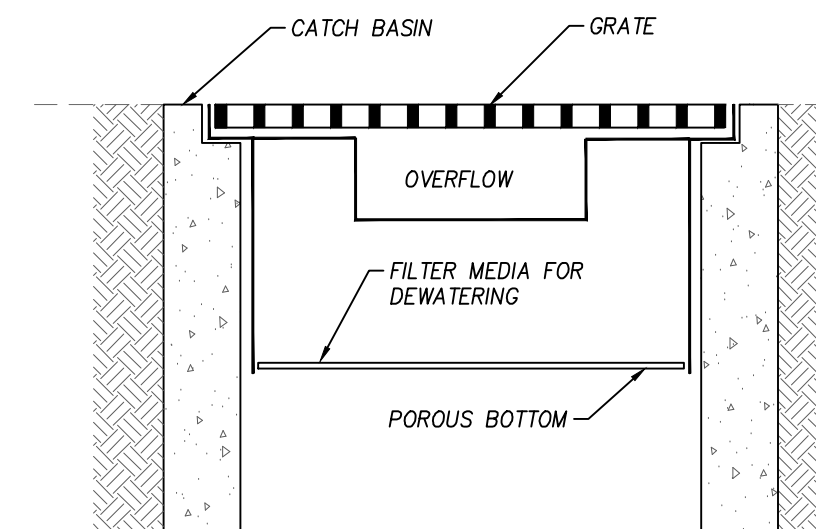


**MAINTENANCE:**

- ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY.
- IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT TRAP OR POND.
- IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGNS OF THE FENCE CLOGGING AND ACTING AS A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO THE FENCE. IF THIS OCCURS, REPLACE THE FENCE OR REMOVE THE TRAPPED SEDIMENT.
- SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT IS 6 INCHES HIGH.
- IF THE FILTER FABRIC (GEOTEXTILE) HAS DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE REPLACED.

**SILT FENCE**

NO SCALE



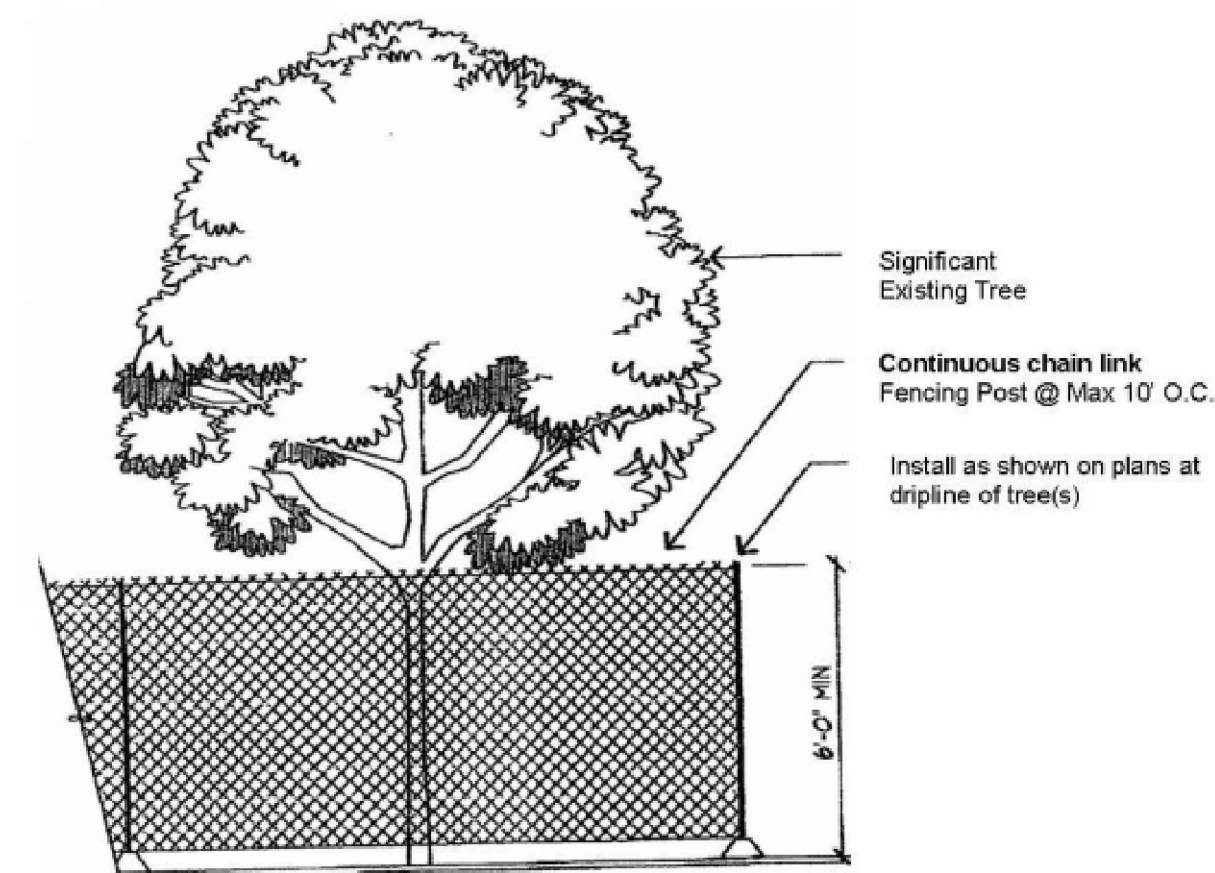
NOTE: THIS DETAIL IS ONLY SCHEMATIC. ANY INSERT IS ALLOWED THAT HAS A MIN. 0.5 C.F. OF STORAGE. THE MEANS TO DEWATER THE STORED SEDIMENT, AN OVERFLOW, AND CAN BE EASILY MAINTAINED.

**MAINTENANCE STANDARDS**

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

**CATCH BASIN PROTECTION DETAIL**

NO SCALE



Six-foot high temporary chain link fence shall be placed as shown on plans. Fence shall completely encircle tree(s). Install fence posts using pier blocks only. Avoid driving posts or stakes into major roots.

Make a clean straight cut to remove damaged portion of root for all roots over 1" in diameter damaged during construction. All exposed roots shall be temporarily covered with damp burlap and covered with soils the same day, if possible, to prevent drying. If not possible, burlap must be kept moist at all times.

Work with the protection fencing shall be done manually. No stockpiling of materials, soil, debris, vehicle traffic, or storage of equipment or machinery shall be allowed within the limit of the fencing.

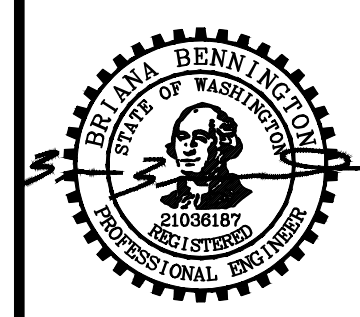
Cement trucks must not be allowed to deposit waste or wash out materials from their trucks within the Tree Protection Fences.

The area within the Tree Protection Fencing must be covered with wood chips, hog fuel, or similar materials to a depth of 8 to 10 inches. The materials should be placed prior to beginning construction and remain until the Tree Protection Fencing is taken down.

