

# MONARCH MANOR GROUP B WATER SYSTEM PIPELINE REPLACEMENT PROJECT

## PROJECT REFERENCES:

### REVIEW AGENTS

KING COUNTY PLANNING AND  
THE WIS DEPARTMENT OF FISH AND  
WILDLIFE

### OWNER

LIXIA LI  
PROJECT MANAGER IS LAYLA SHAN  
(647) 898-6631  
laylashan94@gmail.com  
SITE ADDRESS: 23450 SE MAY VALLEY RD  
ISSAQUAH, WA

### BIOLOGIST

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BLUE HERON SERVICES, INC.  
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INDEX, WA 98256  
360 793 7767 (o)  
425 327 5798 (c)  
bheron@seonet.com

### ENGINEER OF RECORD

GARRISON ENGINEERING  
CARL GARRISON, PE  
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SEDRO-WOOLLEY, WA 98284  
PH: 360-404-5058  
carlg@gecorp.net

## GENERAL NOTES AND SPECIFICATIONS

GENERAL REQUIREMENTS: ALL PROJECT RELATED GENERAL REQUIREMENTS INCLUDING BIDDING, BONDING, INSURANCES, CONTRACTING AWARDS, WORK SCOPE, CONTROL OF WORK, CONTROL OF MATERIAL, LEGAL ISSUES, PROSECUTION AND PROGRESS, AND MEASUREMENT AND PAYMENT SHALL BE PER THE OWNER OR THEIR CONTRACTING OFFICER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UNDERSTANDING ALL GENERAL REQUIREMENTS PRIOR TO BIDDING OR PROSECUTION OF THE WORK. DOCUMENTS SUPPLIED BY THE CONTRACTING OFFICER IN THESE REGARDS, IF ANY, SHALL TAKE PRECEDENCE OVER ANY OTHER WRITTEN OR IMPLIED GENERAL REQUIREMENTS.

CODES AND STANDARDS: ALL WORK PERTAINING TO THE CONSTRUCTION OF THE FACILITIES SHOWN HEREIN SHALL BE IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS, AND THE REVIEWING AGENCY REGULATIONS AND SPECIFICATIONS. THE TECHNICAL PROVISIONS (BUT NOT GENERAL REQUIREMENTS, AS LISTED ABOVE) OF WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT), UNIFORM BUILDING CODE (UBC), AND AMERICAN WATER WORKS ASSOCIATION (AWWA) SPECIFICATIONS (LATEST EDITIONS) ARE ALSO INCORPORATED INTO THESE SPECIFICATIONS AND PLANS BY REFERENCE. IN THE EVENT OF CONFLICTS, THE MORE STRINGENT STANDARDS SHALL GOVERN.

PERMITS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR APPLYING, PAYING, AND OBTAINING ALL PERMITS UNLESS OTHERWISE NOTED IN THE BID DOCUMENTS, OR UNLESS OTHERWISE INSTRUCTED BY THE OWNER. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL PERMIT REQUIREMENTS.

EXISTING UTILITIES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF ALL UTILITY COMPANIES WHICH MAY HAVE UNDERGROUND UTILITIES IN THE WORK AREA. CONTRACTOR SHALL, AT A MINIMUM, USE THE ONE CALL LOCATE SERVICE AT (800) 424-5555, TO VERIFY ALL UNDERGROUND UTILITY LOCATIONS WHICH ARE INVOLVED, OR WHICH MAY CONFLICT WITH THE WORK HEREIN, AND SHALL BE RESPONSIBLE FOR REPAIR OF ANY KNOWN UTILITIES WHICH ARE DAMAGED AS A RESULT OF THIS WORK.

UNFORESEEN PHYSICAL CONDITIONS: IF THE CONTRACTOR ENCOUNTERS CONDITIONS AT THE SITE WHICH ARE SUBSURFACE OR OTHERWISE CONCEALED, UNKNOWN OR UNUSUAL IN NATURE, THEN IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER IMMEDIATELY. THE CONTRACTOR SHALL NOT PROCEED WITH FURTHER CONSTRUCTION UNTIL APPROVED BY THE OWNER.

CLEAN UP: THE CONTRACTOR SHALL CLEAN ALL AREAS DISTURBED BY CONSTRUCTION TO A NEAT AND TIDY APPEARANCE. ALL DIRT, MUD, GARBAGE, AND DEBRIS SHALL BE REMOVED FROM SITE, AND ALL NEW OR EXISTING PAVED OR GRAVELED SURFACES DIRTIED BY CONSTRUCTION SHALL BE WASHED CLEAN. PIPING SYSTEMS AND CATCH BASINS FILLED 5% OR MORE WITH DIRT, SILT, OR MUD SHALL BE CLEANED AT THE CONTRACTOR'S EXPENSE.

WORKING HOURS: UNLESS OTHERWISE APPROVED BY THE OWNER, THE CONTRACTOR SHALL LIMIT ALL WORKING HOURS TO DAYLIGHT HOURS, BETWEEN 7:00 AM AND 5:00 P.M., MONDAY THROUGH FRIDAY. THE CONTRACTOR SHALL NOT WORK ON NATIONALLY RECOGNIZED HOLIDAYS, UNLESS PRIOR APPROVAL BY THE OWNER HAS BEEN GRANTED.

DEMOLITION/SALVAGE: IN GENERAL, ALL ITEMS TO BE DEMOLISHED UNDER THIS PROJECT SHALL BE REMOVED FROM SITE BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. UNDERGROUND PIPE THAT WILL BE ABANDONED IN PLACE SHALL BE EXEMPT FROM THIS PARAGRAPH. THE OWNER RESERVES THE RIGHT TO RECLAIM ANY DEMOLISHED OR REMOVED ITEMS. IF THE CONTRACTOR EXPENDS EXTRA EFFORT IN SUCH SALVAGE FOR THE CONTRACTING OFFICER, THE CONTRACTOR SHALL NEGOTIATE WITH THE CONTRACTING OFFICER A CHANGE ORDER TO COMPENSATE THE CONTRACTOR FOR THE EXTRA COSTS INVOLVED IN THE SALVAGE. THE CONTRACTOR'S PROPOSED ON-SITE LOCATION(S) OF DEMOLISHED MATERIALS SHALL BE CLEARED WITH THE CONTRACTING OFFICER PRIOR TO ANY DEMOLITION OR STOCKPILING.

REQUESTS FOR INFORMATION (RFI): SHOULD ANY ITEM IN THE PLANS REQUIRE CLARIFICATION OR ADDITIONAL INFORMATION, OR IF THE CONTRACTOR DISCOVERS AN ERROR OR OMISSION IN THE PLANS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CONTRACTING OFFICER. THE CONTRACTOR MAY BE REQUIRED TO PUT SUCH NOTIFICATION IN WRITING IN THE FORM OF AN RFI, WHICH SHALL BE EMAILED TO THE ENGINEER.

GRUBBING AND CLEARING: THE CONTRACTOR SHALL REMOVE ALL VEGETATION AND ROOT SYSTEMS FROM AREAS OF EXCAVATION OR FILL (TRENCHES) AS NECESSARY. THE CONTRACTOR SHALL HAUL VEGETATION AND WOOD WASTE OFF SITE TO A LEGAL DUMPING OR SLASH BURNING AREA AT THE EXPENSE OF THE CONTRACTOR.

ON-SITE CONSTRUCTION SURVEYING: THE OWNER OR ENGINEER SHALL APPROVE OF ALL VALVE AND PIPELINE LOCATIONS PRIOR TO THE START OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING APPROVAL FROM THE OWNER PRIOR TO THE START OF WORK.

