

HARBOR GROVE

CIVIL PLANS

LEGAL DESCRIPTION

PARCEL B OF CITY OF MUKILTEO LOT LINE ADJUSTMENT NO. 201606305002, BEING A PORTION OF LOTS 159 AND 166, WEST & WHEELER'S SEA VIEW 5 ACRE TRACTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 7 OF PLATS, PAGES 12 AND 13, RECORDS OF SNOHOMISH COUNTY, WASHINGTON;

SITUATE IN CITY OF MUKILTEO, COUNTY OF SNOHOMISH, STATE OF WASHINGTON.

VERTICAL DATUM

ORIGINATING BENCHMARK:

FOUND CASED CONC. MON. ON CENTERLINE, 53RD AVE W

VERTICAL DATUM: NAVD 88

ELEVATION: 395.82' (PER GPS OBSERVATIONS)

SURVEY REFERENCES

(R1) CITY OF MUKILTEO SP - A.F.#9205200691

(R2) CITY OF MUKILTEO ROS - A.F.#201606300224

EQUIPMENT & PROCEDURES

METHOD OF SURVEY:

SURVEY PERFORMED BY FIELD TRAVERSE

INSTRUMENTATION:

LEICA TS15 ROBOTIC ELECTRONIC TOTAL STATION

PRECISION:

MEETS OR EXCEEDS STATE STANDARDS WAC 332-130-090

BASIS OF BEARING:

THE MONUMENTED CENTERLINE OF 53RD AVE. W., AS THE BEARING OF N 01°58'54" E.

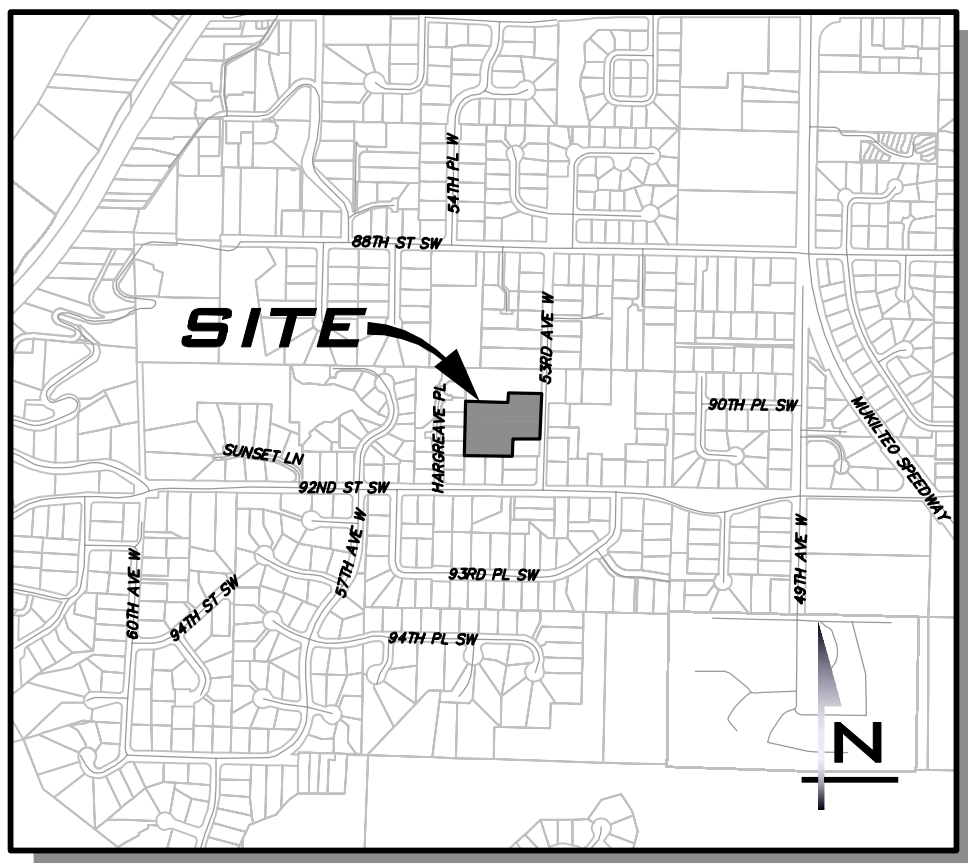
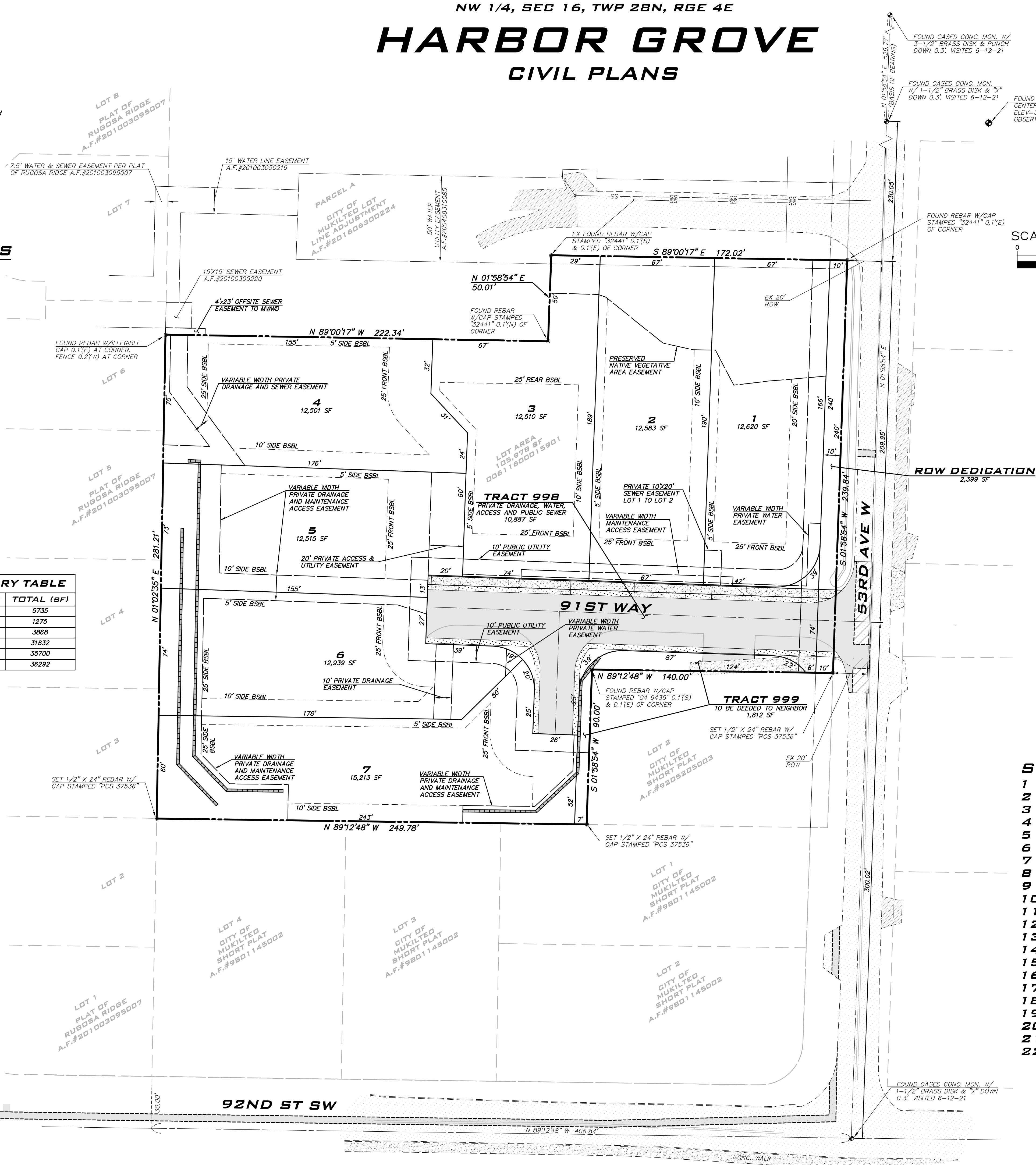
IMPERVIOUS AREA CALCULATIONS

ASSUMED IMPERVIOUS FOR EACH LOT:

LOT 1: 4,038 SF
LOT 2: 4,057 SF
LOT 3: 3,973 SF
LOT 4: 4,000 SF
LOT 5: 4,005 SF
LOT 6: 4,140 SF
LOT 7: 4,868 SF

TOTAL NEW LOT IMPERVIOUS = 29,081 SF

HARD SURFACE AREA SUMMARY TABLE			
	PGHS (SF)	NPGHS (SF)	TOTAL (SF)
EXISTING	4,222	1513	5735
REMOVED	760	515	1275
REPLACED	2870	998	3868
NEW	12201	19631	31832
NEW + REPLACED	15071	20629	35700
TOTAL HARD SURFACES	15663	20629	36292



VICINITY MAP

NOT TO SCALE

PROJECT TEAM

OWNER/APPLICANT

SEA-PAC HOME
120 SW EVERETT MALL WAY, STE 100
EVERETT, WA 98204
(425) 628-5353
CONTACT: NATE PERKL

CIVIL ENGINEER

THE BLUELINE GROUP
25 CENTRAL WAY, SUITE 400
KIRKLAND, WA 98033
(425) 250-4704
CONTACT: TC COLLARAN, AICP, PLA

GEOTECHNICAL ENGINEER

EARTH SOLUTIONS NW LLC
15365 NE 90TH ST, SUITE 100
REDMOND, WA 98052
(425) 449-4704
CONTACT: HENRY WRIGHT, PE

UTILITY PURVEYORS

WATER SUPPLY: MUKILTEO WATER AND WASTEWATER DISTRICT
SANITARY SEWER: MUKILTEO WATER AND WASTEWATER DISTRICT
FIRE DISTRICT: MUKILTEO FIRE DISTRICT
SCHOOL DISTRICT: MUKILTEO SCHOOL DISTRICT NO 6

SITE DATA

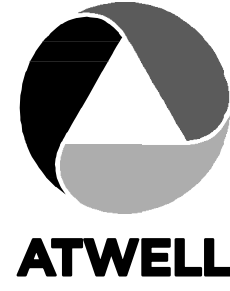
SITE ADDRESS: 9110 53RD AVE W, MUKILTEO, WA 98275
TAX ACCOUNT NUMBER: 00611600015901
EXISTING ZONING: RD-12.5
GROSS SITE AREA: 2.43 ACRES (105,978 SF)
NEW SITE AREA: 2.38 ACRES (103,579 SF)
NUMBER OF LOTS PROPOSED: 7
MINIMUM LOT SIZE (REQUIRED): 12,500 SF
MAXIMUM LOT WIDTH: 60 FEET
SETBACKS:
FRONT: 25'
CORNER: 20'
SIDE: 5', WITH 15' OF TOTAL SIDE YARD
REAR: 25'
MAXIMUM LOT COVERAGE: 30%
MAXIMUM LOT HARD SURFACE COVERAGE: 55%
(SEE HARD SURFACE AREA SUMMARY, THIS SHEET)

SHEET INDEX

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- EC-01 EXISTING CONDITIONS & DEMO PLAN
- SP-01 SITE PLAN
- TP-01 TESC PLAN
- TD-01 TESC NOTES & DETAILS
- TD-02 TESC NOTES & DETAILS
- HC-01 HORIZONTAL CONTROL PLAN
- GP-01 GRADING PLAN
- UT-01 COMPOSITE UTILITY PLAN
- RS-01 ROAD & STORM PLAN
- RP-01 ROAD & STORM PROFILES
- VT-01 VAULT PLANS & SECTIONS
- VT-02 VAULT DETAILS & NOTES
- PS-01 PUMP STATION DETAILS
- TR-01 TREE RETENTION PLANS
- TR-02 TREE RETENTION DETAILS
- LS-01 LANDSCAPE PLANS
- LS-02 LANDSCAPE DETAILS
- DT-01 STANDARD DETAILS
- DT-02 STANDARD DETAILS
- DT-03 STANDARD DETAILS

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25 CENTRAL WAY, SUITE 400,
KIRKLAND, WA 98033
P: 425.216.4051 F: 425.216.4052
WWW.ATWELL-GROUP.COM

SCALE:

AS NOTED

PROJECT MANAGER:

T.C. COLLARAN, PLA, AICP

PROJECT ENGINEER:

LUCAS ZIROTTI

DESIGNER:

LEE M. TOMKINS

ISSUE DATE:

9/8/2023

REVISIONS		BY	DATE	NO
1	8/9/23	LCZ		
2	4/21/23	LCZ		
3	9/8/23	LCZ		

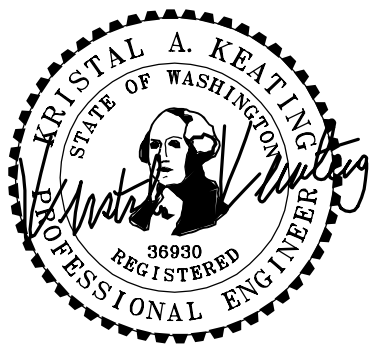
COVER SHEET

HARBOR GROVE

CIVIL PLANS

9110 53RD AVE W

SNOHOMISH COUNTY WASHINGTON



9/8/23

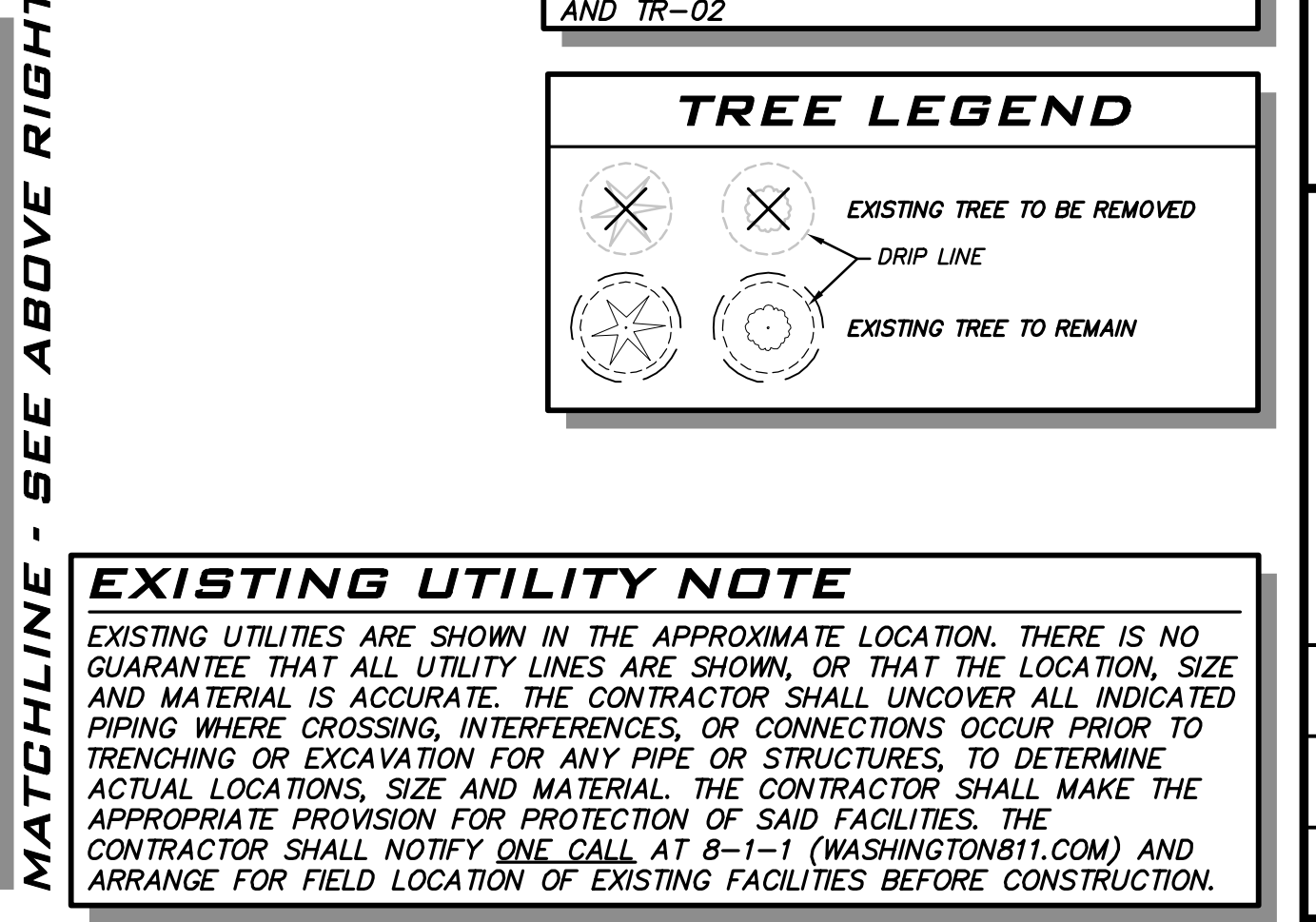
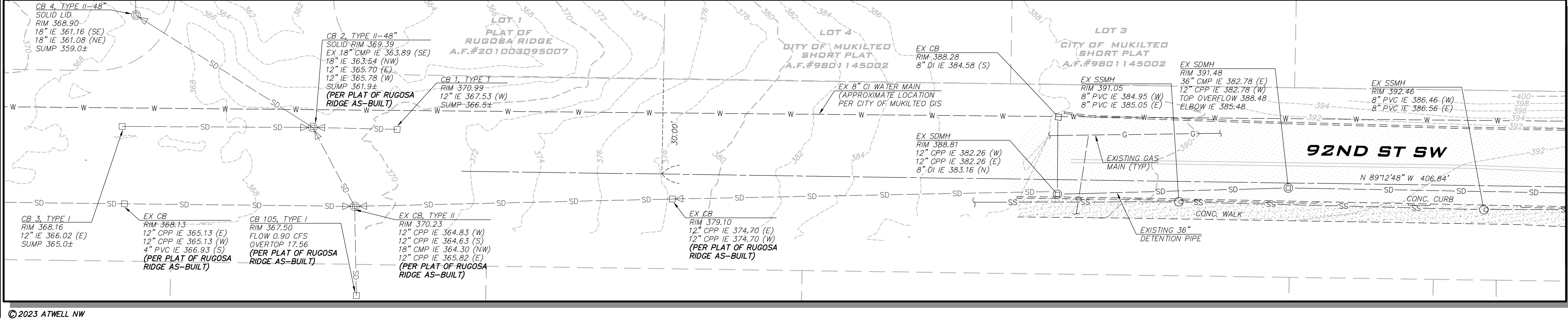
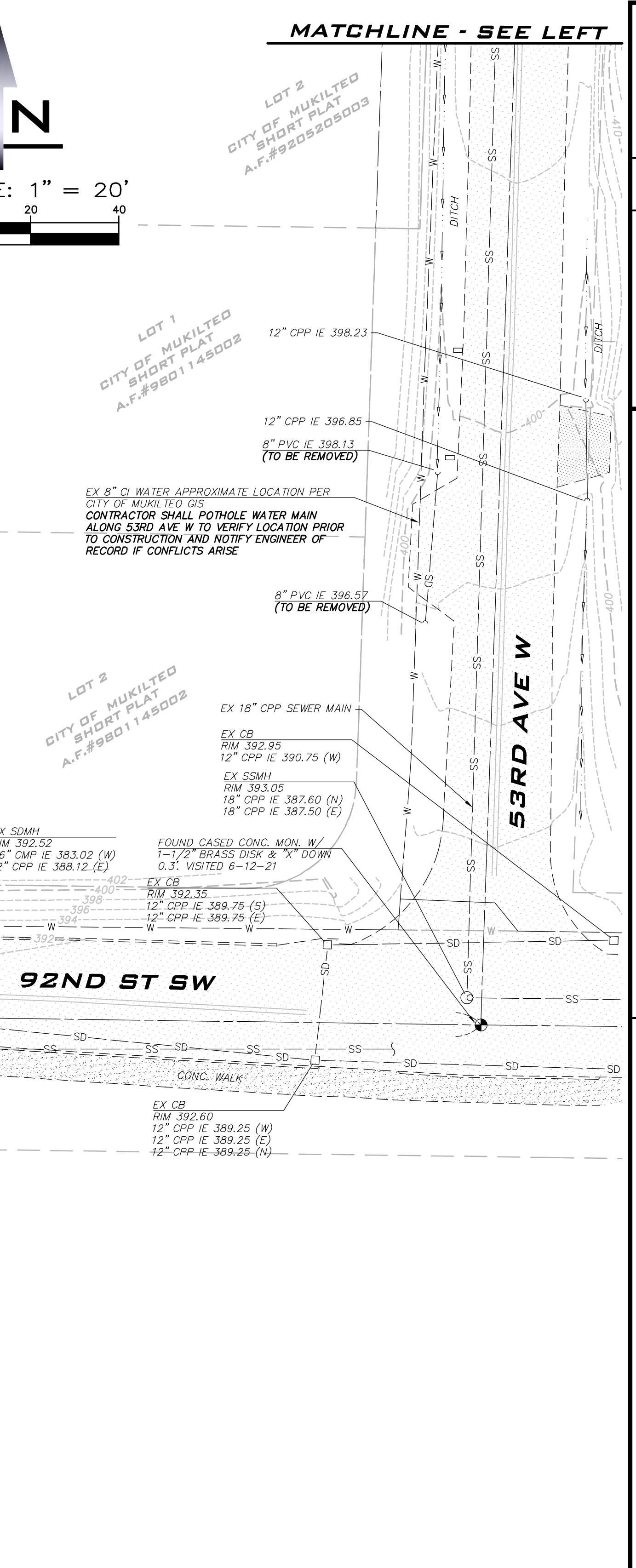
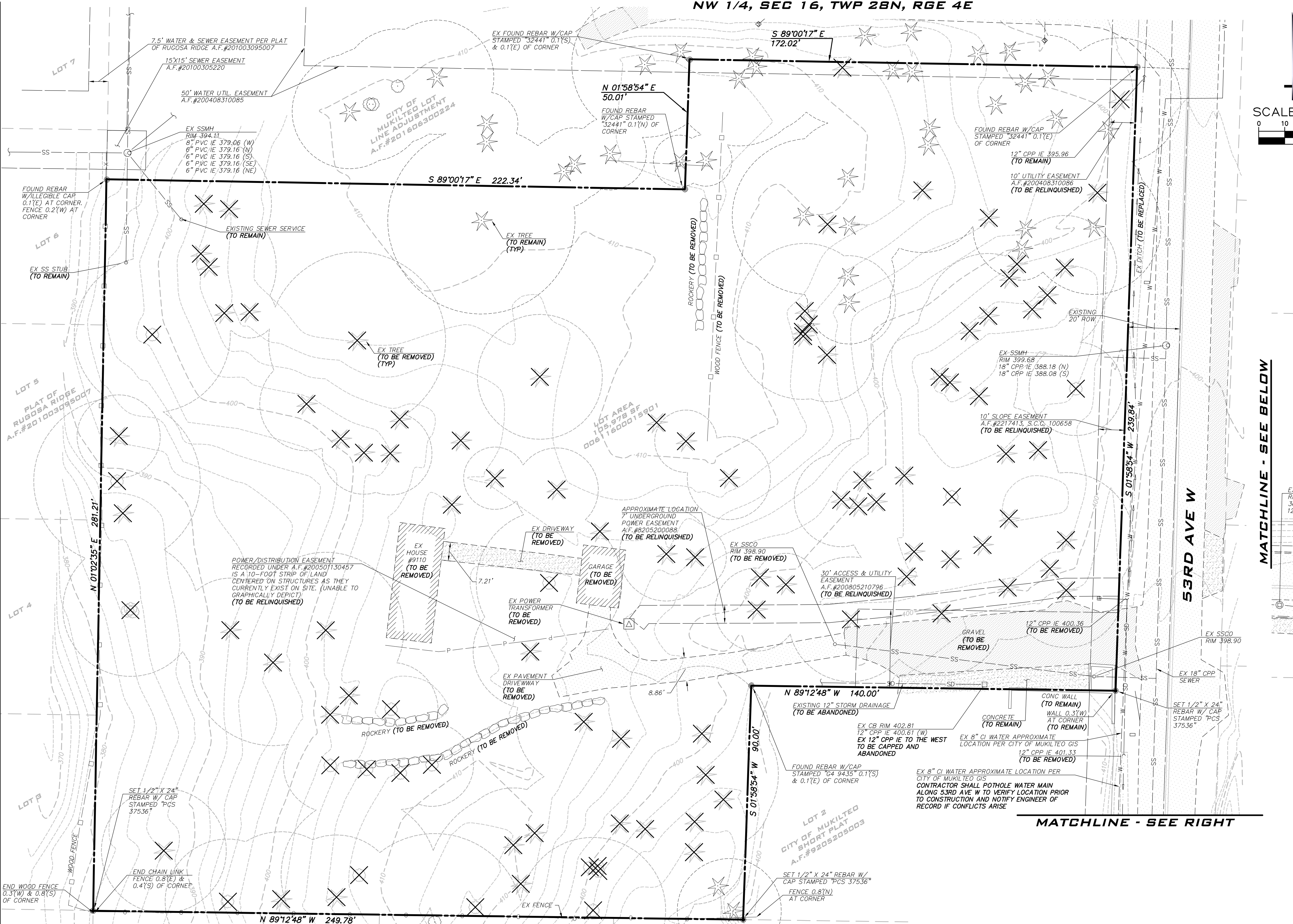
JOB NUMBER:

21-073

SHEET NAME:

CV-01

SHT 1 OF 22



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NO	DATE	BY	REVISIONS	
			DESCRIPTION	DATE
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2	9/8/23	LCZ	REVISIONS PER CITY 2ND ROUND COMMENTS	
3	9/8/23	LCZ	REVISIONS PER CITY 3RD ROUND COMMENTS	

EXISTING CONDITIONS & DEMO PLAN

HARBOR GROVE CIVIL PLANS

9110 53RD AVE W

SNOHOMISH COUNTY WASHINGTON

9/8/23

JOB NUMBER:
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EC-01

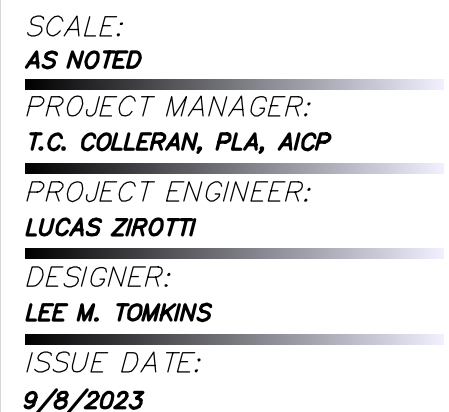
SHT **3** OF **22**

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ACCORDING TO THE GROUNDWATER ELEVATION EVALUATION BY COBALT GEOSCIENCES, LLC DATED MARCH 14, 2022, THE GROUNDWATER ELEVATION IN THE SITE VICINITY APPEARS TO BE AT 375 FEET. A COPY OF THE EVALUATION IS PROVIDED UNDER SEPARATE COVER.

- INSTALL PERMANENT PUMP STATION AND PERMANENT INTERCEPTOR SWALE AS SHOWN PRIOR TO CLEARING AND GRADING WITHIN PHASE 2 CLEARING LIMITS.
- PERMANENT INTERCEPTOR SWALE SHALL COLLECT AND ROUTE SEDIMENT LADEN RUNOFF TO PUMP STRUCTURE. PUMP STRUCTURE UTILIZED TO SEND SEDIMENT LADEN RUNOFF TO DETENTION VAULT.
- FRENCH DRAIN BENEATH SWALE SHALL NOT BE INSTALLED AND BROUGHT OUT UNTIL STORM IMPROVEMENTS ARE COMPLETED, SITE IS STABILIZED, AND RUNOFF IS CLEAR.

