

# BRIDGEWATER

## PUBLIC ROAD AND STORM DETAILS

A PORTION OF THE SE 1/4 OF THE NE 1/4 SECTION 31, TOWNSHIP 19 N., RANGE 05 E., W.M.  
CITY OF ORTING, PIERCE COUNTY, WASHINGTON

**CITY OF ORTING**  
**APPROVED FOR CONSTRUCTION**

1/13/22  
CITY ADMINISTRATOR DATE

1/12/22  
CITY ENGINEER DATE

**CITY OF ORTING**  
**CONCRETE CURB & GUTTER**

SCALE: NO SCALE APPROVAL DATE: DRAWING NO. T-1A  
FILE NAME: STD-T-1A

**NOTES**

- CONTRACTION JOINTS SHALL BE 3/8" x 2 1/4" ASPHALT SATURATED FELT PLACED IN ALL EXPOSED SURFACES OF CURB AND GUTTER AND SPACED AT 15' MAX 10' MIN OC.
- THRU JOINTS SHALL BE 3/4" ASPHALT SATURATED FELT PLACED AT POINTS OF TANGENCY ON CURVES, AT CATCH BASINS AND AT EDGES OF ALLEY AND DRIVEWAYS. THE MAXIMUM DISTANCE BETWEEN THRU JOINTS SHALL BE 100'.
- CONCRETE SHALL BE CLASS 3000 (6% AIR) (COARSE AGGR OR NO 2) (FINE AGGR CL 1).
- FORMS SHALL BE STEEL UNLESS PRIOR APPROVAL IS GIVEN BY THE CITY ENGINEER. FORMS SHALL BE SET TRUE TO LINE AND GRADE AND SECURELY STAKED PRIOR TO CONCRETE PLACEMENT. FULL DEPTH DIVISION PLATES ARE ONLY TO BE USED WHERE THRU JOINTS ARE TO BE PLACED.
- THE 1" RADIUS ON THE UPPER FACE OF THE CURB MAY BE FORMED BY AN EDGER TOOL OR BUILT INTO THE FACE FORM. THE 1" RADIUS AT THE BOTTOM FACE OF THE CURB SHALL BE FORMED BY THE FACE FORM.
- ROLLED CURBS AND GUTTERS SHALL ONLY BE ALLOWED AS A REPLACEMENT TO EXISTING ROLLED CURBS AND GUTTERS.
- 2" SCHEDULE 40 PVC SHALL BE PLACED THROUGH CURB AT LOW POINTS OF PROPERTY OR LOT WHEN GRADE SLOPES DOWN TO STREET AT LOCATIONS APPROVED BY THE CITY.

**CITY OF ORTING**  
**SIDEWALK W/PLANTER STRIP**

SCALE: NO SCALE APPROVAL DATE: DRAWING NO. T-3A  
FILE NAME: STD-T-3A

**NOTES**

- EXPANSION JOINTS SHALL BE 3/8" x 1 1/2" ELASTOMERIC JOINT MATERIAL CONFORMING TO WSDOT 9-04.1(4) PLACED AT 10' OC FOR 5' SIDEWALKS AND 15' OC FOR 8' SIDEWALKS.
- THRU JOINTS SHALL BE 3/8" x 4" ASPHALT SATURATED FELT PLACED AT DRIVEWAYS, ALLEY RETURNS AND WHEELCHAIR RAMPS.
- V-GROOVEMARKS SHALL BE 3/8" DEEP AND 1/4" WIDE PLACED AT 5' OC FOR 5' SIDEWALKS AND 7 1/2' OC FOR 8' AND 10' SIDEWALKS.
- ALL JOINTS SHALL BE CLEAN AND EDGED TO A 1/4" RADIUS. JOINTS SHALL BE FLUSH WITH THE FINISHED SURFACE.
- ALL UTILITY POLES AND STREET SIGN POSTS IN SIDEWALK AREA NOT REQUIRED TO BE RELOCATED BY THE CITY ENGINEER SHALL HAVE A SQUARE SECTION OF REINFORCED CONCRETE SURROUNDING BY 3/4" EXPANSION JOINT MATERIAL AROUND THE POLE. THE JOINT SHALL BE NO CLOSER THAN 6" TO ANY SIDE OF THE POLE.
- FORMS SHALL BE EITHER WOOD OR STEEL AND SHALL MEET ALL REQUIREMENTS OF THESE SPECIFICATIONS.
- CONCRETE SHALL BE CLASS 3000 PSI 5-1/2 SACK WITH 6% AIR COARSE AGGREGATE. GRADING NO. 2, FINE AGGREGATE CLASS 1.

**CITY OF ORTING**  
**SIDEWALK W/PLANTER STRIP NOTES**

SCALE: NO SCALE APPROVAL DATE: DRAWING NO. T-3B  
FILE NAME: STD-T-3B

**MINIMUM SIDEWALK WIDTHS**

- SINGLE FAMILY RESIDENTIAL AREAS (DETACHED DWELLINGS)
- MEDIUM AND HIGH DENSITY MULTI-FAMILY RESIDENTIAL AREAS
- INDUSTRIAL AREAS
- COMMERCIAL AREAS, MIXED USE TOWN CENTERS (MUTC)\*

\*MUTC PROPERTIES FRONTING SR-162 SHALL BE REQUIRED TO HAVE 10 FOOT SIDEWALKS UNLESS OTHERWISE NOTED BY PLANNING COMMISSION/CITY ENGINEER.

**NOTES**

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**CITY OF ORTING**  
**SIDEWALK RAMP PLANS & SECTIONS**

SCALE: NO SCALE APPROVAL DATE: DRAWING NO. T-4A  
FILE NAME: STD-T-4A

**NOTES**

- EXPANSION JOINTS SHALL BE 3/8" x 1 1/2" ELASTOMERIC JOINT MATERIAL CONFORMING TO WSDOT 9-04.1(4) PLACED AT 10' OC FOR 5' SIDEWALKS AND 15' OC FOR 8' SIDEWALKS.
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**CITY OF ORTING**  
**SIDEWALK RAMP DETAILS & NOTES**

SCALE: NO SCALE APPROVAL DATE: DRAWING NO. T-4B  
FILE NAME: STD-T-4B

**NOTES**

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETECTABLE WARNING PATTERNS SHALL BE AN ADA COMpliant APPROVED EQUAL. APPROVED EQUAL.
- CURB AND GUTTER SHOWING SEE THE CONTRACT PLANS FOR THE CURB DESIGN SPECIFIED. SEE STD-T-1A FOR CURB DETAILS.
- THE PLAN VIEWS FOR SIDEWALK RAMP TYPES 1B, 1C & 1D ARE INTENDED TO DEFINE EACH RAMP TYPE - SEE STD-T-4A.
- RAMP SLOPES SHALL NOT BE STEEPER THAN 12%.

**DETECTABLE WARNING PATTERNS AREA SHALL BE FOLLOW IN COMPLIANCE WITH STD SPEC 8-14.2(3)**

	MAX
A	1 5/8"
B	5/8"
C	7/16"
D	7/8"

**CITY OF ORTING**  
**MINIMUM SIDEWALK WIDTH AT OBSTRUCTIONS**

SCALE: NO SCALE APPROVAL DATE: DRAWING NO. T-4C  
FILE NAME: STD-T-4C

**NOTES**

- THE CLEARANCE BETWEEN THE FACE OF CURB AND ANY OBSTRUCTION, EXCEPT MAIL BOXES, SHALL BE A MINIMUM OF 1'-6". THE FRONT OF A MAIL BOX SHALL HAVE 1'-0" MINIMUM CLEARANCE FROM FACE OF CURB.
- A MINIMUM CLEAR WIDTH OF 4' SHALL BE PROVIDED FOR CONTINUOUS PASSAGE AROUND THE OBSTRUCTION.

**CITY OF ORTING**  
**LOCATION & WIDTH OF NEW DRIVEWAYS**

SCALE: NO SCALE APPROVAL DATE: DRAWING NO. T-2A  
FILE NAME: STD-T-2A

**NOTES**

- NO PORTION OF ANY DRIVEWAY SHALL ENCROUGH IN CURB RETURN.
- COMMERCIAL/INDUSTRIAL DRIVEWAYS MUST BE APPROVED BY THE ENGINEER, CONSIDERING BOTH TRAFFIC SAFETY AND THE ACTIVITY BEING SERVED. ALL COMMERCIAL/INDUSTRIAL DRIVEWAYS SHALL HAVE AN EXPANSION JOINT LOCATED MID-WIDTH.
- DRIVEWAYS SHALL BE LOCATED AS FAR FROM THE INTERSECTION AS POSSIBLE.