**TREE PROTECTION FENCE DETAIL**

NO SCALE

| DESCRIPTION                  | BY  | DATE       |
|------------------------------|-----|------------|
| REVISED PER CITY COMMENTS #1 | BLB | 10/27/2022 |
| REVISED PER CITY COMMENTS #2 | BLB | 03/06/2023 |
| REVISED PER CITY COMMENTS #3 | BLB | 05/07/2023 |
| REVISED PER CITY COMMENTS #4 | BLB | 06/09/2023 |
| REVISED SS SERVICE           | BLB | 04/05/2024 |



04/05/2024

**HU RESIDENCE**  
2448 72ND AVE SE - MERCER ISLAND, WA 98040  
**TESC DETAILS**

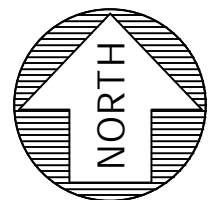
**Encompass**  
ENGINEERING & SURVEYING

Western Washington Division  
165 NE Juniper Street, Suite 201, Issaquah, WA 98027 Phone: (425) 392-0250  
Eastern Washington Division  
407 Swiftwater Blvd., Cle Elum, WA 98922 Phone: (509) 674-7433

|          |            |
|----------|------------|
| JOB NO.  | 21782      |
| DATE     | 04/05/2024 |
| SCALE    | NTS        |
| DESIGNED | BLB        |
| DRAWN    | PMS        |
| CHECKED  | CP         |
| APPROVED | CP         |
| SHEET    | 3 of 5     |



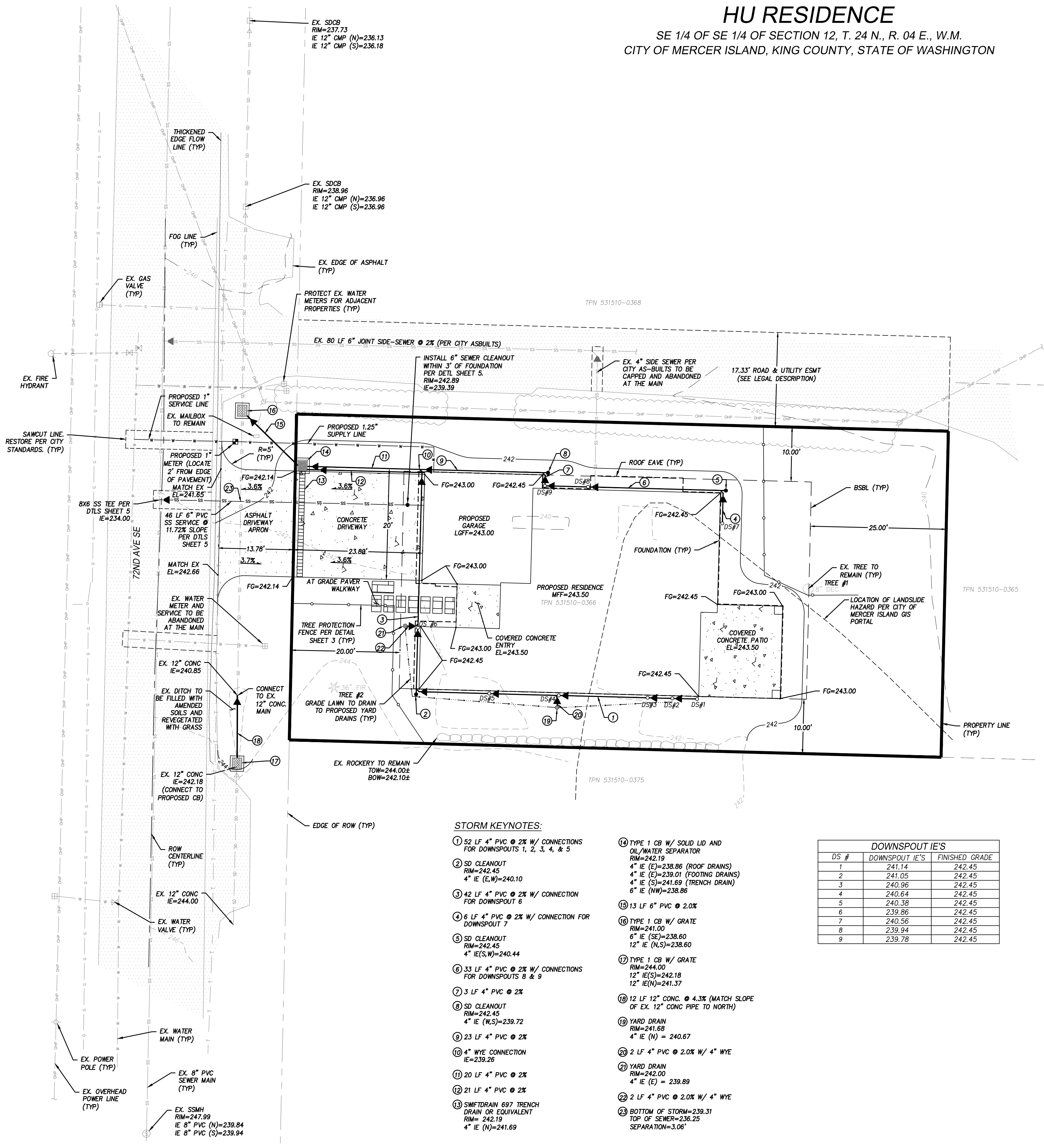
FILENAME: J:\21782 - HU\ENGINEERING\PLAN SHEETS\2 - TESC.DWG



SCALE 1" = 10'

# HU RESIDENCE

SE 1/4 OF SE 1/4 OF SECTION 12, T. 24 N., R. 04 E., W.M.  
CITY OF MERCER ISLAND, KING COUNTY, STATE OF WASHINGTON



### ARCHITECTURAL, STRUCTURAL & GEOTECHNICAL NOTES

1. THESE PLANS ARE APPROVED FOR STANDARD ROAD AND DRAINAGE IMPROVEMENTS ONLY. PLANS FOR STRUCTURES SUCH AS RETAINING WALLS REQUIRE A SEPARATE REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
2. SPECIAL INSPECTIONS FOR GEOTECHNICAL AND/OR STRUCTURAL ASPECTS OF THE PROJECT MAY BE REQUIRED DURING VARIOUS STAGES OF THE PROJECT. CONTRACTOR TO BE RESPONSIBLE FOR COORDINATION AND OBTAINING INSPECTIONS WHEN AND WHERE NECESSARY.
3. SEE ARCHITECTURAL PLANS FOR BUILDING SECTIONS AND ALL LOCAL/DIMENSIONAL ASPECTS OF BUILDINGS.
4. SEE ARCHITECTURAL AND STRUCTURAL PLANS FOR ALL BUILDING AND RETAINING WALL DETAILS.
5. COORDINATE ALL SITE CIVIL CONSTRUCTION WITH ARCHITECTURAL, STRUCTURAL, MECHANICAL/PLUMBING AND LANDSCAPE PLANS AND IN ACCORDANCE WITH GEOTECHNICAL RECOMMENDATIONS.
6. PRIOR TO CONSTRUCTION THE EARTHWORK/GENERAL CONTRACTOR TO BE COMPLETELY FAMILIAR WITH THE GEOTECHNICAL REPORT AND RECOMMENDATIONS. PLEASE REVIEW GEOTECH CONSULTANTS, INC'S REPORT DATED JANUARY 12, 2022 AND CONTACT MARC MCGINNIS, PE ON ANY QUESTIONS OR CONCERNS REGARDING HIS RECOMMENDATIONS.

### STRUCTURAL NOTES

1. THESE PLANS ARE APPROVED FOR STANDARD ROAD AND DRAINAGE IMPROVEMENTS ONLY. PLANS FOR STRUCTURES MAY REQUIRE A SEPARATE REVIEW AND APPROVAL.
2. ROCKERIES ARE CONSIDERED TO BE A METHOD OF BANK STABILIZATION AND EROSION CONTROL. ROCKERIES SHALL NOT BE CONSTRUCTED TO SERVE AS RETAINING WALLS. GEOTECHNICAL ENGINEERING MAY BE NECESSARY.

### BUILDING STAKING NOTE:

CONTRACTOR TO USE ARCHITECTURAL PLANS FOR ACCURATE LOCATION & CONSTRUCTION STAKING OF ALL SITE IMPROVEMENTS SUCH AS BUILDINGS, DRIVEWAYS, WALLS, WALKS, PATIOS & OTHER APPURTENANCES ON THE PROPERTY.