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ID	DATE	BY	REVISIONS
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2	4/21/23	LMT	REVISIONS PER CITY AND ROUND COMMENTS
3	9/8/23	LMT	REVISIONS PER CITY 3ND ROUND COMMENTS

TESC PLAN
HARBOR GROVE
CIVIL PLANS
9110 53RD AVE W
SNDHOMISH COUNTY WASHINGTON



9/8/23

JOB NUMBER:
21-073

SHEET NAME:
TP-01

SHT **5** OF **22**

ATWELL

SCALE:
AS NOTED

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T.C. COLLIERAN, PLA, AICP

PROJECT ENGINEER:
LUCAS ZIROTTI

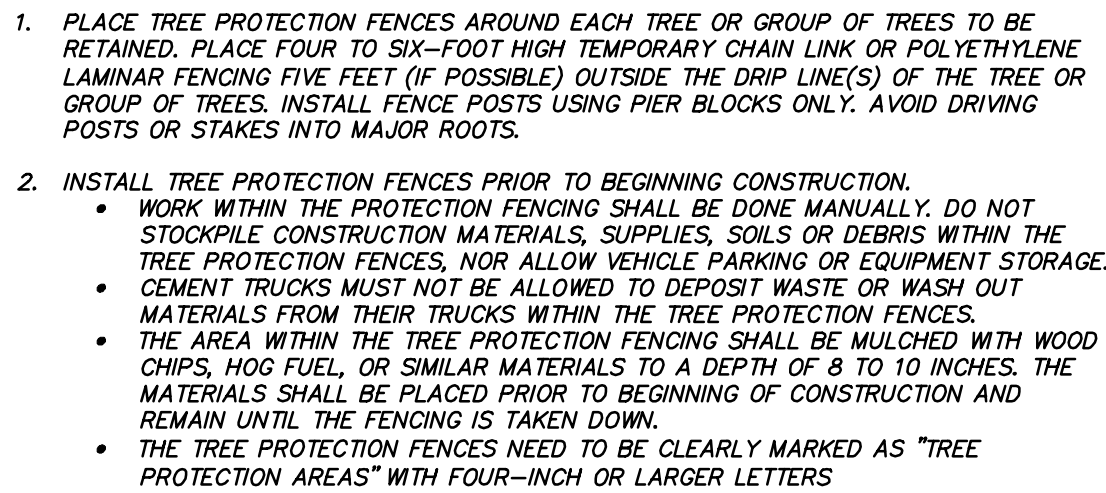
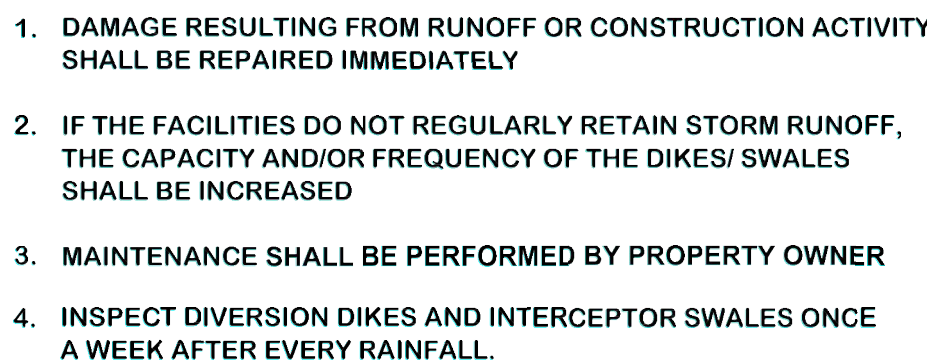
DESIGNER:
LEE M. TOMKINS

ISSUE DATE:
9/8/2023

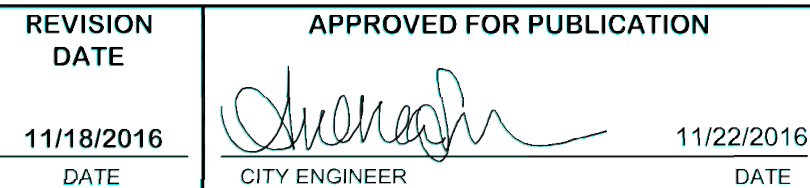
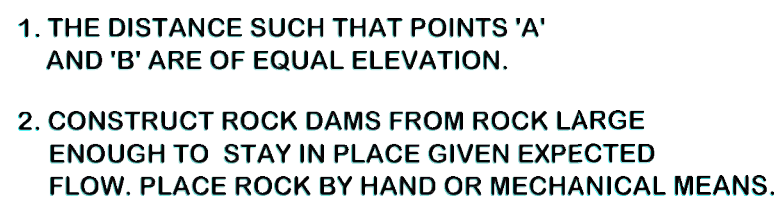
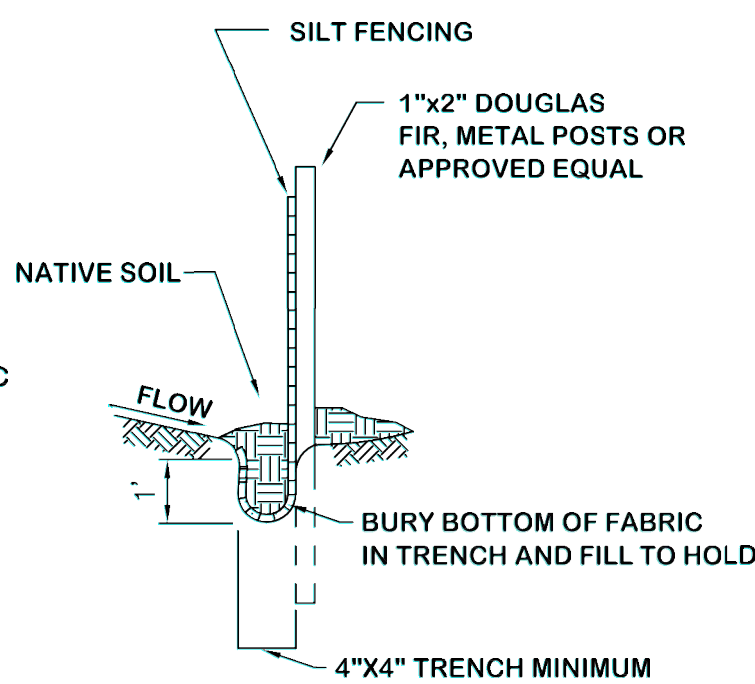


1. VEHICLE/EQUIPMENT WASHING & STEAM CLEANING (BMP S1.20 – NO WASHING OF VEHICLES ON SITE (BMP S1.10)
2. EMERGENCY SPILL CLEANUP PLANS (BMP S1.80) – NO CHANGE VEHICLE OIL OR OTHER VEHICLE MAINTENANCE ON SITE.
3. VEGETATION MANAGEMENT/INTEGRATED PEST MANAGEMENT (BMP S1.90) – CERTIFIED PROFESSIONAL IS TO MANAGE PEST CONTROL.
4. MAINTENANCE OF STORM DRAINAGE FACILITIES (BMP S2.00) – CLEAN GRATE, ETC.
5. STREET SWEEPING (BMP S20.20) – KEEP STREETS CLEAN & FREE OF DEBRIS.

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STANDARD PLAN NO. EC-005

STANDARD PLAN NO. EC-002

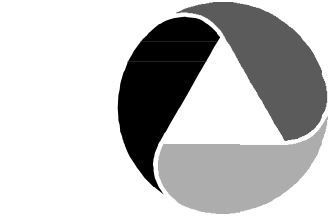
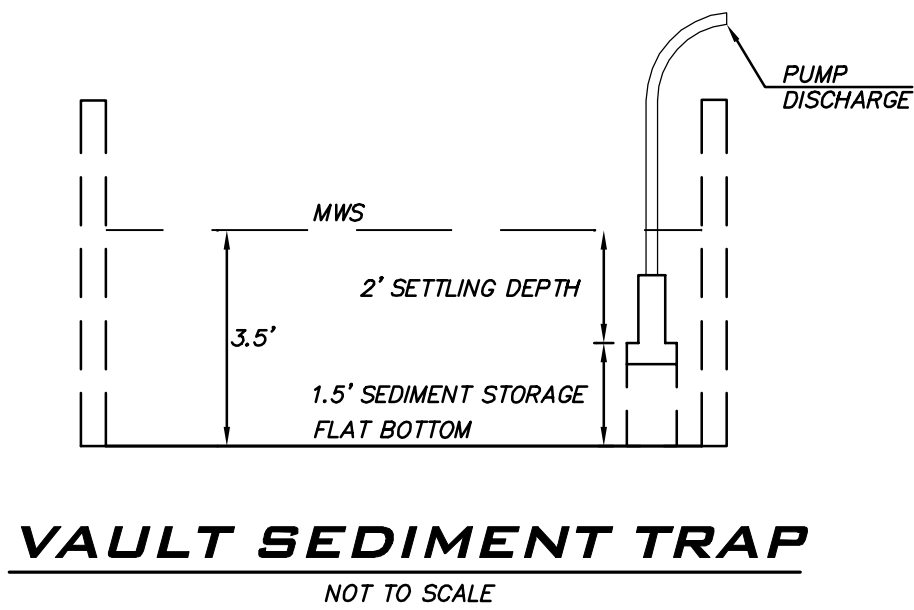
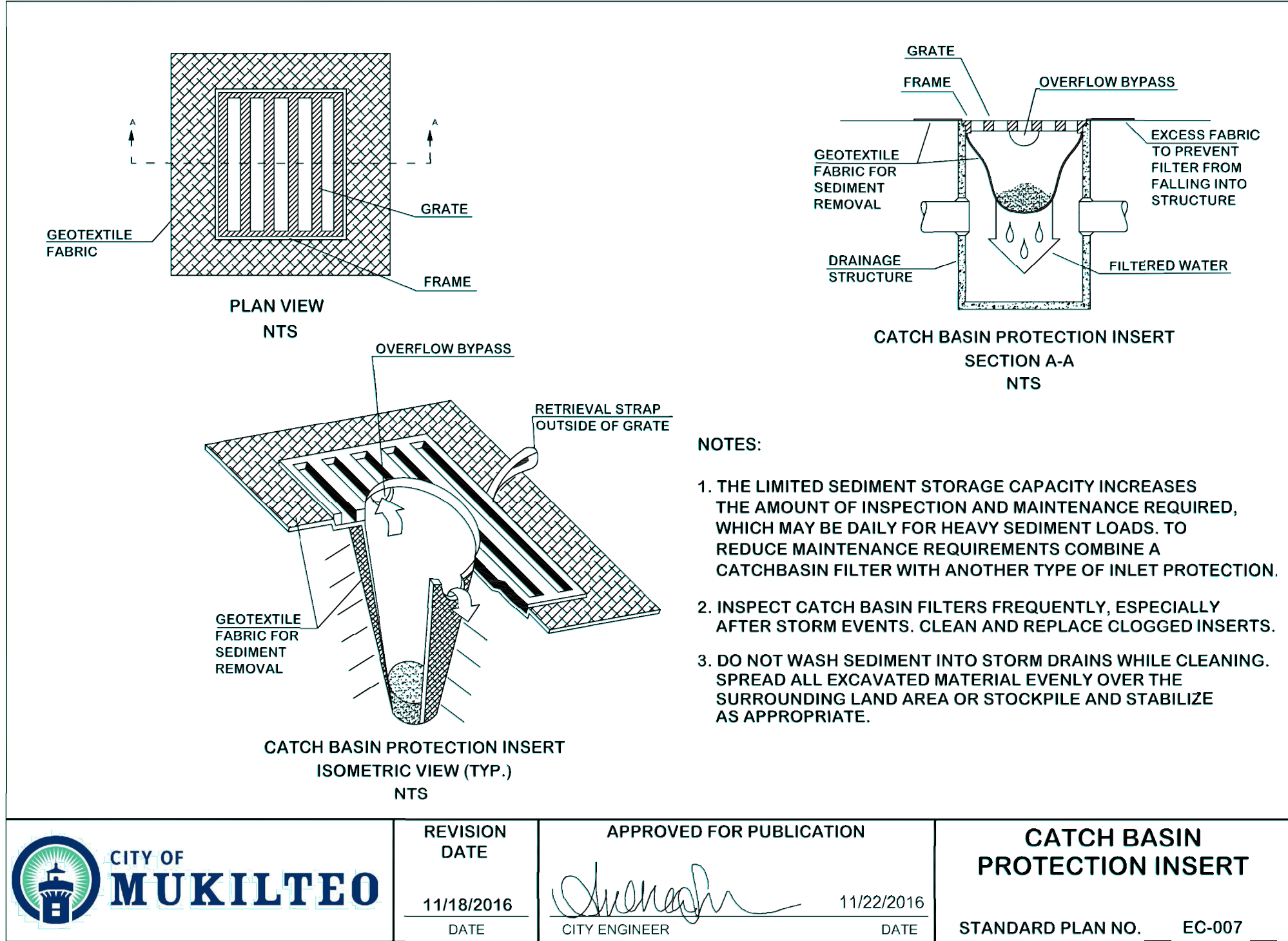


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SHT **6** OF **22**



ATWELL

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PROJECT ENGINEER:
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DESIGNER:
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3	9/8/23	LMT			

TESC NOTES & DETAILS

HARBOR GROVE

CIVIL PLANS

9110 53RD AVE W

SNOHOMISH COUNTY

WASHINGTON



9/8/23

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21-073

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TD-02

SHT 7 OF 22

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NW 1/4, SEC 16, TWP 28N, RGE 4E



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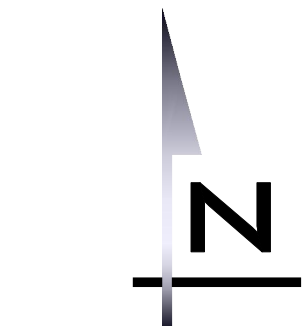
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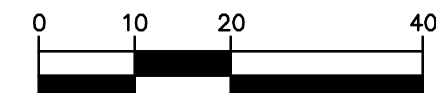
LEE M. TOMKINS

ISSUE DATE:

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SCALE: 1" = 20'



REVISIONS

BY

DATE

NO

1

8/9/23

REVISIONS PER CITY 1ST ROUND COMMENTS

2

4/29/23

REVISIONS PER CITY 2ND ROUND COMMENTS

3

9/8/23

REVISIONS PER CITY 3RD ROUND COMMENTS

4

HORIZONTAL CONTROL PLAN

HARBOR GROVE

CIVIL PLANS

9110 53RD AVE W

SNOHOMISH COUNTY

WASHINGTON



9/8/23

JOB NUMBER:

21-073

SHEET NAME:

HC-01

SHT

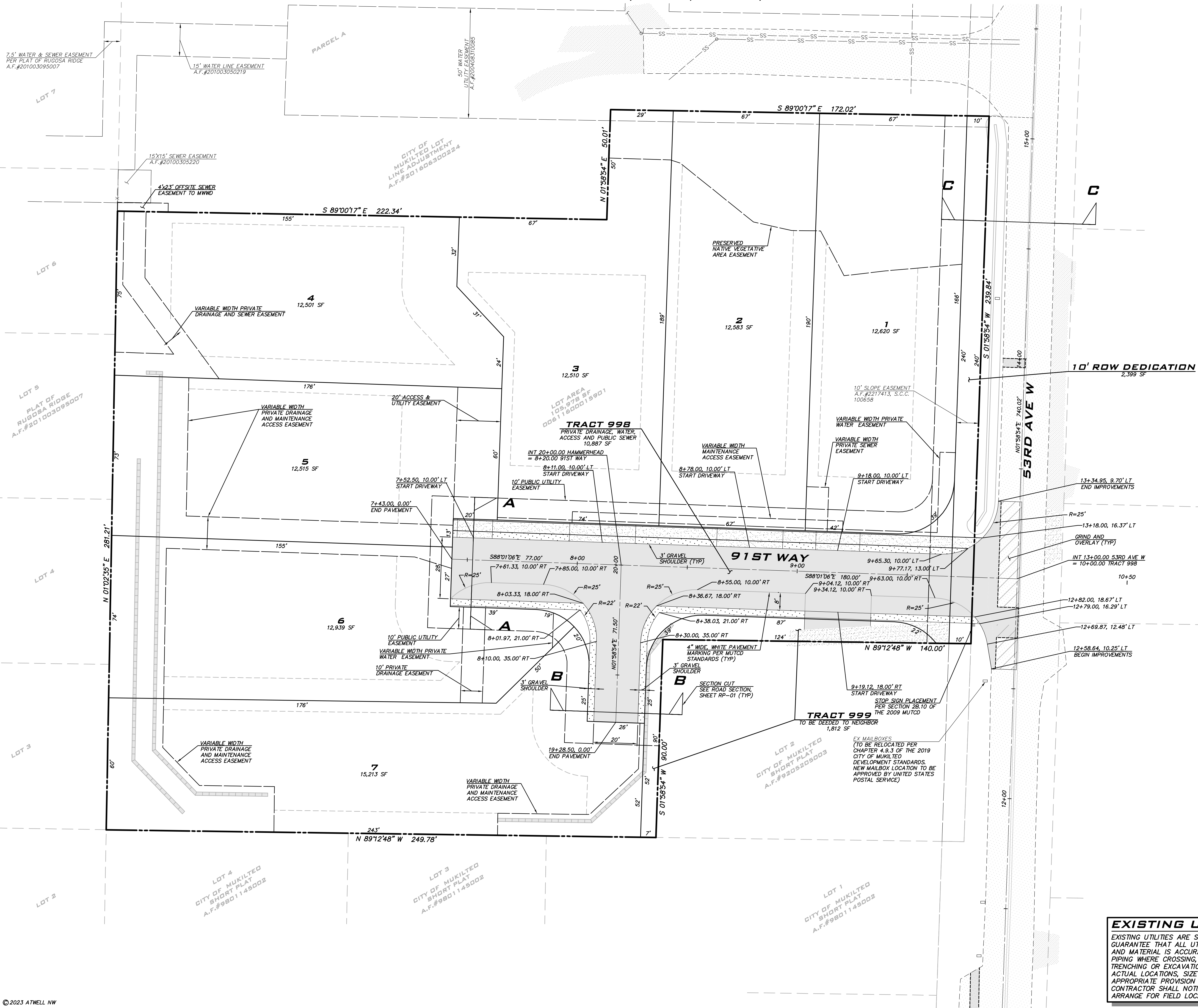
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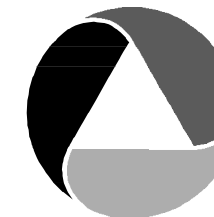
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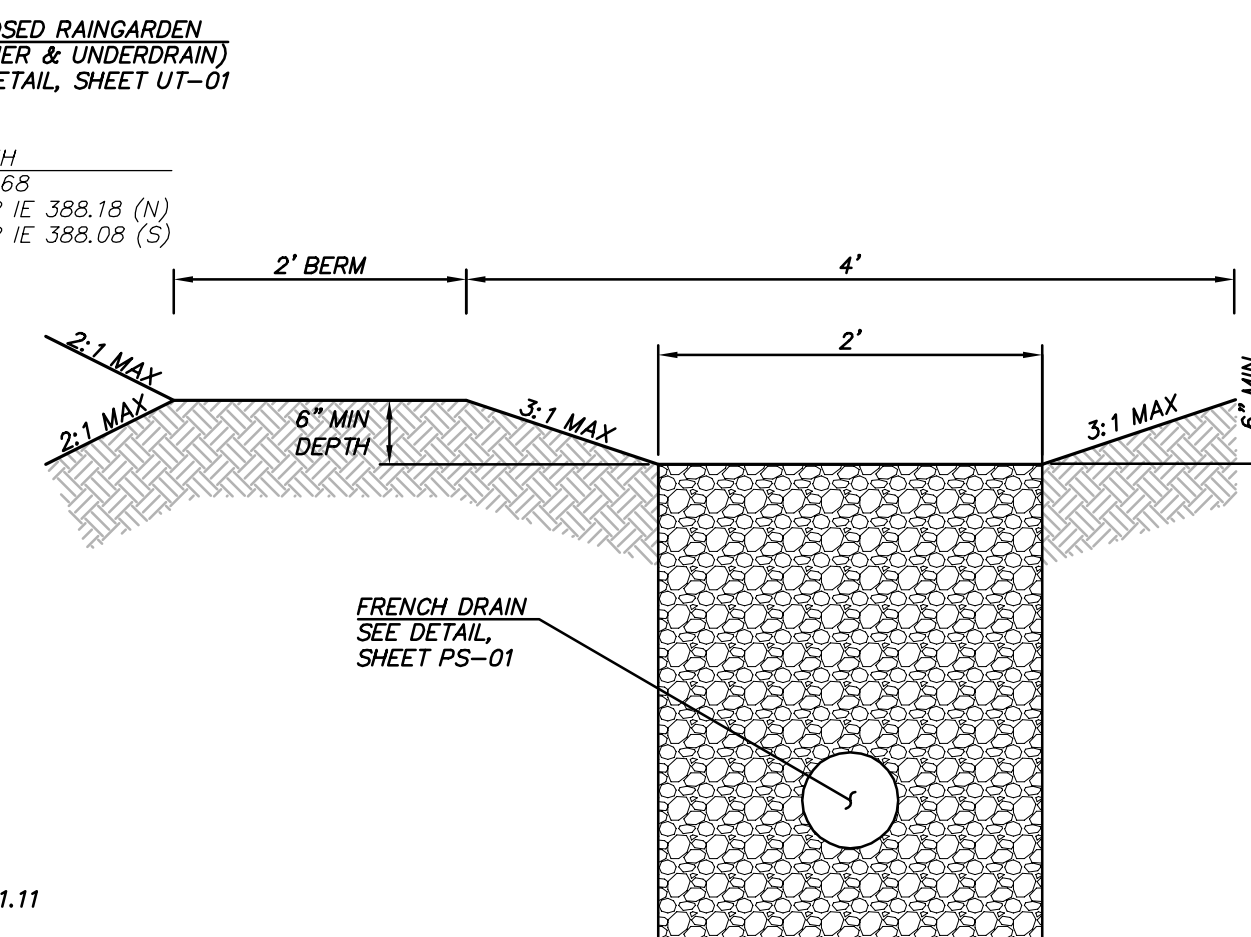
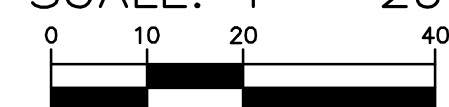
DESIGNER:

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SCALE: 1" = 20'



**INTERCEPTOR SWALE
W/ FRENCH DRAIN**
NOT TO SCALE

BENCHING NOTES

FILL PLACED ON EXISTING SLOPES EXCEEDING 20% SHALL BE PLACED IN HORIZONTAL LIFTS ON BENCHES CUT INTO THE SLOPES. BENCHING DETAILS TO BE PREPARED BY EARTH SOLUTIONS NW, LLC PROVIDED UNDER SEPARATE COVER.

GRADING QUANTITIES

CUT: 4,446 CY (INCLUDING 1,051 CY FROM VAULT EXCAVATION)
FILL: 9,873 CY

QUANTITIES ARE APPROXIMATE AND SHALL NOT BE USED FOR CONTRACTUAL PURPOSES.

RETAINING WALL NOTE

PROPOSED ONSITE RETAINING WALLS TO BE LOCK & LOAD DESIGNED BY OTHERS. WALL DETAILS TO BE PREPARED BY EARTH SOLUTIONS NW, LLC PROVIDED UNDER SEPARATE COVER.

SOIL AMENDMENT NOTE

POST-CONSTRUCTION SOIL QUALITY DEPTH PER DETAIL ON SHEET DT-03 SHALL BE APPLIED TO ALL NEW/REPLACED LAWN AND LANDSCAPED SURFACES.