**CITY OF ORTING**  
**CEMENT CONCRETE APPROACH**

SCALE: NO SCALE APPROVAL DATE: DRAWING NO. T-2B  
FILE NAME: STD-T-2B

**NOTES**

- EXPANSION JOINTS SHALL BE PLACED AT 10' SPACING. ELASTOMERIC JOINT MATERIAL SHALL BE IN CONFORMANCE TO SECTION 9-04.1 (4) OF THE WSDOT STANDARD SPECIFICATIONS.
- JOINTS SHALL BE STEEL TROWELED FOR FINISH.
- BROOM FINISH SHALL BE PARALLEL TO ROADWAY IN DRIVEWAY ONLY (PERPENDICULAR IN SIDEWALKS).
- APPROACHES TO EXISTING DRIVEWAYS THAT ARE IN USE BY HOME OWNERS, REQUIRE A 48 HOUR CONCRETE STRENGTH TIME LIMIT SO THAT DRIVEWAYS CAN BE PUT BACK INTO SERVICE.
- DRIVEWAYS TO DEVELOPED LOTS SHALL NOT BE BLOCKED FOR MORE THAN 4 HOURS. CONTRACTOR SHALL PROVIDE IMMEDIATE TEMPORARY ACCESS FOR DEVELOPED LOTS WHEN SO DIRECTED BY THE ENGINEER.

DATE BY

REV NO	REVISION DESCRIPTION	DATE	BY

**Apex Engineering**  
2601 South 35th, Suite 200  
Lake Tapps, WA 98591  
Tel: 425-4494 FAX: (253) 473-0599

**BRIDGEWATER PUBLIC ROAD AND STORM DETAILS**

**BRIDGEWATER 801 LLC**  
3106-A SUMNER-TAPPS HWY E  
LAKE TAPPS, WA 98591  
ATTN: MR. ERIC CORLISS

**CLIENT**

**TITLE**

DATE SEALED 9-14-21

**PROJECT MANAGER**  
CMH

**DESIGN** CLJ  
**DRAWN** JFE/MSA  
**CHECKED** KAS  
**SEC** 31 T 19 N R 05 E  
**FILE NO** L/33008/WORK  
**DATE** 02/10/20  
**SCALE** AS SHOWN

**SHEET 14 OF 23**  
**FILE NO** 33008  
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# BRIDGEWATER

## PUBLIC ROAD AND STORM DETAILS

A PORTION OF THE SE 1/4 OF THE NE 1/4 SECTION 31, TOWNSHIP 19 N, RANGE 05 E, W.M.  
CITY OF ORTING, PIERCE COUNTY, WASHINGTON

**CITY OF ORTING**  
**APPROVED FOR CONSTRUCTION**

1/13/22  
DATE

1/12/22  
DATE

CITY ADMINISTRATOR  
CITY ENGINEER

REV NO	REVISION DESCRIPTION	DATE BY

**CITY OF ORTING**

**PUBLIC & PRIVATE ALLEY CROSS SECTION**

SCALE: NO SCALE    APPROVAL DATE:    DRAWING NO. T-5C  
FILE NAME: STD-T-5C

**CITY OF ORTING**

**POURED IN PLACE MONUMENT**

SCALE: NO SCALE    APPROVAL DATE:    DRAWING NO. T-6A  
FILE NAME: STD-T-6A

**CITY OF ORTING**

**MONUMENT FRAME AND COVER**

SCALE: NO SCALE    APPROVAL DATE:    DRAWING NO. T-6B  
FILE NAME: STD-T-6B

**CITY OF ORTING**

**GRAVEL ACCESS ROAD DETAIL**

**Series RF-DBO Rubber Flex Duckbill Check Valves Slip-Over Style**

**CLA-VAL CHECK VALVE**

Size	1/2"	3/4"	1"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	28"	30"	36"	42"																
FF	2	1/2	3	3	1/4	4	1/2	5	3/4	7	1/2	9	12	13	15	17	18	24	26	1/2	28	31	32	41	44	46	58	61										
C	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1										
W	1	1 1/2	2	1/8	2	5/8	3	7/8	4	5/8	5	1/2	7	3/8	8	3/4	10	1/2	13	3/4	17	19	5/8	24	3/4	26	1/2	29	3/4	31	1/2	43	46	49	55	1/4	66	1/4
WL	25	.75	1.5	4	5	8	11	14	16	20	24	36	56	72	118	195	299	380	451	523	621	802																

**CITY OF ORTING**

**PAVEMENT REPLACEMENT**

SCALE: NO SCALE    APPROVAL DATE:    DRAWING NO. T-11A  
FILE NAME: STD-T-11A

**CITY OF ORTING**

**ASPHALT PAVEMENT REPLACEMENT**

SCALE: NO SCALE    APPROVAL DATE:    DRAWING NO. T-11D  
FILE NAME: STD-T-11D

**CITY OF ORTING**

**CATCH BASIN TYPE 1**

SCALE: NO SCALE    APPROVAL DATE:    DRAWING NO. D-2A  
FILE NAME: STD-D-2A

**CITY OF ORTING**

**CATCH BASIN TYPE 1 PLACEMENT**

SCALE: NO SCALE    APPROVAL DATE:    DRAWING NO. D-2B  
FILE NAME: STD-D-2B

**Apex Engineering**

2601 South 35th, Suite 200  
Tacoma, Washington 98409-7479  
(253) 473-4484 FAX: (253) 473-0599

**BRIDGEWATER**  
PUBLIC ROAD AND STORM  
DETAILS

**BRIDGEWATER 801 LLC**  
3106-A SUMNER-TAPPERS HWY E  
LAKE TAPPERS, WA 98391  
ATTN: MR. ERIC CORLESS

**TITLE**

**CLIENT**

DATE SEALED: 9-14-21

**PROJECT MANAGER**  
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**CHECKED** KAS  
SEC 31 T 19 N R 05 E  
FILE NO: E/33008/WORK  
DATE: 02/10/20  
SCALE: AS SHOWN

**SHEET 15 OF 23**  
FILE NO: 33008  
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# BRIDGEWATER PUBLIC ROAD AND STORM DETAILS

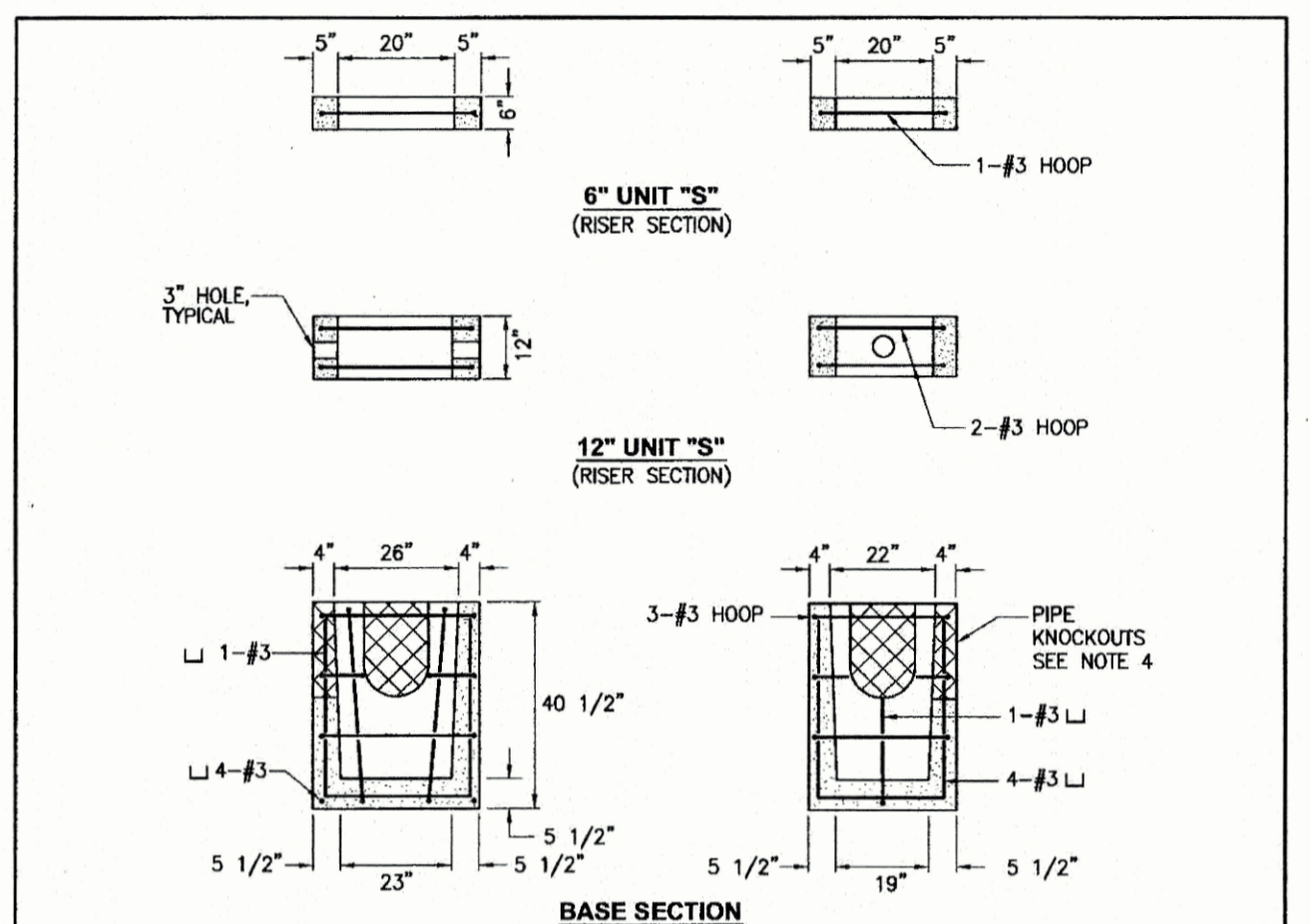
A PORTION OF THE SE 1/4 OF THE NE 1/4 SECTION 31, TOWNSHIP 19 N, RANGE 05 E, W.M.  
CITY OF ORTING, PIERCE COUNTY, WASHINGTON