DAMAGED ITEMS BY CONTRACTOR: ANY DAMAGED CONCRETE, ASPHALT, STRUCTURES, ETC. SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE SUCH REMOVAL/REPLACEMENT ACTIVITIES SHALL BE COORDINATED WITH THE OWNER PRIOR TO WORK BEING PERFORMED. PAINT OR OTHER COATING SYSTEMS DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED WITH SIMILAR COATING SYSTEMS AT THE CONTRACTOR'S EXPENSE. DAMAGED FENCES, DRIVEWAYS, TREES, FLOWERS AND SHRUBS SHALL BE REPLACED WITH SIMILAR PLANTS APPROVED BY THE OWNER.

SITE RESTORATION: ALL DENUDDED SOIL AREAS SHALL BE SEEDDED BY THE CONTRACTOR WITH A PACIFIC NW GRASS SEED MIX. ALL SEED SHALL BE DENSE AND EVENLY SPREAD. CONTRACTOR TO COVER SEEDS WITH A FINE MULCH TO COVER SEEDS AND PREVENT BIRDS FROM EATING THE SEEDS. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT THE GRASS GERMINATES AND GROWS TO 1.5" IN HEIGHT. IF THE GRASS IS NOT THICK AND FULL TO MATCH THE EXISTING LAWN, THE CONTRACTOR SHALL RE-APPLY GRASS SEED AS NEEDED UNTIL A THICK UNIFORM GRASS IS ESTABLISHED.

## WATER

STANDARD SPECIFICATIONS: STANDARD SPECIFICATIONS TO BE THE MOST CURRENT VERSION OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, AND APWA CURRENT STANDARDS.

CONTRACTORS: CONTRACTORS SHALL NOTIFY AND COORDINATE WITH THE OWNER PRIOR TO CONSTRUCTION.

SUBMITTALS: ALL EQUIPMENT, FITTINGS, AND PIPE SUBMITTALS TO BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.

MAIN PIPELINE MATERIALS: USE DR-11 HDPE PIPE FOR DISTRIBUTION. CLASS 200 POLY MAY BE SUBSTITUTED.

VALVES: ALL WATER MAIN GATE VALVES SHALL BE AWWA C500, RESILIENT WEDGE TYPE, PER STANDARD SPECIFICATIONS CH. 9-30.

ALL WATER MAIN INSTALLATIONS EXCEPT THE BORE REQUIRE A 30" MINIMUM COVER AND MAXIMUM OF 36" TRENCH DEPTH BELOW PROPOSED FINISHED GRADE.

MARKING TAPE: MARKING TAPE SHALL BE PLACED 12" BELOW GRADE OVER ALL MAINS AND POLYETHYLENE SERVICES. THE TAPE SHALL BE OF THE DETECTABLE TYPE WITH METALIC FOIL LAMINATE AND PLASTIC JACKET, 6" WIDE, BLUE COLOR WITH WORDING "WATER LINE".

LOCATE WIRE: COPPERHEAD HIGH STRENGTH TRACER WIRE, PART # 1230B-HS, OR EQUAL.

MINIMUM SPACING: FOR SEPTIC & SEWER PIPES, MAINTAIN A MINIMUM OF 18 INCH VERTICAL SEPARATION AND 10-FOOT HORIZONTAL SEPARATION BETWEEN WATERLINE AND NON-POTABLE LINES. MINIMUM OF 1-FOOT SEPARATION BETWEEN WATERLINE AND ALL OTHER UTILITIES.

TRENCHING, BEDDING AND BACKFILL: USE MATERIALS AND METHODS PER TRENCH DETAILS.

PRESSURE TEST NEW PIPELINE, INCLUDING SERVICE LINES AT 130 PSI FOR 2 HOURS AND AS PER WSDOT STANDARDS, ENGINEER TO WITNESS PRESSURE TEST.

TEST DATE \_\_\_\_\_ TEST PRESSURE \_\_\_\_\_  
TIME START \_\_\_\_\_ TIME END \_\_\_\_\_  
PRESSURE DROP \_\_\_\_\_ MAKE UP WATER \_\_\_\_\_

DISINFECTING: ALL PERMANENT EQUIPMENT AND MATERIALS USED IN THE PIPELINE CONSTRUCTION SHALL BE CHLORINATED PER WSDOT AND AWWA STANDARDS (ANSI/AWWA C654-13) FOR DISINFECTING OF WELLS. ALL EQUIPMENT INSTALLED IN THE WELL SHALL BE CHLORINATED PRIOR TO INSTALLATION. ALL EQUIPMENT SURFACES SHALL BE SPRAYED WITH A SOLUTION HAVING A CHLORINE RESIDUAL OF NOT LESS THAN 200 mg/L.

UNDERGROUND PIPING: ALL NEW WATER MAINS AND THE SHORT SECTION OF PIPE FROM THE SOUTHERLY POINT OF CONNECTION TO THE LI RESIDENCE SHALL BE CHLORINATED PER WSDOT AND AWWA STANDARDS (ANSI/AWWA C651-05) FOR DISINFECTING WATER MAINS. PLACE 1 OUNCE OF HI-TEST HYPO-CHLORITE GRANULES IN WATERLINE FOR EVERY 100 FEET OF 1 1/2 INCH PIPE. FLUSH AFTER LETTING SOAK A MINIMUM OF 24-HOURS AND PER WSDOT AND AWWA STANDARDS. USE A 0-200 PPM HACH CHLORINE TEST KIT. CONTRACTOR TO TEST THE DISINFECTED PIPE AT START OF 24 HOUR SOAK AND AGAIN AT THE END. TEST THE CONCENTRATION (PPM) OF CHLORINE AND PROVIDE START AND END CONCENTRATIONS TO THE ENGINEER. THE TARGET RANGE IS >50 PPM AT THE BEGINNING AND >20 PPM AT THE END OF THE SOAK. CONTRACTOR TO MEASURE THE LEVEL OF FREE CHLORINE AND REPORT FINDINGS TO THE ENGINEER.

FREE CHLORINE AT BEGINNING OF SOAK PROCESS = \_\_\_\_\_

FREE CHLORINE AT END OF SOAK PROCESS = \_\_\_\_\_

FREE CHLORINE PRIOR TO RETURNING THE SYSTEM TO SERVICE (SHOULD BE 0) \_\_\_\_\_

ABOVE GROUND PIPING AND REPAIRS: ALL NEW PIPE OR REPAIRED PORTIONS SHALL BE CHLORINATED PER WSDOT AND AWWA STANDARDS (ANSI/AWWA C651-05) FOR DISINFECTING WATER MAINS. THE NEW PIPE, FITTINGS, AND VALVE(S) REQUIRED FOR CONNECTION MAY BE SPRAY-DISINFECTED OR SWABBED WITH A MINIMUM 1 PERCENT SOLUTION OF CHLORINE JUST PRIOR TO BEING INSTALLED AND FLUSHED.

DECHLORINATION: USE ASCORBIC ACID (VITAMIN C) TO DECHLORINATE OR NEUTRALIZE THE HEAVILY CHLORINATED WATER. DURING DECHLORINATION, MAINTAIN A RATIO OF A MINIMUM OF 2.5 POUNDS OF ASCORBIC ACID PER ONE POUND OF CHLORINE IN SOLUTION TO NEUTRALIZE THE HEAVILY CHLORINATED WATER PRIOR TO DISCHARGING TO AN OPEN DITCH. WHEN FLUSHING CHLORINATED WATER, DO NOT ALLOW ANY UN-NEUTRALIZED CHLORINATED WATER TO FLOW INTO ANY CREEK OR SURROUNDING CATCH BASIN. CONTRACTOR TO USE A 0-3.5 PPM HACH CHLORINE TEST KIT, CN-66F OR EQUAL, TO CONFIRM THAT NO FREE CHLORINE IS PRESENT AFTER DECHLORINATION.