TRACT 999 COVENANT NOTE

COVENANT SHALL BE PREPARED AT FINAL PLAT TO ALLOW ACCESS FOR PARCEL #00611600015902 DRIVEWAY AND ALLOW ACCESS WITHIN TRACT 999 TO MAINTAIN PROPOSED RETAINING WALL & STORM SYSTEM

GROUNDWATER ELEVATION NOTE

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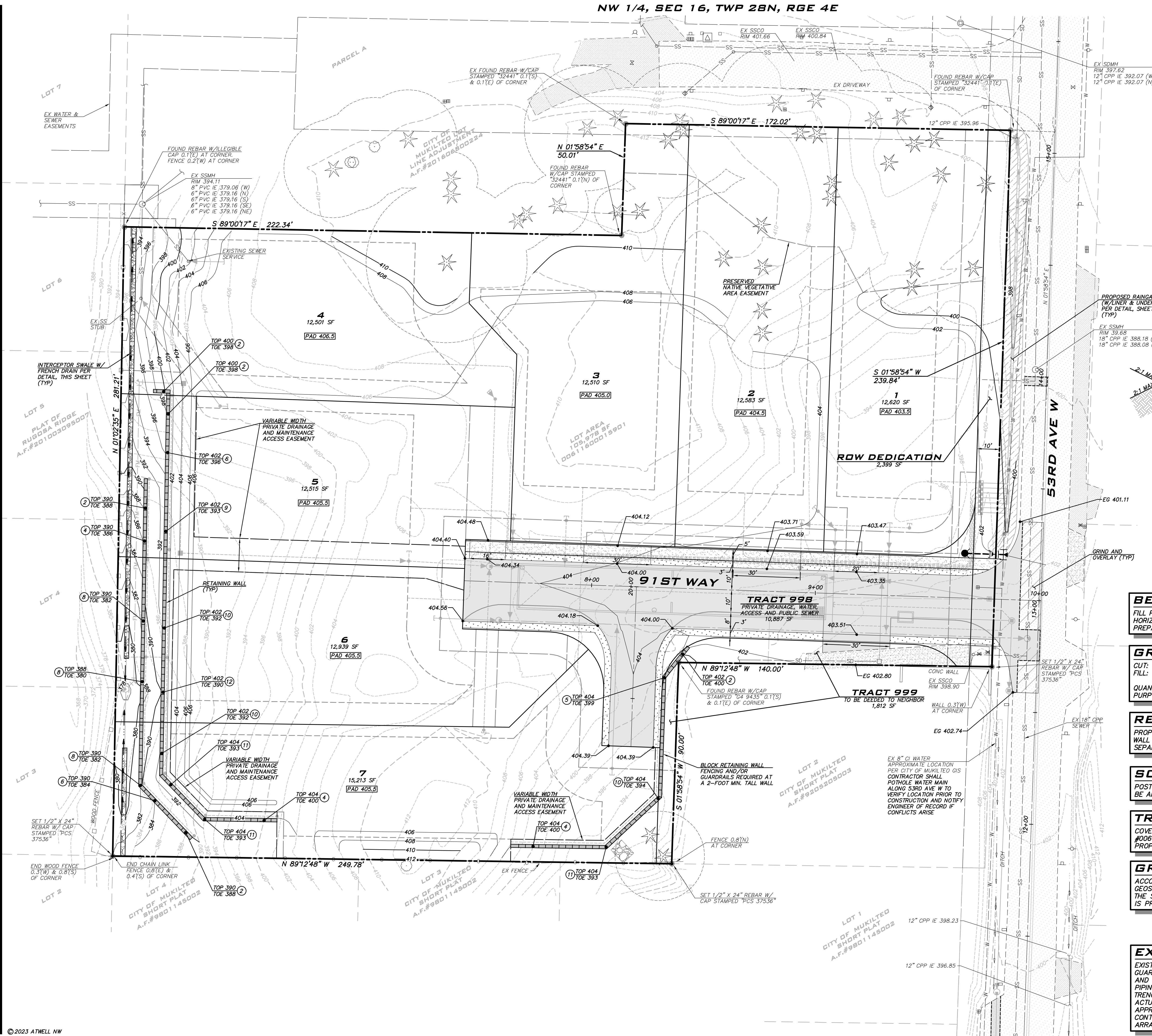
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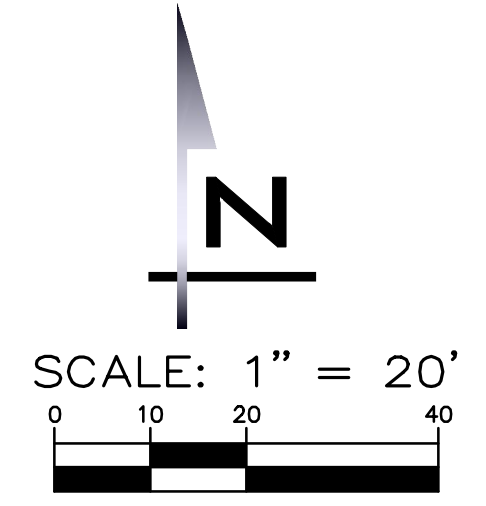
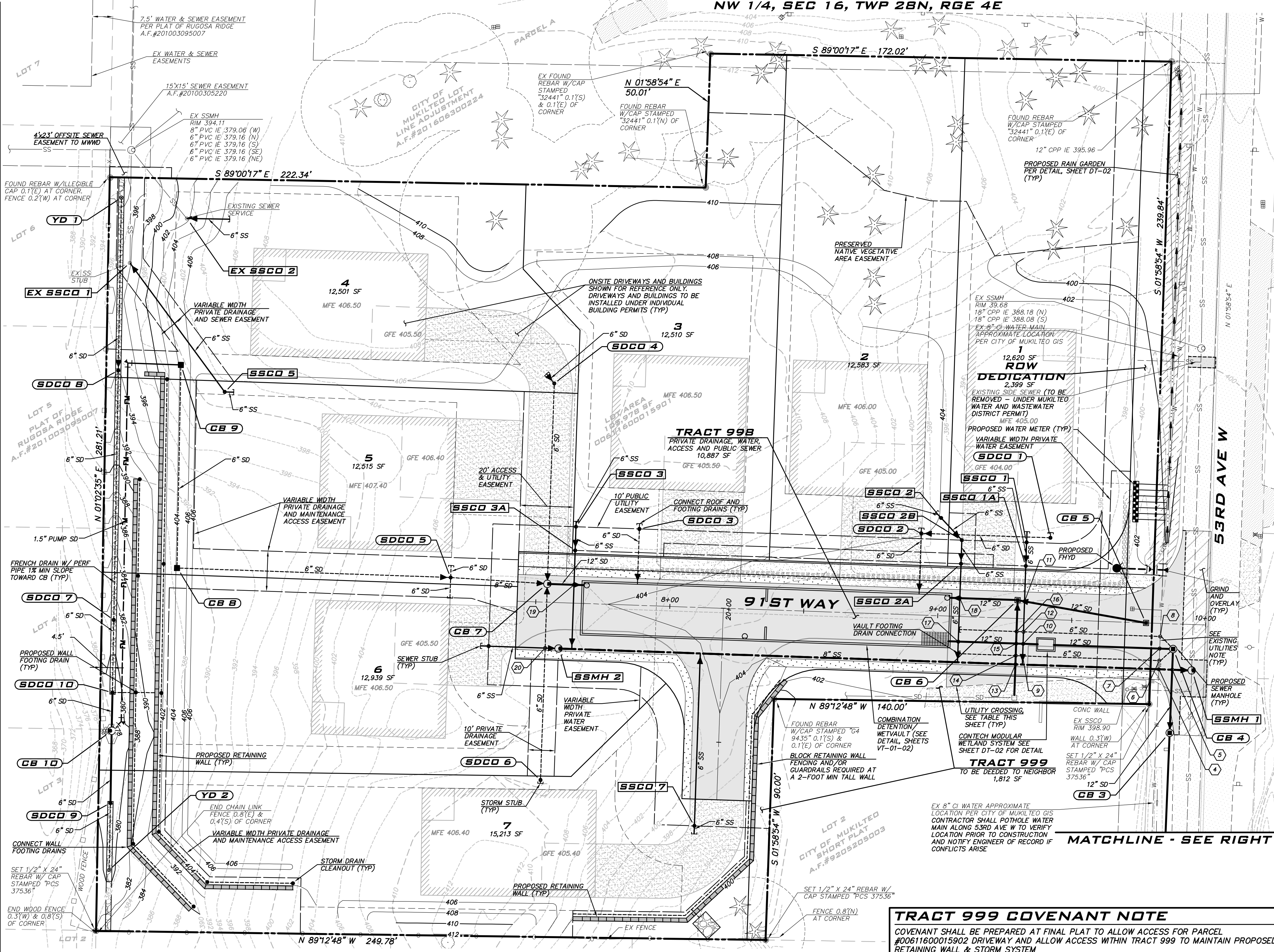
21-073

SHEET NAME:

GP-01

SHT 9 OF 22





MATCHLINE - SEE BELOW

UTILITY CROSSING TABLE			
NO.	PIPE ELEVATIONS (FT)	CLEARANCE (FT)	
1*	EX 8" WA IE 363.90 12" SD IE 362.84	1.06	
2**	EX 12" SD IE 390.12 12" SD IE 388.61	0.51	
3**	EX 8" WA IE 388.37 12" SD IE 388.56	0.81	
4	EX 8" WA IE 399.11 8" SS IE 388.02	10.09	
5	12" SD IE 391.11 8" SS IE 388.85	2.26	
6	8" WA IE 399.05 6" SD IE 392.26	6.79	
7	EX 8" WA IE 398.96 12" SD IE 392.18	6.78	
8	8" WA IE 398.87 6" SD IE 392.25	6.62	
9	6" SD IE 392.53 6" SS IE 390.97	1.56	
10	12" SD IE 392.75 6" SS IE 391.22	1.53	
11	12" SD IE 399.05 6" SS IE 392.11	6.94	

12	6" SD IE 392.53	1.06
13	6" SS IE 391.47	9.17
14	8" SS IE 390.90	6.86
15	12" SD IE 399.93	5.97
16	12" SD IE 399.73	6.47
17	12" SD IE 399.54	0.50
18	6" SD IE 393.07	4.97
19	12" SD IE 398.82	0.60
20**	6" SS IE 400.14	2.86
21**	EX 12" SD IE 397.28	1.66
22*	8" SD IE 384.58	1.14

CROSSING NOTES

- VERTICAL CLEARANCE FOR CROSSINGS WITH WATER MAINS PER MUKILTEO DISTRICT STANDARDS. MINIMUM 18" OF SEPARATION REQUIRED FOR CROSSINGS WITH WATER AND SANITARY SEWER. REFER TO SEWER AND WATER PLANS PREPARED FOR MUKILTEO WATER AND WASTEWATER DISTRICT (UNDER SEPARATE COVER)
- WHERE VERTICAL CLEARANCE IS LESS THAN 1'. CONTRACTOR SHALL PROVIDE ETHA-FOAM PAD.

EXISTING UTILITIES NOTE

- CONTRACTOR SHALL VERIFY LOCATION OF EX UTILITIES AT POINT OF CROSSING OR CONNECTION PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF RECORD IF CONFLICTS ARISE.
- CROSSINGS WERE DETERMINED ASSUMING 3' OF COVER OVER EXISTING WATER MAIN.

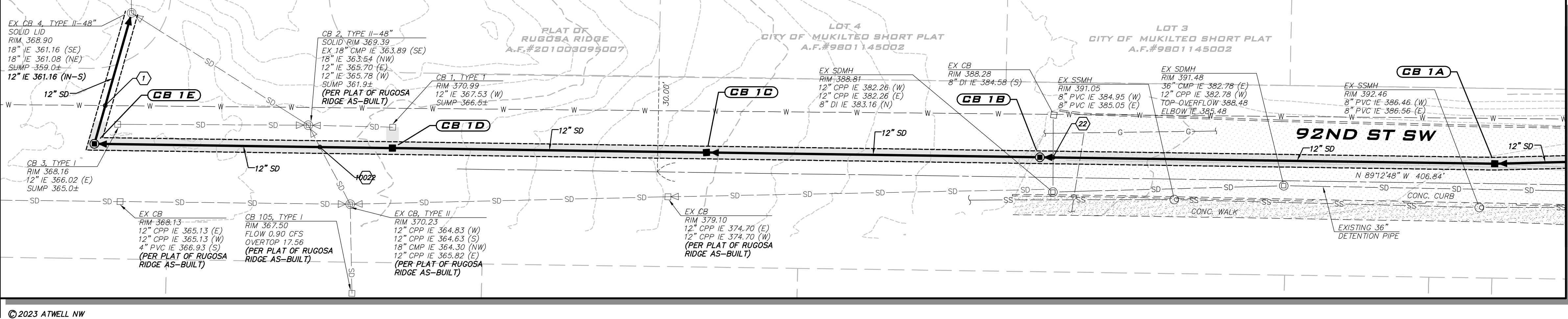
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MATCHLINE - SEE ABOVE RIGHT

MATCHLINE - SEE RIGHT

TRACT 999 COVENANT NOTE
COVENANT SHALL BE PREPARED AT FINAL PLAT TO ALLOW ACCESS FOR PARCEL #00611600015902 DRIVEWAY AND ALLOW ACCESS WITHIN TRACT 999 TO MAINTAIN PROPOSED RETAINING WALL & STORM SYSTEM



MATCHLINE - SEE LEFT

25 CENTRAL WAY, SUITE 400,
KIRKLAND, WA 98033
P: 425.216.4051 F: 425.216.4052
WWW.ATWELL-GROUP.COM

SCALE:
AS NOTED

PROJECT MANAGER:
T.C. COLLIERAN, PLA, AICP

PROJECT ENGINEER:
LUCAS ZIOTTTI

DESIGNER:
LEE M. TOMKINS

ISSUE DATE:
9/8/2023

REVISIONS		BY		DATE	
1	REVISIONS PER CITY 1ST ROUND COMMENTS	CCZ		8/9/23	
2	REVISIONS PER CITY 2ND ROUND COMMENTS	LMT		4/29/23	
3	REVISIONS PER CITY 3RD ROUND COMMENTS	LMT		9/8/23	

COMPOSITE UTILITY PLAN

HARBOR GROVE

CIVIL PLANS

9110 53RD AVE W

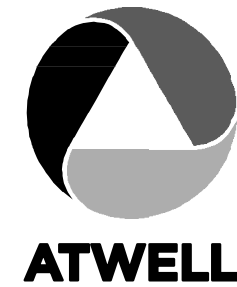
SNODOMISH COUNTY WASHINGTON

9/8/23

JOB NUMBER:
21-073

SHEET NAME:
UT-01

SHT **10** OF **22**



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DESIGNER:

LEE M. TOMKINS

ISSUE DATE:

9/8/2023

REVISIONS

BY

DATE

NO

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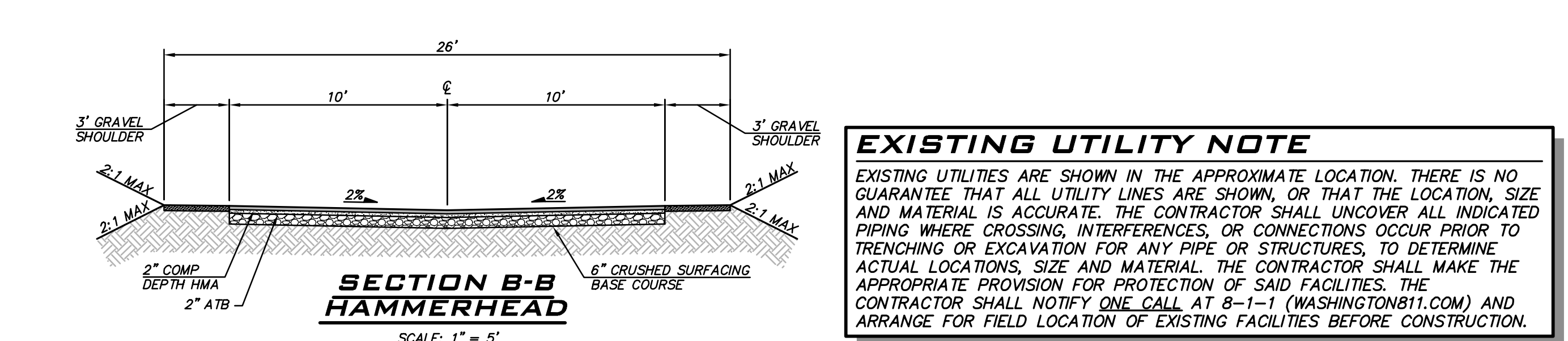
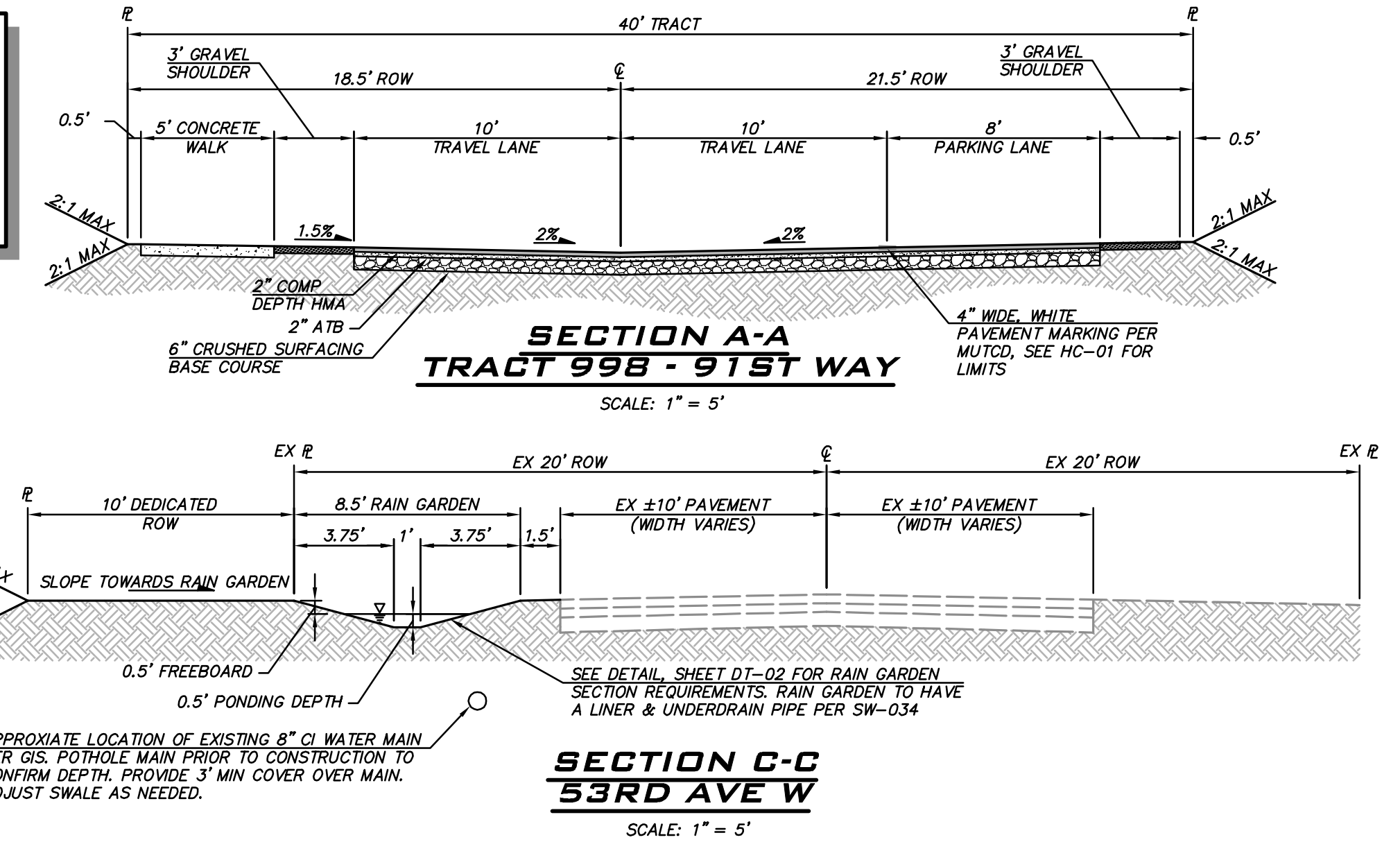
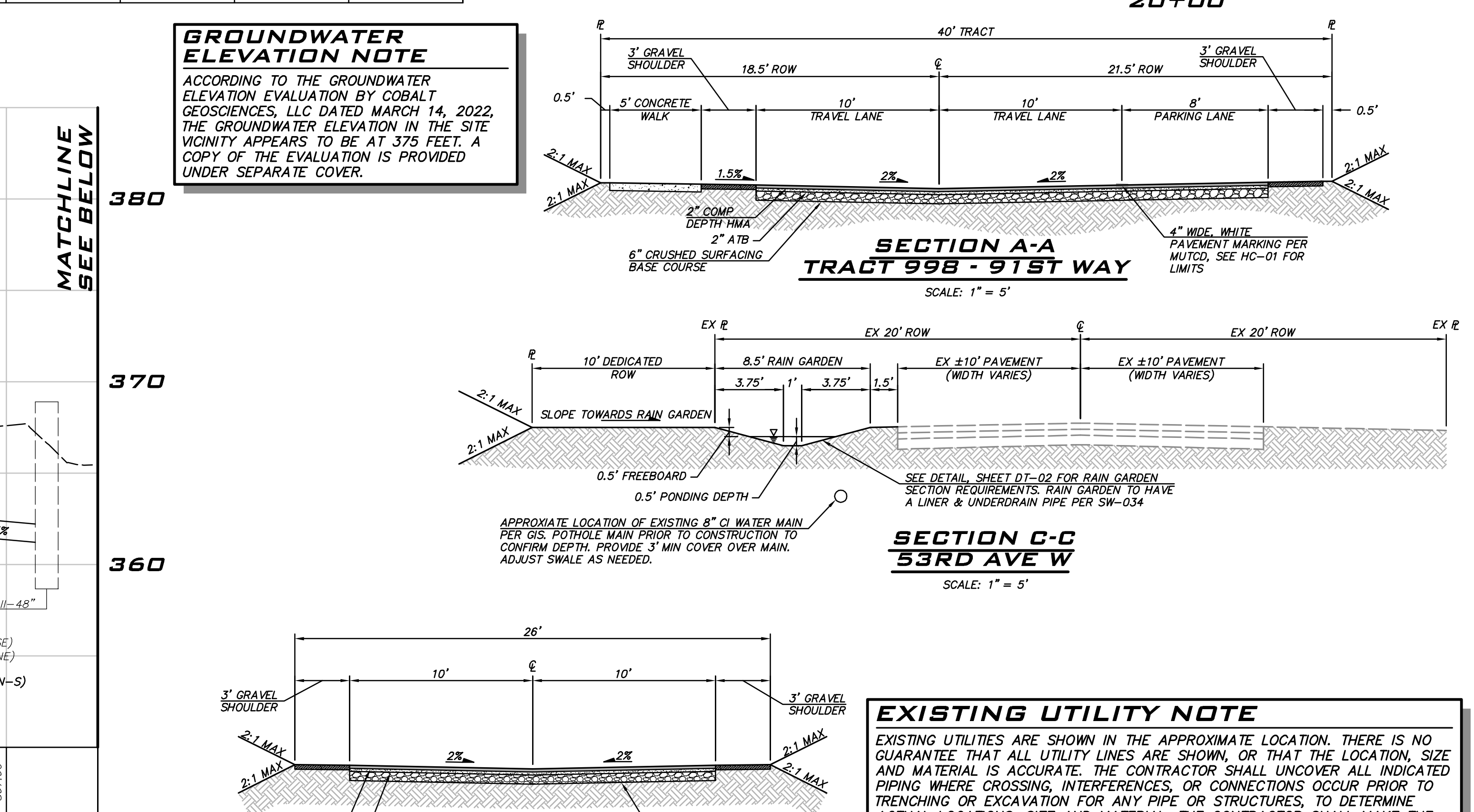
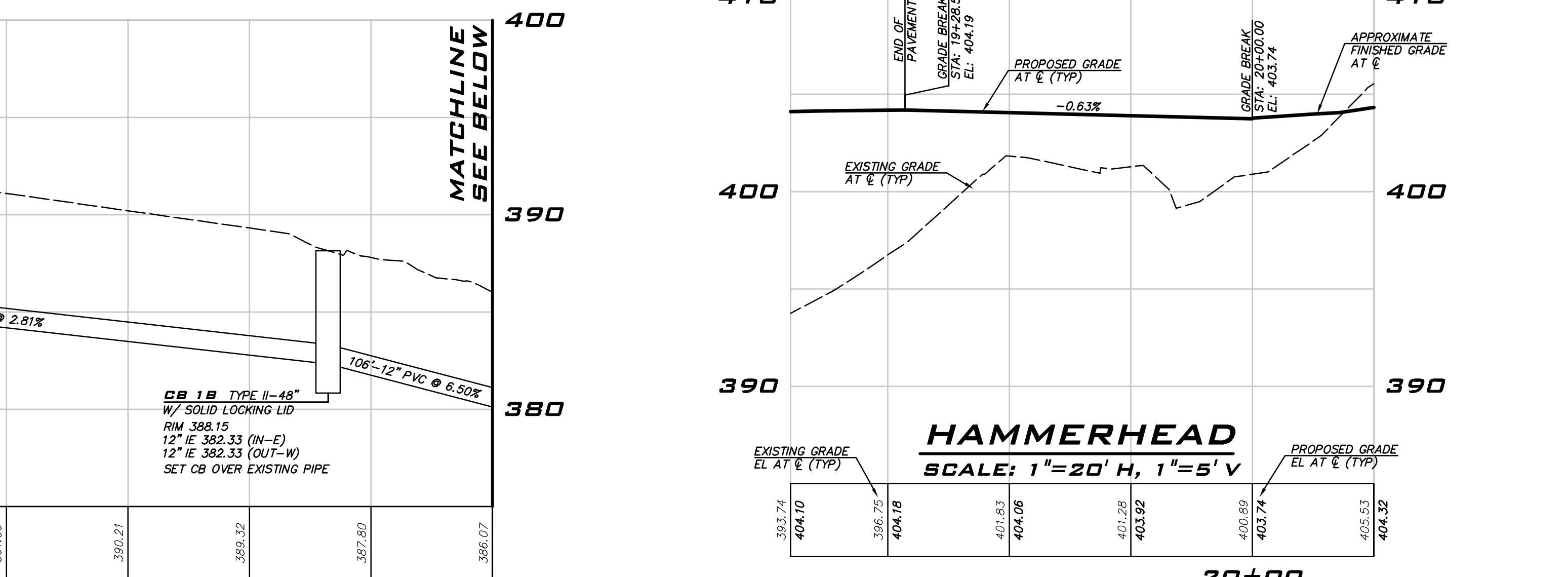
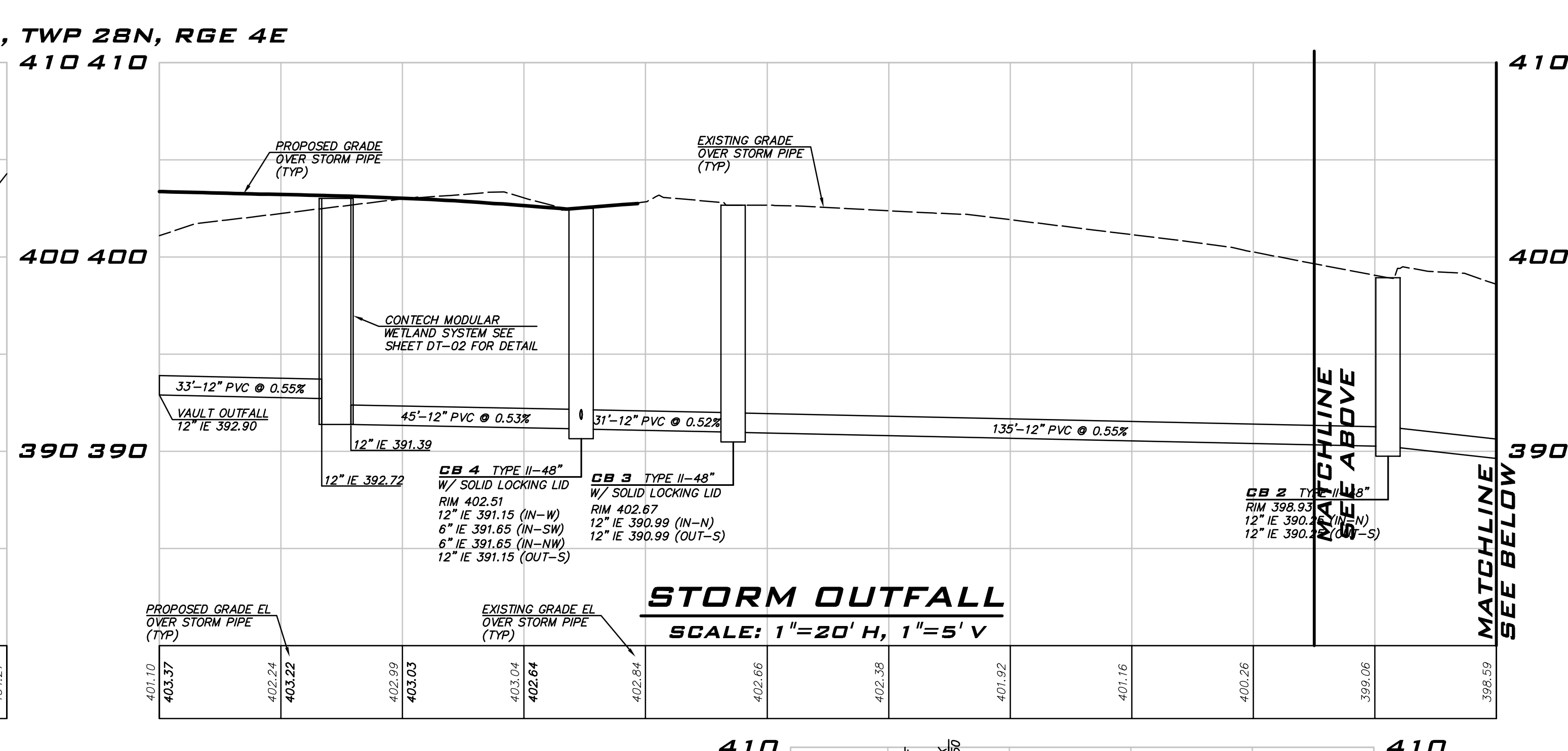
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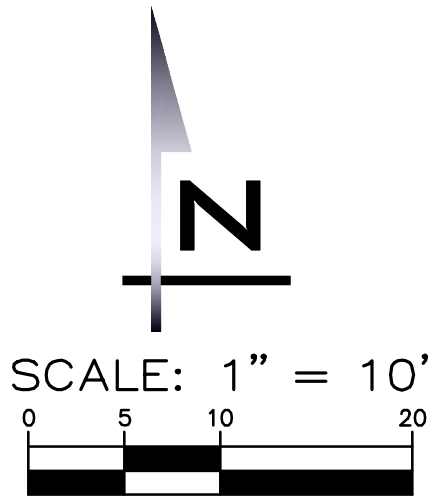
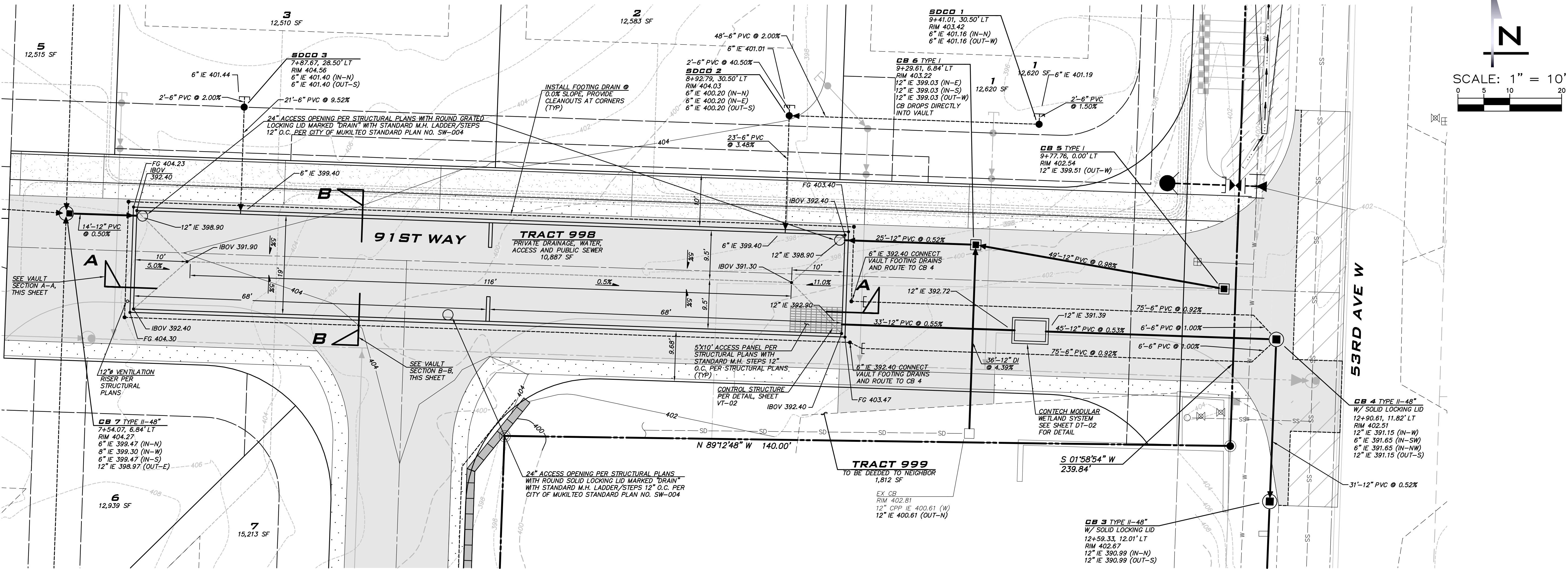
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VAULT PLANS & SECTIONS