**CITY OF ORTING  
APPROVED FOR CONSTRUCTION**

CITY ADMINISTRATOR	1/13/22 DATE
CITY ENGINEER	1/12/22 DATE

REV NO	REVISION DESCRIPTION	DATE BY

**Apex Engineering**  
2601 South 35th, Suite 200  
Tacoma, Washington 98409-7479  
(253) 473-4494 FAX: (253) 473-0599

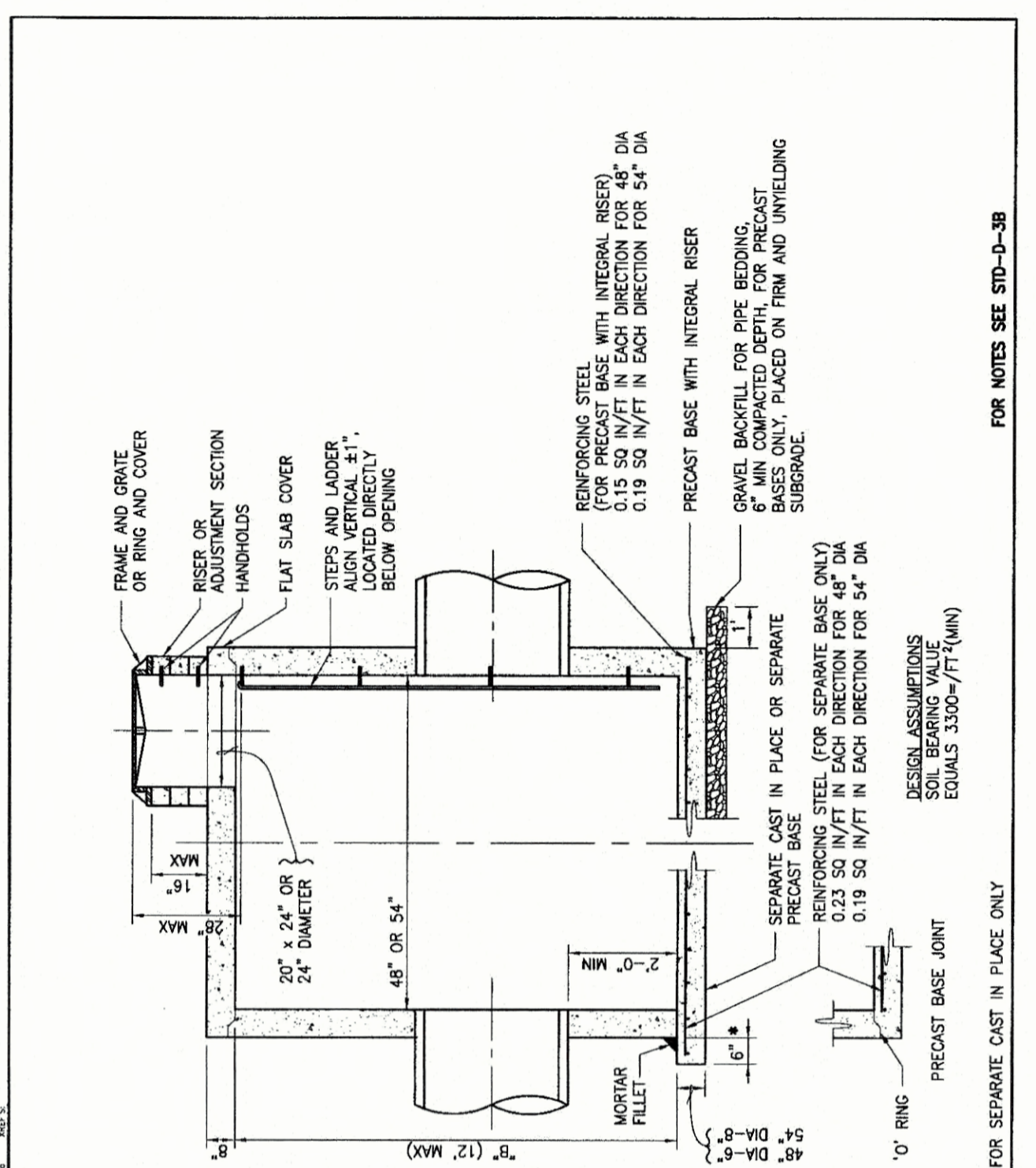


- NOTES:**
- MAXIMUM LENGTH OF PIPE BETWEEN CATCH BASINS SHALL BE 400'.
  - MAXIMUM GUTTER LINE FLOW LENGTH SHALL BE 300'.
  - TYPE I CATCH BASIN IS USED FOR DEPTHS LESS THAN 5'-0" FROM TOP OF GRATE TO IE (PIPE INVERT).
  - PRECAST BASE SECTION SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM. KNOCKOUTS SHALL BE ON 4 SIDES WITH A MAXIMUM DIAMETER OF 20" TO PROVIDE FOR A MINIMUM SLUMP DEPTH OF 18".
  - REINFORCING BARS SHALL BE CUT OR BENT AS REQUIRED TO CLEAR CUTOUTS.
  - THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION SHALL NOT EXCEED 1/2" PER FOOT.
  - CATCH BASIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C 478 (ASHTO M 199) AND ASTM C 890 UNLESS OTHERWISE NOTED.
  - ALL SECTIONS AND JOINTS SHALL BE SEALED WITH NON-SHRINK GROUT.
  - STENCIL REQUIRED "DUMP NO WASTE - DRAINS TO WETLANDS OR STREAMS".

**CITY OF ORTING**

**CATCH BASIN  
TYPE 1 PLACEMENT**

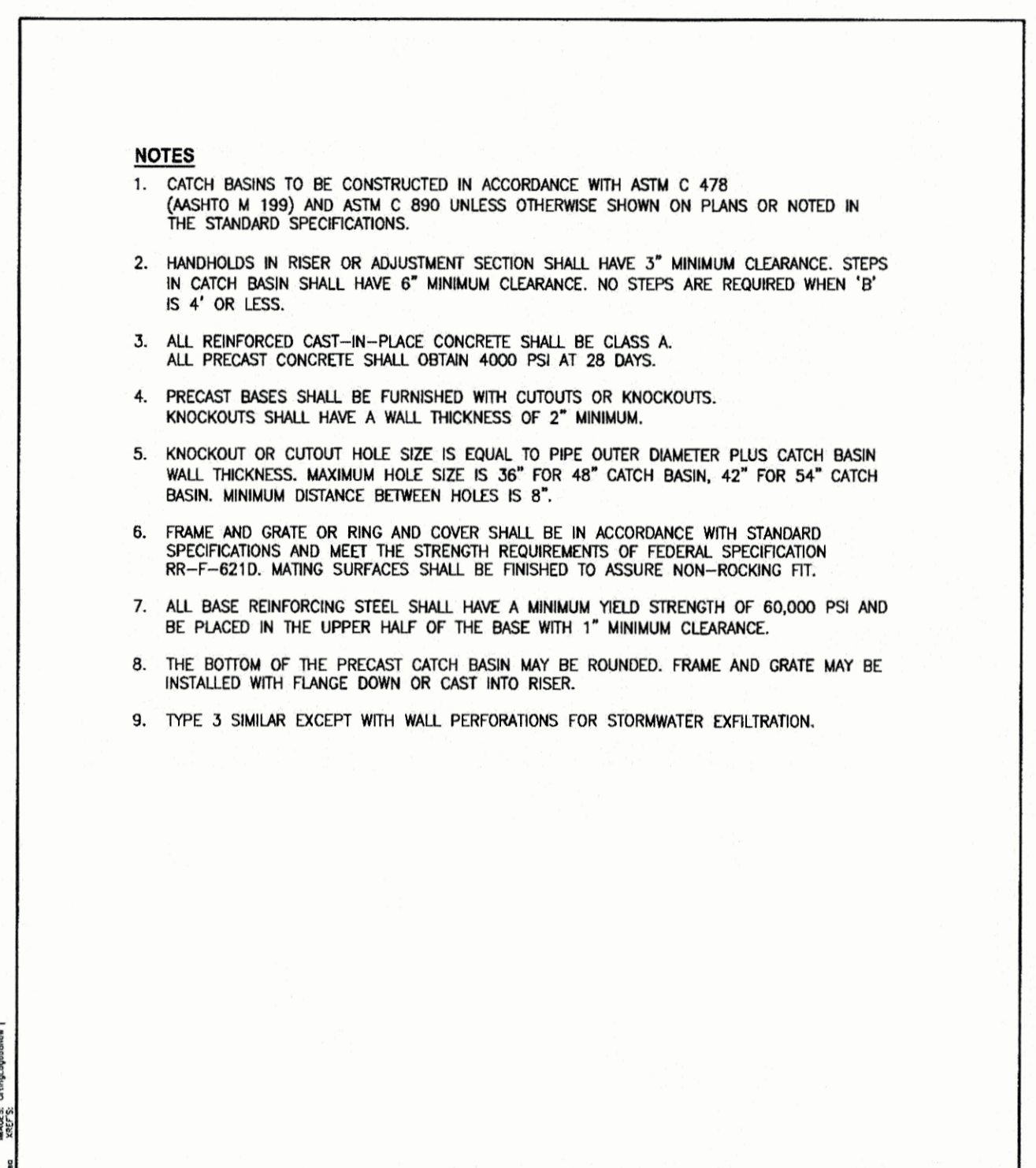
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FILE NAME: STD-D-2C		