### DRAINAGE NOTES:

1. PROOF OF LIABILITY INSURANCE SHALL BE SUBMITTED TO THE CITY PRIOR TO THE PRECONSTRUCTION MEETING.
2. ALL PIPE AND APPURTENANCES SHALL BE LAID ON A PROPERLY PREPARED FOUNDATION IN ACCORDANCE WITH WSDOT 7-02.3(1). THIS SHALL INCLUDE LEVELING AND COMPACTING THE TRENCH BOTTOM, THE TOP OF THE FOUNDATION MATERIAL, AND ANY REQUIRED PIPE BEDDING, TO A UNIFORM GRADE SO THAT THE ENTIRE PIPE IS SUPPORTED BY A UNIFORMLY SLOPE UNYIELDING BASE.
3. STEEL PIPE SHALL BE GALVANIZED AND HAVE ASPHALT TREATMENT #1 OR BETTER INSIDE AND OUTSIDE (KCRS 7.03).
4. ALL DRAINAGE STRUCTURES, SUCH AS CATCH BASINS AND MANHOLES, NOT LOCATED WITHIN A TRAVELED ROADWAY OR SIDEWALK, SHALL HAVE SOLID LOCKING LIDS. ALL DRAINAGE STRUCTURES ASSOCIATED WITH A PERMANENT RETENTION/DETENTION FACILITY SHALL HAVE SOLID LOCKING LIDS.
5. ALL CATCH BASIN GRATES SHALL BE STAMPED "OUTFALL TO STREAM, DUMP NO POLLUTANTS".
6. ALL DRIVEWAY CULVERTS LOCATED WITHIN RIGHT-OF-WAY SHALL BE OF SUFFICIENT LENGTH TO PROVIDE A MINIMUM 3:1 SLOPE FROM THE EDGE OF THE DRIVEWAY TO THE BOTTOM OF THE DITCH. CULVERTS SHALL HAVE BEVELED END SECTIONS TO MATCH THE SIDE SLOPE.
7. ROCK FOR EROSION PROTECTION OF ROADWAY DITCHES, WHERE REQUIRED, MUST BE OF SOUND QUARRY ROCK, PLACED TO A DEPTH OF 1 FOOT, AND MUST MEET THE FOLLOWING SPECIFICATIONS: 4"- 8" ROCK/40%-70% PASSING; 2"-4" ROCK/30%-40% PASSING; AND -2" ROCK/10%-20% PASSING.

### GRADING NOTES:

1. ALL CUT MATERIAL GENERATED DURING THE PROJECT THAT IS NOT ACCEPTABLE FOR USE AS COMPACTED FILL MATERIAL AT ANOTHER LOCATION ON-SITE MUST BE HAULED TO AN APPROVED LOCATION OFF-SITE.
2. THE ON-SITE TOPOGRAPHICAL MAPPING WAS PROVIDED BY ENCOMPASS ENGINEERING & SURVEYING.
3. ALL TEMPORARY OR PERMANENT SLOPES SHALL NOT EXCEED 2.5H:1V UNLESS APPROVED BY A GEOTECHNICAL ENGINEER.
4. FILL MATERIAL PLACED UNDER BUILDING FOUNDATIONS OR PAVEMENT SHALL BE CRUSHED BASE ROCK OR COMPACTED STRUCTURAL FILL IN ACCORDANCE TO WSDOT STANDARD SPECIFICATIONS.
5. ROCKERY AND/OR RETAINING WALLS GREATER THAN FOUR (4) FEET IN HEIGHT REQUIRES A BUILDING PERMIT.
6. IT WILL BE THE PERMITEE'S RESPONSIBILITY TO SUCCESSFULLY CAP AND ABANDON ALL EXISTING UTILITIES WITHIN THE DEVELOPMENT IN ACCORDANCE TO THE GOVERNING UTILITY AGENCY.

### GRADING QUANTITIES:

CUT= 5 CY  
 FILL= 30 CY  
 NET= 25 CY± (FILL)  
 \*CONTRACTOR TO VERIFY

### SOIL AMENDMENT NOTE:

SOIL AMENDMENT REQUIRED FOR ALL DISTURBED PERVIOUS SURFACES. (APPROXIMATELY 16.6 CY)

### FOOTING DRAIN NOTE:

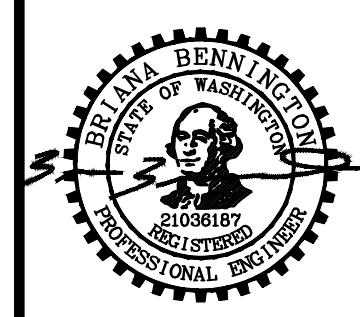
ALL FOOTING DRAINS AROUND THE FOUNDATION ARE TO BE 4" PERFORATED PIPE @ IE = 239.45. DO NOT CONNECT FOOTING DRAINS TO ROOF DRAIN SYSTEM. PIPE FOOTING DRAINS TO PROPOSED ON-SITE CATCH BASIN VIA SOLID 4" PVC @ 2% MINIMUM SLOPE (SEE STORM KEYNOTE 12).

### STORM KEYNOTES:

- 1) 52 LF 4" PVC @ 2% W/ CONNECTIONS FOR DOWNSPOUTS 1, 2, 3, 4, & 5
- 2) SD CLEANOUT RIM=242.45 4" IE (E,W)=240.10
- 3) 42 LF 4" PVC @ 2% W/ CONNECTION FOR DOWNSPOUT 6
- 4) 6 LF 4" PVC @ 2% W/ CONNECTION FOR DOWNSPOUT 7
- 5) SD CLEANOUT RIM=242.45 4" IE(S,W)=240.44
- 6) 33 LF 4" PVC @ 2% W/ CONNECTIONS FOR DOWNSPOUTS 8 & 9
- 7) 3 LF 4" PVC @ 2%
- 8) SD CLEANOUT RIM=242.45 4" IE (W,S)=239.72
- 9) 23 LF 4" PVC @ 2%
- 10) 4" WYE CONNECTION IE=239.26
- 11) 20 LF 4" PVC @ 2%
- 12) 21 LF 4" PVC @ 2%
- 13) SMFT DRAIN 697 TRENCH DRAIN OR EQUIVALENT RIM= 242.19 4" IE (N)=241.69
- 14) TYPE 1 CB W/ SOLID LID AND OIL/WATER SEPARATOR RIM=242.19 4" IE (E)=238.86 (ROOF DRAINS) 4" IE (E)=239.01 (FOOTING DRAINS) 4" IE (S)=241.69 (TRENCH DRAIN) 6" IE (NW)=238.86
- 15) 13 LF 6" PVC @ 2.0%
- 16) TYPE 1 CB W/ GRATE RIM=241.00 6" IE (SE)=238.60 12" IE (N,S)=238.60
- 17) TYPE 1 CB W/ GRATE RIM=244.00 12" IE(S)=242.18 12" IE(N)=241.37
- 18) 12 LF 12" CONC. @ 4.3% (MATCH SLOPE OF EX. 12" CONC PIPE TO NORTH)
- 19) YARD DRAIN RIM=241.68 4" IE (N) = 240.67
- 20) 2 LF 4" PVC @ 2.0% W/ 4" WYE
- 21) YARD DRAIN RIM=242.00 4" IE (E) = 239.89
- 22) 2 LF 4" PVC @ 2.0% W/ 4" WYE
- 23) BOTTOM OF STORM=239.31 TOP OF SEWER=236.25 SEPARATION=3.06'

| DS # | DOWNSPOUT IE'S | FINISHED GRADE |
|------|----------------|----------------|
| 1    | 241.14         | 242.45         |
| 2    | 241.05         | 242.45         |
| 3    | 240.96         | 242.45         |
| 4    | 240.64         | 242.45         |
| 5    | 240.38         | 242.45         |
| 6    | 239.86         | 242.45         |
| 7    | 240.56         | 242.45         |
| 8    | 239.94         | 242.45         |
| 9    | 239.78         | 242.45         |

| REVISIONS                    | DESCRIPTION | DATE       |
|------------------------------|-------------|------------|
| REVISED PER CITY COMMENTS #1 |             | 10/27/2022 |
| REVISED PER CITY COMMENTS #2 |             | 03/06/2023 |
| REVISED PER CITY COMMENTS #3 |             | 05/07/2023 |
| REVISED PER CITY COMMENTS #4 |             | 06/09/2023 |
| REVISED SS SERVICE           |             | 04/05/2024 |