HARBOR GROVE
CIVIL PLANS

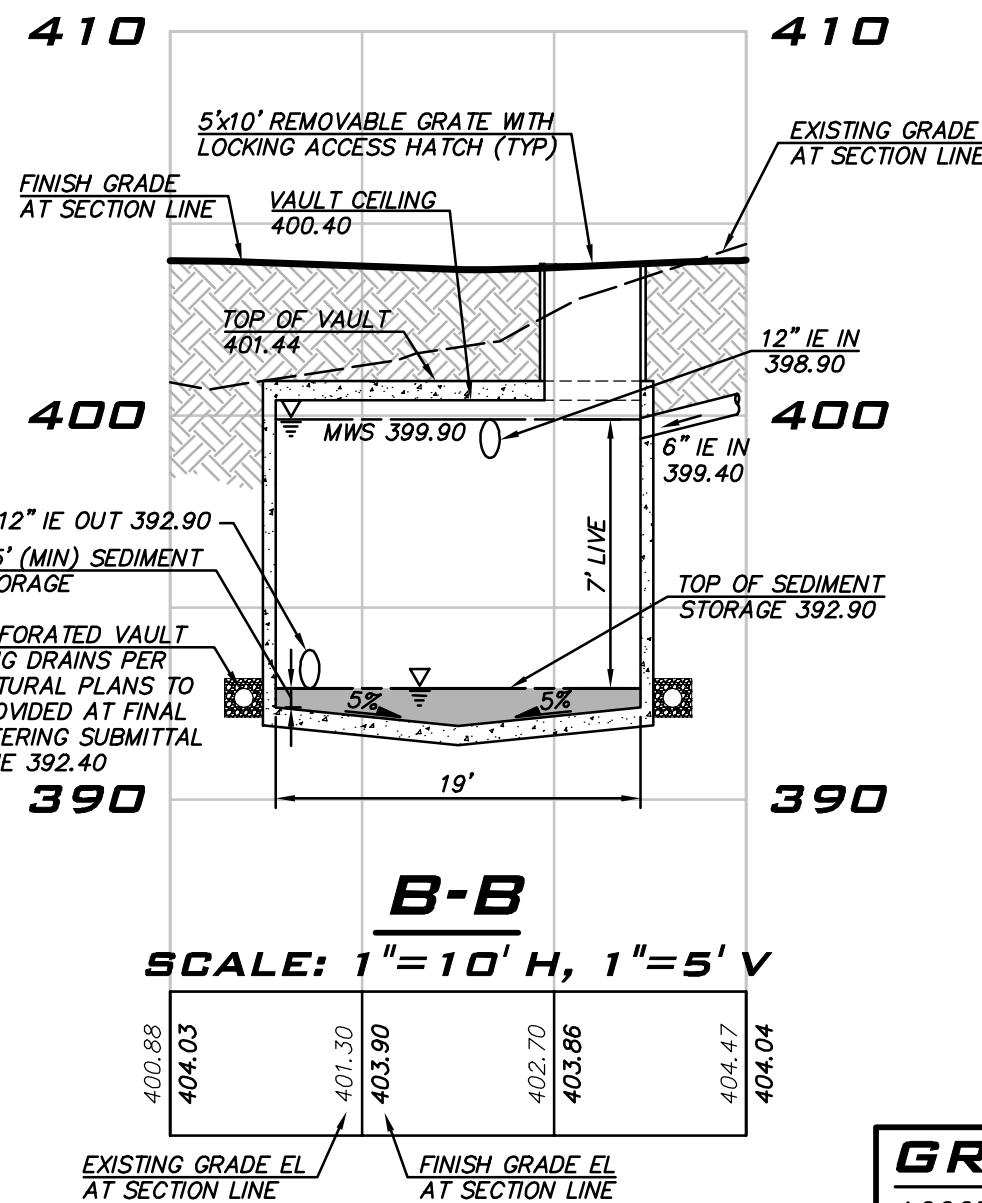
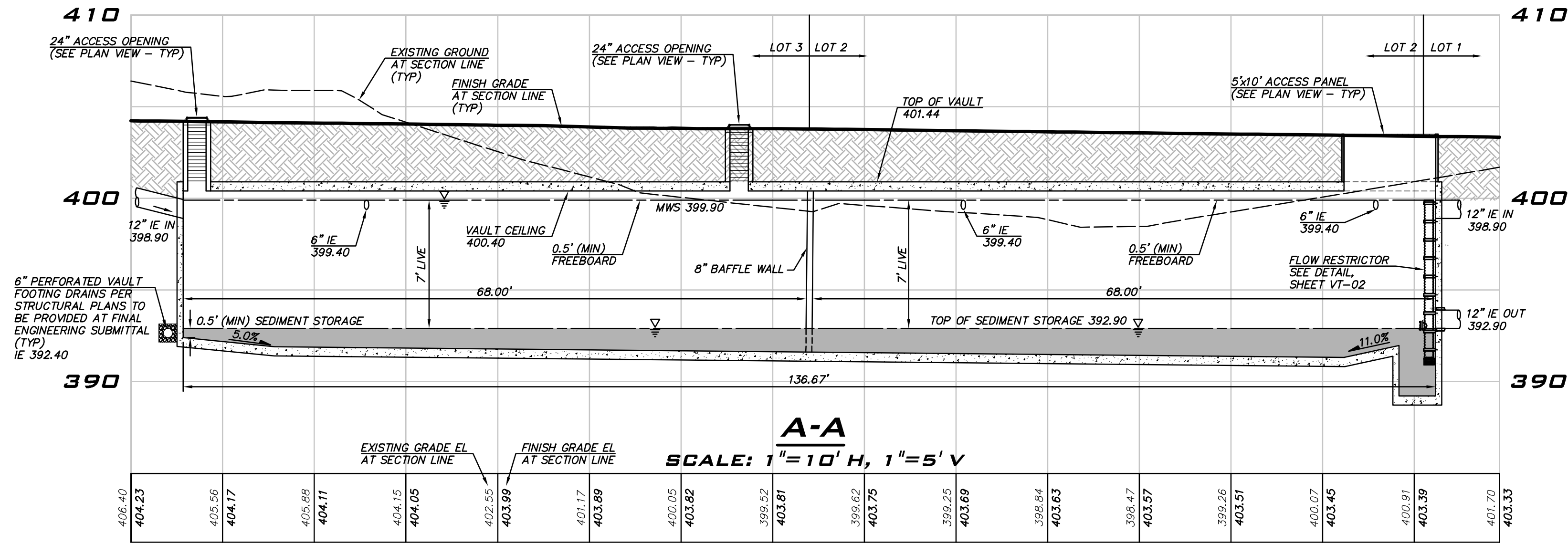
9110 53RD AVE W
SNOHOMISH COUNTY WASHINGTON

9/8/23

JOB NUMBER:
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SHEET NAME:
VT-01

SHT **13** OF **22**



GROUNDWATER ELEVATION NOTE

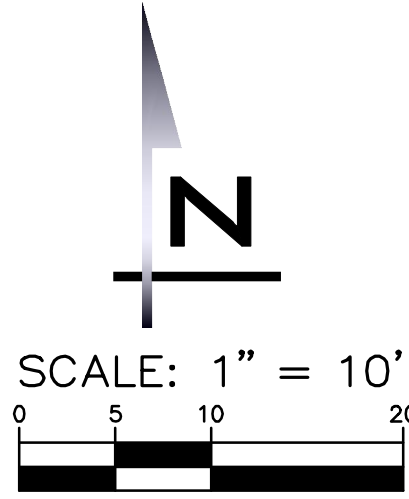
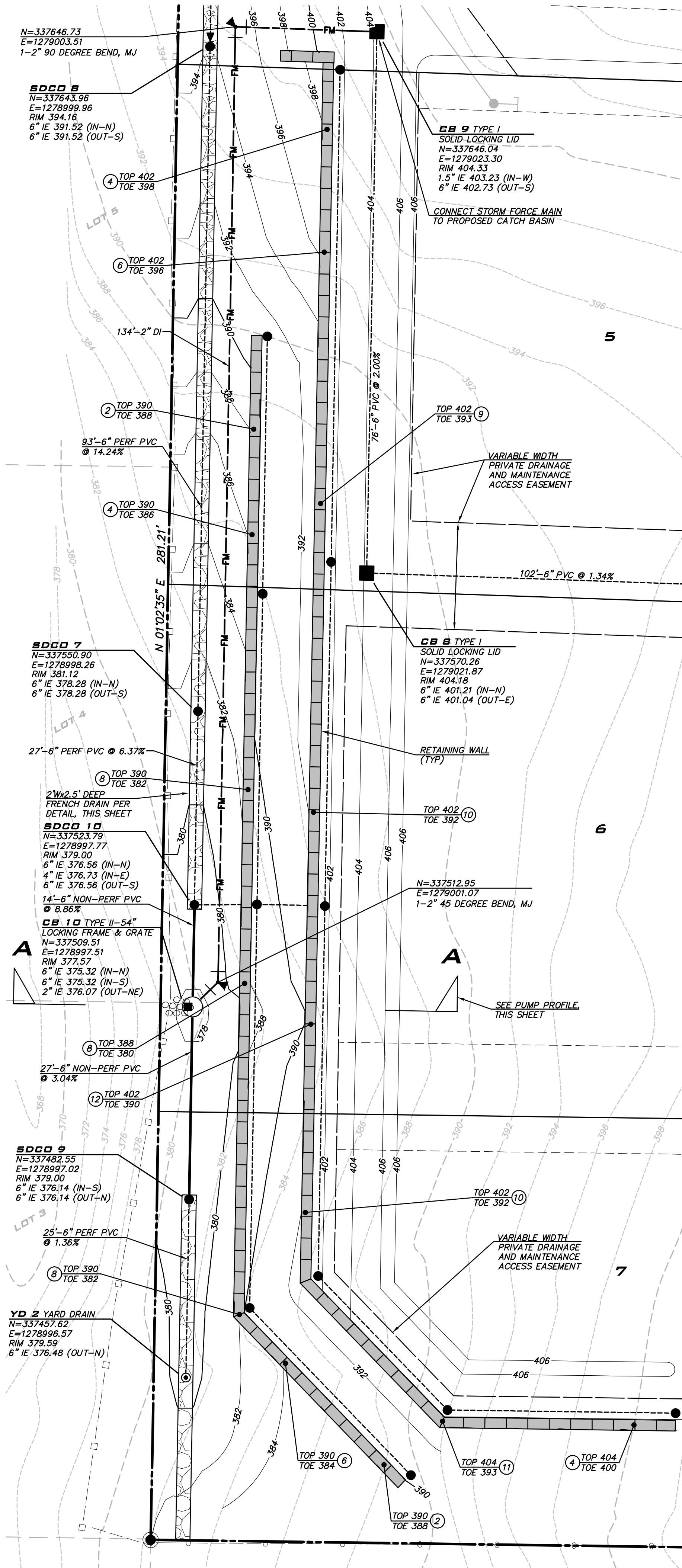
ACCORDING TO THE GROUNDWATER EVALUATION BY COBALT GEOSCIENCES, LLC DATED MARCH 14, 2022, THE GROUNDWATER ELEVATION IN THE SITE VICINITY APPEARS TO BE AT 375 FEET. A COPY OF THE EVALUATION IS PROVIDED UNDER SEPARATE COVER.

VAULT VOLUMES			
	REQ'D	PROVIDED	ASBUILT
LIVE	17,080	18,088	XX,XXX
DEAD	3,946	4,256	X,XXX

EXISTING UTILITY NOTE

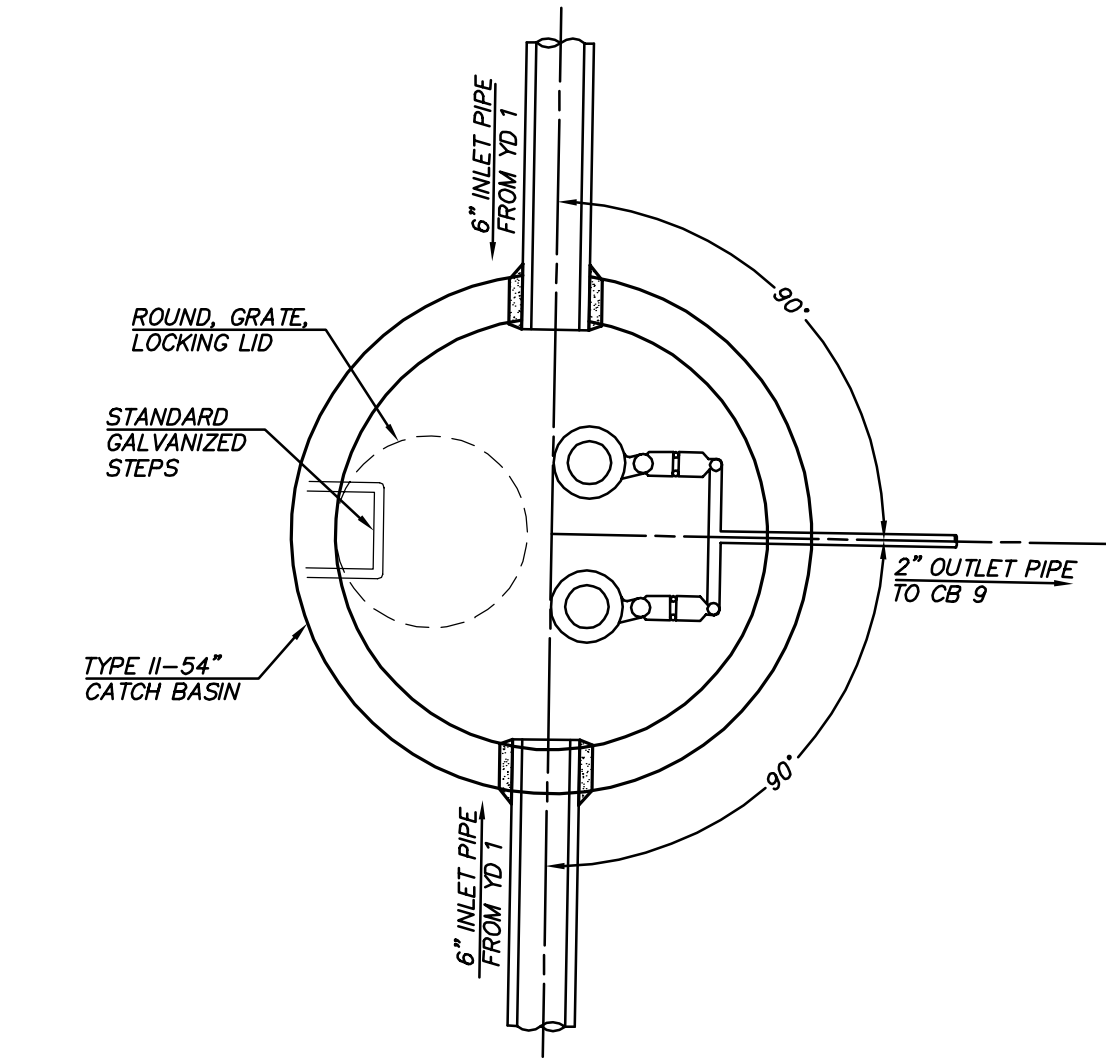
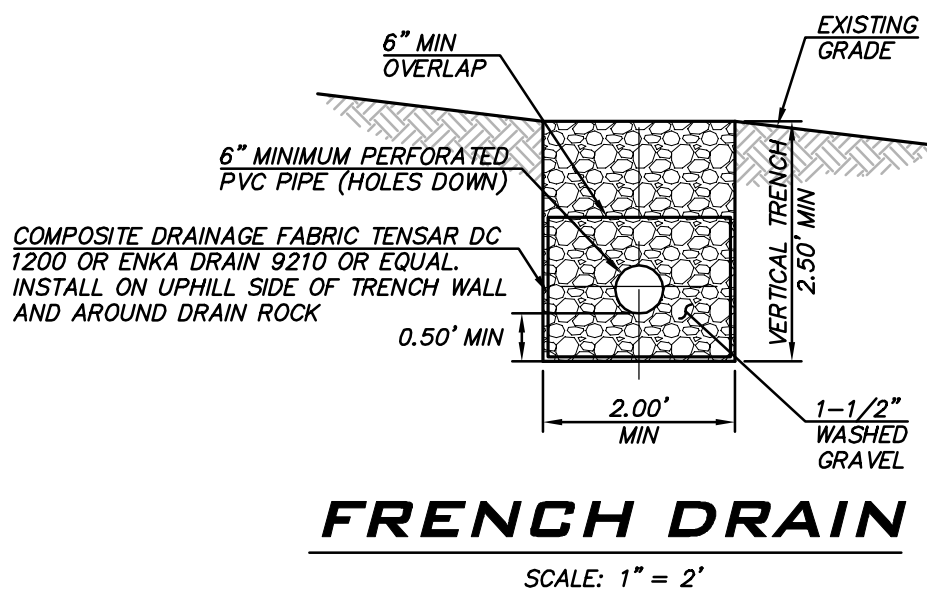
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VAULT INFO	
FG OVER VAULT:	403.40 (MIN) 404.30 (MAX)
MAX WATER SURFACE:	399.90
BOTTOM OF LIVE:	392.90
BOTTOM OF DEAD:	388.90

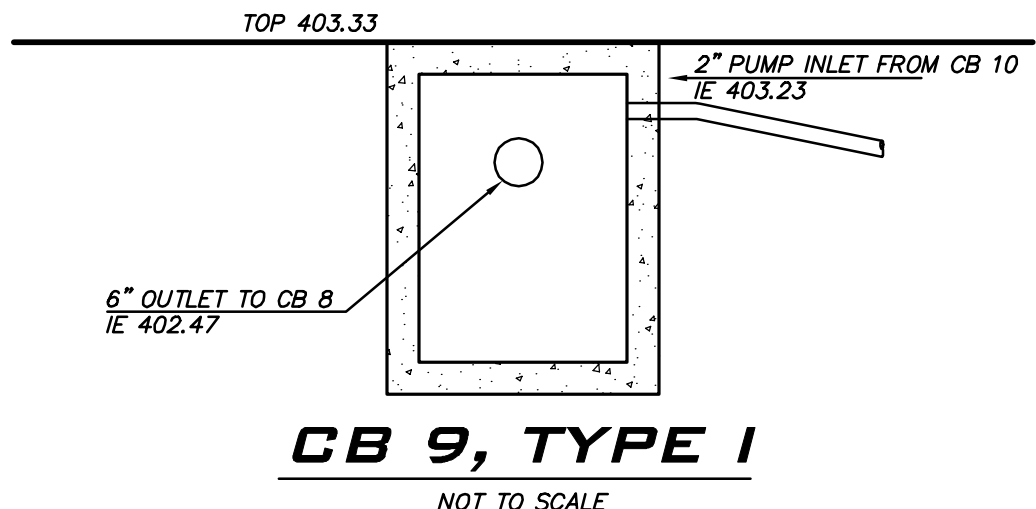
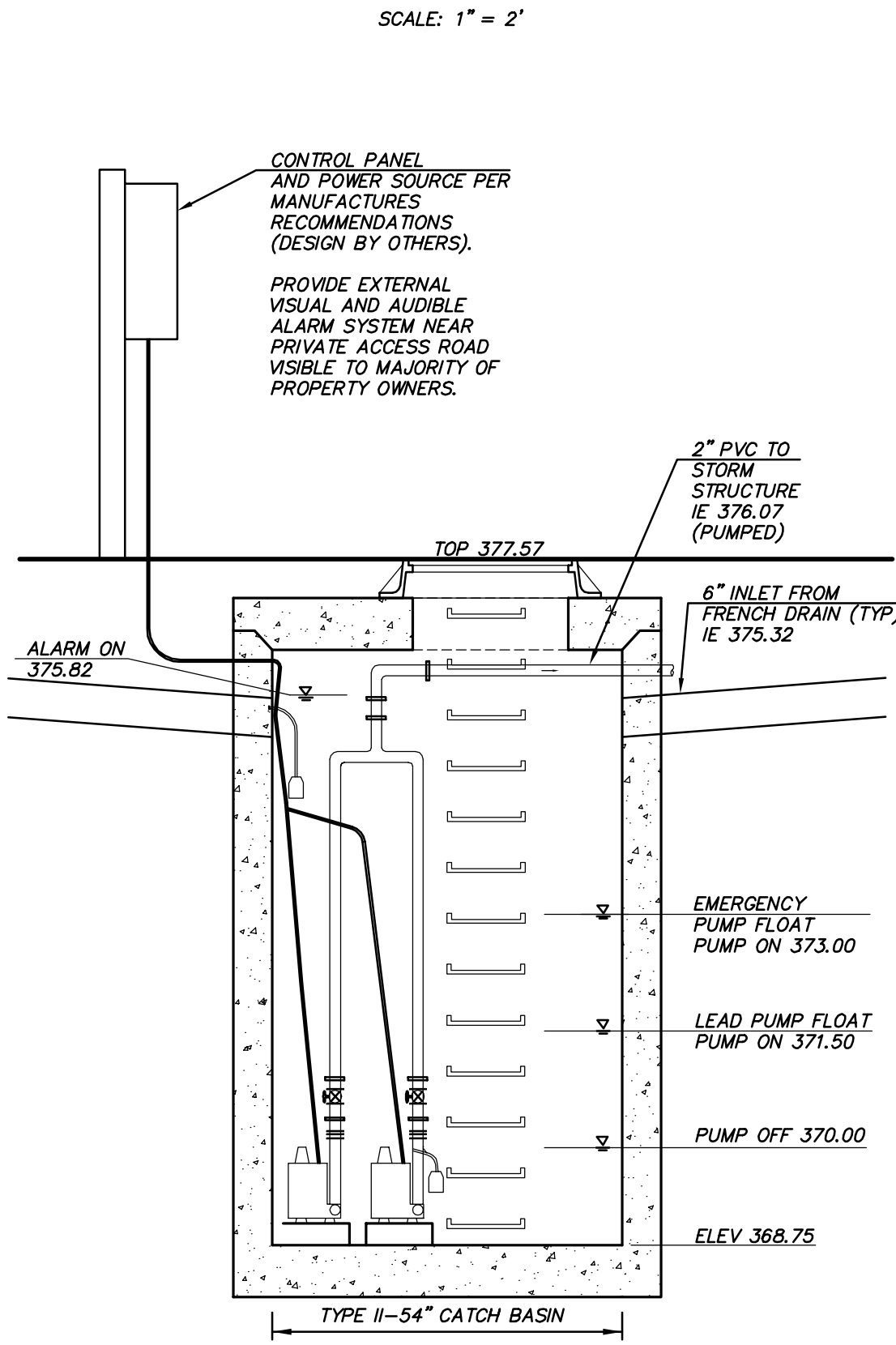


PUMP SPECIFICATIONS & NOTES

- THIS PUMP STATION DETAIL IS FOR SCHEMATIC PURPOSES ONLY AND TO OUTLINE THE BASIC PERFORMANCE REQUIREMENTS FOR THE SYSTEM. THE CONTRACTOR SHALL FOLLOW THE INSTALLATION REQUIREMENTS SPECIFIED BY THE PUMP MANUFACTURER. A REPRESENTATIVE OF THE PUMP MANUFACTURER SHALL BE ON-SITE TO INSPECT THE INSTALLATION OF THE SYSTEM.
- DUPLEX SUBMERSIBLE PUMP STATION REQUIREMENTS:
SUGGESTED PUMP: ZOELLER 153 DEWATERING SUBMERSIBLE PUMP
TOTAL HEAD = 34.11 FT
FLOW= 24.0 GPM / PUMP (0.054 CFS / PUMP)
PROVIDE ADJUSTABLE FLOW RESTRICTION VALVES ON DISCHARGE LINE
PUMPS SHALL BE RATED CONTINUOUS DUTY, SINGLE PHASED, 115V
2" NPT DISCHARGE LINE
INSTALL PUMPS ON DISCONNECT RAIL SYSTEM
PROVIDE ON, OFF AND ALARM FLOAT SWITCHES
ALTERNATING DUPLEX PUMP SYSTEM CONTROL PANEL TO BE INSTALLED BY QUALIFIED ELECTRICIAN PER NATIONAL ELECTRICAL CODE
SECURE/LOCKABLE OUTDOOR DUPLEX CONTROL PANEL WITH BATTERY BACKUP ALARM
PUMPS SHALL ALTERNATE WITH ONLY ONE PUMP ON AT A TIME (NO TWO PUMP ON CONDITION) WITH MAXIMUM RUN TIME OF 30 MINUTES PER PUMP



CB 10, TYPE II-54" PUMP STRUCTURE (PLAN)



PUMP MAINTENANCE NOTE
HOMEOWNERS ASSOCIATION (HOA) WILL BE RESPONSIBLE TO MAINTAIN/REPAIR THE PUMP. EASEMENTS AS DESCRIBED BELOW SHALL BE PROVIDED TO MAINTAIN/REPAIR THE PUMP. MAINTENANCE COVENANT SHALL BE PROVIDED TO HOLD HOA RESPONSIBLE TO MAINTAIN/REPAIR THE PUMP (CITY ATTORNEY TO CONFIRM DOCUMENTATION REQUIRED TO HOLD HOA RESPONSIBLE). SUBJECT EASEMENTS AND COVENANTS SHALL BE RECORDED WITH THE FINAL PLAT MAP AND CC&R'S.
SUBJECT PLAT IS PROVIDING A VARIABLE WIDTH PRIVATE DRAINAGE AND MAINTENANCE ACCESS EASEMENT BETWEEN LOT 5 & 6 AND ALONG THE WEST PORTION OF LOTS 4-7 TO ALLOW ACCESS TO INSPECT/MAINTAIN PUMP AS NECESSARY. PERSONNEL TO INSPECT/MAINTAIN PUMP WILL ACCESS THE VARIABLE WIDTH PRIVATE DRAINAGE AND MAINTENANCE ACCESS EASEMENT FROM TRACT 998, CONTINUE WEST ALONG LOT 5 & 6 SHARED PROPERTY LINE, TRAVEL NORTH TOWARDS LOT 4 TO PROCEED AROUND RETAINING WALLS, AND TRAVEL SOUTH TO THE PUMP STATION.