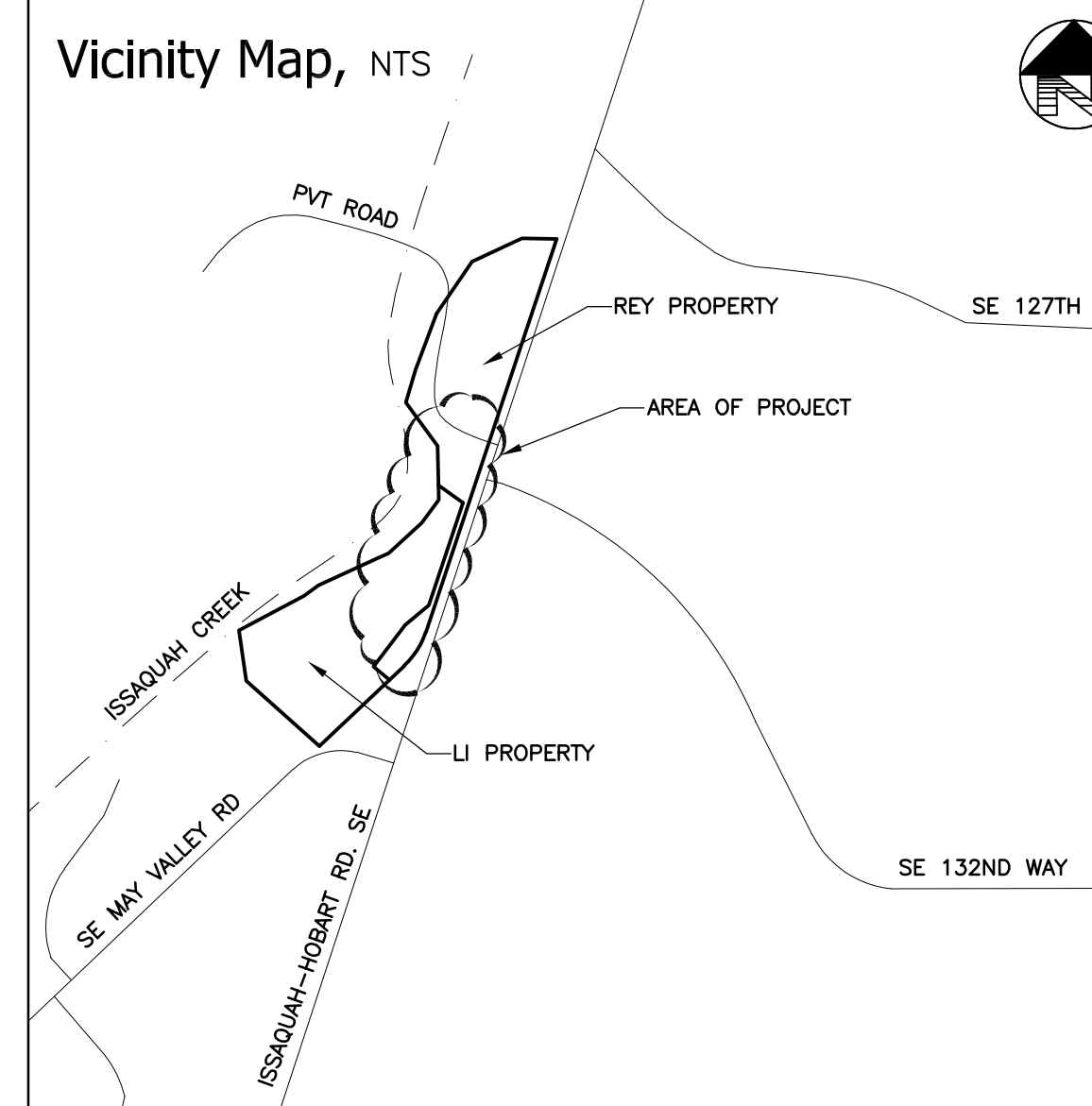
INSPECTION: CONTRACTOR SHALL NOTIFY AND COORDINATE WITH THE OWNER PRIOR TO ANY EXCAVATION, INSTALLATION, OR CONNECTION TO EXISTING FACILITIES. THE ENGINEER SHALL INSPECT ALL PIPE PRIOR TO BURIAL. FAILURE TO COMPLY WILL RESULT IN RE-EXCAVATION AND BEDDING OF THE PIPE AT THE EXPENSE OF THE CONTRACTOR.

BACTERIOLOGICAL TESTS: TEST RESULTS CERTIFYING THE WATER SAMPLED FROM EACH LEG OR SECTION OF THE DISINFECTED WATER MAIN TO BE FREE OF COLIFORM BACTERIA CONTAMINATION AND TO HAVE A BACTERIOLOGIC WATER QUALITY LEVEL THAT MEETS THE W.S.D.O.H. SEND BACTERIOLOGICAL RESULTS TO GARRISON ENGINEERING. APPROVAL SHALL BE OBTAINED BEFORE FINAL CONNECTION. COORDINATE ALL SHUTDOWN, FLUSHING, AND HEALTH SAMPLES WITH THE OWNER.

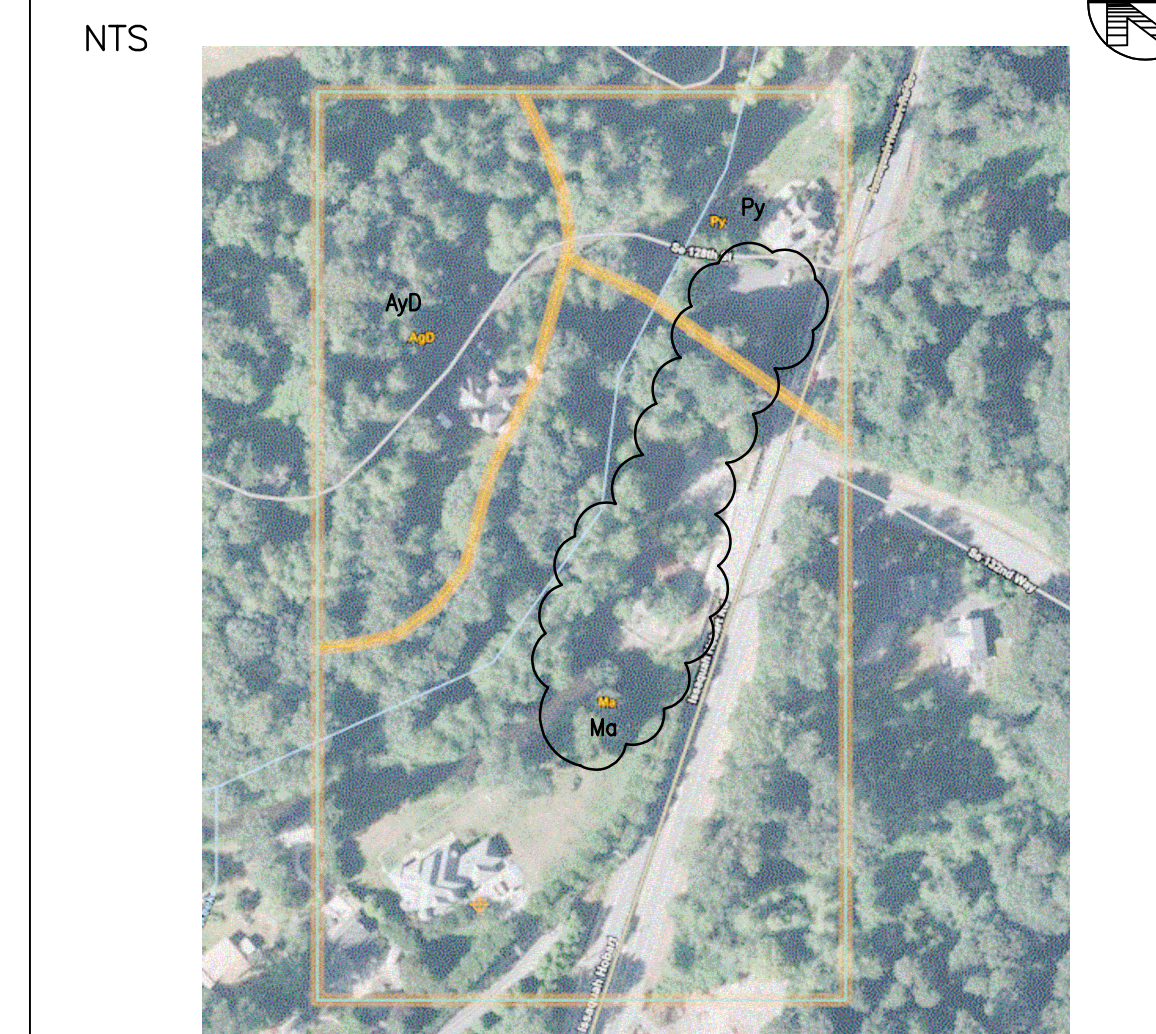
### PLAN SHEETS IN SET:

- COVER SHEET AND NOTES
- SITE PLAN FOR BORE UNDER ISSAQUAH CREEK
- TEMPORARY EROSION AND SEDIMENTATION CONTROL PLAN

### Vicinity Map, NTS



### SOILS MAP OF BORE SITE



THE SOILS OF THE AREA BASED ON THE NCRS WEB SOIL SURVEY ARE MIXED ALLUVIAL LAND AND PUVALLUP FINE SANDY LOAM.

<https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>

### Notice Required

Contractors shall notify operators who maintain underground utility lines in the area of proposed excavation or blasting at least two business days, but not more than ten working days prior to commencement of excavation or demolition in accordance with RCW Title 19. Names and telephone numbers of the operators of underground utility lines in this project appear below. These numbers shall also be used to serve in an emergency conditions as required.

	Phone
SEPTIC	
Sanitary Sewer	
GROUP B WELL SYSTEM	
Water District	
PSE	1-800-424-5555
Gas Company	
PSE	1-800-424-5555
Power Company	
Call Before You Dig	DIAL-A-DIG 1-800-424-5555

### Notes

- The Developer is required to notify the Land Use Services Division, Land Use Inspection Section (206) 296-6642, three days prior to the beginning of construction for a preconstruction conference and specifically request inspection before beginning:
  - Installing siltation and erosion control measures
  - Clearing and grubbing
  - Earthwork
  - Installation of any underground utility
  - Before placing subbase, base or paving surfaces
  - Installation of any forms or placing any concrete
- A permit must be obtained from the office of the Resident Engineer, Washington State Department of Transportation, before any construction is started on any existing state route.
- A Hydraulic Project Approval (HPA) Permit must be obtained from the Washington State Department of Fisheries prior to any work when required.

### Bonding Information

Restoration Bond Amount \$ N/A

Performance Bond Amount \$ N/A

### Site Plan Approval

Approval of these plans is for construction of road and drainage improvements, site drainage & grading and temporary erosion control in unincorporated King County only. These plans do not authorize any other utility approval or improvements proposed in any State right of way.

Site plan approval is void if the commercial building permit has not been obtained or renewed within two years of approval.

Subdivision plan approval is void if the final plat is not recorded prior to the preliminary plat approval expiration.

### PRO RATA SHARE ASSESSMENT ANALYSIS (County Use Only)

Section	Township	Range	Tax Parcel	Number
1	5	2	3	0
5	0	9	0	3
0	0	4	6	1

Site Location is within the ISSAQUAH CREEK drainage shed(s)

Pro Rata Share Assessment(s) are:  Required  Not Required from the site due to development for increased storm water runoff.  
Peak Runoff Assessment Rate(\$ ) per c.f.s. increases.(10 year, 2 hour storm)  
Peak Volume Assessment Rate(\$ ) per Ac. Ft. increases.(2 year, 2 hour storm)

### AGREEMENTS, PLAN REFERENCES, PERMITS ETC. (To be completed by Consultant)

Preliminary Plat Approval/Permit Issued Date:	N/A
Expiration Date:	NONE
Other Related Permit Numbers Received:	
Right-of-Way Use Permit	N/A
Grading	N/A
Building/Structural	N/A
Other	N/A
Board feet of tree removal on site:	NONE
Cubic yards of material hauled on/off the site:	NONE
Is this a erosion sensitive area site? (Yes/No):	NO
Note: If "yes", a Highly Sensitive Site Erosion Control Supervisor is required. See ESC plan and TIR for details.	

### Emergency 911 Police-Fire-Rescue

### RECOMMENDED FOR APPROVAL (To be completed by King County)

Date	
	Engineer Plan Reviewer
	Engineer Supervisor
	Traffic & Planning Engineer
	Sensitive Areas
	Structural Review Engineer
	Other

### APPROVED FOR CONSTRUCTION

### PROJECT CONTACT INFORMATION (To be completed by Consultant)

Applicant/Contract Owner/Lease	LIXIA LI + SHAN YICONG	
	Name	23450 SE MAY VALLEY ROAD ISSAQUAH, WA 98029
Ownership Owner/Trustee	LAYLA SHAN	
	Name	laylashan94@gmail.com
Certified Surveyor or Engineer	CARL GARRISON, PE - GARRISON ENGINEERING 360-404-5058	
	Name	1997 PARK LANE, BURLINGTON, WA 98233