**CITY OF ORTING**

**CATCH BASIN  
TYPE 2**

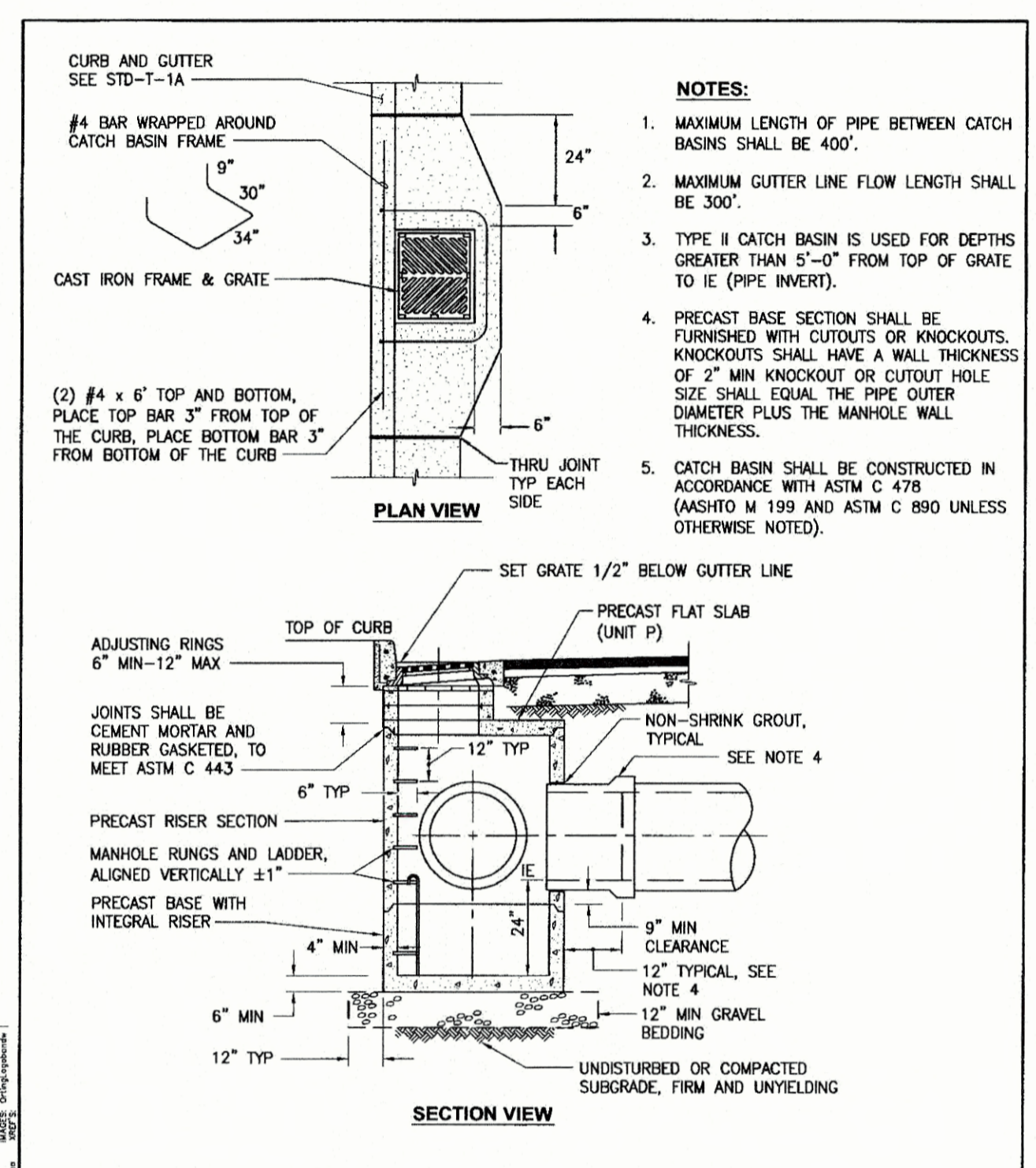
SCALE: NO SCALE	APPROVAL DATE:	DRAWING NO. D-3A
FILE NAME: STD-D-3A		



**CITY OF ORTING**

**CATCH BASIN  
TYPE 2 NOTES**

SCALE: NO SCALE	APPROVAL DATE:	DRAWING NO. D-3B
FILE NAME: STD-D-3B		



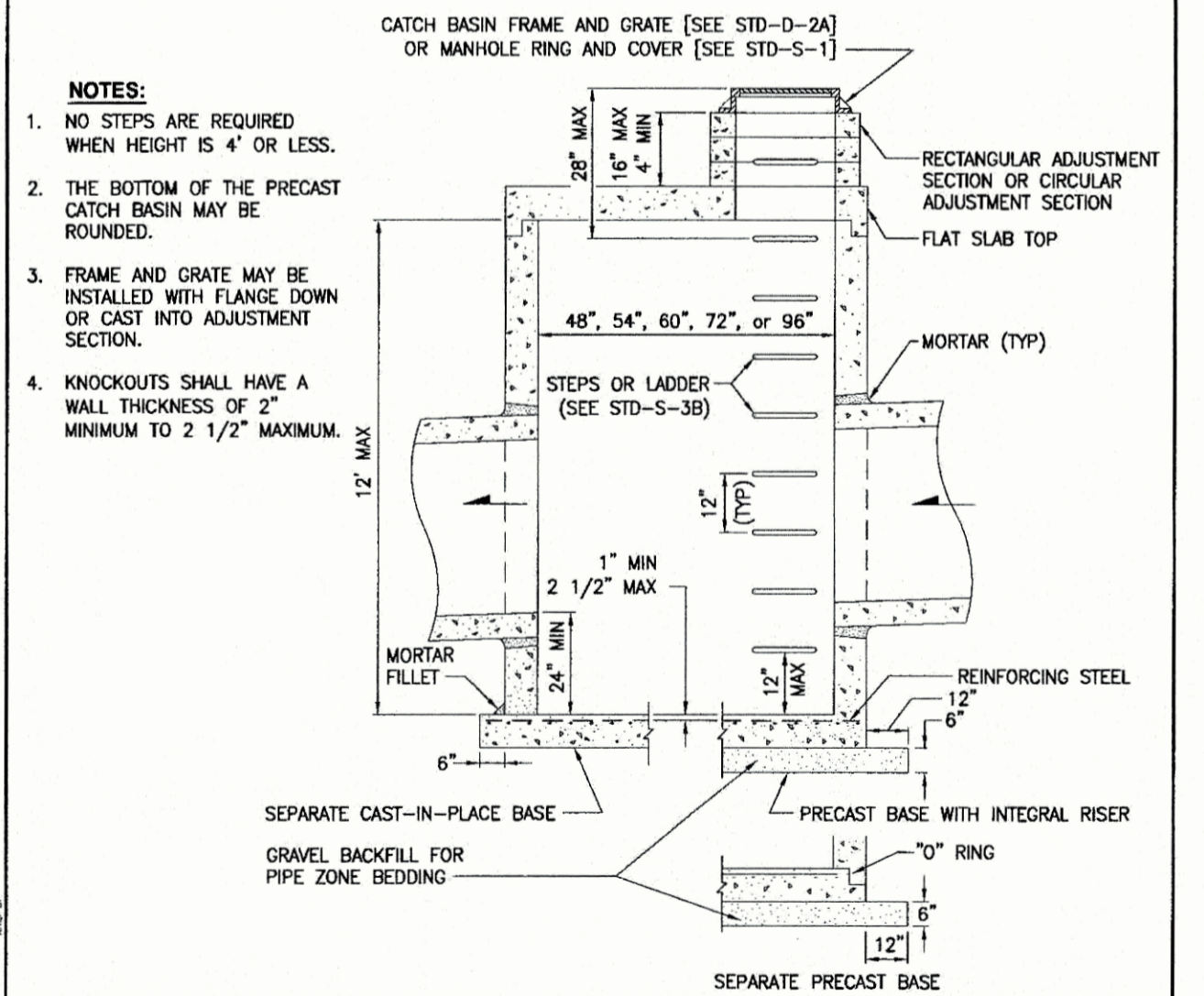
**CITY OF ORTING**

**CATCH BASIN  
TYPE 2 PLACEMENT**

SCALE: NO SCALE	APPROVAL DATE:	DRAWING NO. D-3C