04/05/2024

HU RESIDENCE  
2448 72ND AVE SE - MERCER ISLAND, WA 98040  
GRADING & DRAINAGE PLAN

**Encompass**  
ENGINEERING & SURVEYING

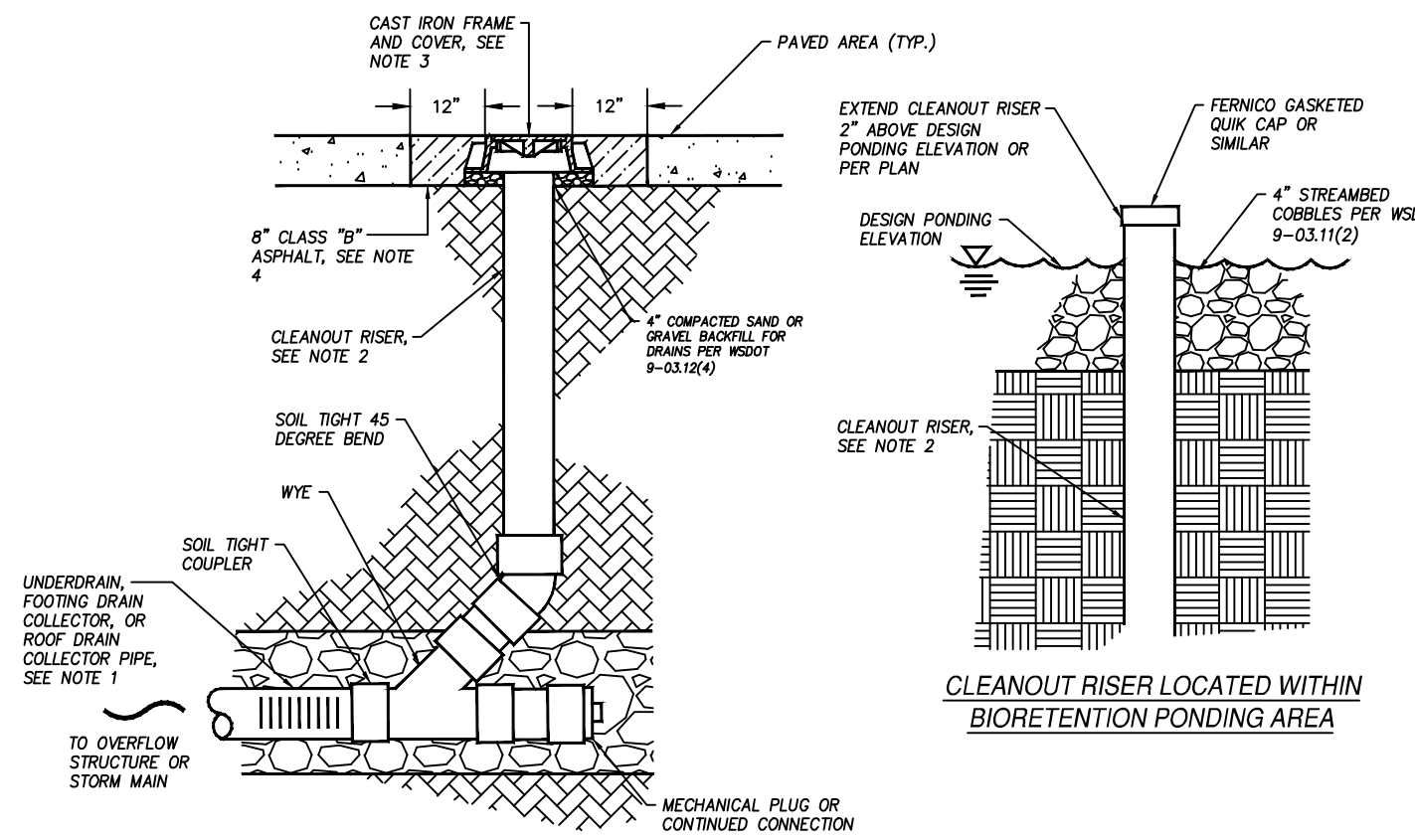
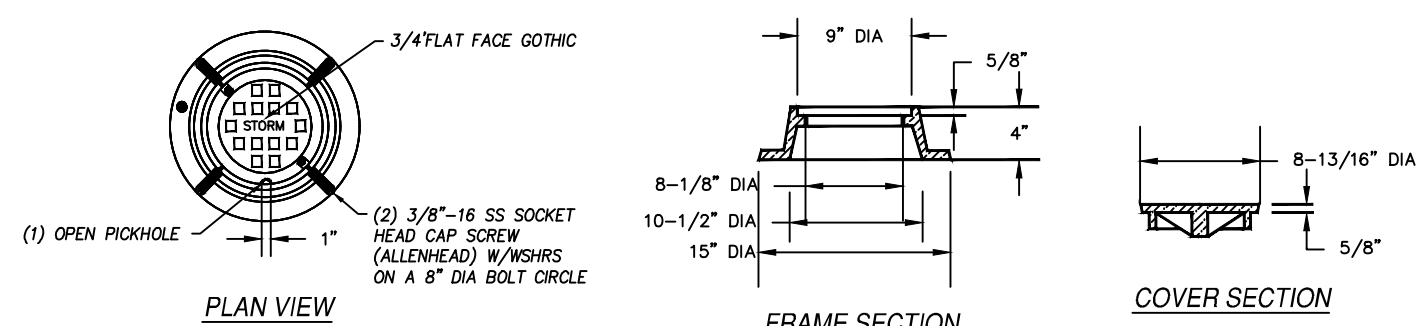
Western Washington Division  
165 NE Juniper Street, Suite 201, Issaquah, WA 98027 Phone: (425) 392-0250  
Eastern Washington Division  
407 Southwater Blvd, Cle Elum, WA 98922 Phone: (509) 674-7433

|          |            |
|----------|------------|
| JOB NO.  | 21782      |
| DATE     | 04/05/2024 |
| SCALE    | 1"=10'     |
| DESIGNED | BLB        |
| DRAWN    | PMS        |
| CHECKED  | CP         |
| APPROVED | CP         |
| SHEET    | 4 of 5     |





**HU RESIDENCE**  
SE 1/4 OF SE 1/4 OF SECTION 12, T. 24 N., R. 04 E., W.M.  
CITY OF MERCER ISLAND, KING COUNTY, STATE OF WASHINGTON