GARRISON ENGINEERING

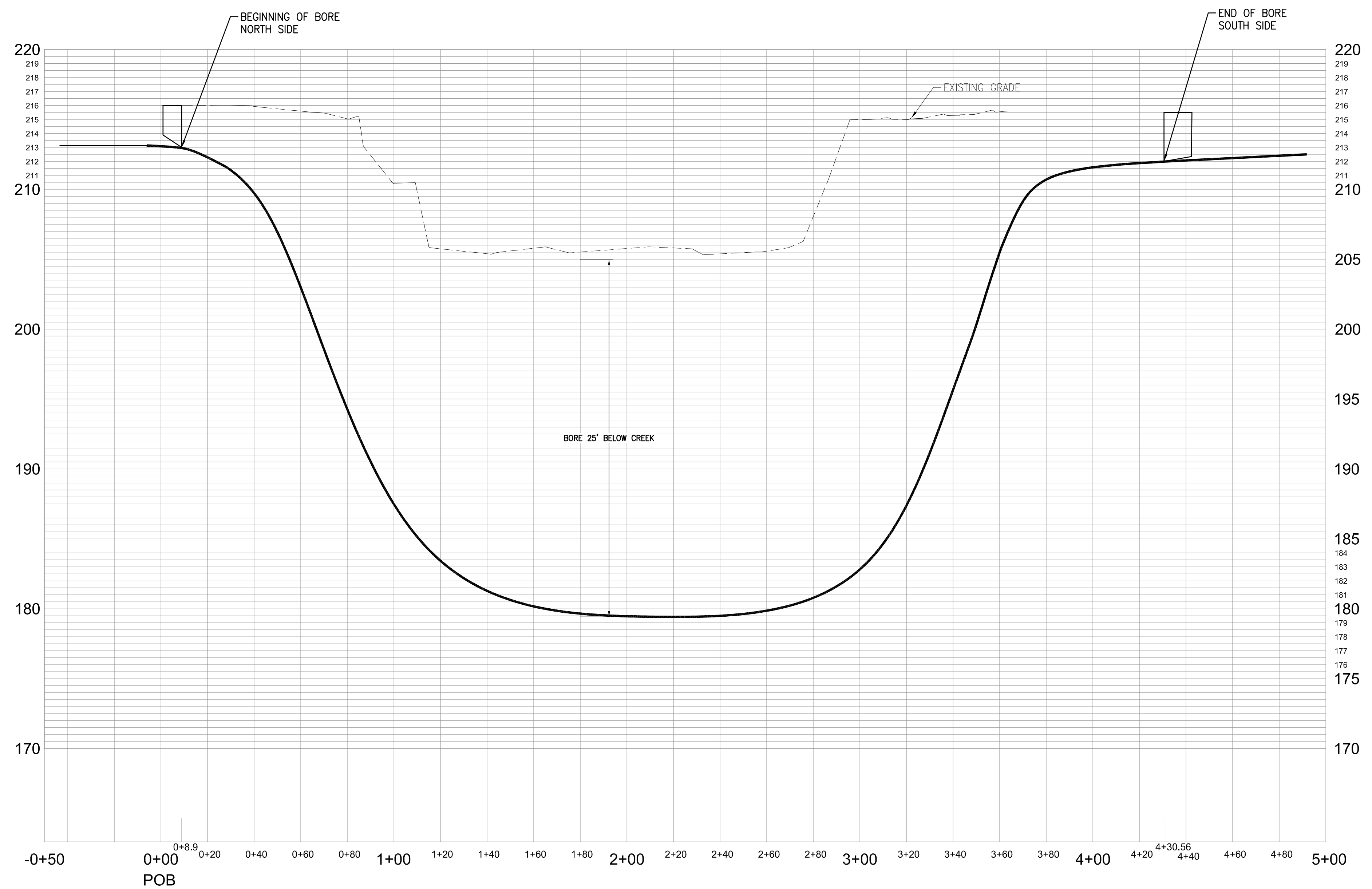
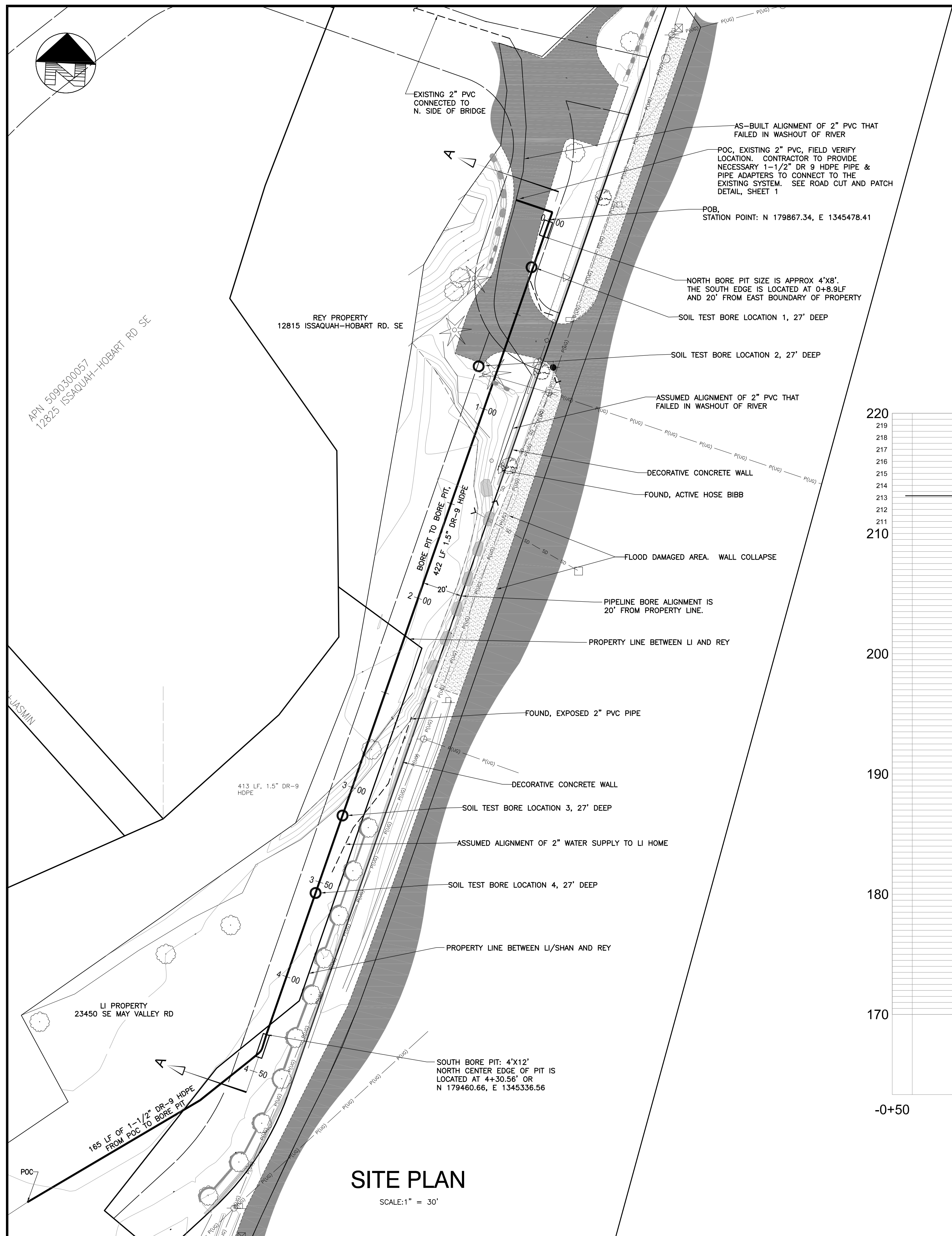
PO BOX 99 SEDRO-WOOLLEY, WA ~ WWW.GEORP.NET ~ 360-404-5058