FILE NAME: STD-D-3C		

**CATCH BASIN DIMENSION TABLE**

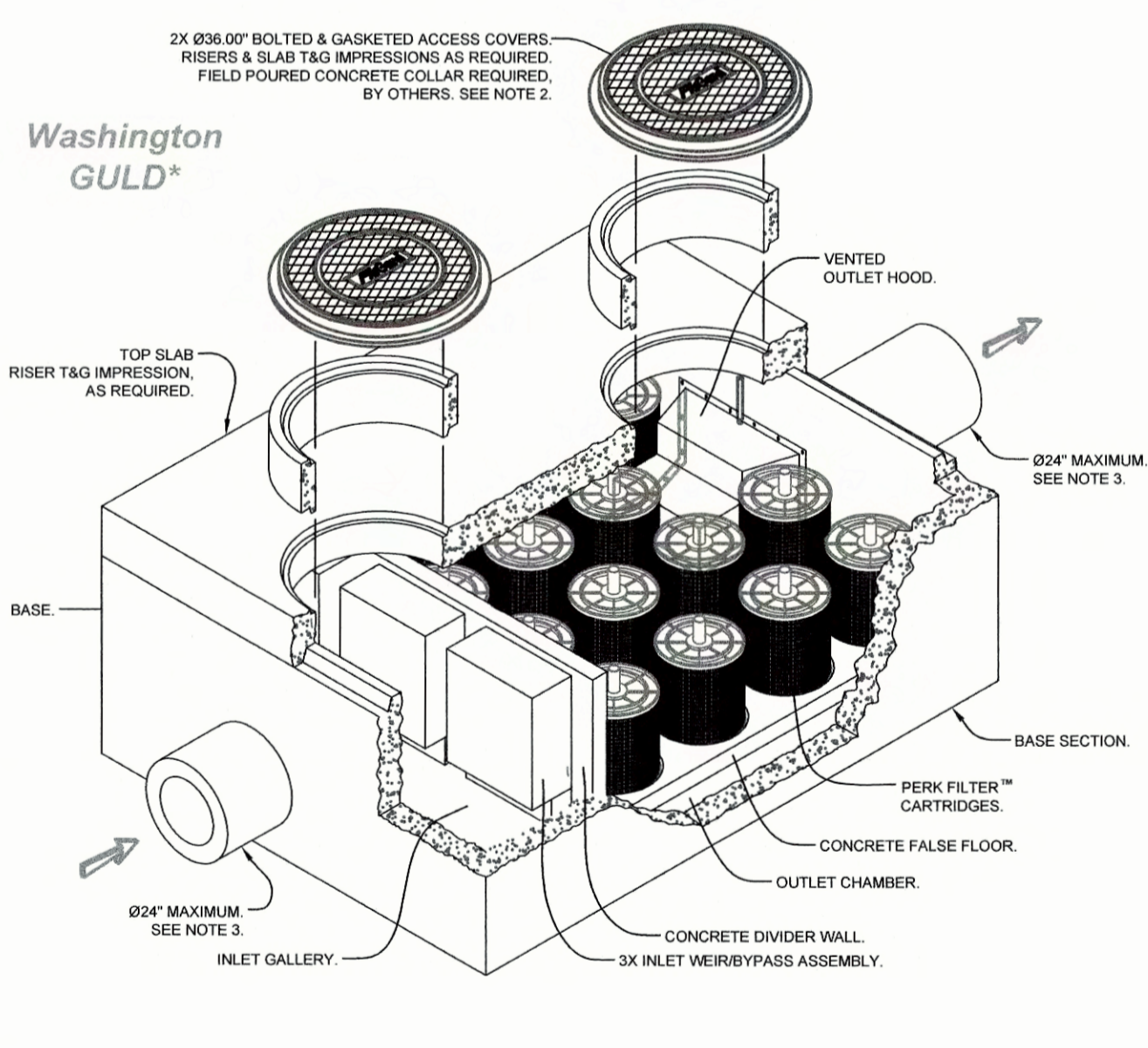
DIA	WALL THICKNESS	BASE THICKNESS	MAXIMUM KNOCKOUT SIZE	MINIMUM DISTANCE BETWEEN KNOCKOUTS	BASE REINFORCING STEEL in 2'/ft IN EACH DIRECTION	
					INTEGRAL BASE	SEPARATE BASE
48"	4"	6"	36"	8"	0.15	0.23
54"	4 1/2"	8"	42"	8"	0.19	0.19
60"	5"	8"	48"	8"	0.25	0.25
72"	6"	8"	60"	12"	0.24	0.35
96"	8"	12"	84"	12"	0.29	0.39