GROUNDWATER ELEVATION NOTE
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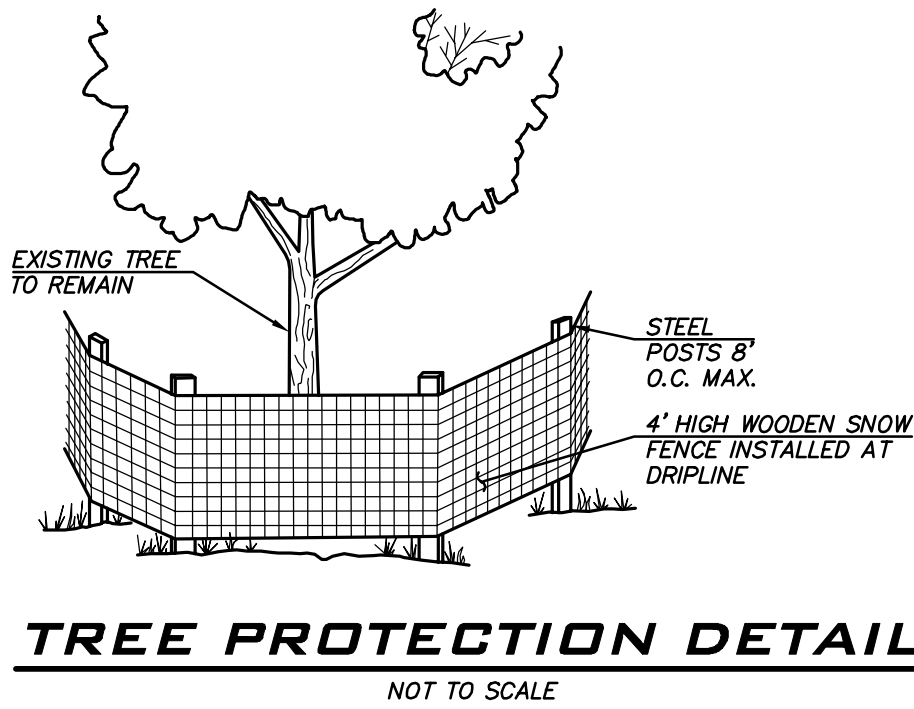
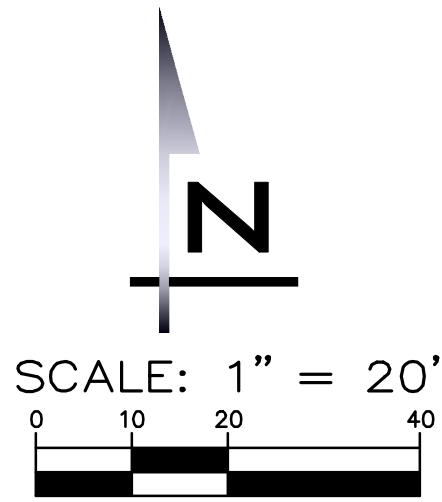
SCALE:
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DESIGNER:
LEE M. TOMKINS
ISSUE DATE:
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PUMP STATION DETAILS

HARBOR GROVE
CIVIL PLANS
9110 53RD AVE W
SNOHOMISH COUNTY WASHINGTON

9/8/23
JOB NUMBER:
21-073
SHEET NAME:
PS-01
SHT 15 OF 22



TREE LEGEND	
	EXISTING TREE TO BE REMOVED
	EXISTING TREE TO REMAIN
	EXISTING OFF-SITE TREE
	EXISTING TREE IN POOR CONDITION

AVERAGE SLOPE CALCULATION	
ELEVATION AT NORTHEAST CORNER = 400	
ELEVATION AT SOUTHWEST CORNER = 382	
DISTANCE BETWEEN TWO POINTS = 492'	
AVERAGE SLOPE = 18/492 = 4% AVERAGE GRADE	

SUMMARY OF ON-SITE TREE RETENTION				
TREE TYPE	TOTAL	RETAINED	REMOVAL	MIN % SIG TREES REQUIRED PER ≤ 15% SLOPE
SIGNIFICANT CONIFER (8"+)	83	23	60	SEE BELOW
SIGNIFICANT DECIDUOUS (12"+)	7	0	7	SEE BELOW
TOTALS	90	23	67	(25% OF 90) = 22.5 (PER CALCULATIONS ABOVE)
REPLACEMENT TREES	23 REQUIRED	23 RETAINED		
PER MUKILTEO CITY CODE 15.16.050 TREE RETENTION AND NATIVE VEGETATION RETENTION TABLE. REQUIRED TREES THAT ARE TO BE REMOVED TO BE REPLACED AT A RATE OF 3:1. **SEE LS-01 FOR REPLACEMENT TREES				

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TREE RETENTION PLANS

HARBOR GROVE
CIVIL PLANS

9110 53RD AVE W
SNOHOMISH COUNTY WASHINGTON

21-073

SHEET NAME:
TR-01

SHT 16 OF 22

9/8/23

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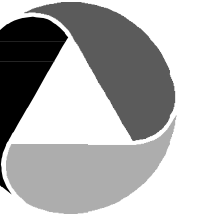
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Tree Tag #	Species ID	DBH (in)	Adj. DBH (in)	Drip-line radius (ft)	Wind-firm	OK in Grove	Health	Defects/Comments	Proposed Action			CRZ/TPZ/LOD			
									Ret.	Poor	Rem.	Radius in feet			
									Viable	Unhealthy	Remove	N	W	E	S
301	Douglas fir	25	25	15		Y	Fair	Abnormal bark, shedding bark, popping bark, previous top loss, elongated branches, woodpecker activity, torque crack @ root crown up to 15' towards west			1	15	15	15	15
302	Red alder	20	20	12			Poor	Dead top, previous top loss @ 30', dead scaffold		1		12	12	12	12
303	Douglas fir	42	42	14		Y	Fair	Exposed roots, cavity @ root crown towards west, previous top loss, elongated branches, typical of species, woodpecker activity			1	14	14	14	14
304	Douglas fir	48	48	18			OK	Previous top loss, elongated branches, dead wood, broken branches, typical of species			1	18	18	18	18
305	Bigleaf maple	16.7	16.7	16		Y	Fair	Co-dominant leaders with included bark x2 @ 6', weak leaders			1	16	16	16	16
306	Red alder	10.4	10.4	12			Fair	Suppressed canopy, low live crown ratio <10%, moss and lichen, falling south		1		12	12	12	12
307	Japanese maple	10.7	10.7	14			OK	Moss and lichen, lean towards north, dead wood, broken branches, typical of species			1	14	14	14	14
308	Japanese maple	10	10	16		Y	OK/Fair	Moss and lichen, lean towards north, typical of species, cavity @ 5' up to 6' towards east			1	16	16	16	16
309	Japanese maple	10, 8	13	18			Fair	Co-dominant leaders with included bark x2 @ 2', cavity on scaffold, dead scaffolds, dead wood, moss and lichen			1	18	18	18	18
310	Japanese maple	10	10	18			Fair	Ivy @ root crown up to 20', lean towards west, moss and lichen, typical of species			1	18	18	18	18
311	Madrona	14, 4	14.5	14			OK	Co-dominant leaders with included bark x2 @ root crown, ivy @ root crown up to 15', typical of species			1	14	14	14	14
312	Western red cedar	16, 8	18	10			OK	Co-dominant leaders with included bark x2 @ root crown, ivy @ root crown up to 6', twisted trunk, typical of species			1	10	10	10	10
313	Western red cedar	4, 20	20.5	13		Y	Fair	Co-dominant leaders with included bark x2 @ root crown, dead top, ivy @ root crown up to 30', woodpecker activity			1	13	13	13	13
314	Douglas fir	28	28	15		Y	Fair	Ivy @ root crown up to 10', thin canopy, dead wood, broken branches, typical of species			1	15	15	15	15
315	Douglas fir	34	34	18			OK	Thin canopy, dead wood, broken branches, ivy @ root crown up to 20'			1	18	18	18	18
316	Scots pine	14	14	15			OK	Ivy @ root crown up to 20', serpentine trunk, moss and lichen, typical of species			1	15	15	15	15
317	Hemlock	26	26	21			OK	Nurse tree, thin canopy, dead wood, broken branches, typical of species			1	21	21	21	21
318	Beech	18	18	24			Good	Typical of species			1	24	24	24	24
319	Hemlock	16	16	14		Y	Fair	Thin canopy, dead wood, broken branches, exposed roots, typical of species			1	14	14	14	14
320	Western red cedar	44	44	18			OK	Nurse tree, large cavity up to 8', carpenter ants, typical of species			1	18	18	18	18
321	Eastern white pine	8, 4, 6, 6	12.5	10			OK	Co-dominant leaders with included bark x4 @ root crown, typical of species			1	10	10	10	10
322	Douglas fir	10	10	10			OK	Dead wood, broken branches, typical of species			1	10	10	10	10
323	Douglas fir	10	10	14			OK	Thin canopy, low live crown ratio <30%, typical of species			1	14	14	14	14
324	Douglas fir	10	10	14		Y	Fair	Thin canopy, co-dominant canopy, typical of species			1	14	14	14	14
325	Douglas fir	4, 12	12.5	14			OK	Co-dominant leaders with included bark x2 @ root crown, failing south, thin canopy, typical of species			1	14	14	14	14
326	Western red cedar	14	14	14			OK	Thin canopy, typical of species			1	14	14	14	14
327	Western red cedar	9	9	13			OK	Typical of species			1	13	13	13	13
328	Western red cedar	8	8	10			OK	Thin canopy, typical of species			1	10	10	10	10
329	Douglas fir	72	72	45				Previous top loss, elongated branches, scraping wound 30' up to 40' towards east, typical of species			1	45	45	45	45
330	Douglas fir	61	61	45			OK	Previous top loss, elongated branches, dead wood, broken branches, previous ivy @ root crown up to 50'		1		45	45	45	45
331	Western red cedar	14	14	14			OK	Thin canopy, typical of species			1	14	14	14	14
332	Norway spruce	8	8	8			Fair	Dead wood, broken branches, spruce adelgid, ivy @ root crown up to 50'		1		8	8	8	8
333	Douglas fir	35	35	22		Y	Fair	Previous ivy @ root crown up to 80', racoon scat, dead wood, broken branches, previous top loss, elongated branches			1	22	22	22	22
334	Douglas fir	32	32	22			OK	Asymmetric canopy towards east, previous top loss, elongated branches, dead wood, broken branches, typical of species			1	22	22	22	22
335	Douglas fir	8	8	12			OK	Asymmetric canopy towards west, perennial canker, typical of species			1	12	12	12	12
336	Douglas fir	8	8	8			OK	Asymmetric canopy towards west, ivy @ root crown up to 20', typical of species			1	8	8	8	8
337	Bigleaf maple	30	30	18			OK	Moss and lichen, typical of species, slight lean towards west			1	18	18	18	18
338	Douglas fir	13	13	14			OK	Low live crown ratio <30%, previous top loss, elongated branches, typical of species			1	14	14	14	14
339	Bigleaf maple	22	22	18			OK	Moss and lichen, typical of species			1	18	18	18	18
340	Lodgepole pine	16	16	18		Y	Fair	Woodpecker activity, horizontal crack @ 12' towards east, asymmetric canopy towards south, typical of species			1	18	18	18	18

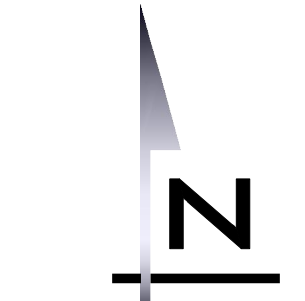
341	Bigleaf maple	22	22	20			OK	Tagged on #340, co-dominant leaders with included bark x2 @ 10', moss and lichen, typical of species				1	20	20	20	20
342	Douglas fir	8	8	6			OK	Suppressed canopy, typical of species				1	6	6	6	6
343	Hemlock	6, 7	9	10			OK	Co-dominant leaders with included bark x2 @ root crown, typical of species				1	10	10	10	10
344	Western red cedar	9	9	9			OK	Typical of species				1	9	9	9	9
345	Black pine	12	12	16			Fair	Trunk gall, serpentine trunk, typical of species				1	16	16	16	16
346	Western red cedar	9	9	8			Fair	Co-dominant leaders with included bark x2 @ 10', typical of species				1	8	8	8	8
347	Hemlock	18	18	12		Y	Fair	Nurse tree @ 6', typical of species				1	12	12	12	12
348	Hemlock	18	18	13			OK	Thin canopy, dead wood, broken branches, exposed roots, typical of species				1	13	13	13	13
349	Douglas fir	29.8	29.8	18			Poor	Topped @ 30', weak laterals, abnormal bark, shedding bark, popping bark				1	18	18	18	18
350	Douglas fir	34	34	20		Y	Fair	Kink @ 50', dead wood, broken branches, previous top loss, elongated branches				1	20	20	20	20
351	Douglas fir	32	32	19			OK	Previous top loss, elongated branches, dead wood, broken branches, asymmetric canopy towards north				1	19	19	19	19
352	Douglas fir	32	32	24			Fair	Exposed roots, cavity @ root crown up to 1' towards west, woodpecker activity				1	24	24	24	24
353	Douglas fir	18	18	16		Y	Fair	Calloused wound @ root crown up to 1' towards west, low live crown ratio <20%, previous top loss, elongated branches				1	16	16	16	16
354	Douglas fir	16	16	16			OK	Dead wood, broken branches, no taper, suppressed canopy, typical of species				1	16	16	16	16
355	Douglas fir	14	14	12			Fair	Previous top loss @ 30', strong leader, suppressed canopy, dead wood, broken branches, thin canopy, asymmetric canopy towards south, lean towards south				1	12	12	12	12
356	Hemlock	12	12	12		Y	Fair	Nurse tree, exposed roots, asymmetric canopy towards east, typical of species				1	12	12	12	12
357	Hemlock	20	20	14		Y	Fair	Nurse tree, exposed roots, asymmetric canopy towards west, typical of species				1	14	14	14	14
358	Douglas fir	49.7	49.7	21		Y	Fair	Abnormal bark, shedding bark, popping bark, low live crown ratio <30%, dead wood, broken branches, typical of species				1	21	21	21	21
359	Douglas fir	34	34	20		Y	Fair	Low live crown ratio <20%, asymmetric canopy towards west, previous top loss, elongated branches, calloused wound @ 15' towards south, typical of species, abnormal bark, shedding bark				1	20	20	20	20
360	Bigleaf maple	14, 28, 18	36	30		Y	Fair	Co-dominant leaders with included bark x3 @ 4', cavity @ crotch, exposed roots, moss and lichen, hypoxylon canker				1	30	30	30	30
361	Bigleaf maple	18	18	20			Fair	Previous top loss @ 50', asymmetric canopy towards south, dead scaffolds				1	20	20	20	20
362	Douglas fir	14, 40	42.5	24			OK	Co-dominant leaders with included bark x2 @ root crown, abnormal bark, shedding bark, popping bark, woodpecker activity, previous top loss, elongated branches, typical of species				1	24	24	24	24
363	Douglas fir	28	28	28			Poor	Previous top loss @ 50', weak leader, abnormal bark, shedding bark, popping bark, failing towards north, laminated root rot?				1	28	28	28	28
364	Douglas fir	18	18	18			Poor	No taper, abnormal bark, shedding bark, popping bark, previous top loss, elongated branches, laminated root rot?				1	18	18	18	18
365	Hemlock	15	15	14			OK	Asymmetric canopy towards north, dead wood, broken branches, exposed roots, typical of species				1	14	14	14	14
366	Hemlock	7	7	8		Y	Fair	Dead wood, broken branches, suppressed canopy				1	8	8	8	8
367	Douglas fir	14	14	14		Y	Fair	Dead wood, broken branches, suppressed canopy, typical of species				1	14	14	14	14
368	Douglas fir	32	32	18			OK	Dead wood, broken branches, previous top loss, elongated branches, typical of species				1	18	18	18	18
369	Douglas fir	26	26	16			Fair	Kink @ 25', asymmetric canopy towards west, previous top loss, elongated branches, self-corrected lean				1	16	16	16	16
370	Douglas fir	13	13	12			Poor	Previous top loss @ 30', moss and lichen, failing towards south				1	12	12	12	12
371	Douglas fir	21.5	21.5	18			OK	Dead wood, broken branches, previous top loss, elongated branches, low live crown ratio <30%				1	18	18	18	18
372	Western red cedar	18	18	14			OK	Asymmetric canopy towards west, dead top, co-dominant canopy, typical of species				1	14	14	14	14
373	Western red cedar	31	31	14			Fair	Cavity @ root crown up to 6' towards east, previous top loss @ 10', weak leader, co-dominant canopy				1	14	14	14	14
374	Bigleaf maple	36, 12	38	21			OK	Co-dominant leaders with included bark x2 @ root crown, moss and lichen, dead wood, broken branches, hanger, typical of species				1	21	21	21	21
375	Douglas fir	16	16	15			OK	Low live crown ratio <5%, previous top loss, elongated branches, dead wood, broken branches, typical of species				1	15	15	15	15
376	Douglas fir	12, 16	20	14			Fair	Co-dominant leaders with included bark x2 @ root crown, previous top loss, dead wood, broken branches, asymmetric canopy towards west				1	14	14	14	14

									Ivy @ root crown up to 15', free flowing sap, previous top loss, elongated branches, epicormic branch formation @ 20' towards east				1	18	18	18	18
377	Douglas fir	38	38	18			OK		Self-corrected lean towards east, serpentine trunk, suppressed canopy				1	15	15	15	15
378	Douglas fir	16	16	15			Poor		Serpentine trunk, self-corrected lean towards south, previous top loss, asymmetric canopy towards south				1	12	12	12	12
379	Douglas fir	14	14	12			Poor		Self-corrected lean towards north, serpentine trunk, previous top loss, elongated branches, dead wood, broken branches, asymmetric canopy towards south				1	14	14	14	14
380	Douglas fir	16	16	14			Fair		Lean towards north, dead wood, broken branches, dead twigs, moss and lichen, previous top loss, elongated branches				1	16	16	16	16
381	Douglas fir	18	18	16			Fair		Serpentine trunk, asymmetric canopy towards north, dead wood, broken branches, typical of species				1	18	18	18	18
382	Douglas fir	22	22	18			OK		Moss and lichen, serpentine trunk, lean towards east, previous top loss, elongated branches				1	20	20	20	20
383	Douglas fir	29.5	29.5	20			Poor		Bulge @ 20', low live crown ratio <20%, previous top loss, elongated branches, lean towards north				1	16	16	16	16
384	Douglas fir	23.6	23.6	16			Fair		Previous top loss, elongated branches, dead wood, broken branches, moss and lichen, typical of species				1	18	18	18	18
385	Douglas fir	21	21	18			OK		Lean towards east, moss and lichen				1	16	16	16	16
386	Red alder	11	11	16			Fair		Low live crown ratio <30%, asymmetric canopy towards south, dead wood, broken branches, co-dominant canopy, typical of species				1	16	16	16	16
387	Douglas fir	23.5	23.5	16			OK/Fair		No taper, kink @ 20', previous top loss @ 40'				1	16	16	16	16
388	Douglas fir	16	16	16			Fair		Abnormal bark, shedding bark, popping bark, dead wood, broken branches, previous top loss, elongated branches, typical of species				1	15	15	15	15
389	Douglas fir	34.2	34.2	15	Y	Fair			Asymmetric canopy towards west, low live crown ratio <30%, abnormal bark, shedding bark, horizontal crack @ 6' towards east				1	16	16	16	16
390	Douglas fir	22	22	16	Y	Fair			Low live crown ratio <20%, previous top loss, elongated branches, red ring rot, typical of species				1	18	18	18	18
391	Douglas fir	29	29	18	Y	Fair			Suppressed canopy, dead wood, broken branches, previous top loss				1	12	12	12	12
392	Douglas fir	13	13	12	Y	Fair			Dead wood, broken branches, previous top loss, elongated branches				1	18	18	18	18
393	Douglas fir	35	35	18		OK			Previous top loss, elongated branches, asymmetric canopy towards east, dead wood, broken branches, typical of species				1	22	22	22	22
394	Douglas fir	36.6	36.6	22		OK			Abnormal bark, shedding bark, previous top loss @ 6', dead spur, asymmetric canopy towards east, taps hollow				1	16	16	16	16
395	Douglas fir	22	22	16		Poor			Suppressed canopy, previous top loss, lean towards east, asymmetric canopy towards east				1	12	12	12	12
396	Douglas fir	11	11	12		OK			Thin canopy, dead wood, broken branches, asymmetric canopy towards northeast				1	16	16	16	16
397	Douglas fir	15	15	16		Fair			Previous top loss, elongated branches, dead wood, broken branches, typical of species				1	22	22	22	22
398	Douglas fir	42	42	22		OK			Previously girdled with wire @ 4', free flowing sap				1	14	14	14	14
94	Douglas fir	9	9	14		Poor			Suppressed canopy, serpentine trunk, dead wood, broken branches				1	8	8	8	8
399	Douglas fir	13.8	13.8	8	Y	Fair			Previous top loss, elongated branches, dead wood, broken branches, typical of species				1	18	18	18	18
400	Douglas fir	26.2	26.2	18	Y	Fair			Low live crown ratio <30%, previous top loss, elongated branches, dead wood, broken branches, typical of species				1	18	18	18	18
513	Douglas fir	28.8	28.8	18		OK			Suppressed canopy, thin canopy				1	8	8	8	8
93	Douglas fir	8	8	8	Y	Fair			Ivy @ root crown up to 25', co-dominant canopy, asymmetric canopy towards west, previous top loss, elongated branches				1	18	18	18	18
299	Douglas fir	24	24	18	Y	Fair			Self-corrected lean towards north, woodpecker activity, carpenter ants, dead wood, broken branches				1	20	20	20	20
53	Douglas fir	26	26	20		Poor			Girdled by barb wire fencing @ 4', co-dominant canopy, low live crown ratio <30%, previous top loss, elongated branches, dead wood, broken branches				1	22	22	22	22
217	Douglas fir	30	30	22	Y	Fair			Suppressed canopy, asymmetric canopy towards south, no taper, typical of species				1	10	10	10	10
433	Douglas fir	16	16	10	Y	Fair			Previous top loss, elongated branches, asymmetric canopy towards west, dead wood, broken branches, typical of species				1	18	18	18	18
246	Douglas fir	22	22	18		OK			Asymmetric canopy towards east, dead wood, broken branches, previous top loss, elongated branches, exposed roots, moss and lichen				1	18	18	18	18
243	Douglas fir	22	22	18	Y	Fair			Ivy @ root crown up to 15', hanger, dead wood, broken branches, typical of species				1	18	18	18	18
537	Douglas fir	36	36	18		OK			Ivy @ root crown up to 30', pin point crack @ 5', free flowing sap, dead wood, broken branches, previous top loss, elongated branches				1	18	18	18	18
497	Douglas fir	19.7	19.7	18	Y	Fair							1	18	18	18	18



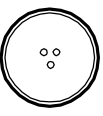
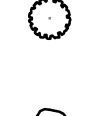
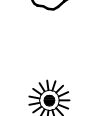
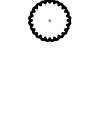
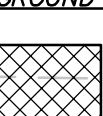
25 CENTRAL WAY, SUITE 400,
KIRKLAND, WA 98033
P: 425.216.4051 F: 425.216.4052
WWW.ATWELL-GROUP.COM

SCALE:
AS NOTED
PROJECT MANAGER:
T.C. COLLERAN, PLA, AICP
PROJECT ENGINEER:
LUCAS ZIOTTI
DESIGNER:
LEE M. TOMKINS
ISSUE DATE:
9/8/2023



SCALE: 1" = 20'
0 10 20 40

PLANT SCHEDULE

TREES	QTY	BOTANICAL / COMMON NAME
	3	ACER CIRCINATUM WINE MAPLE
	9	ACER RUBRUM 'FRANKSRED' TM RED SUNSET MAPLE
	4	CERCIDIPHYLLUM JAPONICUM KATSURA TREE
REPLACEMENT TREES	QTY	BOTANICAL / COMMON NAME
	4	THUJA PLICATA 'EXCELSA' WESTERN RED CEDAR
SHRUBS	QTY	BOTANICAL / COMMON NAME
	42	CORNUS SERICEA 'ARTIC FIRE' ARTIC FIRE DOGWOOD
	9	LONICERA INVOLUCRATA TWINBERRY
	20	LONICERA NITIDA 'BAGGESEN'S GOLD' BOXLEAF HONEYSUCKLE
	55	PANICUM VIRGATUM 'NORTHWIND' NORTHWIND SWITCH GRASS
	20	RHUS AROMATICA 'GRO-LOW' GRO-LOW FRAGRANT SUMAC
	36	SYMPHORICARPOS ALBUS COMMON WHITE SNOWBERRY
	48	VACCINIUM OVATUM EVERGREEN HUCKLEBERRY
GROUND COVERS	QTY	BOTANICAL / COMMON NAME
	4,692	COTONEASTER DAMMERI 'CORAL BEAUTY' CORAL BEAUTY COTONEASTER
RAIN GARDEN	QTY	BOTANICAL / COMMON NAME
	2,494 SF	RAIN GARDEN PLANTS PER SW-047

SOIL AMENDMENT NOTE

POST-CONSTRUCTION SOIL QUALITY DEPTH PER DETAIL ON SHEET DT-03 SHALL BE APPLIED TO ALL NEW/REPLACED LAWN AND LANDSCAPED SURFACES.