LAYLA SHAN - WATER LINE BORE  
23450 SE MAY VALLEY RD. ISSAQUAH, WA 98029

COVER SHEET AND NOTES




Date Signed: 08/05/2022

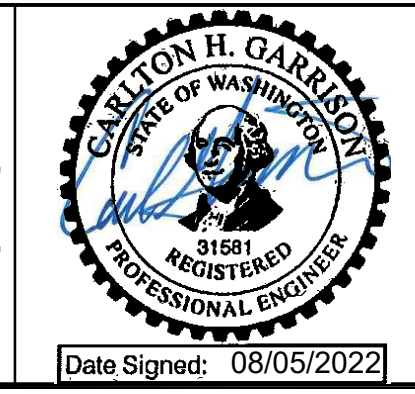


**SECTION A-A**  
 HORIZONTAL, 1" = 30'  
 VERTICAL, 1" = 5'

NO.	DATE	BY	NOTE

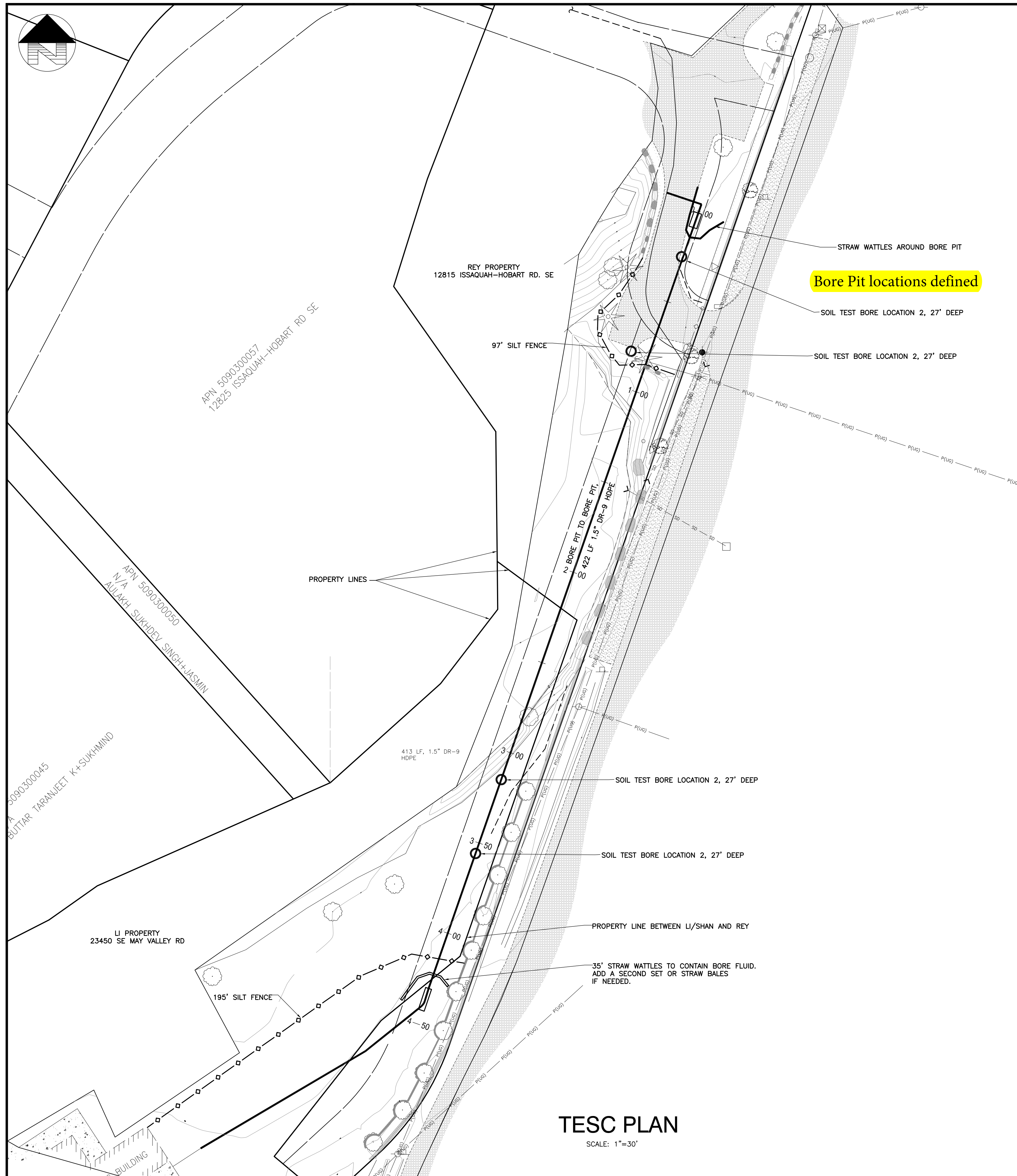
APPROVED FOR CONSTRUCTION	
REVIEWING ENGINEER	DATE
JURISDICTION	


**GARRISON ENGINEERING**  
 PO BOX 99 SEDRO-WOOLLEY, WA - WWW.GECORP.NET  
 Date Signed: 08/05/2022



**MONARCH MANOR GROUP B WATER SYSTEM**  
 LI PROPERTY, WATER PIPELINE BORE PROJECT  
 23450 SE MAY VALLEY RD, ISSAQUAH, WA  
**SITE PLAN FOR BORE UNDER ISSAQUAH CREEK**

DRAWN/DESIGNED BY: CG	CAD FILE NUMBER: SITE PLAN
CHECKED BY: CG	COUNTY: KING COUNTY
DATE: 4/8/22	JOB NUMBER: 21054
SCALE: HORIZONTAL SEE PLAN VERTICAL N/A	2 OF 3



**TESC PLAN**  
SCALE: 1"=30'

**TESC NOTES AND GENERAL CONDITIONS**

**GENERAL:**  
IN ALL AREAS OUTSIDE OF THE ROAD EDGES, ANY DITCH WORK, AND ANY ROAD EDGE AREAS THAT ARE LEFT UNCOVERED FOR MORE THAN TWO DAYS, THE FOLLOWING TESC MEASURES WILL BE APPLIED:

ALL SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF THE WASHINGTON STATE DEPARTMENT OF ECOLOGY STORM WATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON.

APPROVAL OF THIS TEMPORARY EROSION AND SEDIMENTATION CONTROL (TESC) 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 THESE TESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE TESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED.

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

THIS PLAN INCLUDES STRAW WATTLES, AN EXISTING STRAW BALE WALL, AND RESEEDING OF DENUDED SOIL AREAS. IF ADDITIONAL TESC MEASURES SUCH AS A SILT FENCE, WETS AND BLANKETS, OR ADDITIONAL STRAW WATTLES ARE NEEDED, THEY SHALL BE INCLUDED IN THE WORK. THE COUNTY AND/OR THE ENGINEER MAY REQUIRE ADDITIONAL MEASURES AS NECESSARY.

THE TESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE TESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G. ADDITIONAL CATCH BASIN FILTER FABRIC, RELOCATION OF STRAW WATTLES, AND SILT FENCES AS APPLICABLE).

THE TESC FACILITIES SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE TESC FACILITIES DURING THE WET SEASON (OCTOBER 1 TO MARCH 31) AND OF MONTHLY REVIEWS DURING THE DRY SEASON (APRIL 1 TO SEPTEMBER 30).

ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE WET SEASON OR 14 DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED TESC METHODS (E.G. SEEDING MULCHING, PLASTIC COVERING, STRAW, CRUSHED ROCK).

**SITE RESTORATION:** (BMP C120) ALL DENUDED SOIL AREAS SHALL BE SEED BY THE CONTRACTOR WITH A MIX SUITABLE FOR THE PARTICULAR APPLICATION. THE SEED MIX SHALL BE AS RECOMMENDED BY A QUALIFIED HORTICULTURIST, AND APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEED GERMINATION AND MAINTENANCE OF ALL SUCH SEEDING AREAS UNTIL NEW GRASS IS THICK AND A HEIGHT OF 1 INCH MINIMUM.

**STRAW WATTLES:** BMP C235 (SEE DETAIL) - WATTLES ARE TYPICALLY 8-10' IN DIAMETER AND VARY IN LENGTH. WATTLES ARE TO BE PLACED IN SHALLOW TRENCHES AND/OR STAKED ALONG THE CONTOUR OF DISTURBED OR NEWLY CONSTRUCTED TRENCHES WHERE THE GROUND HAS BEEN DISTURBED AND PRIOR TO SEEDING AREAS BECOMING STABLE WITH GRASS GROWTH.

**WETS AND BLANKETS:** BMP C122 - USE AS RECOMMENDED IN AREAS GREATER THAN 2:1 SLOPE AND WITH MORE THAN 10' OF VERTICAL RELIEF TO STABILIZE SEEDING AND EROSION.

ANY AREA NEEDING TESC MEASURES THAT DO NOT REQUIRE IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN 14 DAYS.

