

LORENZINI SFR

Table 1

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

New and Replaced Impervious Surface Area (sf)	Detention Pipe Diameter (in)	Detention Pipe Length (ft)		Lowest Orifice Diameter (in) ⁽¹⁾		Distance from Outlet Invert to Second Orifice (ft)		Second Orifice Diameter (in)	
		B soils	C soils	B soils	C soils	B soils	C soils	B soils	C soils
500 to 1,000 sf	36"	30	22	0.5	0.5	2.2	2.0	0.5	0.8
	48"	18	11	0.5	0.5	3.3	3.2	0.9	0.8
	60"	11	7	0.5	0.5	4.2	3.4	0.5	0.6
1,001 to 2,000 sf	36"	66	43	0.5	0.5	2.2	2.3	0.9	1.4
	48"	34	23	0.5	0.5	3.2	3.3	0.9	1.2
	60"	22	14	0.5	0.5	4.3	3.6	0.9	0.9
2,001 to 3,000 sf	36"	90	66	0.5	0.5	2.2	2.4	0.9	1.9
	48"	48	36	0.5	0.5	3.1	2.8	0.9	1.5
	60"	30	20	0.5	0.5	4.2	3.7	0.9	1.1
3,001 to 4,000 sf	36"	120	78	0.5	0.5	2.4	2.2	1.4	1.6
	48"	62	42	0.5	0.5	2.8	2.9	0.8	1.3
	60"	42	26	0.5	0.5	3.8	3.9	0.9	1.3
4,001 to 5,000 sf	36"	134	91	0.5	0.5	2.8	2.2	1.7	1.5
	48"	73	49	0.5	0.5	3.6	2.9	1.6	1.5
	60"	46	33	0.5	0.5	4.6	3.5	1.6	1.3

GENERAL NOTES:

- SITE PLAN PROVIDED BY CLIENT ON APRIL 22, 2022.
- WALL/FOOTING/LAWN UNDERDRAIN DRAINAGE SYSTEM AND ROOF DOWNSPOUT SYSTEM SHALL NOT BE INTERCONNECTED UNLESS SUCH CONNECTION IS MADE AT LEAST ONE FOOT BELOW THE WALL/FOOTING/UNDERDRAIN DRAINAGE SYSTEM AND DOWN SLOPE OF THE WALL/BUILDING FOUNDATION AND DOWNSTREAM OF THE DETENTION TANK.
- EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES SHOWN, OR NOT SHOWN IN THEIR PROPER LOCATION.
- CONTRACTOR SHALL POT-HOLE LOCATION OF EXISTING UTILITIES TO BE RECONNECTED PRIOR TO BEGINNING CONSTRUCTION. NOTIFY ENGINEER OF ANY CONFLICTS.
- CONTRACTOR TO VERIFY CONDITION AND GOOD WORKING ORDER OF ALL EXISTING UTILITIES TO BE RECONNECTED OR RE-USED PRIOR TO START OF CONSTRUCTION.
- SOILS ON THE SITE CONSISTS OF KITSAP SILT LOAM (Ksb) PER THE NRCS WEB SOIL SURVEY.
- ROOF DRAINS SHALL BE 4" OR 6" PVC AS SHOWN AND HAVE A MINIMUM SLOPE OF 2.00%.
- ALWAYS CALL 811 TWO WORKING DAYS BEFORE YOU DIG.

AREA BREAKDOWN:

LOT SIZE: 11,523 S.F. (0.265 AC.)
 EX. HARD SURFACES ON LOT: NONE
 NEW HARD SURFACES ON LOT:
 MAIN HOUSE ROOF: 2,867 S.F.
 DRIVEWAY: 1,771 S.F.
 WALKS & PATIOS: 40 S.F.
 TOTAL NEW ON LOT: 4,678 S.F. (40.6%)
 NEW HARD SURFACES:
 LOT PERVIOUS: 6,845 S.F.
 OFFSITE DRIVEWAY: 97 S.F.
 TOTAL PROJECT HARD SURFACES: 4,775 S.F.
 TOTAL P.G.H.S.: 1,908 S.F.

LAWN AND LANDSCAPE AREA NOTE:

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.