EXISTING UTILITY NOTE

EXISTING UTILITIES ARE SHOWN IN THE APPROXIMATE LOCATION. THERE IS NO GUARANTEE THAT ALL UTILITY LINES ARE SHOWN, OR THAT THE LOCATION, SIZE AND MATERIAL IS ACCURATE. THE CONTRACTOR SHALL UNCOVER ALL INDICATED PIPING WHERE CROSSING, INTERFERENCES, OR CONNECTIONS OCCUR PRIOR TO TRENCHING OR EXCAVATION FOR ANY PIPE OR STRUCTURES, TO DETERMINE ACTUAL LOCATIONS, SIZE AND MATERIAL. THE CONTRACTOR SHALL MAKE THE APPROPRIATE PROVISION FOR PROTECTION OF SAID FACILITIES. THE CONTRACTOR SHALL NOTIFY ONE CALL AT 8-1-1 (WASHINGTON811.COM) AND ARRANGE FOR FIELD LOCATION OF EXISTING FACILITIES BEFORE CONSTRUCTION.

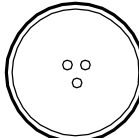
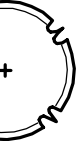
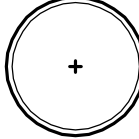
LANDSCAPE PLANS
HARBOR GROVE
CIVIL PLANS
9110 53RD AVE W
SNOHOMISH COUNTY WASHINGTON



9/8/23
JOB NUMBER:
21-073
SHEET NAME:
LS-01

SHT 18 OF 22

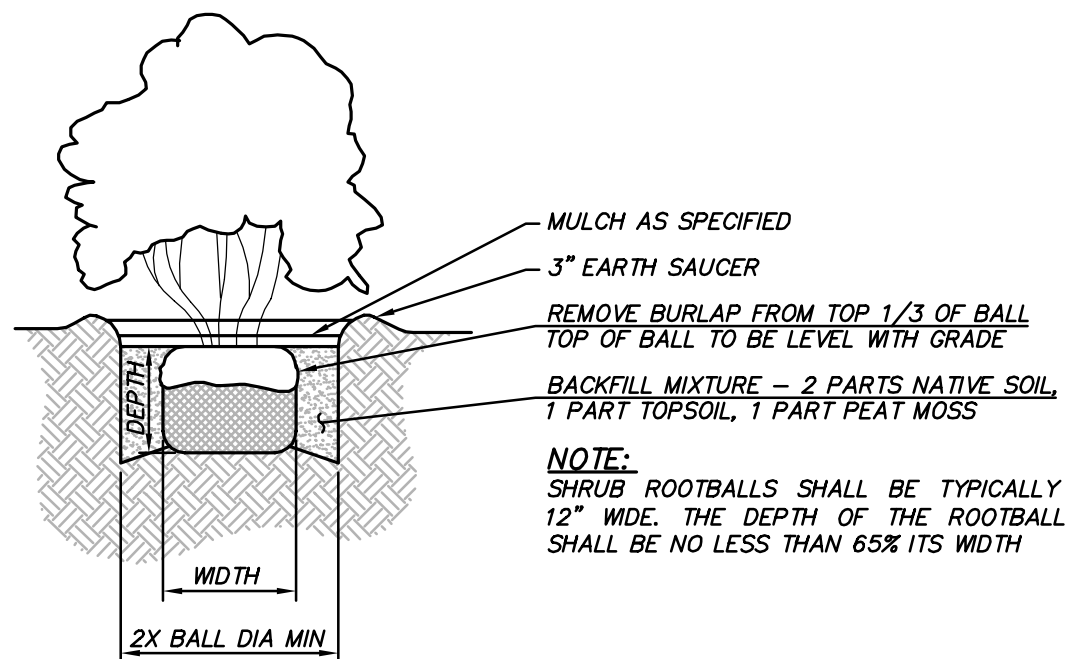
PLANT SCHEDULE

TREES	QTY	BOTANICAL / COMMON NAME	CONT	SIZE	
	3	ACER CIRCINATUM VINE MAPLE	B & B	2" CAL	
	9	ACER RUBRUM 'FRANKSRED' TM RED SUNSET MAPLE	B & B	2" CAL	
	4	CERCIDIPHYLLUM JAPONICUM KATSURA TREE	B & B	2" CAL	
REPLACEMENT TREES	QTY	BOTANICAL / COMMON NAME	CONT	SIZE	
	4	THUJA PLICATA 'EXCELSA' WESTERN RED CEDAR	B & B	8' MIN PLANTED HT.	
SHRUBS	QTY	BOTANICAL / COMMON NAME	SIZE	HEIGHT	SPACING
	42	CORNUS SERICEA 'ARTIC FIRE' ARTIC FIRE DOGWOOD	5 GAL		42" o.c.
	9	LONICERA INVOLUCRATA TWINBERRY	5 GAL		48" o.c.
	20	LONICERA NITIDA 'BAGGESEN'S GOLD' BOXLEAF HONEYSUCKLE	5 GAL		48" o.c.
	55	PANICUM VIRGATUM 'NORTHWIND' NORTHWIND SWITCH GRASS	1 GAL		36" o.c.
	20	RHUS AROMATICA 'GRO-LOW' GRO-LOW FRAGRANT SUMAC	5 GAL		48" o.c.
	36	SYMPHORICARPOS ALBUS COMMON WHITE SNOWBERRY	3 GAL		42" o.c.
	48	VACCINIUM OVATUM EVERGREEN HUCKLEBERRY	5 GAL		48" o.c.

GROUND COVERS	QTY	BOTANICAL / COMMON NAME	CONT	SIZE	SPACING	DETAIL
	4,692	COTONEASTER DAMMERI 'CORAL BEAUTY' CORAL BEAUTY COTONEASTER	FLAT		4" o.c.	

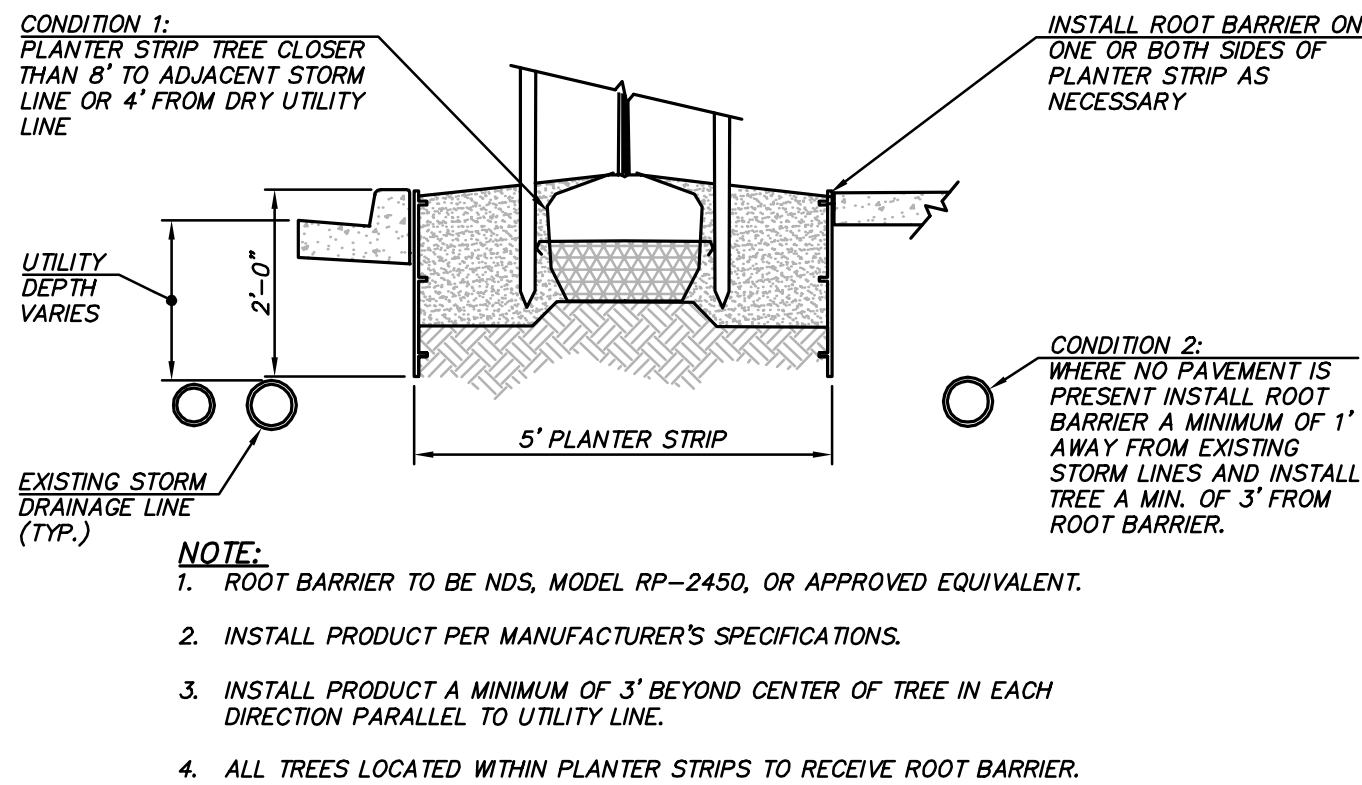
RAIN GARDEN

	RAIN GARDEN PLANTS PER SW-047	2,494 SF
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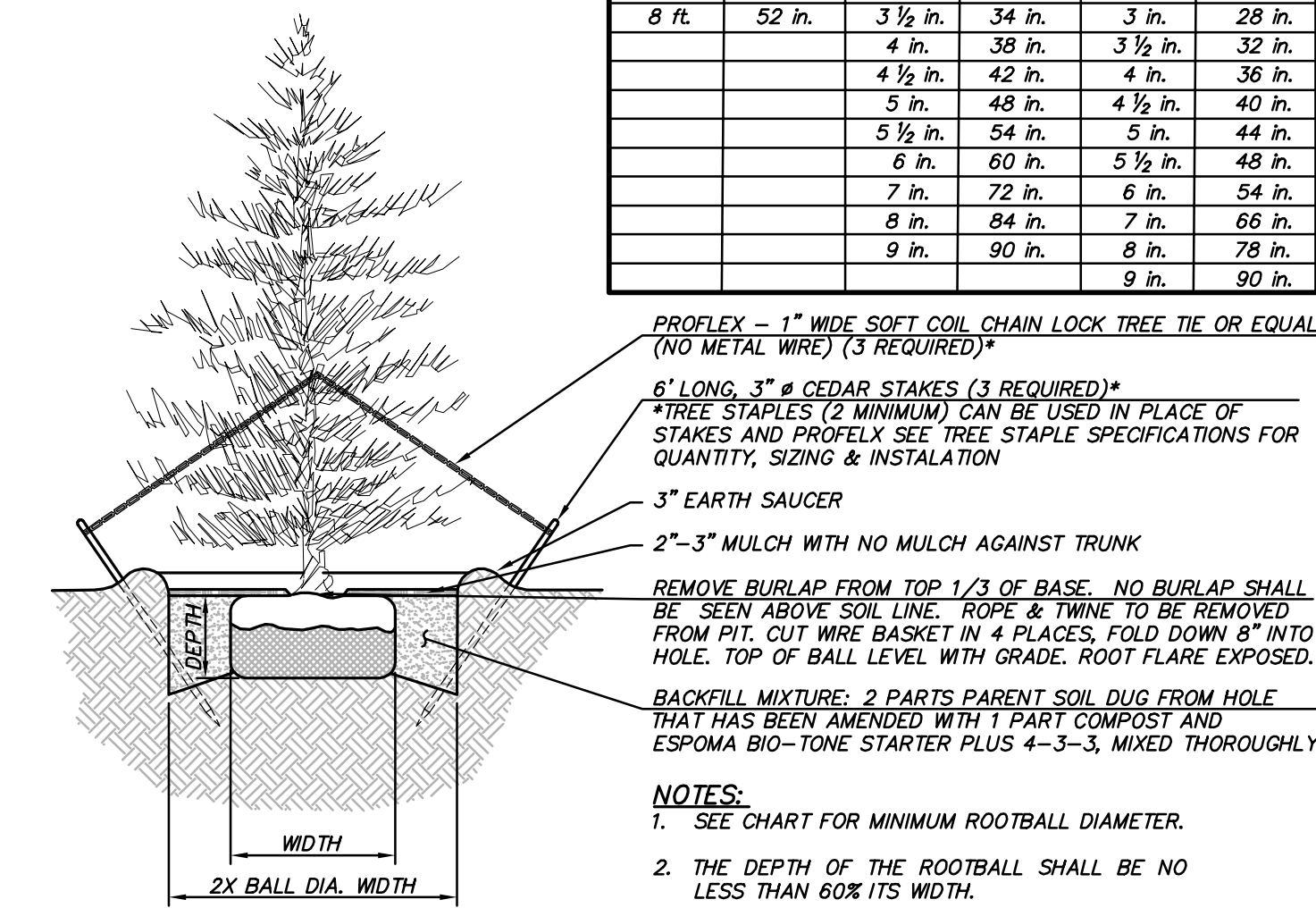
SHRUB DETAIL

NOT TO SCALE



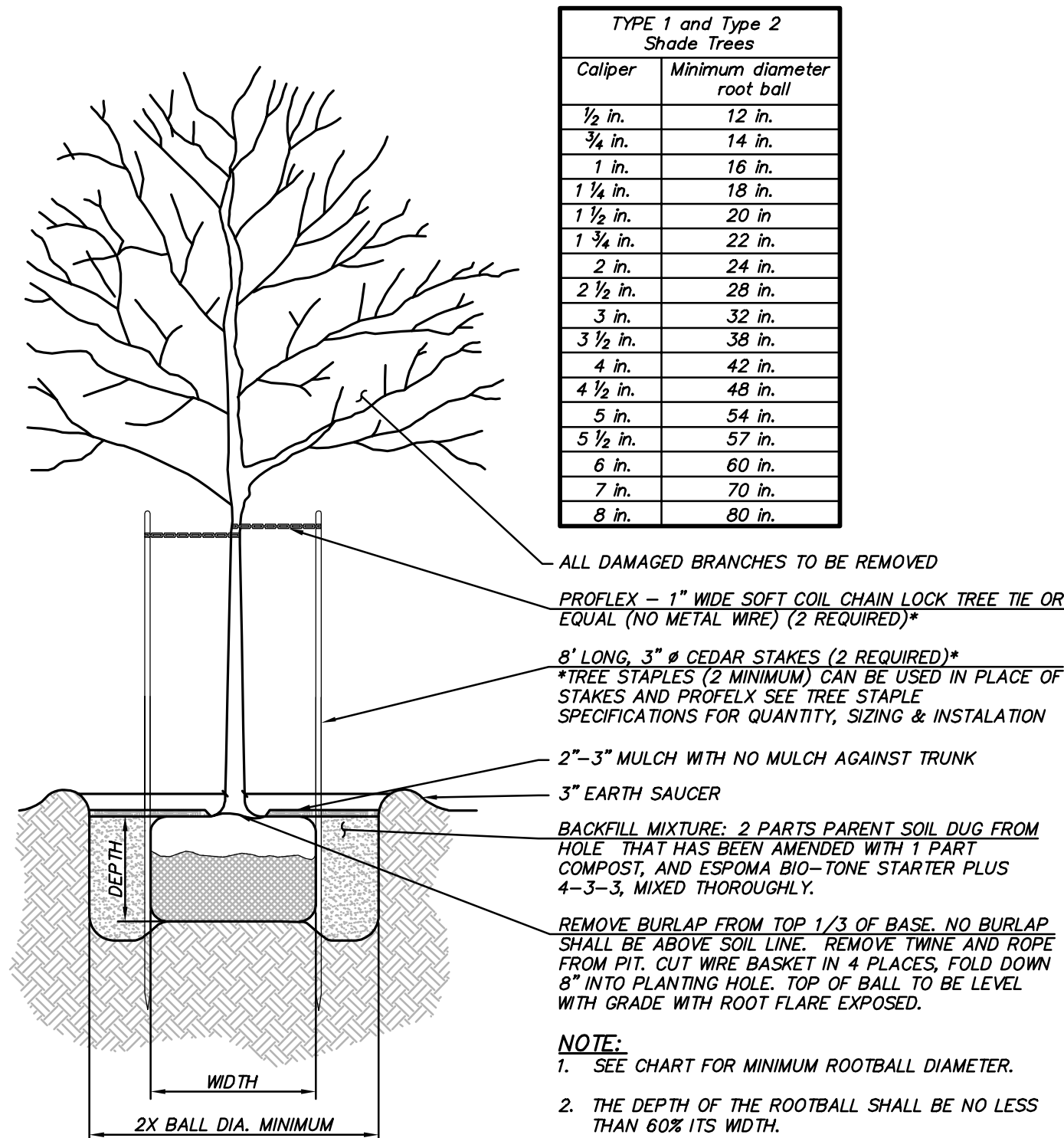
ROOT BARRIER DETAIL

NOT TO SCALE



CONIFER DETAIL

NOT TO SCALE



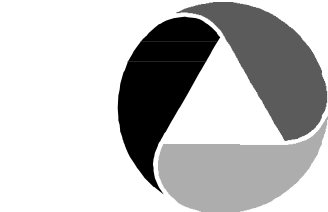
DECIDUOUS DETAIL

NOT TO SCALE

TYPES 1, 2, AND 3 Spreading, semi- spreading, broad spreading, globe, and compact upright	Types 4 & 5 Pyramidal, broad upright		Type 6* Columnar		
Spread (Types 1 and 2) Height (Type 3)	Minimum diameter ball	Height/ Caliper	Minimum diameter ball	Height/ Caliper	Minimum diameter ball
9 in.	8 in.	12 in.	8 in.	12 in.	7 in.
12 in.	10 in.	15 in.	10 in.	15 in.	8 in.
15 in.	12 in.	18 in.	12 in.	18 in.	9 in.
18 in.	14 in.	24 in.	14 in.	24 in.	11 in.
24 in.	16 in.	30 in.	16 in.	30 in.	13 in.
30 in.	18 in.	3 ft.	18 in.	3 ft.	14 in.
36 in.	24 in.	4 ft.	20 in.	4 ft.	16 in.
42 in.	26 in.	5 ft.	22 in.	5 ft.	18 in.
4 ft.	28 in.	6 ft.	24 in.	6 ft.	20 in.
5 ft.	36 in.	7 ft.	26 in.	7 ft.	22 in.
6 ft.	40 in.	8 ft.	28 in.	8 ft.	24 in.
7 ft.	46 in.	9 ft. 3/4 in.	32 in.	9 ft. 2 1/2 in.	26 in.
8 ft.	52 in.	3 1/2 in.	34 in.	3 in.	28 in.
		4 in.	38 in.	3 1/2 in.	32 in.
		4 1/2 in.	42 in.	4 in.	36 in.
		5 in.	48 in.	4 1/2 in.	40 in.
		5 1/2 in.	54 in.	5 in.	44 in.
		6 in.	60 in.	5 1/2 in.	48 in.
		7 in.	72 in.	6 in.	54 in.
		8 in.	84 in.	7 in.	66 in.
		9 in.	90 in.	8 in.	78 in.
				9 in.	90 in.

LANDSCAPE NOTES:

- IN THE EVENT THAT ANY DISCREPANCIES BETWEEN THE QUANTITIES OF PLANTS INDICATED ON THE PLANT SCHEDULE AND THOSE INDICATED ON THE PLAN, THE QUANTITIES INDICATED ON THE PLAN SHALL GOVERN.
- NO SUBSTITUTIONS SHALL BE ACCEPTED, EXCEPT WITH THE WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT OR HIS AGENT.
- THE LANDSCAPE ARCHITECT OR HIS AGENT SHALL BE THE SOLE JUDGE OF THE QUALITY AND ACCEPTABILITY OF THE MATERIALS. ALL REJECTED MATERIALS SHALL BE IMMEDIATELY REPLACED WITH ACCEPTABLE MATERIAL AT NO ADDITIONAL COST.
- ALL PLANT BEDS SHALL BE MULCHED WITH A MINIMUM OF 3" SHREDDED BARK MULCH OR OTHER MATERIAL APPROVED BY THE LANDSCAPE ARCHITECT. ALL PROPOSED PLANT MATERIAL SHALL BE FULLY GUARANTEED FOR ONE (1) YEAR FROM DATE OF ACCEPTANCE AND SHALL BE IN HEALTHY AND VIGOROUS CONDITION. ANY PLANT MATERIAL WHICH DIES WITHIN THAT PERIOD SHALL BE REPLACED WITH THE SAME SIZE AND SPECIES OF PLANT MATERIAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT CORRECT GRADES AND ALIGNMENT.
- PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY; HAVE NORMAL GROWTH HABITS; WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE FROM DEFECTS AND INJURIES.
- THE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITION CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL.
- QUALITY AND SIZE OF PLANTS, SPREAD OF ROOTS AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH "AMERICAN STANDARDS FOR NURSERY STOCK" ANSI Z60 (MOST RECENT EDITION) AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.
- B & B PLANTS SHALL BE HANDLED FROM THE BOTTOM OF THE ROOT BALL ONLY. PLANTS WITH BROKEN, SPLIT OR DAMAGED ROOT BALLS SHALL BE REJECTED.
- TREES SHALL BE LOCATED IN A MANNER WHICH WILL NOT OBSTRUCT ACCESS TO FIRE HYDRANT OR VISIBILITY OF STREET OR TRAFFIC SIGNS.
- PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITION ARE SUITABLE.
- SET ALL PLANTS PLUMB AND STRAIGHT. SET AT SUCH LEVEL THAT, AFTER SETTLEMENT, A NORMAL OR NATURAL RELATIONSHIP TO THE CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE PLANTS IN THE CENTER OF THE PLANTING PIT.
- TREES SHALL BE SUPPORTED IMMEDIATELY AFTER PLANTING IN ACCORDANCE WITH THE PLANTING DETAILS.
- THE LOCATION OF ALL PLANT MATERIAL IS DIAGRAMMATIC. FINAL LOCATION OF ALL PLANT MATERIAL SHALL BE DETERMINED IN THE FIELD UNDER THE DIRECTION OF THE LANDSCAPE ARCHITECT OR HIS AGENT.
- THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY BEARING UPON THE PERFORMANCE OF THE WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO CALL FOR UTILITY LOCATIONS, IF NECESSARY.
- AMENDED SOIL AS REQUIRED IN ALL LANDSCAPED AREAS (OTHER THAN BIORETENTION AREAS). SOIL MUST MEET WA STATE DEPARTMENT OF ECOLOGY BMP TS.13.



ATWELL

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WWW.ATWELL-GROUP.COM

SCALE:

AS NOTED

PROJECT MANAGER:

T.C. COLLERAN, PLA, AICP

PROJECT ENGINEER:

LUCAS ZIROTTI

DESIGNER:

LEE M. TOMKINS

ISSUE DATE:

9/8/2023

NO	DATE	BY	REVISIONS		
			REVISIONS PER CITY 1ST ROUND COMMENTS	REVISIONS PER CITY 2ND ROUND COMMENTS	REVISIONS PER CITY 3RD ROUND COMMENTS
1	8/9/22	LCZ			
2	4/21/23	LMT			
3	9/8/23	LMT			

LANDSCAPE DETAILS

HARBOR GROVE

CIVIL PLANS

9110 53RD AVE W

SNOHOMISH COUNTY

WASHINGTON



9/8/23

JOB NUMBER:

21-073

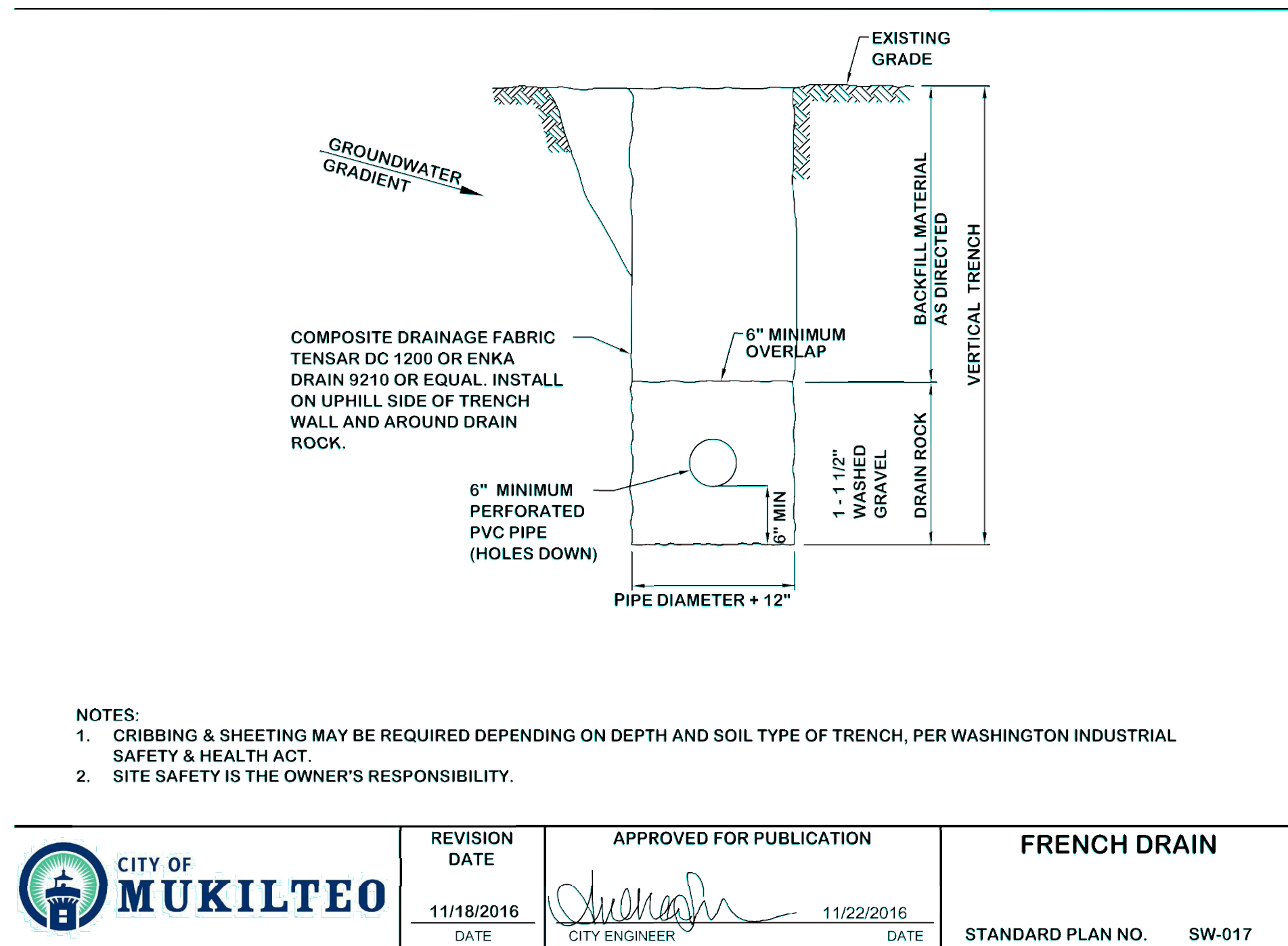
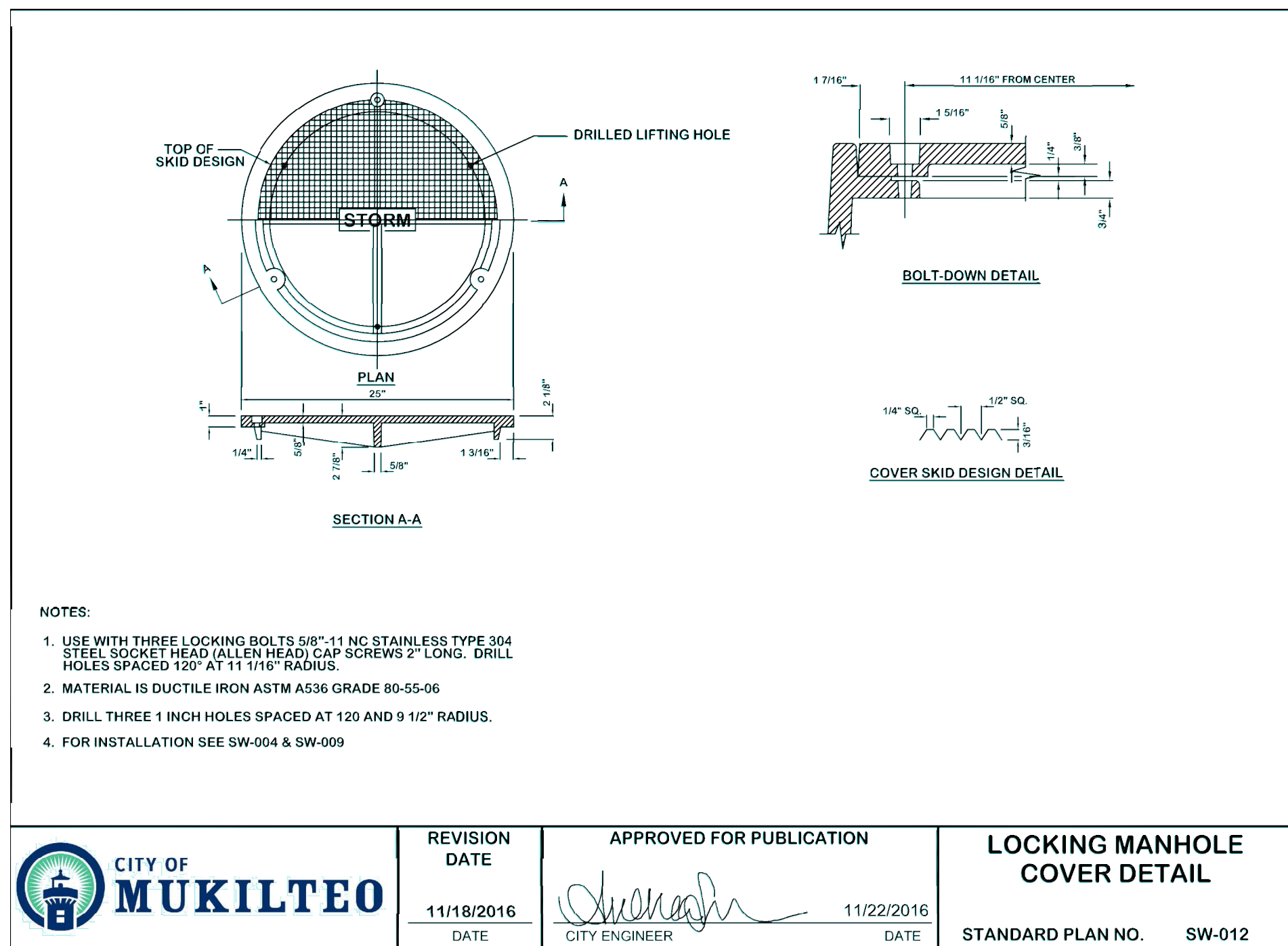
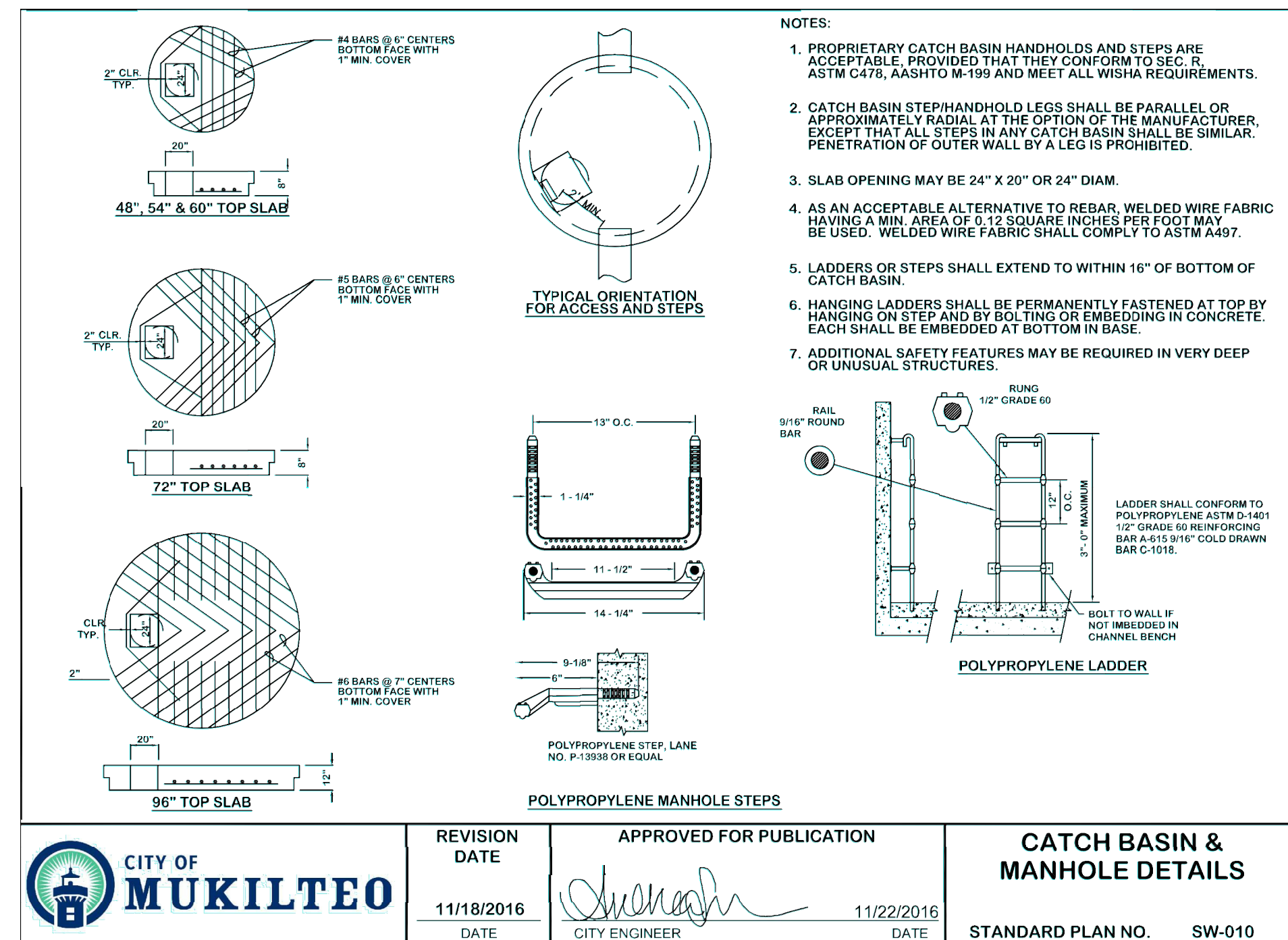
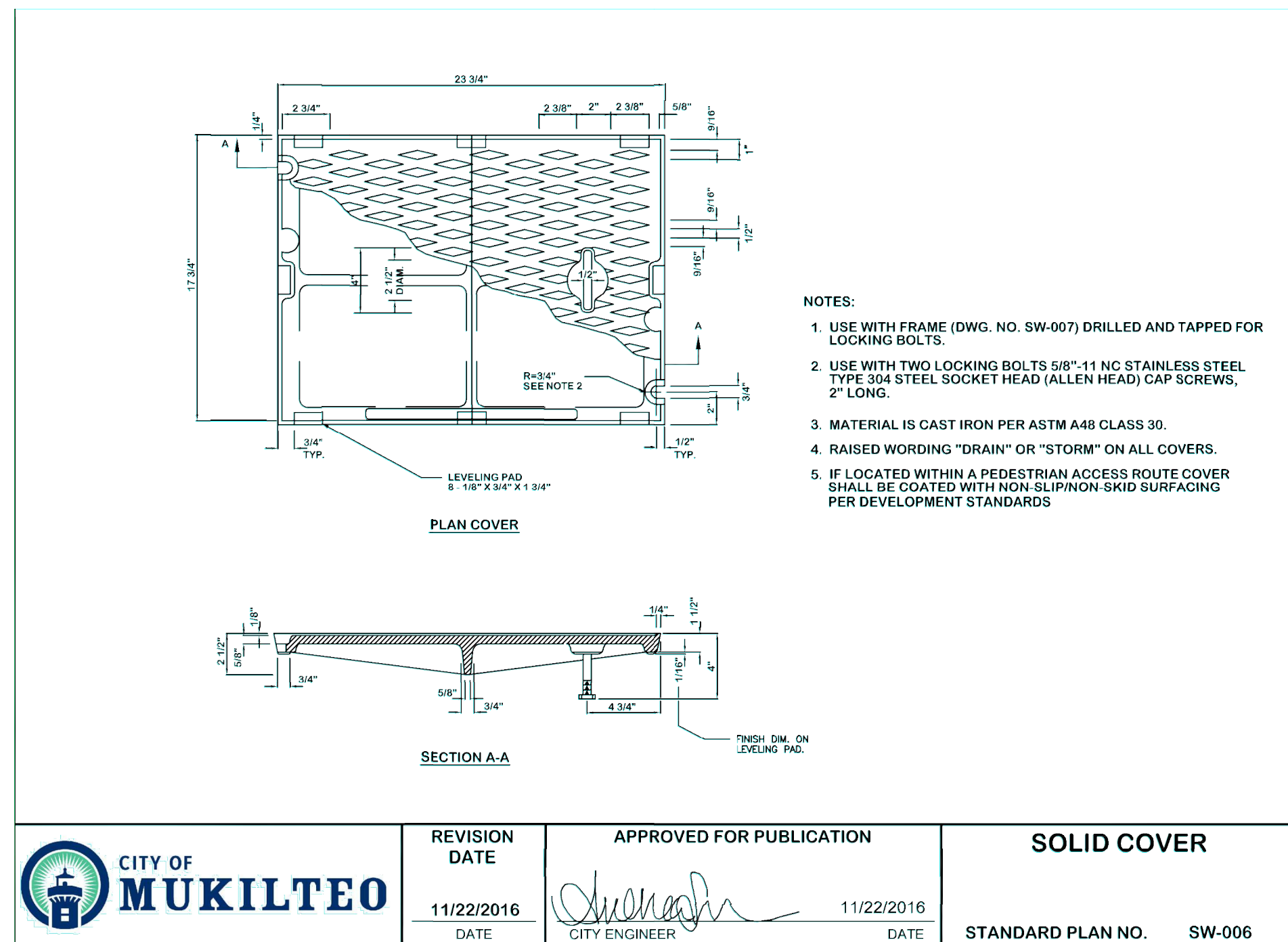
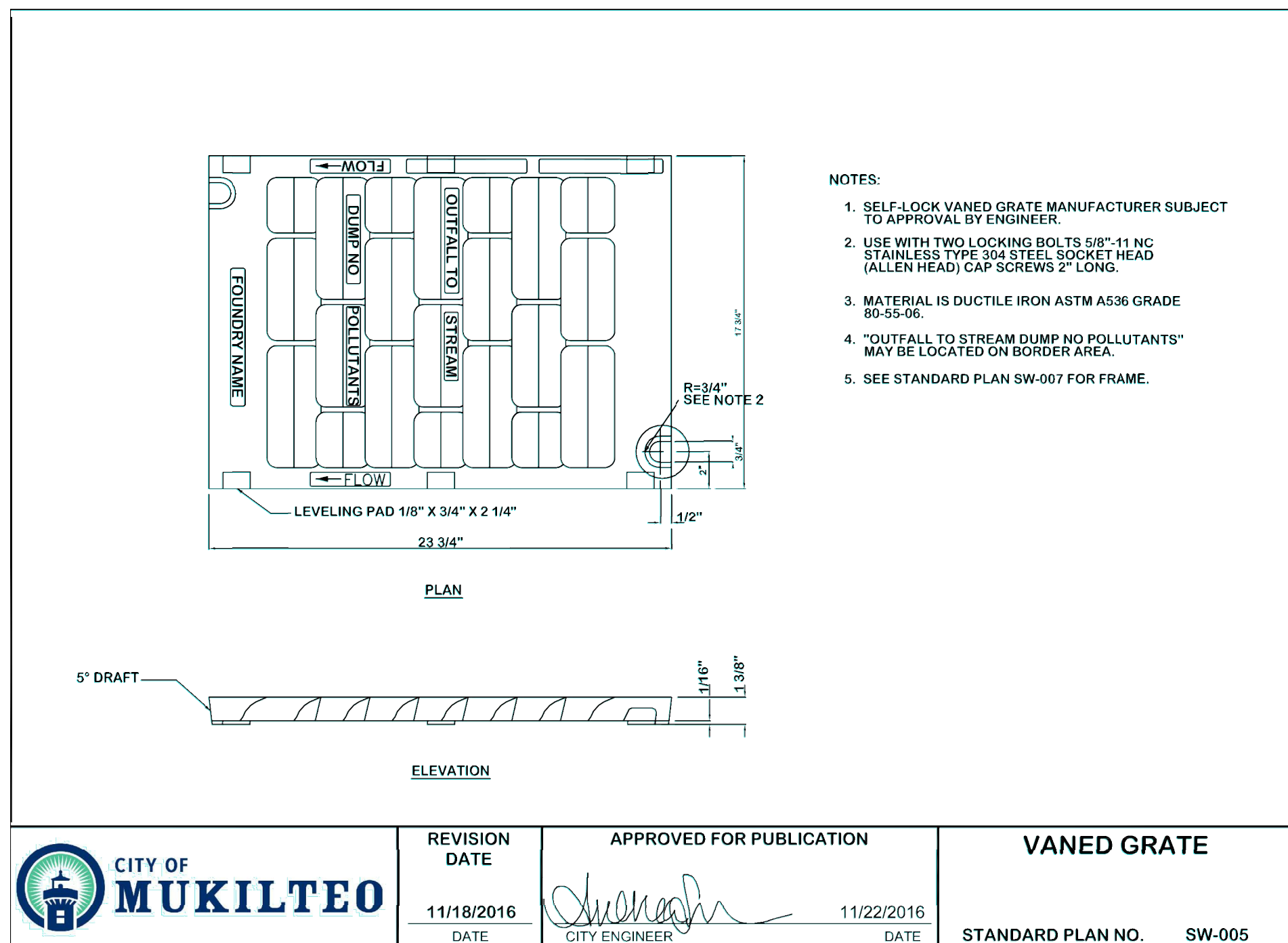
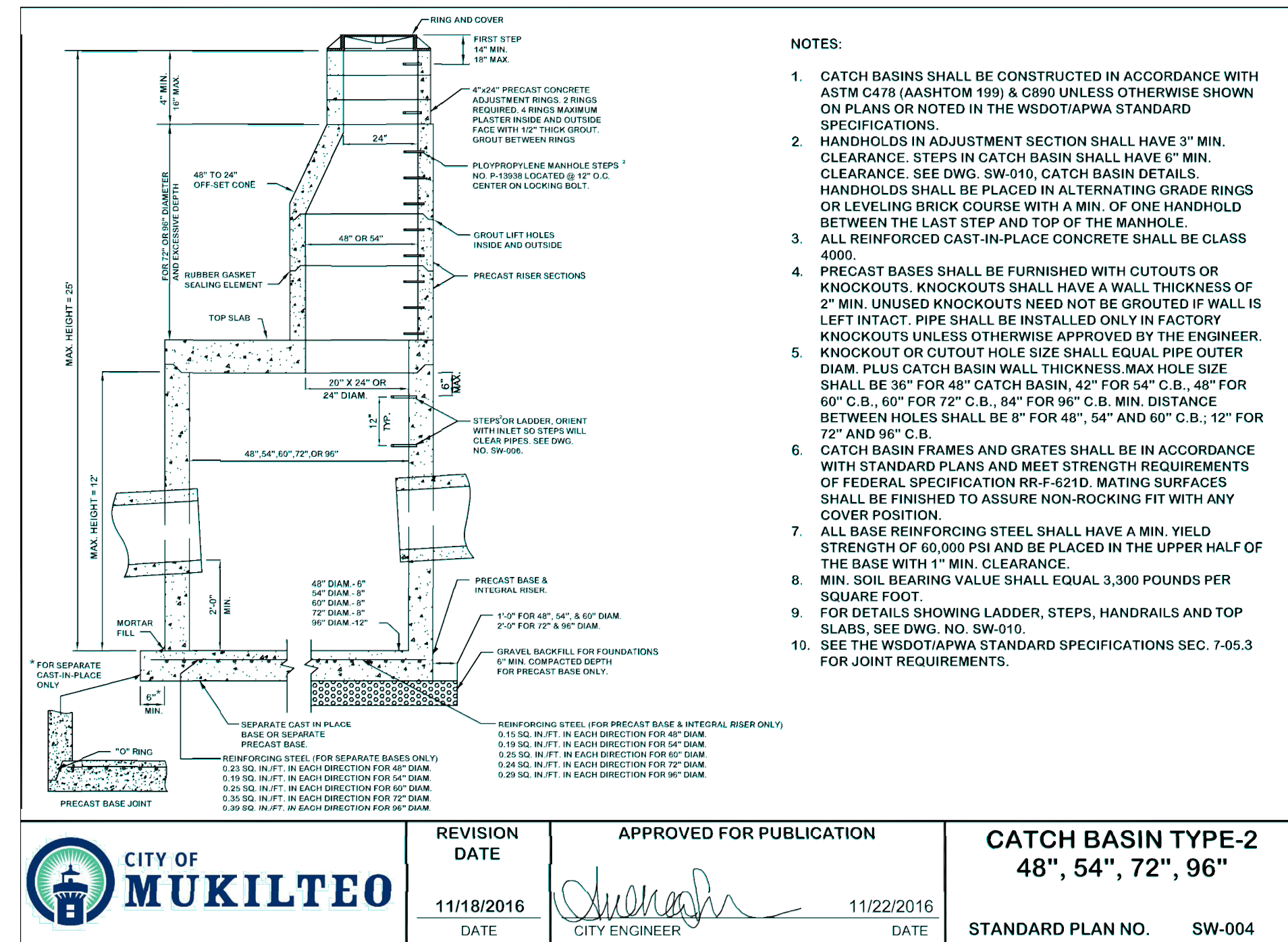
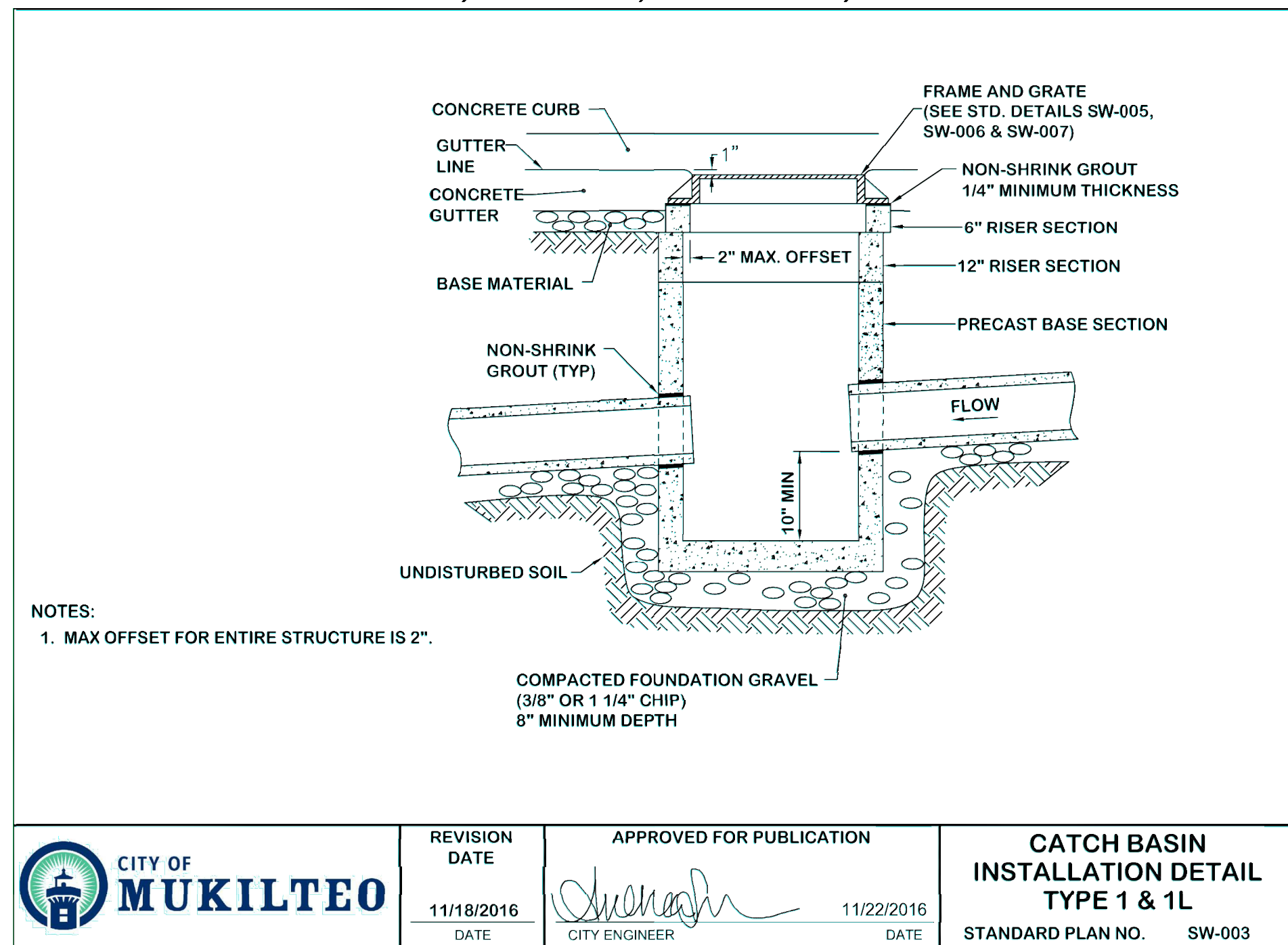
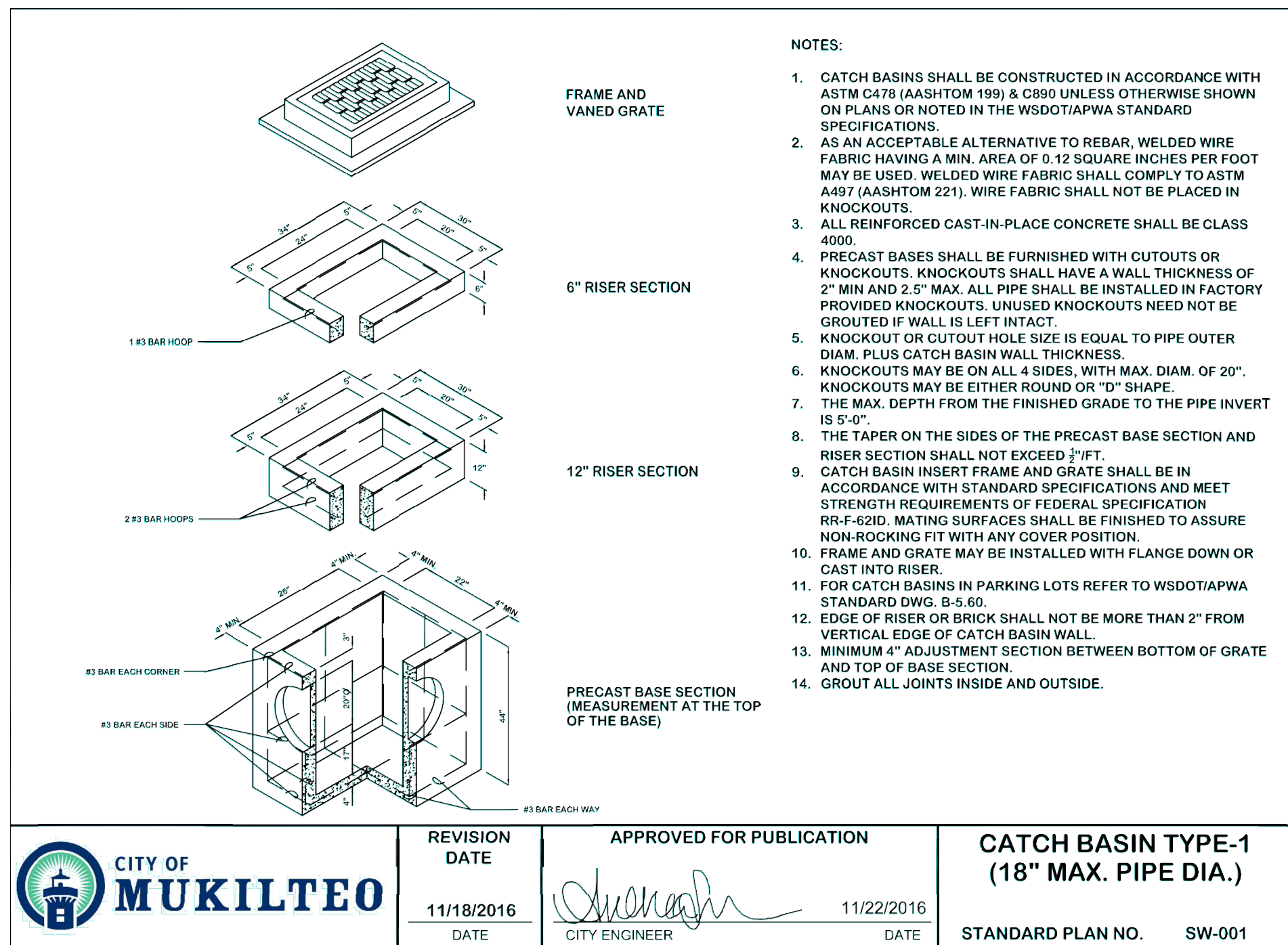
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LS-02

SHT 19 OF 22

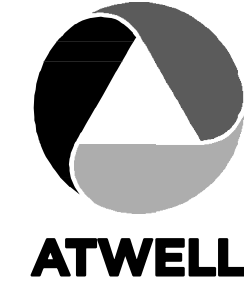
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STANDARD DETAILS