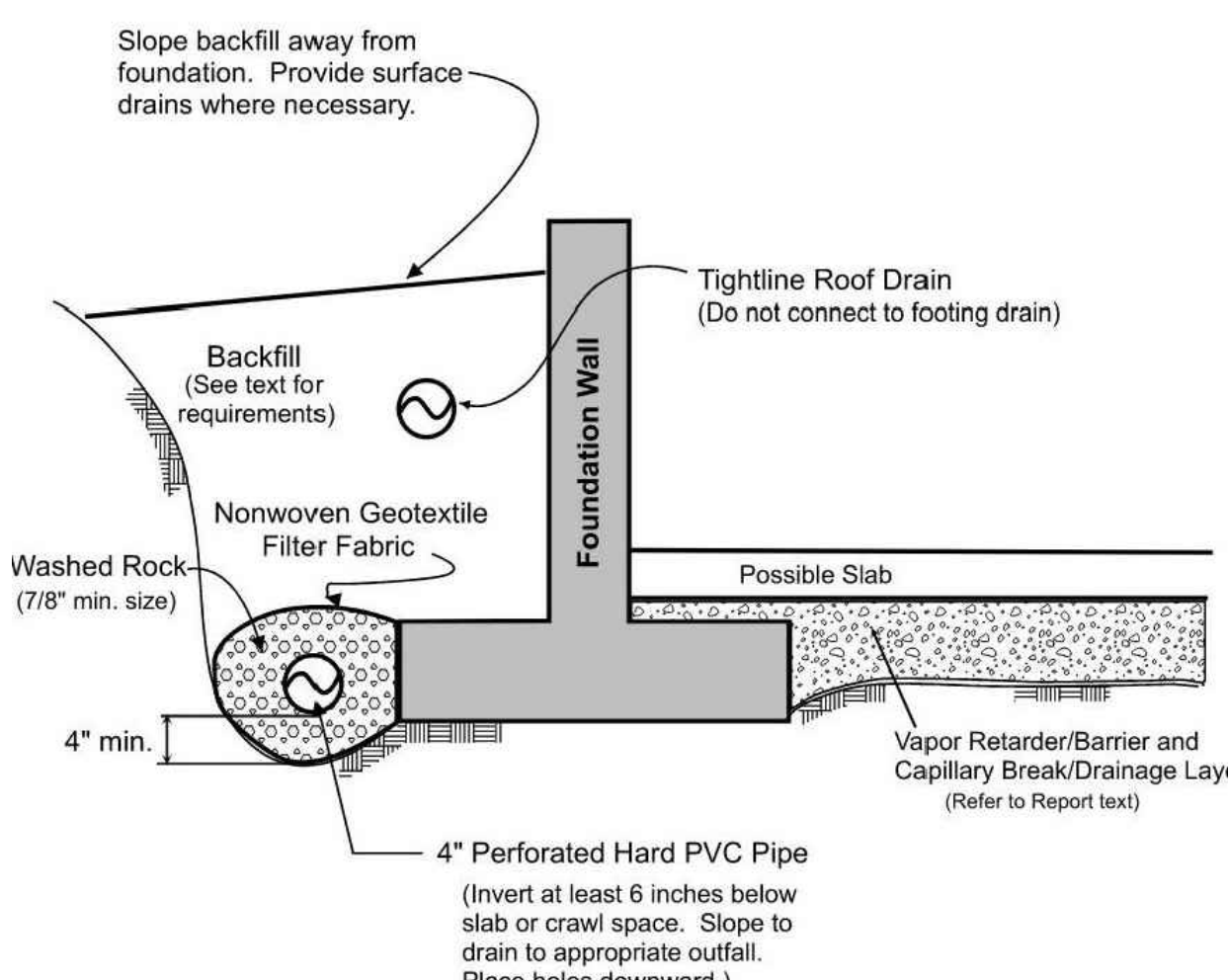
**NOTES:**

- DIAMETER TO BE 6-INCHES MINIMUM PRIVATE, 8-INCHES MINIMUM PUBLIC UNDERDRAIN PIPE.
- CLEANOUT RISER SHALL BE SAME SIZE AND MATERIAL AS CONNECTED UNDERDRAIN, FOOTING DRAIN COLLECTOR, OR ROOF DRAIN COLLECTOR PIPE.
- FRAME AND COVER SHALL BE E.I. PRODUCT NO. 00367549801 OR APPROVED EQUAL. COVER TO BE LOCKING WITH ALLEN HEAD BOLT, MARKED "STORM".
- FOR CLEANOUTS FULLY OR PARTIALLY WITHIN UNPAVED AREAS OUTSIDE OF BIORETENTION PONDING AREA, POUR 8" THICK, 2'X2' SQUARE CONCRETE COLLAR AROUND FRAME. CONCRETE COLLAR SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.

**GENERAL NOTES:**

- CLEANOUTS FOR UNDERDRAIN, FOOTING DRAIN COLLECTOR, AND ROOF DRAIN COLLECTOR PIPES SHALL BE INSTALLED AT A MINIMUM OF EVERY 100 FEET, AT EVERY 90 DEGREE OR SECOND 45 DEGREE BEND, AT THE END OF EVERY COLLECTOR PIPE, AND AT EACH END OF AN UNDERDRAIN PIPE NOT CONNECTED TO AN OVERFLOW STRUCTURE. CLEANOUTS SHALL BE INSTALLED TO ALLOW FOR MAINTENANCE ACCESS TO ALL PIPES.
- ALL FITTINGS SHALL BE SOIL TIGHT.
- CLEANOUT RISER SHALL BE LOCATED OUTSIDE OF BIORETENTION PONDING WHERE POSSIBLE.
- CLEANOUTS SHALL NOT BE LOCATED WITHIN THE STREET TRAVEL LANE, UNLESS OTHERWISE APPROVED BY THE CITY.