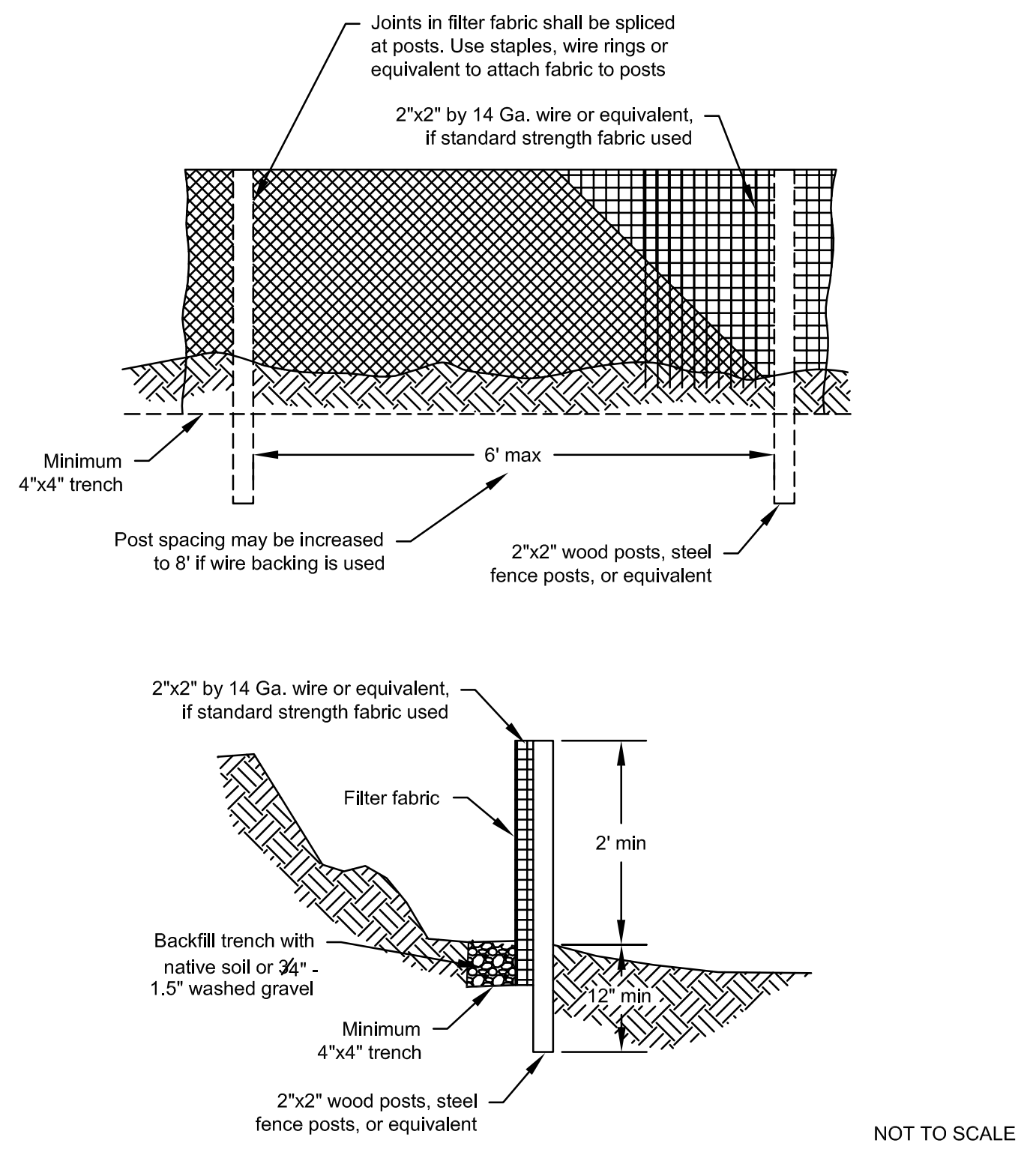
CONTRACTOR SHALL ENSURE THAT ALL SOIL, MUD, SILT DEBRIS, ETC. GENERATED BY THIS PROJECT IS KEPT OFF OF AND OUT OF ALL ROADS AND DRIVEWAYS. CONTRACTOR SHALL CLEAN AT HIS OWN EXPENSE ANY PUBLIC OR PRIVATE PROPERTY (ROAD, LAWN, DRIVEWAY, EMBANKMENT, DITCH, ETC.) WHICH IS SOILED, MUDDIED, OR DISTURBED AS A RESULT OF THIS PROJECT.

**TEAR DOWN:** REMOVE COMPLETELY ALL TEMPORARY EROSION CONTROL STRUCTURES ONLY AFTER PERMANENT EROSION CONTROL STRUCTURES AND PAVED AREAS ARE COMPLETED AND ALL NEW GRASS SEED HAS TAKEN ROOT AND HAS GROWN TO A THICK MAT CONDITION, AT LEAST 1-INCH IN LENGTH.

**TRENCHING NOTES (SEE SHEET 3 FOR ADDITIONAL TRENCH DETAILS)**

THE WIDTH OF ALL NON-BORED TRENCHES SHALL BE 12". THE DEPTH OF ALL NON-BORED TRENCHES SHALL BE:

36" MAX DEPTH IN GRASS AREAS WITH A MIN. OF 30" OF COVER  
30" MIN. COVER.