**CITY OF ORTING**

**CATCH BASIN  
TYPE 2**

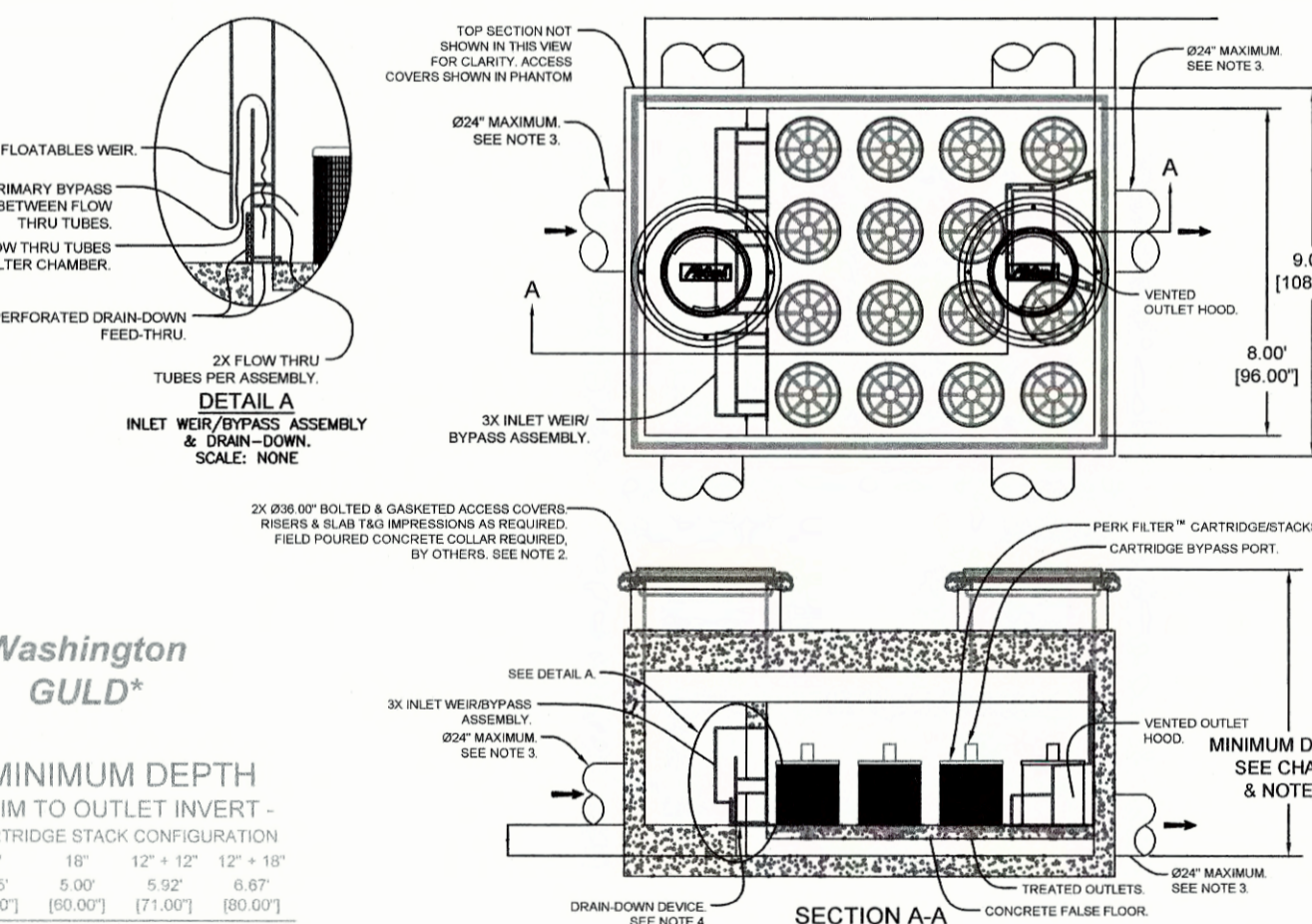
SCALE: NO SCALE	APPROVAL DATE:	DRAWING NO. D-3D
FILE NAME: STD-D-3D		



- Pre-cast concrete structure shall be manufactured in accordance with ASTM Designation C857 and C858.
  - Filter strip shall be supplied with traffic rated (H20) bolted & gasketed 236" circular access covers with risers as required. Shall applications may require configurations with (H20) bolted & gasketed square/rectangular access hatches. Field poured concrete collars required, by others.
  - Inlet & outlet pipe(s) (Ø 24" maximum) may enter device on all three sides of the inlet & outlet chambers respectively.
  - Inlet chamber shall be supplied with a drain-down device designed to remove standing water between storm events.
  - For depths less than specified minimums contact Oldcastle® Stormwater Solutions for engineering assistance.
- \* Treatment Flow Rates shown conform to Washington State GULD Specifications

**Perk Filter™**  
8" Wide Concrete Vault  
Washington State GULD  
Six to Thirty One Cartridges / Stacks

**Oldcastle®**  
Stormwater Solutions  
7921 Souppark Plaza, Suite 200 | Littleton, CO | 80120 | PH: 800.579.8819 | oldcastlestormwater.com  
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DRAWING NO. PF-V-8-WA-0001 E REV: 02/10/2014 DATE: APR 30/21 SHEET 1 OF 2



**Washington GULD®**

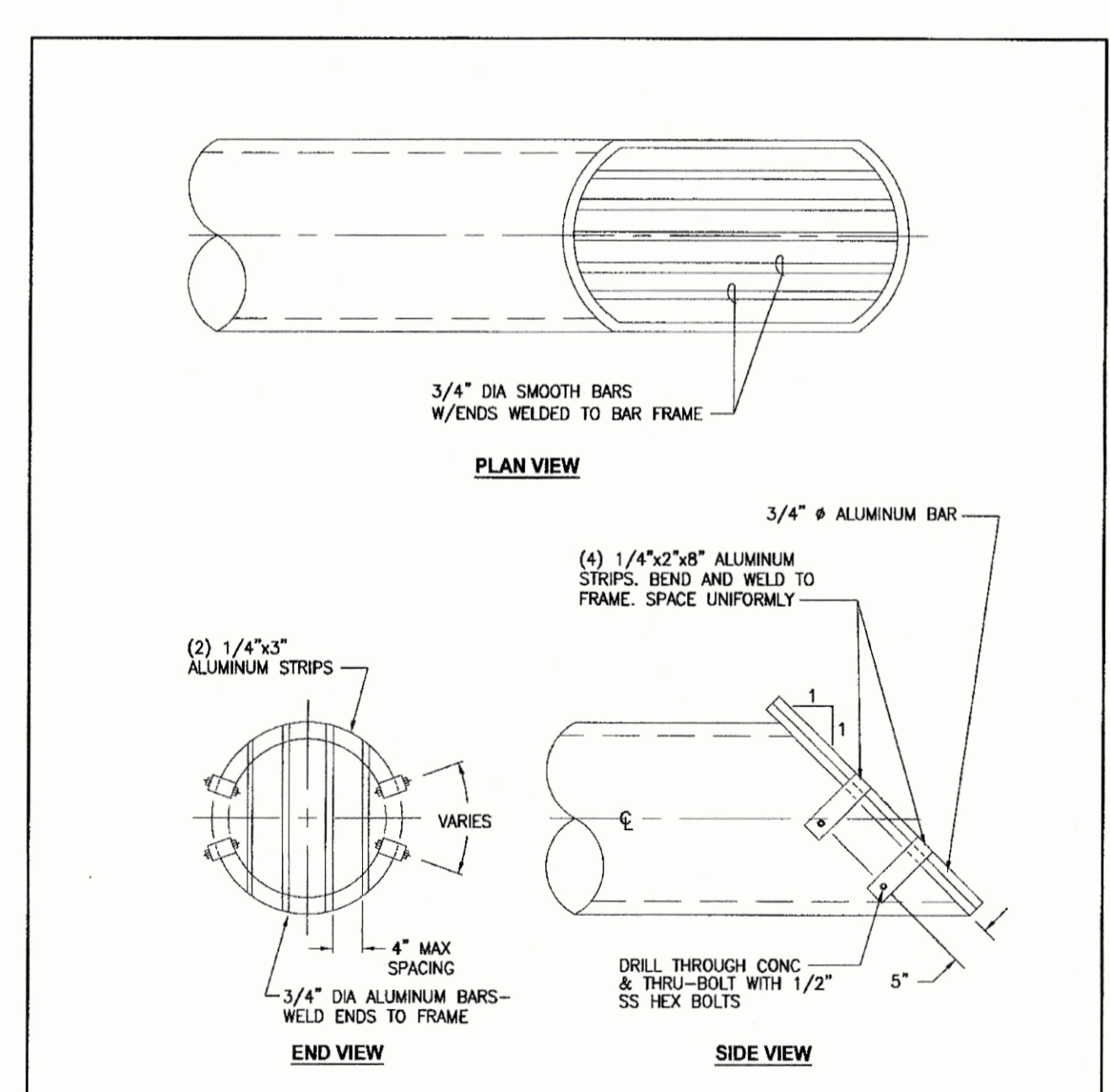
MINIMUM DEPTH - RIM TO OUTLET INVERT - CARTRIDGE STACK CONFIGURATION

CARTRIDGE STACK QUANTITY	LENGTH (IN FEET)	12" x 12"		12" x 18"		18" x 18"	
		INVERT	OUTLET	INVERT	OUTLET	INVERT	OUTLET
6	48.0	0.00	0.00	0.00	0.00	0.00	0.00
7	42.0	0.00	0.00	0.00	0.00	0.00	0.00
8	36.0	0.00	0.00	0.00	0.00	0.00	0.00
9	30.0	0.00	0.00	0.00	0.00	0.00	0.00
10	24.0	0.00	0.00	0.00	0.00	0.00	0.00
11	18.0	0.00	0.00	0.00	0.00	0.00	0.00
12	12.0	0.00	0.00	0.00	0.00	0.00	0.00
13	6.0	0.00	0.00	0.00	0.00	0.00	0.00
14	0.0	0.00	0.00	0.00	0.00	0.00	0.00
15	0.0	0.00	0.00	0.00	0.00	0.00	0.00
16	0.0	0.00	0.00	0.00	0.00	0.00	0.00
17	0.0	0.00	0.00	0.00	0.00	0.00	0.00
18	0.0	0.00	0.00	0.00	0.00	0.00	0.00
19	0.0	0.00	0.00	0.00	0.00	0.00	0.00
20	0.0	0.00	0.00	0.00	0.00	0.00	0.00
21	0.0	0.00	0.00	0.00	0.00	0.00	0.00
22	0.0	0.00	0.00	0.00	0.00	0.00	0.00
23	0.0	0.00	0.00	0.00	0.00	0.00	0.00
24	0.0	0.00	0.00	0.00	0.00	0.00	0.00
25	0.0	0.00	0.00	0.00	0.00	0.00	0.00
26	0.0	0.00	0.00	0.00	0.00	0.00	0.00
27	0.0	0.00	0.00	0.00	0.00	0.00	0.00
28	0.0	0.00	0.00	0.00	0.00	0.00	0.00
29	0.0	0.00	0.00	0.00	0.00	0.00	0.00
30	0.0	0.00	0.00	0.00	0.00	0.00	0.00
31	0.0	0.00	0.00	0.00	0.00	0.00	0.00

MAXIMUM HEAD LOSS: 1.7 FEET (2.8 FEET) 3.5 FEET  
\* Treatment Flow Rates shown conform to Washington State GULD Specifications.