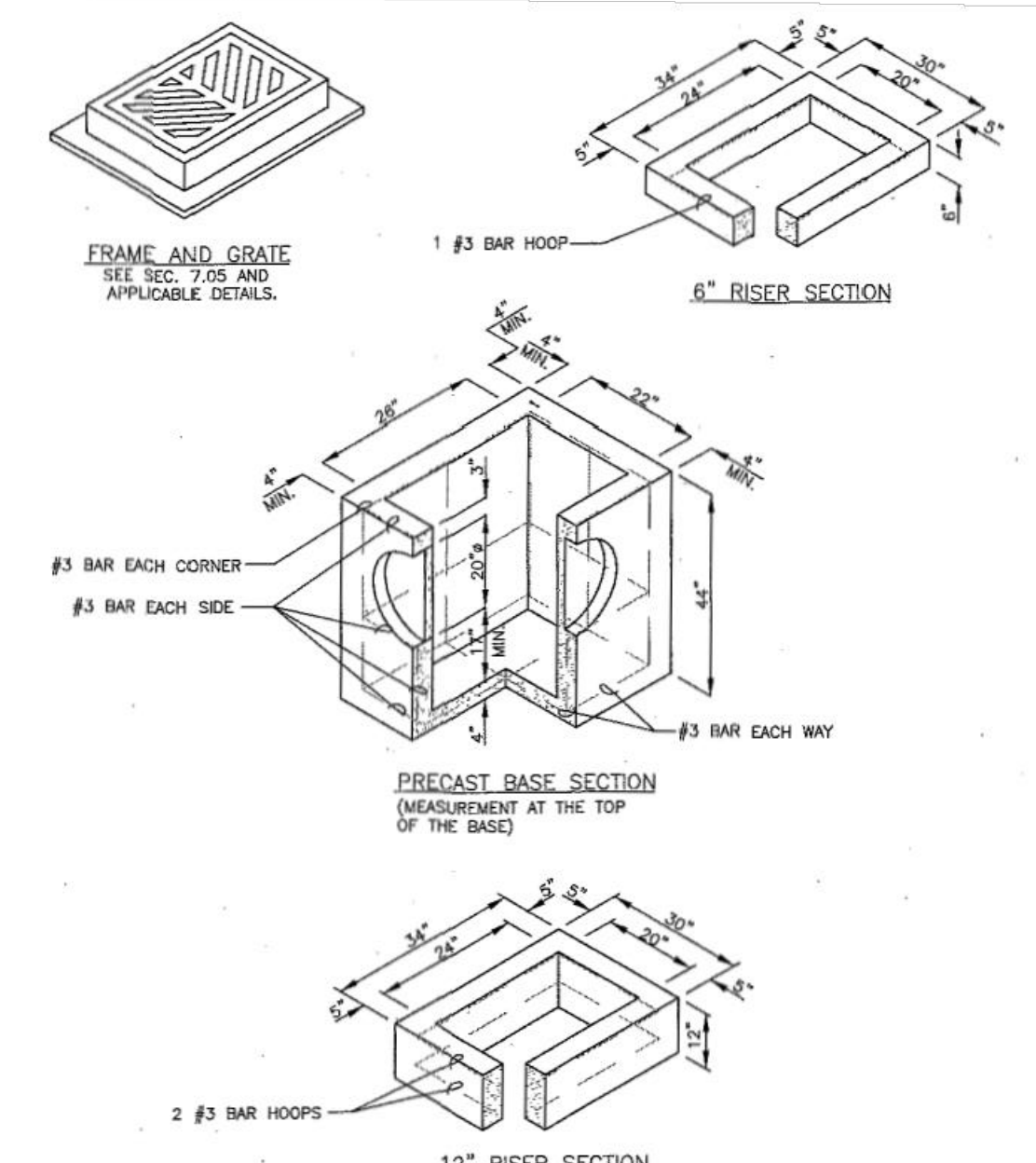
**STORM CLEANOUT DETAIL**  
NO SCALE



**NOTES:**

- In crawl spaces, provide an outlet drain to prevent buildup of water that bypasses the perimeter footing drains.
- Refer to report text for additional drainage, waterproofing, and slab considerations.

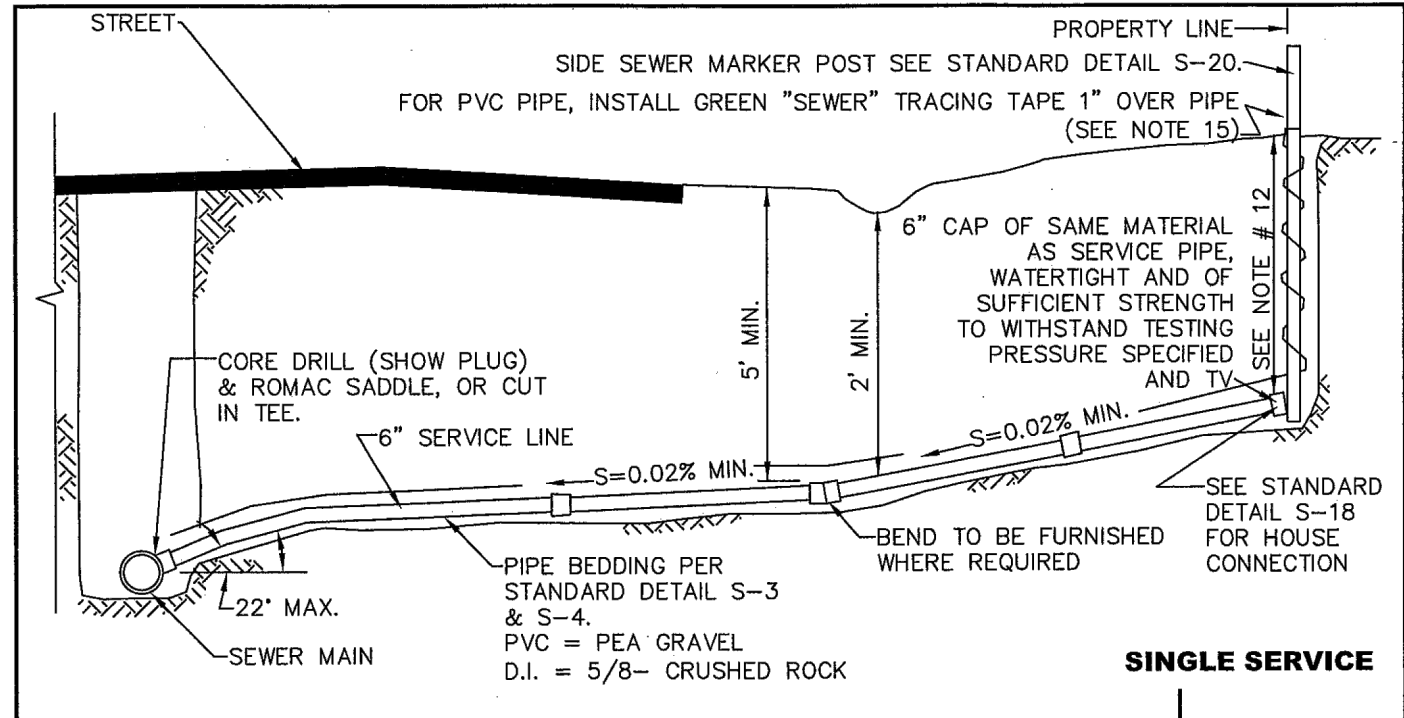
**ROOF/FOOTING DRAIN DETAIL**  
NO SCALE



**NOTES:**

- CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M 199 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE WSDOT/APWA STANDARD SPECIFICATIONS.
- AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN. AREA OF 0.12 SQ. IN. PER FT. MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A487 (AASHTO M 221). WIRE FABRIC SHALL NOT BE PLACED IN KNOCKOUTS.
- ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.
- PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2 IN. MIN. ALL PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS. UNUSED KNOCKOUTS NEED NOT BE GROUDED IF WALL IS LEFT INTACT.
- KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIA. PLUS CATCH BASIN WALL THICKNESS.
- ROUND KNOCKOUTS MAY BE ON ALL 4 SIDES, WITH MAX. DIAM. OF 20 IN. KNOCKOUTS MAY BE EITHER ROUND OR "D" SHAPE.
- THE MAX. DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT IS 5 FT.
- THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2" PER FT.
- CATCH BASIN FRAME AND GRATE SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-62IE. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
- FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.
- FOR CATCH BASINS IN PARKING LOTS REFER TO WSDOT/APWA STANDARD Dwg. 8-5.60-01.
- EDGE OF RISER OR BRICK SHALL NOT BE MORE THAN 2 IN. FROM VERTICAL EDGE OF CATCH BASIN WALL.
- SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.

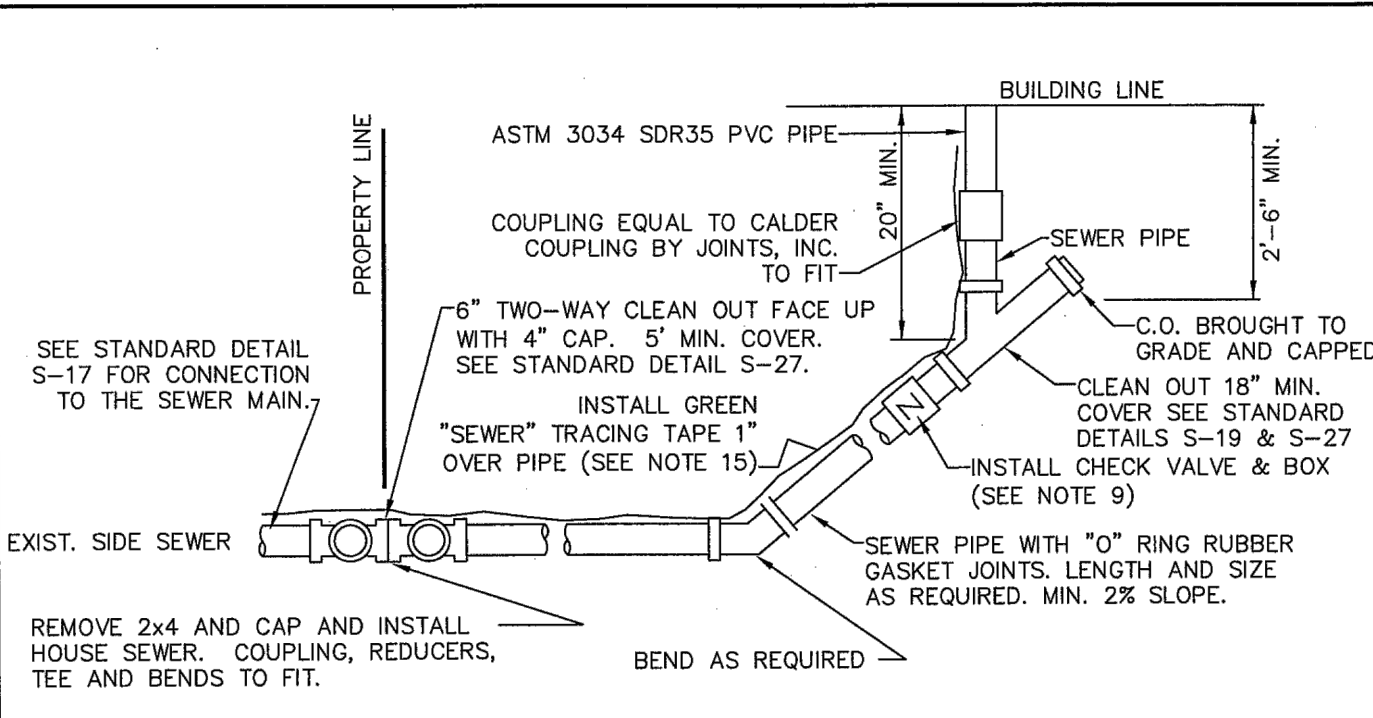
**TYPE 1 CATCH BASIN DETAIL**  
NO SCALE