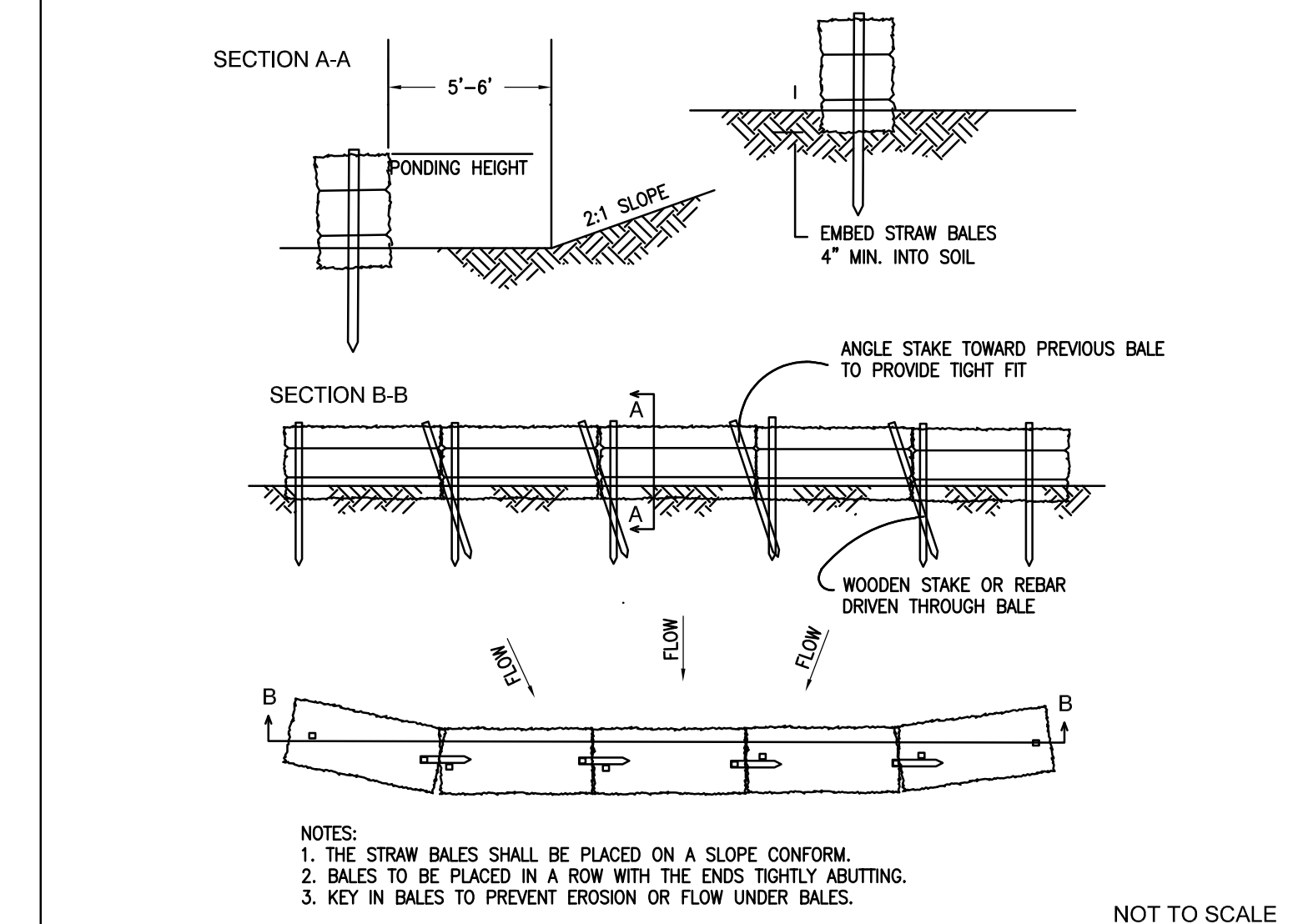


**Figure II-4.2.12**  
**Silt Fence**  
**BMP C233**

DEPARTMENT OF ECOLOGY  
State of Washington

Revised October 2014

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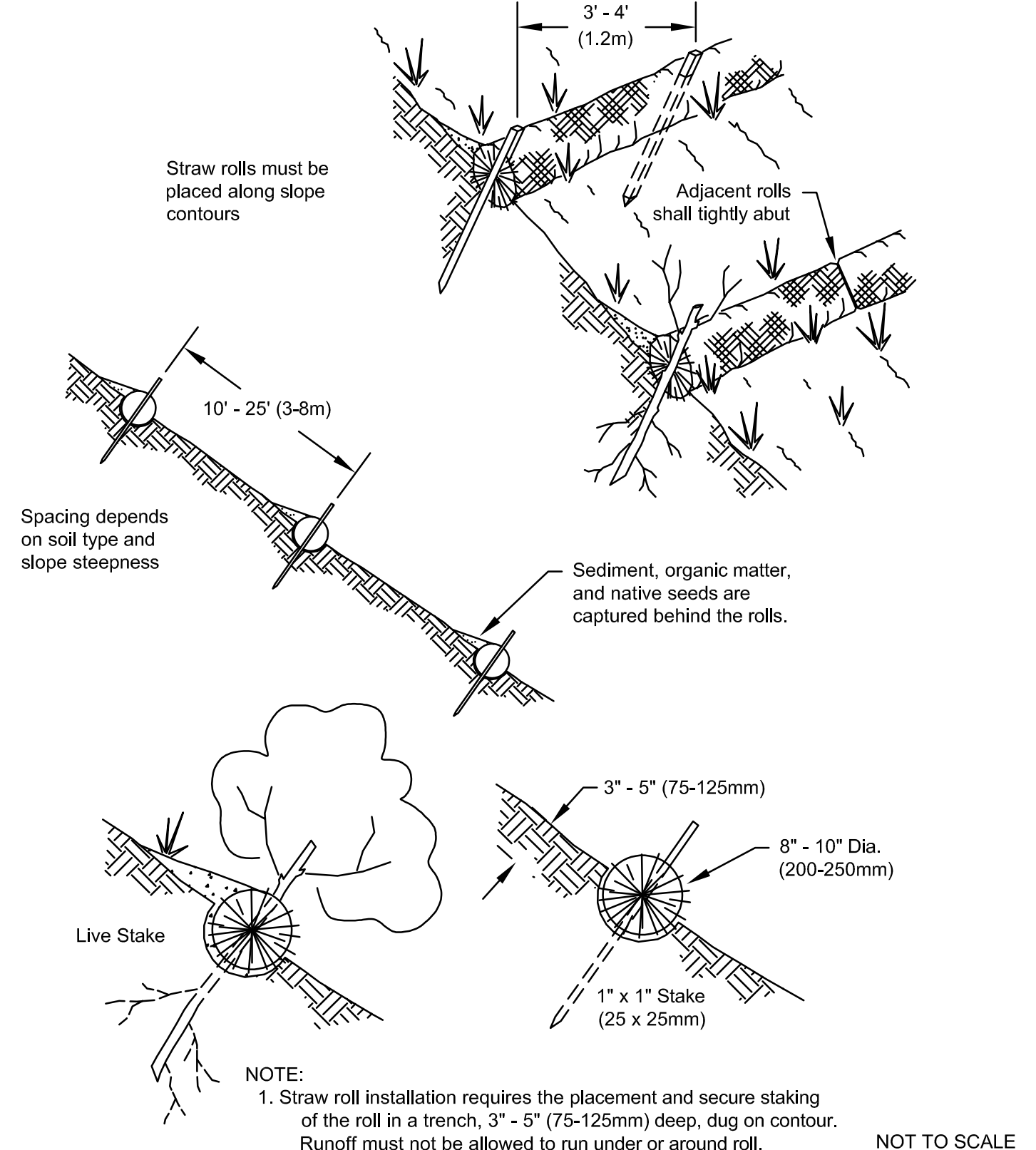


**FIGURE 4.17**  
**STRAW BALE BARRIER**  
**BMP C230**

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State of Washington

NOT TO SCALE

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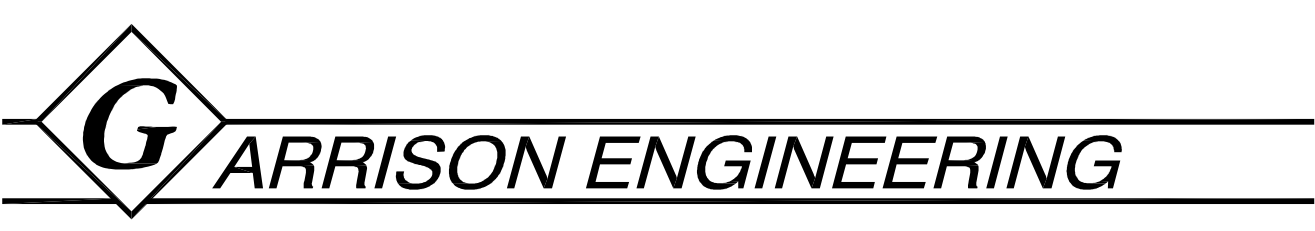
**Figure II-4.2.14**  
**Wattles**  
**BMP C235**

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Revised November 2015

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#	DATE	BY	REVISIONS



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**MONARCH MANOR GROUP B WATER SYSTEM**

LI PROPERTY, WATER PIPELINE BORE PROJECT  
23450 SE MAY VALLEY RD, ISSAQUAH, WA  
**TESC PLAN FOR BORE AND PIPELINES**

DRAWN/DESIGNED BY: CG	CAD FILE NUMBER: SITEPLANS...
CHECKED BY: CG	COUNTY: KING COUNTY
DATE: 4/8/22	JOB NUMBER: <b>21054</b>
SCALE: HORIZONTAL SEE PLAN	<b>3 OF 3</b>
VERTICAL SEE PLAN	