SOIL AMENDMENT NOTE:

AREA (A) ENCOMPASSES THE ENTIRE SITE OUTSIDE OF HARD SURFACES. SEE LANDSCAPE PLANS FOR TURF AND PLANTING BED AREAS. STOCKPILE SITE DUFF AND TOPSOIL FOR ALL DISTURBED PERVIOUS AREAS AND REAPPLY WITH SOIL AMENDMENT AFTER GRADING AND CONSTRUCTION. MINIMUM SCARIFICATION DEPTH 8-INCHES. PROVIDE A TOTAL OF 167 C.Y. OF AMENDMENT FOR AN AREA OF 6,752 S.F. (AREAS FOR TURF AND PLANTING BEDS TO BE DETERMINED)

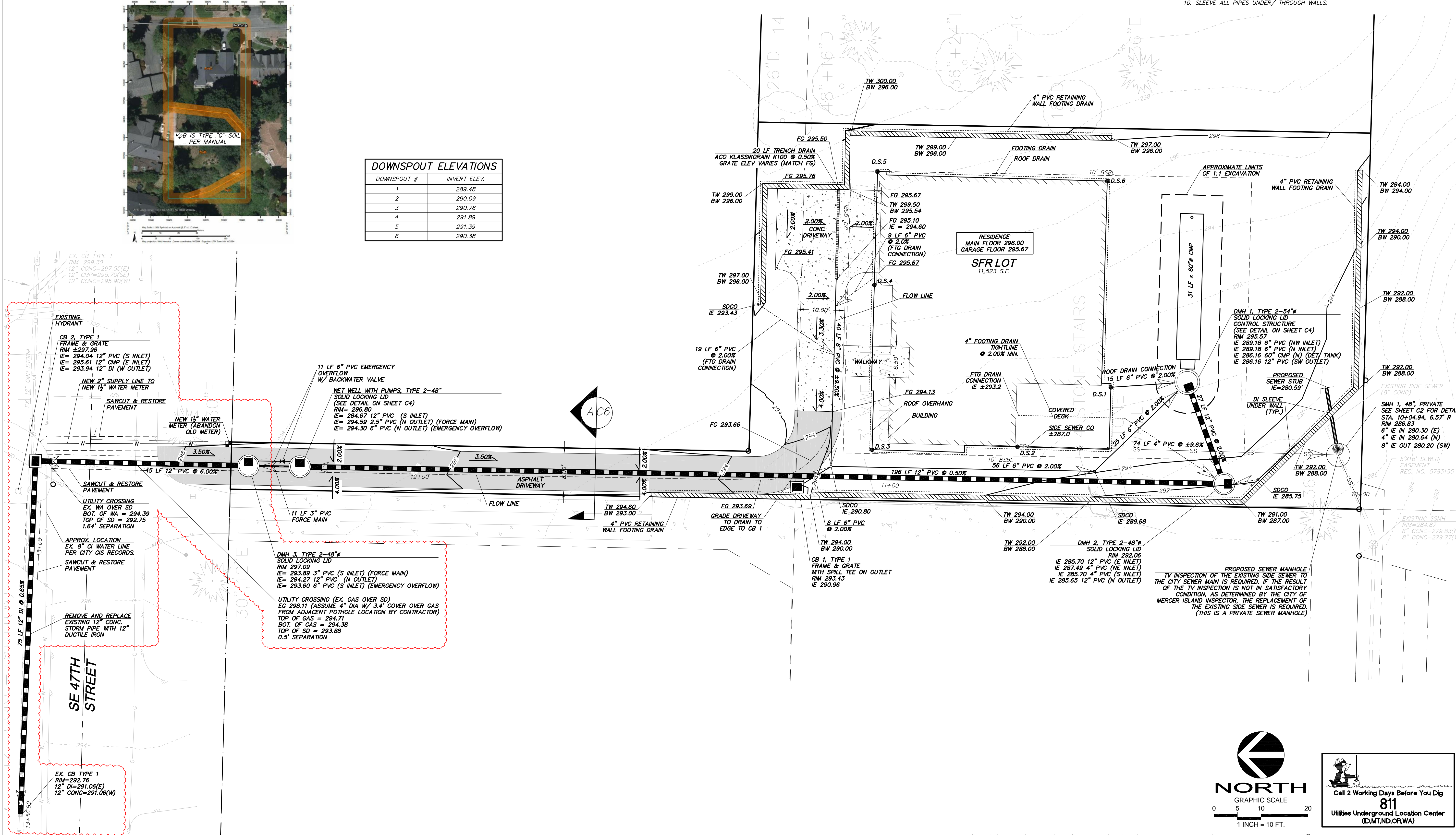
STORM DRAINAGE NOTES:

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



DOWNSPOUT ELEVATIONS

DOWNSPOUT #	INVERT ELEV.
1	289.48
2	290.09
3	290.76
4	291.89
5	291.39
6	290.38



LORENZINI SFR
 DRAINAGE PLAN
 8427 SE 47TH STREET
 MERCER ISLAND
 WASHINGTON 98040
 PARCEL NO. 7598100421

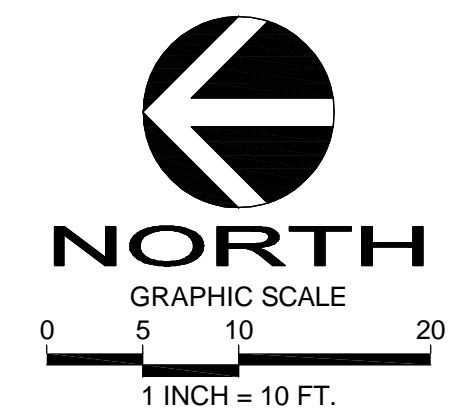
TODD SHERMAN
 DESIGN BUILT HOMES
 11400 SE 8TH STREET, SUITE 415
 BELLEVUE, WASHINGTON 98004
 206-909-8187



DATE	REVISION	REVISED BY	REVISION
11-30-22	REV. PER AGENCY COMMENTS	MAJ	MAJ
03-29-23	REV. PER AGENCY COMMENTS	MAJ	MAJ
06-07-23	REV. PER AGENCY COMMENTS	MAJ	MAJ
06-29-23	REV. PER AGENCY COMMENTS	MAJ	MAJ
08-07-23	INVERT EDITS	MAJ	MAJ
10-10-23	STORM OUTLET REVISIONS	MAJ	MAJ