**NOTES:**

- ELBOWS SHALL NOT BE GREATER THAN 45 DEGREES.
- CLEAN OUT IS REQUIRED FOR EACH PIPE LENGTH GREATER THAN 100' AND FOR EACH 90° ACCUMULATED ELBOW/100'.
- RIGHT-OF-WAY RESTORATION SHALL MATCH OR EXCEED THE ORIGINAL CONDITION AND BE IN ACCORDANCE WITH CITY STANDARDS.
- ALL TRENCH BACKFILL IN PUBLIC RIGHT-OF-WAY OR ROADWAY AREAS SHALL BE CRUSHED SURFACING PER WSDOT 9-09.9(3) OR BANK RUN GRAVEL PER WSDOT 9-03.19, COMPACTED IN 6" LIFTS OR MAY BE CDF WHEN DIRECTED BY THE CITY ENGINEER (SEE DETAIL S-3).
- LAY PIPE IN STRAIGHT LINE BETWEEN BENDS. MAKE ALL CHANGES IN GRADE OR LINE WITH 1/8 BEND OR WYE. 90° CHANGE WITH 1/8 BEND AND WYE.
- 6" SEWER PIPE MINIMUM SIZE IN RIGHT-OF-WAY, AND ELSEWHERE AS DIRECTED BY ENGINEER. 2% MIN. GRADE (UNLESS DIRECTED BY ENGINEER), SOAK MAXIMUM.
- ALL A.C. MAINS TO BE TAPPED IN ACCORDANCE WITH WAC 296-62-00775 STATE/FEDERAL GUIDELINES AND CERTIFICATION.
- CONSTRUCTION IN RIGHT-OF-WAY MUST BE DONE BY A REGISTERED AND LICENSED CONTRACTOR.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT CITY SEWER ORDINANCES.
- WHERE CITY ENGINEER ALLOWS SIDE SEWER CONNECTIONS TO MANHOLE, INVERT OF SIDE SEWER SHALL BE EQUAL TO OR ABOVE MAIN SEWER CROWN, BUT NOT TO EXCEED 18" ABOVE INVERT OF MAIN SEWER.
- UNLESS OTHERWISE INDICATED ON PLAN, SIDE SEWER SHALL BE MIN. OF 6" DEEP AT PROPERTY LINE, OR 5" LOWER THAN THE LOWEST ELEVATION, WHICH EVER IS LOWER.
- ALL PIPE MATERIALS NOT TO STANDARDS WILL BE ABANDONED AND REPLACED WITH DUCTILE IRON OR PVC PIPE OF THE SAME SIZE.
- IF A BUILDING SEWER IS TO SERVE MORE THAN ONE PROPERTY, BY JOINT AGREEMENT OF THE OWNERS, AN APPROVED EASEMENT INSURING THAT ALL PROPERTIES INVOLVED SHALL HAVE PERPETUAL USE OF THE SIDE SEWER, HAVING PROVISIONS FOR OPERATION, MAINTENANCE, RECONSTRUCTION AND FOR ACCESS FOR REPAIR PURPOSES, SHALL BE SIGNED BY THE OWNERS. THIS EASEMENT SHALL BE RECORDED WITH THE COUNTY AUDITOR. A SIX INCH (MINIMUM) DIAMETER PIPE SHALL BE USED FOR THE COMMON LINE AND A SIX INCH CLEANOUT EXTENDING TO WITHIN 12 INCHES OF THE GROUND SURFACE SHALL BE PROVIDED AT THE WYE WHERE THE UPPER GRADE CONNECTIONS ARE MADE. BACKWATER VALVES SHALL BE INSTALLED ON SERVICE LINES UPSTREAM OF THE CONNECTION TO THE SHARED SIDE SEWER.
- THE CITY ENGINEER MAY REQUIRE BACKWATER VALVES ON SIDE SEWERS WHEN DEEMED NECESSARY. THE EFFECTIVE OPERATION AND MAINTENANCE OF ANY BACKWATER VALVE SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE SIDE SEWER.
- UTILITY PIPE TRACER TAPE SHALL BE DETECTABLE BELOW GROUND SURFACE, COLOR CODED, WITH UTILITY NAME PRINTED ON TAPE. CONDUCTIVE WARNING TAPE REQUIRED OVER ALL WATER PIPE. TAPE SHALL BE MANUFACTURER'S STANDARD PERMANENT, BRIGHT-COLORED, CONTINUOUS PRINTED PLASTIC TAPE, ALUMINUM BACKED, INTENDED FOR DIRECT-BURIAL SERVICE. TAPE SHALL BE NOT LESS THAN 6" WIDE X 4 MILS THICK.