**Perk Filter™**  
8" Wide Concrete Vault  
Washington State GULD  
Six to Thirty One Cartridges / Stacks

**Oldcastle®**  
Stormwater Solutions  
7921 Souppark Plaza, Suite 200 | Littleton, CO | 80120 | PH: 800.579.8819 | oldcastlestormwater.com  
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DRAWING NO. PF-V-8-WA-0001 E REV: 02/10/2014 DATE: APR 30/21 SHEET 2 OF 2



**CITY OF ORTING**

**TRASH RACK**

SCALE: NO SCALE	APPROVAL DATE:	DRAWING NO. D-6
FILE NAME: STD-D-6		

**BRIDGEWATER  
PUBLIC ROAD AND STORM  
DETAILS**

**BRIDGEWATER 801 LLC**  
306-A SUMNER-TAPPS HWY E  
LAKE TAPPS, WA 98891  
ATTN: MR. ERIC CORLISS

**TITLE**

**CLIENT**

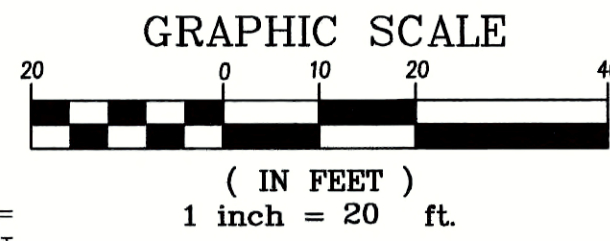
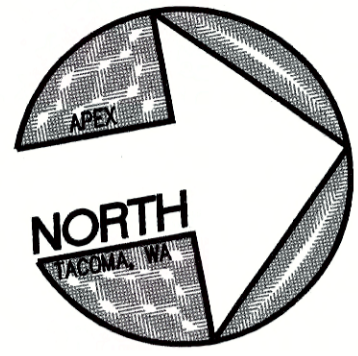
DATE SEALED 9-21-21

**PROFESSIONAL ENGINEER**

**PROJECT MANAGER**  
CMH

**DESIGN** CLJ  
**DRAWN** JFE/MSA  
**CHECKED** KAS  
**SEC 31** T 19 N R 05 E  
**FILE NO** 1/33008/WORK  
**DATE** 02/10/20  
**SCALE** AS SHOWN

**SHEET 16 OF 23**  
**FILE NO** 33008  
© APEX ENGINEERING LLC 2021



# BRIDGEWATER

## PUBLIC SANITARY AND WATER PLAN AND PROFILE - STA 9+60 TO 14+25

A PORTION OF THE SE 1/4 OF THE NE 1/4 SECTION 31, TOWNSHIP 19 N, RANGE 05 E, W.M.  
CITY OF ORTING, PIERCE COUNTY, WASHINGTON

**CITY OF ORTING**  
**APPROVED FOR CONSTRUCTION**

\_\_\_\_\_  
CITY ADMINISTRATOR DATE 1/13/22

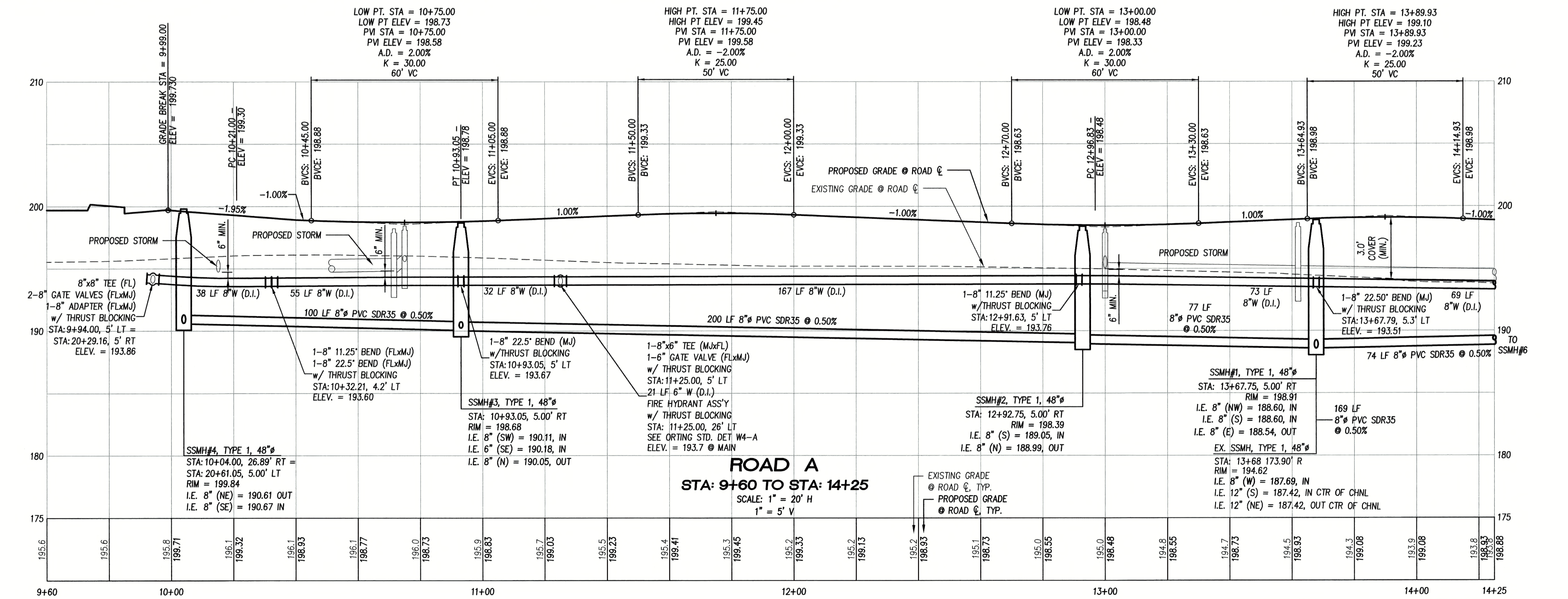
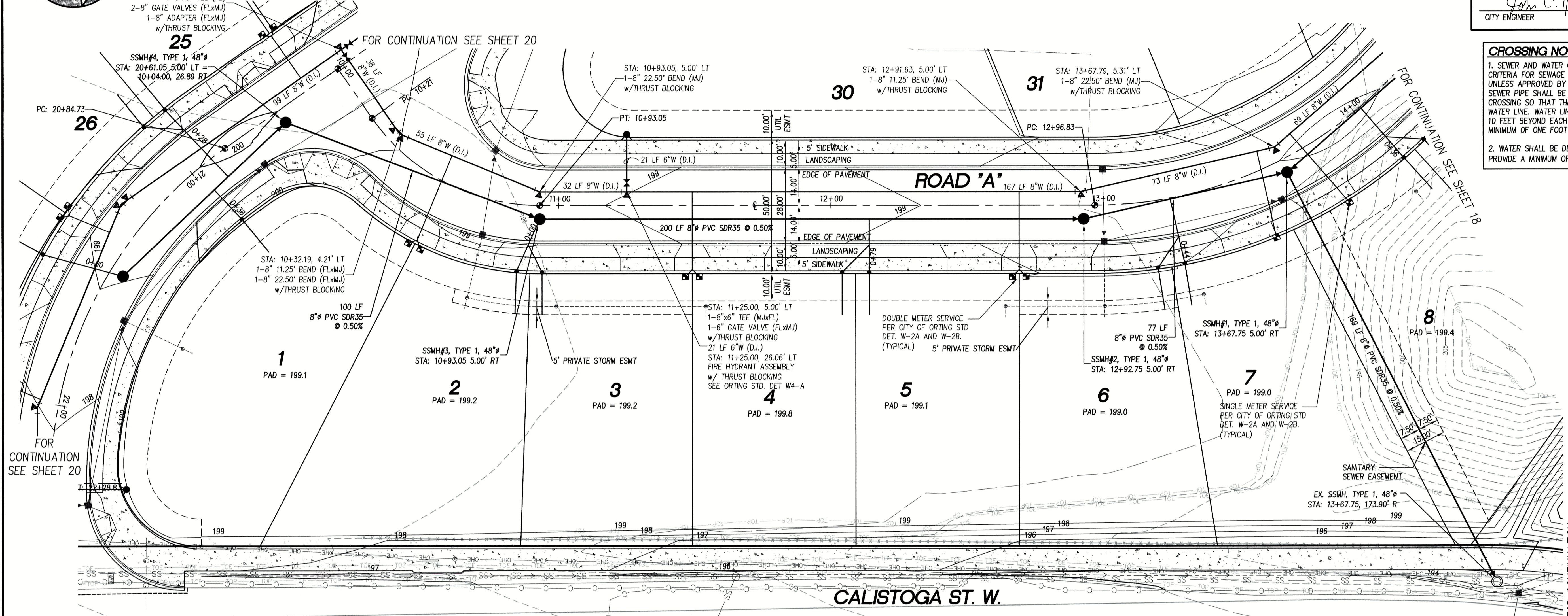
\_\_\_\_\_  
CITY ENGINEER DATE 1/12/22

**CROSSING NOTES:**

- SEWER AND WATER CROSSINGS SHALL MEET THE 2008 CRITERIA FOR SEWAGE WORKS DESIGN, SECTION C1-9.1.4. UNLESS APPROVED BY CITY OF ORTING. THE LENGTH OF SEWER PIPE SHALL BE CENTERED AT THE POINT OF CROSSING SO THAT THE JOINTS ARE EQUIDISTANT FROM THE WATER LINE. WATER LINE SHALL BE ENCASED IN CONCRETE 10 FEET BEYOND EACH SIDE OF THE CROSSING AND A MINIMUM OF ONE FOOT EACH SIDE OF THE PIPE.
- WATER SHALL BE DEFLECTED AT STORM CROSSINGS TO PROVIDE A MINIMUM OF 6" OF SEPARATION.