DRAFTED BY: JSE
 DESIGNED BY: JSE
 PROJECT ENGINEER: MAJ
 DATE: 07.01.22
 PROJECT NO.: 21071

DRAWING: C4
 SHEET: 4 OF 6



811
 Call 2 Working Days Before You Dig
 Utilities Underground Location Center
 (D.M.T.N.D.OR.WA)

LORENZINI SFR



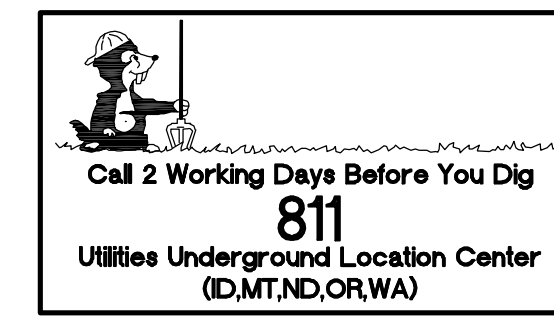
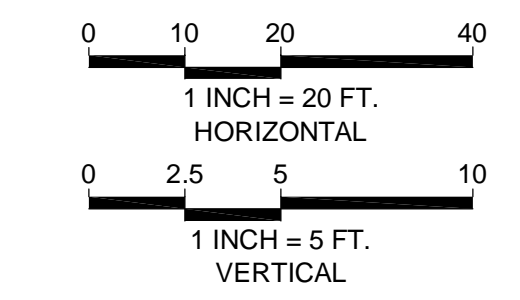
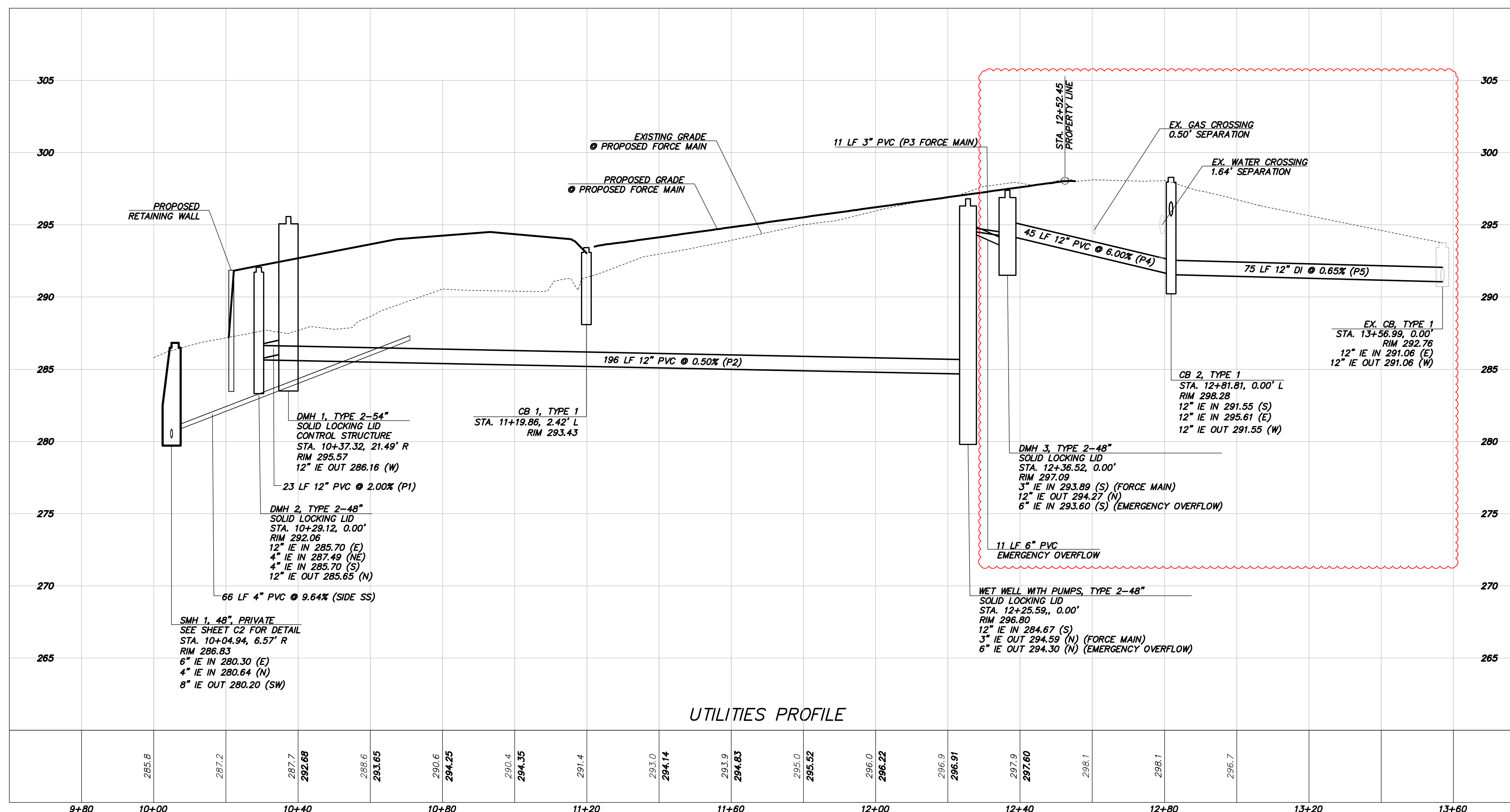
D.R. STRONG
CONSULTING ENGINEERS
ENGINEERS PLANNERS SURVEYORS
620 - 7th AVENUE KIRKLAND, WA 98033
O 425.827.3063 F 425.827.2423

LORENZINI SFR

STORM DRAINAGE PROFILE
8427 SE 47TH STREET
MERCER ISLAND
WASHINGTON 98040
PARCEL NO. 7598100421

TODD SHERMAN
DESIGN BUILT HOMES

11400 SE 8TH STREET, SUITE 415
BELLEVUE, WASHINGTON 98004
206-909-8187



DATE	REVISION	PER AGENCY COMMENTS	MAJ
11.30.22	REVISED	PER AGENCY COMMENTS	MAJ
03.29.23	REVISED	PER AGENCY COMMENTS	MAJ
05.08.23	REVISED	PER AGENCY COMMENTS	MAJ
06.07.23	REVISED	PER AGENCY COMMENTS	MAJ
06.29.23	REVISED	PER AGENCY COMMENTS	MAJ
08.07.23	INVERT EDITS		MAJ
10.10.23	STORM OUTLET REVISIONS		MAJ

DRAFTED BY: JSE
DESIGNED BY: JSE
PROJECT ENGINEER: MAJ
DATE: 07.01.22
PROJECT NO.: 21071

DRAWING: C5
SHEET: 5 OF 6