HARBOR GROVE

CIVIL PLANS

9110 53RD AVE W

SNOHOMISH COUNTY

WASHINGTON



9/8/23

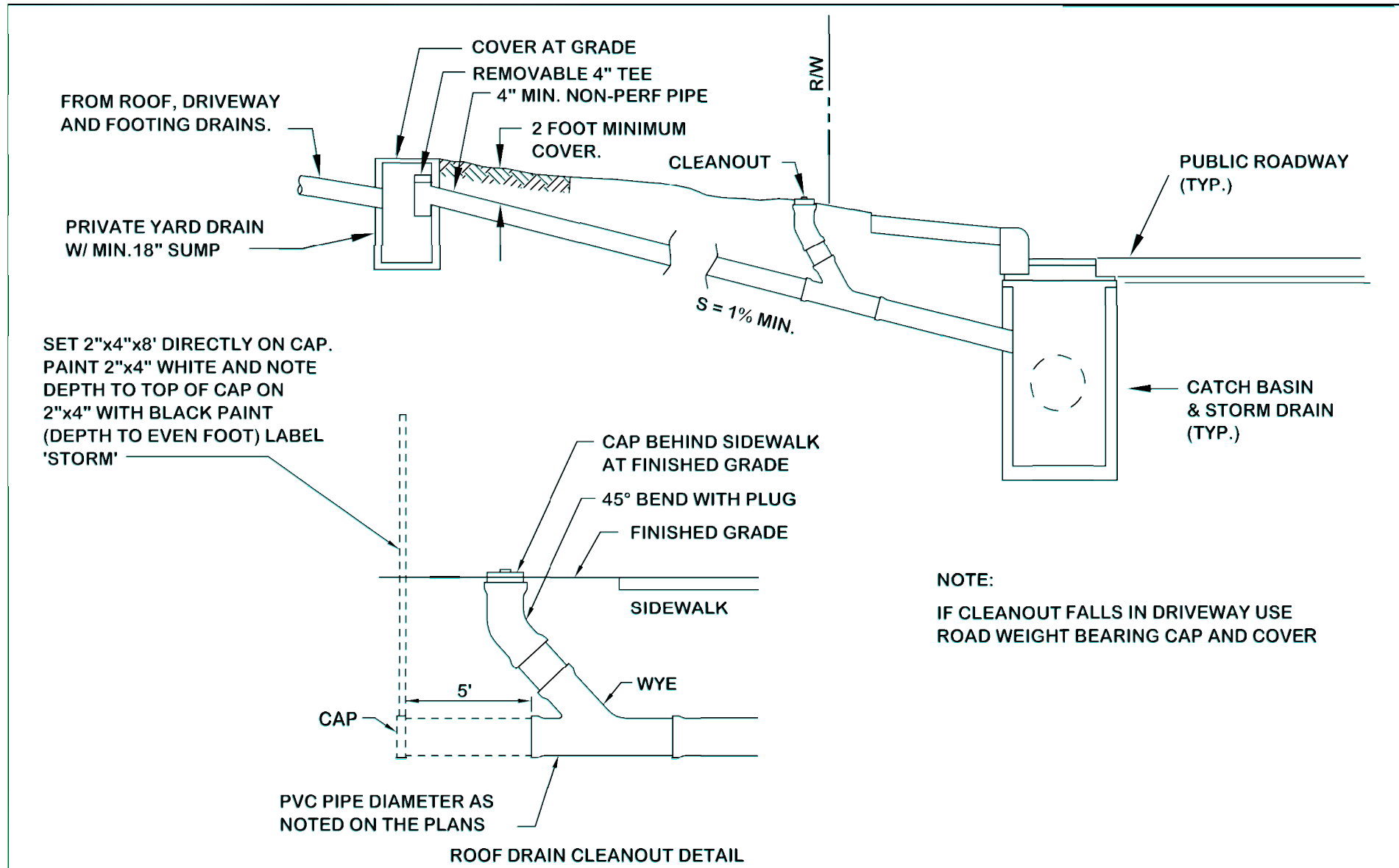
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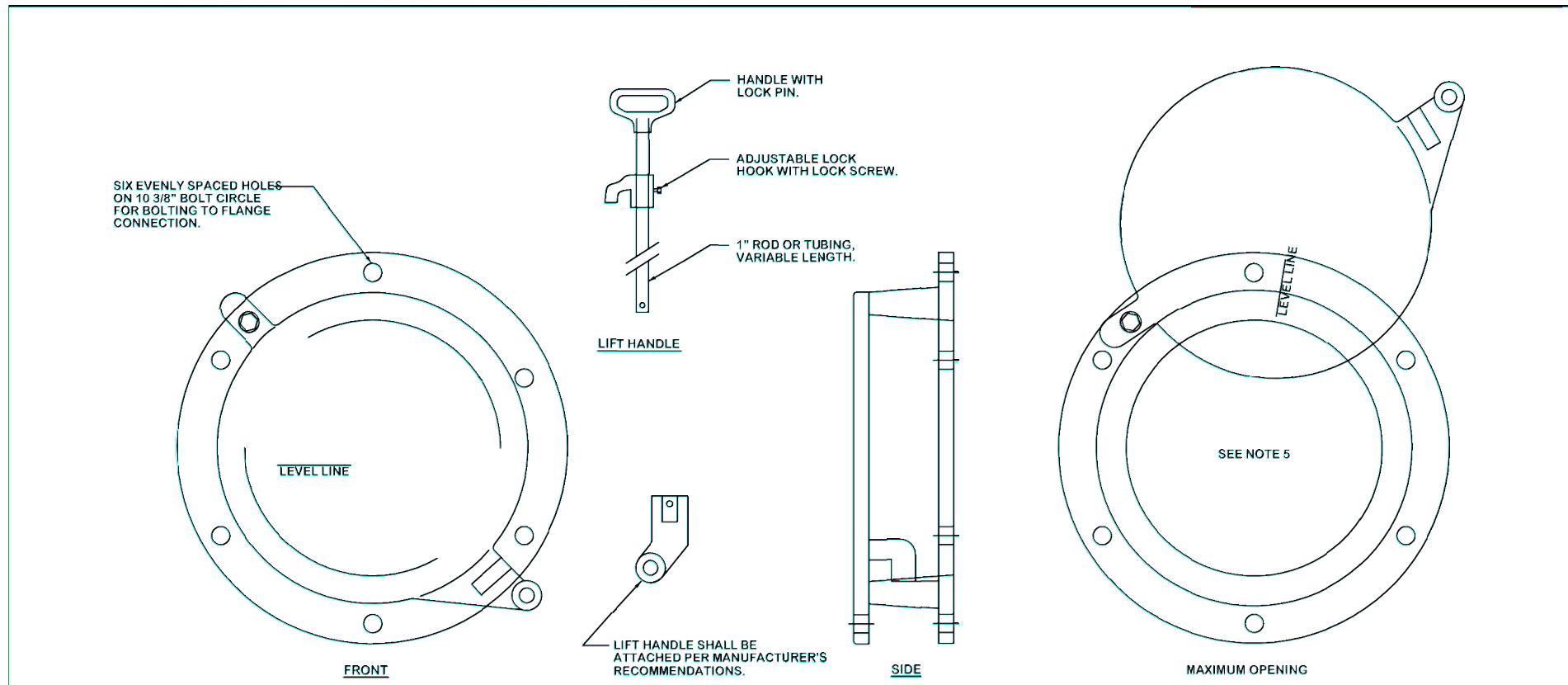
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DT-01

SHT 20 OF 22



	REVISION DATE 11/18/2016 DATE	APPROVED FOR PUBLICATION 11/22/2016 DATE CITY ENGINEER	INDIVIDUAL LOT & ROOF DRAIN PLAN DETAILS STANDARD PLAN NO. SW-018
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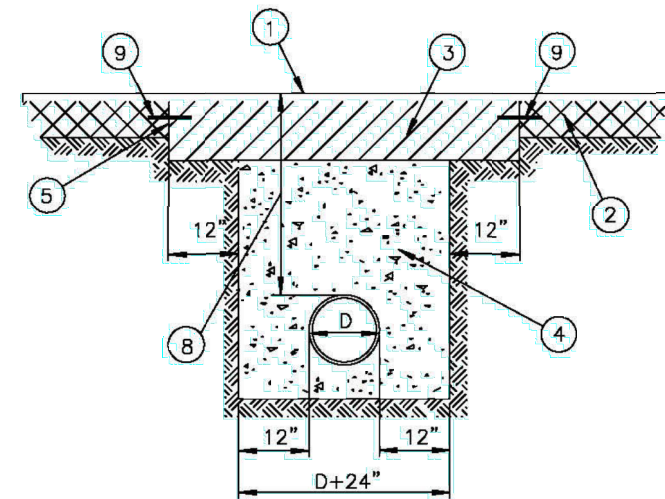


- NOTES:
- SHEAR GATE SHALL BE ALUMINUM ALLOY PER ASTM B-26-ZG-32a OR CAST IRON ASTM A48 CLASS 30B AS REQUIRED.
 - GATE SHALL BE 8" DIA. UNLESS OTHERWISE SPECIFIED.
 - GATE SHALL BE JOINED TO TEE SECTION BY BOLTING (THROUGH FLANGE), WELDING, OR OTHER SECURE MEANS.
 - LIFT ROD: AS SPECIFIED BY MFR. WITH HANDLE EXTENDING TO WITHIN ONE FOOT OF COVER AND ADJUSTABLE HOOK LOCK FASTENED TO FRAME OR UPPER HANDHOLD.
 - GATE SHALL NOT OPEN BEYOND THE CLEAR OPENING BY LIMITED WINGE MOVEMENT, STOP TAB, OR SOME OTHER DEVICE.
 - NEOPRENE RUBBER GASKET REQUIRED BETWEEN RISER MOUNTING FLANGE AND GATE FLANGE.
 - MATING SURFACES OF LID AND BODY TO BE MACHINED FOR PROPER FIT.
 - FLANGE MOUNTING BOLTS SHALL BE 3/8" DIA. STAINLESS STEEL.
 - ALTERNATE CLEANOUT/SHEAR GATES TO THE DESIGN SHOWN ARE ACCEPTABLE, PROVIDED THEY MEET THE MATERIAL SPECIFICATIONS ABOVE AND HAVE A SIX BOLT, 10-3/8" BOLT CIRCLE FOR BOLTING TO THE FLANGE CONNECTION.

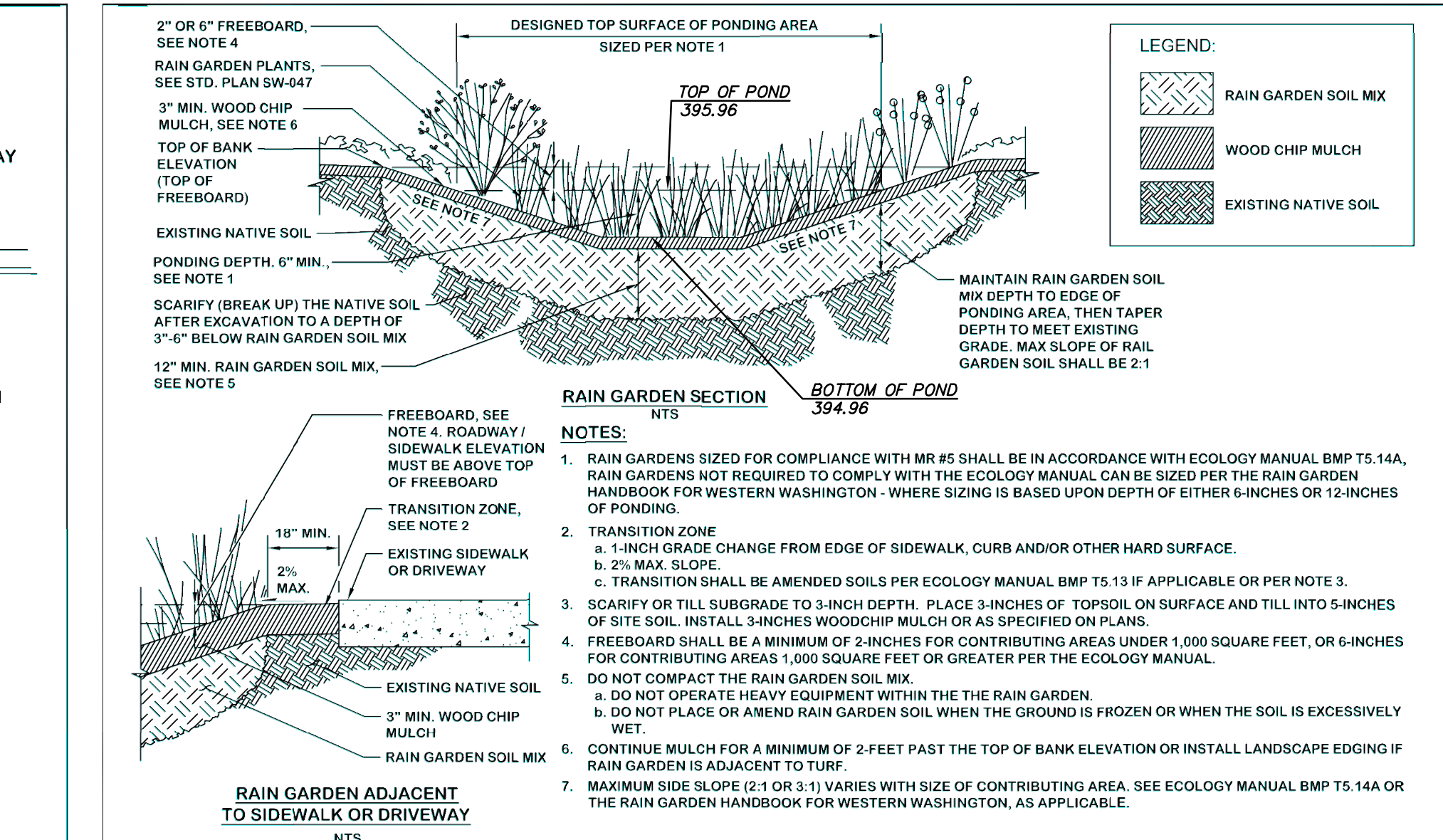
	REVISION DATE 11/18/2016 DATE	APPROVED FOR PUBLICATION 11/22/2016 DATE CITY ENGINEER	SHEAR GATE DETAIL STANDARD PLAN NO. SW-077
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ASPHALT OR CONCRETE PAVEMENT:

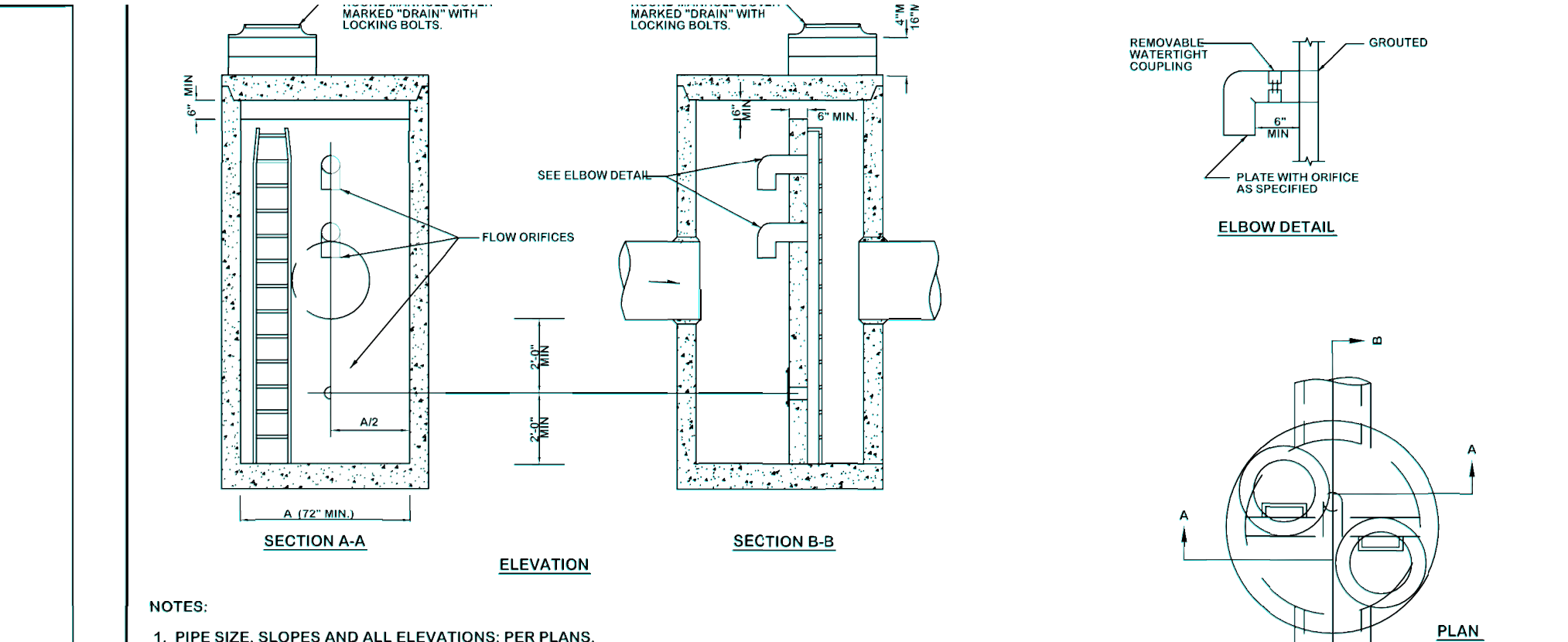
- A 2" HMA OVERLAY
- EXISTING PAVEMENT.
- TRENCH - 6" OF HMA OR MATCH EXISTING ASPHALT, WHICHEVER IS GREATER, PER WSDOT STANDARD SPECIFICATIONS SECTION 5-04. IF CONCRETE, RESTORATION SHALL BE IN ACCORDANCE WITH SECTION 5-05 OF THE WSDOT/HPWA SPECIFICATIONS.
- NATIVE MATERIAL, BANK RUN GRAVEL, CSTC OR CONTROL DENSITY FILL (CDF) A MINIMUM OF 6" FROM TOP OF EXISTING ASPHALT.
- NEAT LINE CUT, CLEAN, HEAT & TACK EDGES WITH SEALER CSS-1 & SEAL WITH HOT ASPHALT CEMENT.
- TEMPORARY RESTORATION OF TRENCHES FOR OVERNIGHT USE SHALL BE ACCOMPLISHED BY USING ASPHALT, OR STEEL PLATES.
- PATCH SHALL BE MACHINE ROLLED FLUSH WITH EXISTING PAVEMENT AND SHALL BE PLACED PER WSDOT STANDARD SPECIFICATIONS SECTION 5-04.
- COVER DEPTH OVER UNDERGROUND UTILITIES SHALL CONFORM TO FEDERAL AND STATE REGULATIONS.
- TRENCHES IN CONCRETE PAVEMENT SHALL BE RESTORED USING THE BARS OR DOWEL BARS IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS SECTION 5-04.



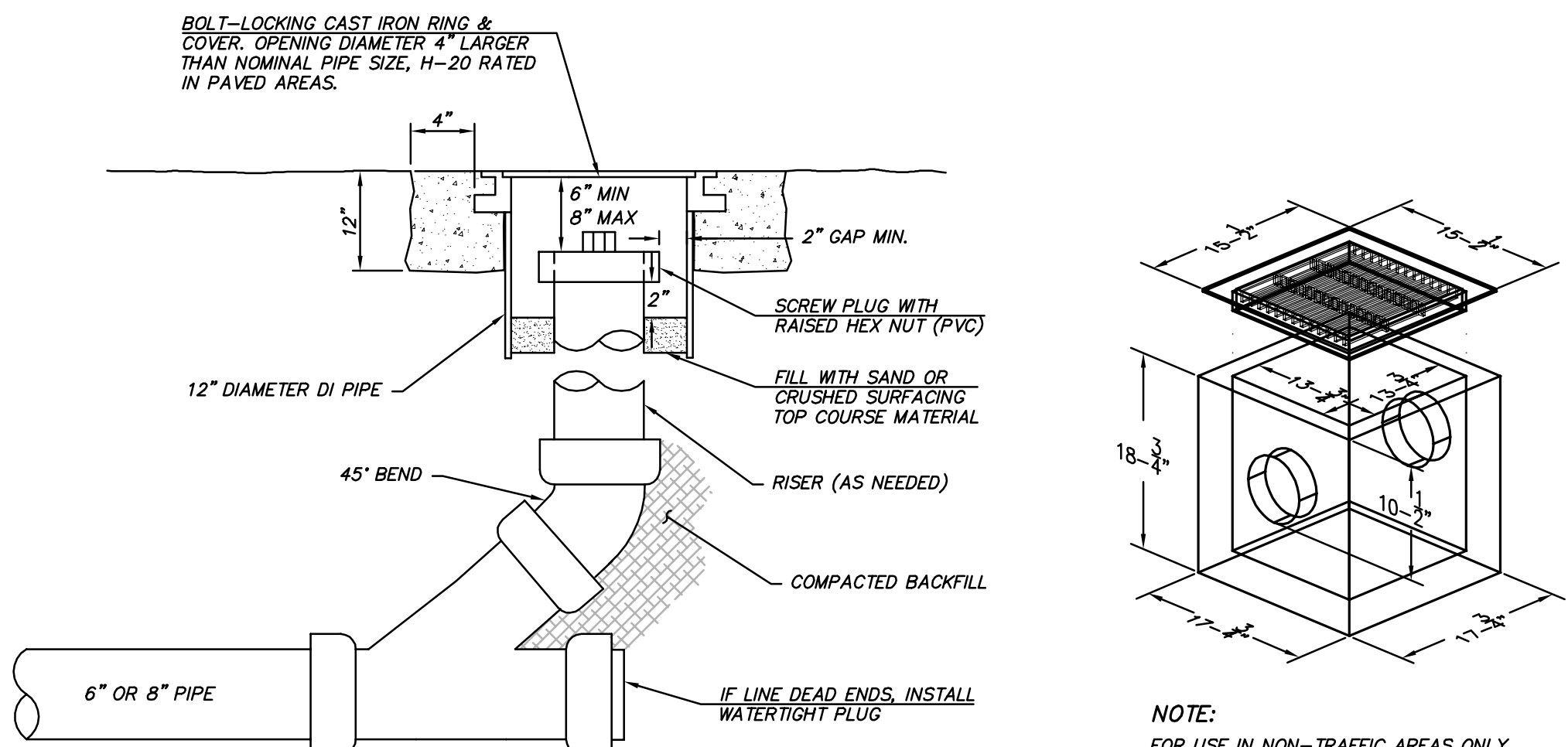
UTILITY TRENCH RESTORATION DETAIL



	REVISION DATE 11/18/2016 DATE	APPROVED FOR PUBLICATION 11/22/2016 DATE CITY ENGINEER	RAIN GARDEN - SECTION STANDARD PLAN NO. SW-048
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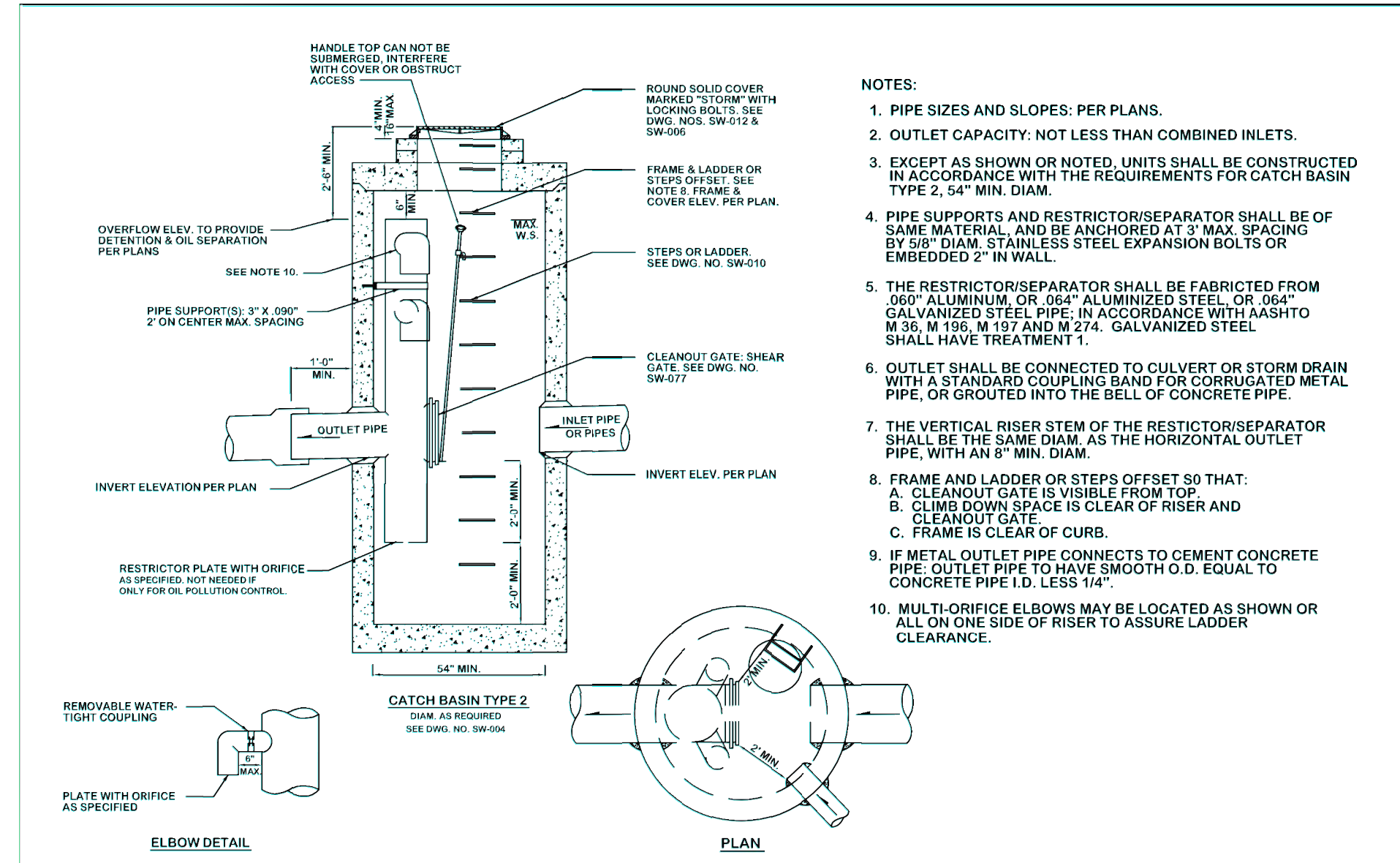
	REVISION DATE 11/18/2016 DATE	APPROVED FOR PUBLICATION 11/22/2016 DATE CITY ENGINEER	FLOW RESTRICTOR/OIL POLLUT. DEBRIS CNTRL TEE TYPE (FROP-B) INSTAL STANDARD PLAN NO. SW-078
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NOTES

- CAST IRON COVER SHALL READ "STORM".
- LOCKING BOLTS FOR COVER SHALL BE 5/8" -11 NC STAINLESS STEEL TYPE 304 SOCKET (ALLEN) HEAD BOLTS, 2 INCHES LONG.

CLEANOUT
NOT TO SCALE



	REVISION DATE 11/18/2016 DATE	APPROVED FOR PUBLICATION 11/22/2016 DATE CITY ENGINEER	FLOW RESTRICTOR/OIL POLLUT. DEBRIS CNTRL TYPE (FROP-T) INSTAL STANDARD PLAN NO. SW-076
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REVISIONS		BY		DATE		NO	
REVISIONS PER CITY 1ST ROUND COMMENTS		LZC		8/9/23		1	
REVISIONS PER CITY 2ND ROUND COMMENTS		LMT		4/27/23		2	
REVISIONS PER CITY 3RD ROUND COMMENTS		LMT		9/8/23		3	

STANDARD DETAILS
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9/8/23
JOB NUMBER:
21-073
SHEET NAME:
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SHT 21 OF 22

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