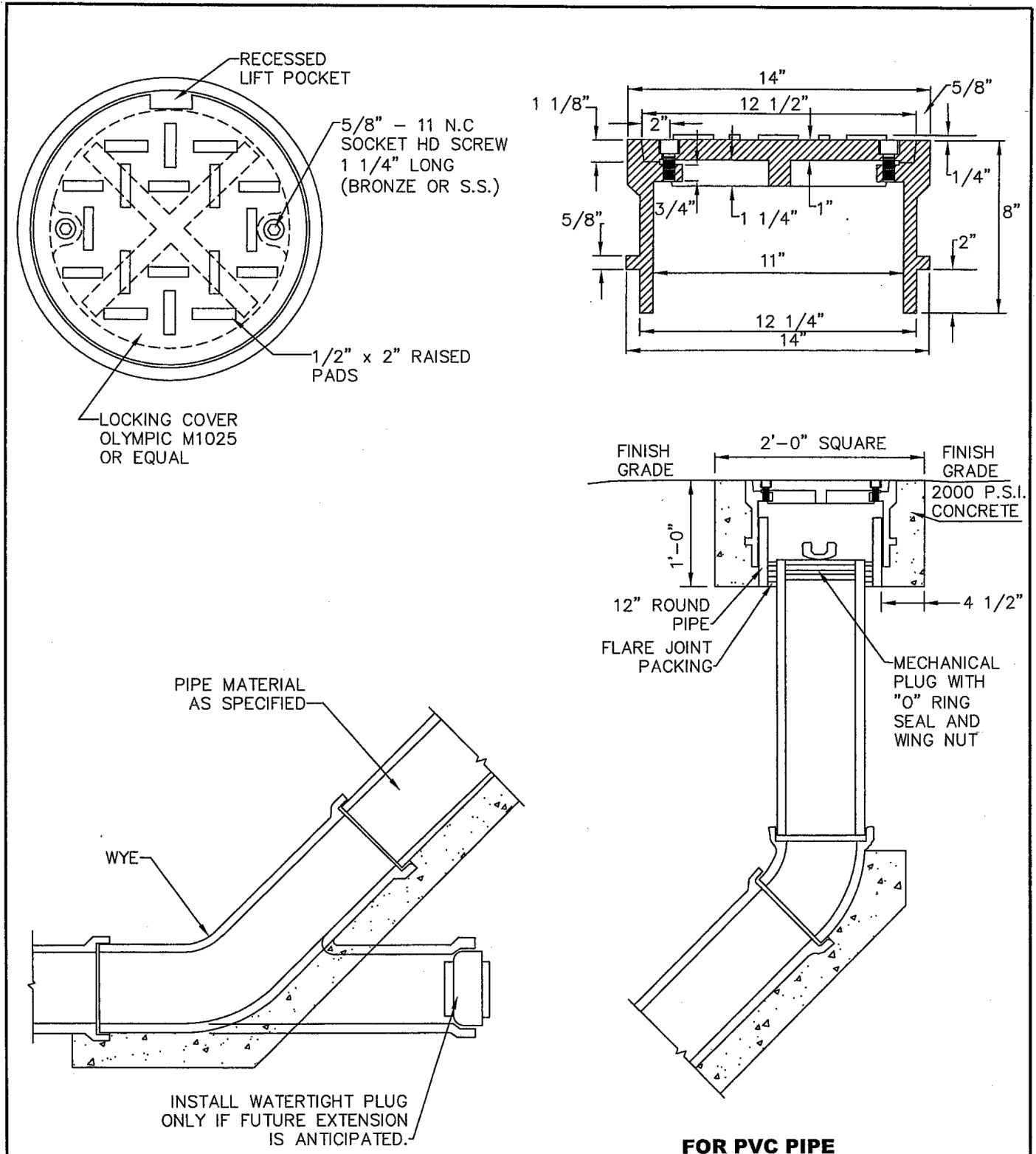
|  |          |             |
|--|----------|-------------|
| <p><b>CITY OF MERCER ISLAND</b><br/><b>STANDARD DETAILS</b><br/><b>SEWER</b></p> |          |             |
| <p><b>SIDE SEWER CONNECTION AND STUB</b></p>                                     |          |             |
| 6-5-2009   | NO SCALE | <b>S-17</b> |
| REV DATE   |          | APPROVED    |



**NOTES:**

- ELBOWS SHALL NOT BE GREATER THAN 45 DEGREES.
- CLEAN OUT IS REQUIRED FOR EACH PIPE LENGTH GREATER THAN 100' AND FOR EACH 90° ACCUMULATED ELBOW/100'.
- ALL HOUSE PLUMBING OUTLETS MUST BE CONNECTED TO THE SEWER. NO DOWN SPOUTS OR STORM DRAINAGE MAY BE CONNECTED TO THE SEWER SYSTEM.
- 18" MINIMUM COVERAGE OVER PIPE.
- LAY PIPE IN STRAIGHT LINE BETWEEN BENDS. MAKE ALL CHANGES IN GRADE OR LINE WITH 1/8 BEND OR WYE. 90° CHANGE WITH 1/8 BEND AND WYE.
- 4" SEWER PIPE MINIMUM SIZE ON PROPERTY. 2% MINIMUM GRADE.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT SEWER ORDINANCES.
- ALL CONSTRUCTION REQUIRES A PLAN SHOWING PROPERTY AND DIMENSIONS AND COMPLETION OF SIDE SEWER APPLICATION AND MAINTENANCE AGREEMENT, AS NEEDED.
- BACK WATER VALVE (CHECK VALVE) IS REQUIRED:
  - A. IF CONNECTED TO A SHARED SIDE SEWER.
  - B. IF CONNECTION AT HOUSE IS LOWER THAN BOTH UPSTREAM AND DOWNSTREAM MANHOLE.
  - C. SEE S-23 & S-24 FOR LAKE LINE REQUIREMENTS.
- AS-BUILT DRAWING SHOWING LOCATION OF SIDE SEWER & ALL BENDS, C.O. ETC., IN RELATION TO THE HOUSE IS REQUIRED AFTER INSPECTION & INSTALLATION. SEE STANDARD DETAIL S-38 FOR A TYPICAL "AS BUILT".
- THE MINIMUM PIPE SIZE FOR SIDE SEWERS SHALL BE:
  - 6" - WITHIN THE PUBLIC RIGHT-OF-WAY.
  - 4" - SINGLE FAMILY RESIDENCES.
  - 6" - 2 TO 6 SINGLE FAMILY RESIDENCES.
  - 6" - BUILDINGS OTHER THAN SINGLE FAMILY RESIDENCES.
- UTILITY PIPE TRACER TAPE SHALL BE DETECTABLE BELOW GROUND SURFACE, COLOR CODED, WITH UTILITY NAME PRINTED ON TAPE. CONDUCTIVE WARNING TAPE REQUIRED OVER ALL WATER PIPE. TAPE SHALL BE MANUFACTURER'S STANDARD PERMANENT, BRIGHT-COLORED, CONTINUOUS PRINTED PLASTIC TAPE, ALUMINUM BACKED, INTENDED FOR DIRECT-BURIAL SERVICE. TAPE SHALL BE NOT LESS THAN 6" WIDE X 4 MILS THICK.

|  |          |             |
|--|----------|-------------|
| <p><b>CITY OF MERCER ISLAND</b><br/><b>STANDARD DETAILS</b><br/><b>SEWER</b></p> |          |             |
| <p><b>HOUSE SEWER CONNECTION</b></p>   |          |             |
| 6-5-2009   | NO SCALE | <b>S-18</b> |
| REV DATE   |          | APPROVED    |

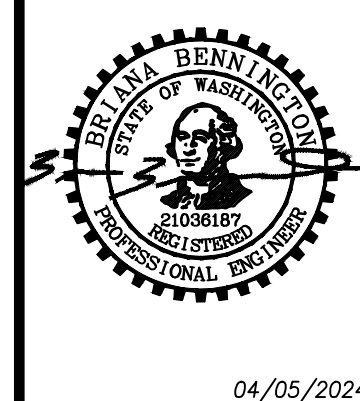


**NOTES:**

- SEE S-27 FOR INSTALLATION DETAILS.

|  |          |             |
|--|----------|-------------|
| <p><b>CITY OF MERCER ISLAND</b><br/><b>STANDARD DETAILS</b><br/><b>SEWER</b></p> |          |             |
| <p><b>CLEAN OUT DETAIL</b></p>   |          |             |
| 6-5-2009   | NO SCALE | <b>S-19</b> |
| REV DATE   |          | APPROVED    |

| REVISIONS                    | BY  | DATE       |
|------------------------------|-----|------------|
| REVISED PER CITY COMMENTS #1 | BLB | 10/27/2022 |
| REVISED PER CITY COMMENTS #2 | BLB | 03/06/2023 |
| REVISED PER CITY COMMENTS #3 | BLB | 05/07/2023 |
| REVISED PER CITY COMMENTS #4 | BLB | 06/09/2023 |
| REVISED SS SERVICE           | BLB | 04/05/2024 |



**HU RESIDENCE**  
2448 72ND AVE SE - MERCER ISLAND, WA 98040  
**CONSTRUCTION DETAILS**

**Encompass**  
 ENGINEERING & SURVEYING  
 Western Washington Division  
 165 NE Juniper Street, Suite 201, Issaquah, WA 98027 Phone: (425) 392-0250  
 Eastern Washington Division  
 407 Southwest Blvd., Cle Elum, WA 98922 Phone: (509) 674-4433

|          |            |
|----------|------------|
| JOB NO.  | 21782      |
| DATE     | 04/05/2024 |
| SCALE    | NTS        |
| DESIGNED | BLB        |
| DRAWN    | PMS        |
| CHECKED  | CP         |
| APPROVED | CP         |
| SHEET    | 5 of 5     |