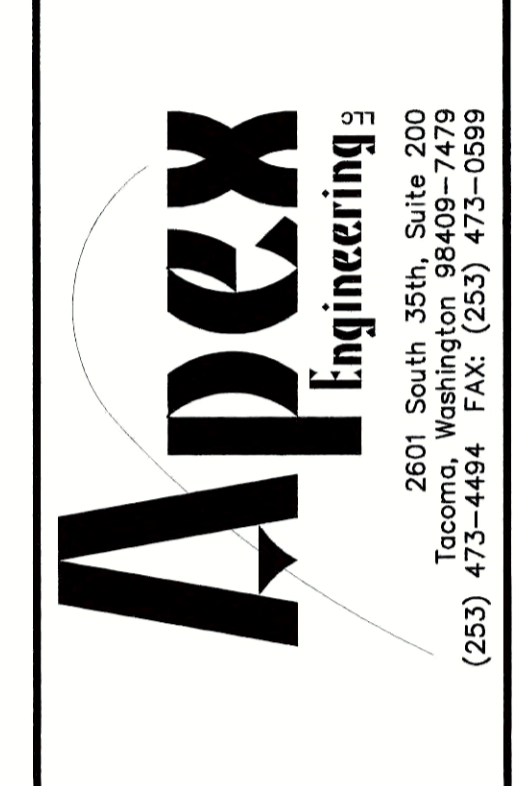
**SANITARY SEWER CLEANOUT TABLE**  
I.E. @ CLEANOUT  
LOT NO. (PAD - 5 FT.)

1	194.10
2	194.20
3	194.20
4	194.80
5	194.10
6	194.00
7	194.00



REVISION DESCRIPTION

REV. NO.	DESCRIPTION



**BRIDGEWATER**  
PUBLIC SANITARY AND WATER  
PLAN AND PROFILE  
STA 9+60 TO STA 14+25

**BRIDGEWATER 801 LLC**  
3106-A SUMNER-TAPPS HWY E  
LAKE TAPPS, WA 98391  
ATTN: MR. ERIC CORLIUS



- NOTES:**
- SIDE SEWER STUBS SHALL BE SIX INCHES IN SIZE AND SHALL BE A MINIMUM OF FIVE FEET DEEP AT THE END OF THE SIDE SEWER ALIGNMENT SHOWN. SIDE SEWERS SHALL BE MARKED WITH A 2 X 4 STAKE AS SHOWN ON THE CITY OF ORTING STD DETAILS.
  - SANITARY SEWER PIPE LENGTHS AND PIPE SLOPES ARE CALCULATED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE. 0.06 FT DROP INLET IN TO INLET OUT ACROSS THE MANHOLE IS APPLIED.
  - MINIMUM SLOPE OF SIDE SEWER SHALL BE 2%.
  - STATIONING AND OFFSETS TO STRUCTURES SHALL BE TO CENTER OF STRUCTURE.
  - ALL NEW TYPE 1 MANHOLES TO HAVE WATERTIGHT LOCKING LIDS.
  - SIDE SEWERS SHALL EXTEND BEYOND CLEANOUT LOCATION SHOWN ON THE CITY OF ORTING STD DETAIL TO A POINT 5 FT PAST THE DRY UTILITIES EASEMENT AS SHOWN HEREON MAINTAINING A 2% MIN. SLOPE.
  - SIDE SEWER MATERIAL TO BE PVC SDR 35.
  - ALL WATERMAIN JOINTS SHALL BE MECHANICALLY RESTRAINED WITH METALUG OR APPROVED EQUAL.
  - ALL WATERMANS SHALL BE DISINFECTED AND BACTERIOLOGICALLY TESTED PER WSDOT STANDARD 7-09.3(24).

TITLE

DATE SEALED 9-14-21

PROJECT MANAGER

DESIGN CLJ

DRAWN JRE/MSA

CHECKED KAB

SEC 31 T 19 N R 05 E

FILE NO L33008/MSR

DATE 02/10/20

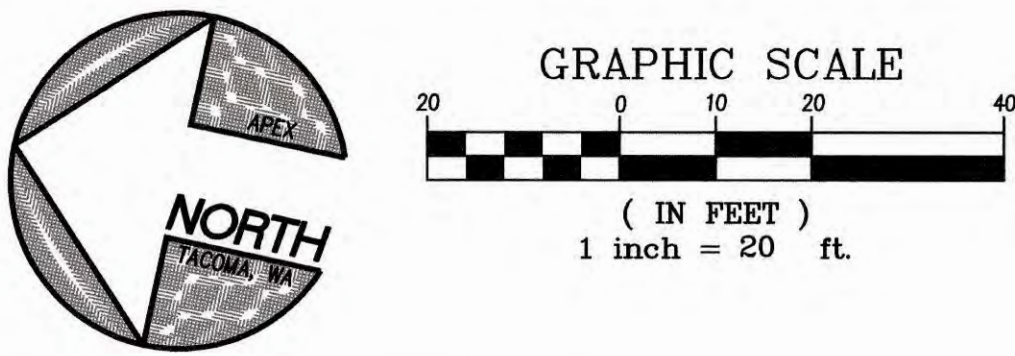
SCALE 1"=20'

**SHEET 17 OF 23**

FILE NO 33008

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# BRIDGEWATER

## PUBLIC SANITARY AND WATER PLAN AND PROFILE - STA 16+00 TO 19+00

A PORTION OF THE SE 1/4 OF THE NE 1/4 SECTION 31, TOWNSHIP 19 N., RANGE 05 E., W.M.  
CITY OF ORTING, PIERCE COUNTY, WASHINGTON

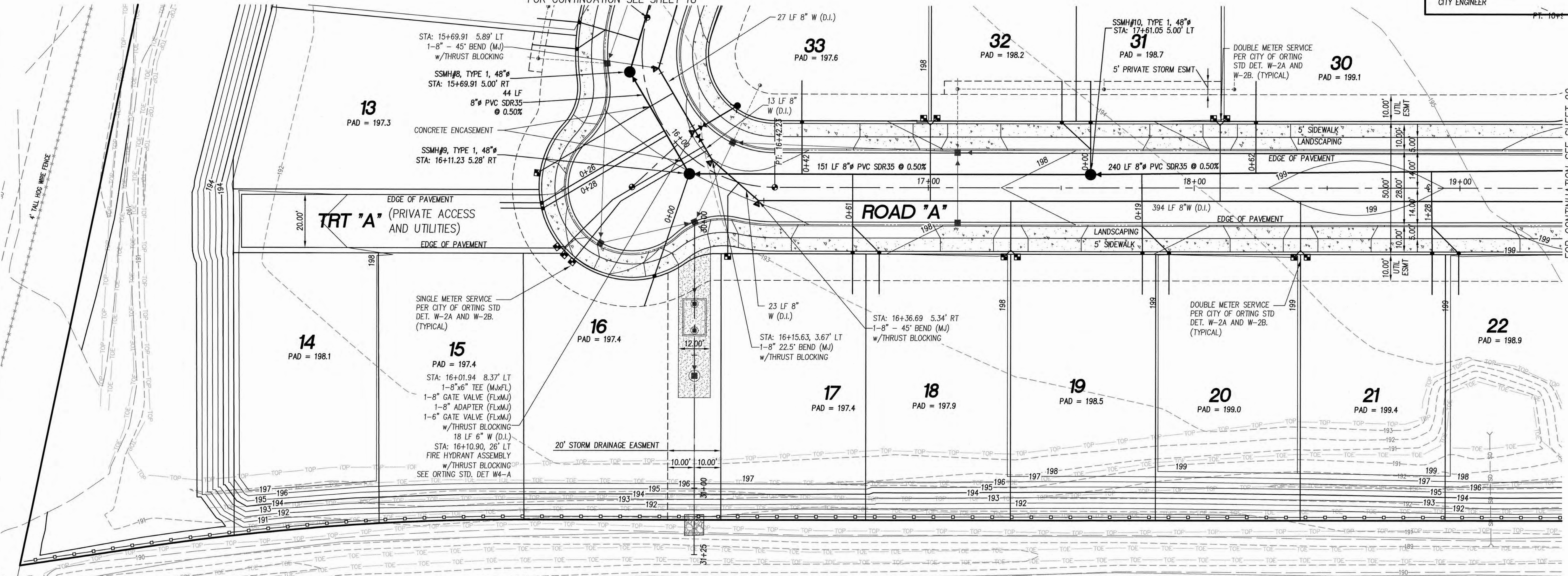
**CITY OF ORTING**  
**APPROVED FOR CONSTRUCTION**

1/13/22  
DATE

John C. [Signature]  
CITY ADMINISTRATOR

1/12/22  
DATE

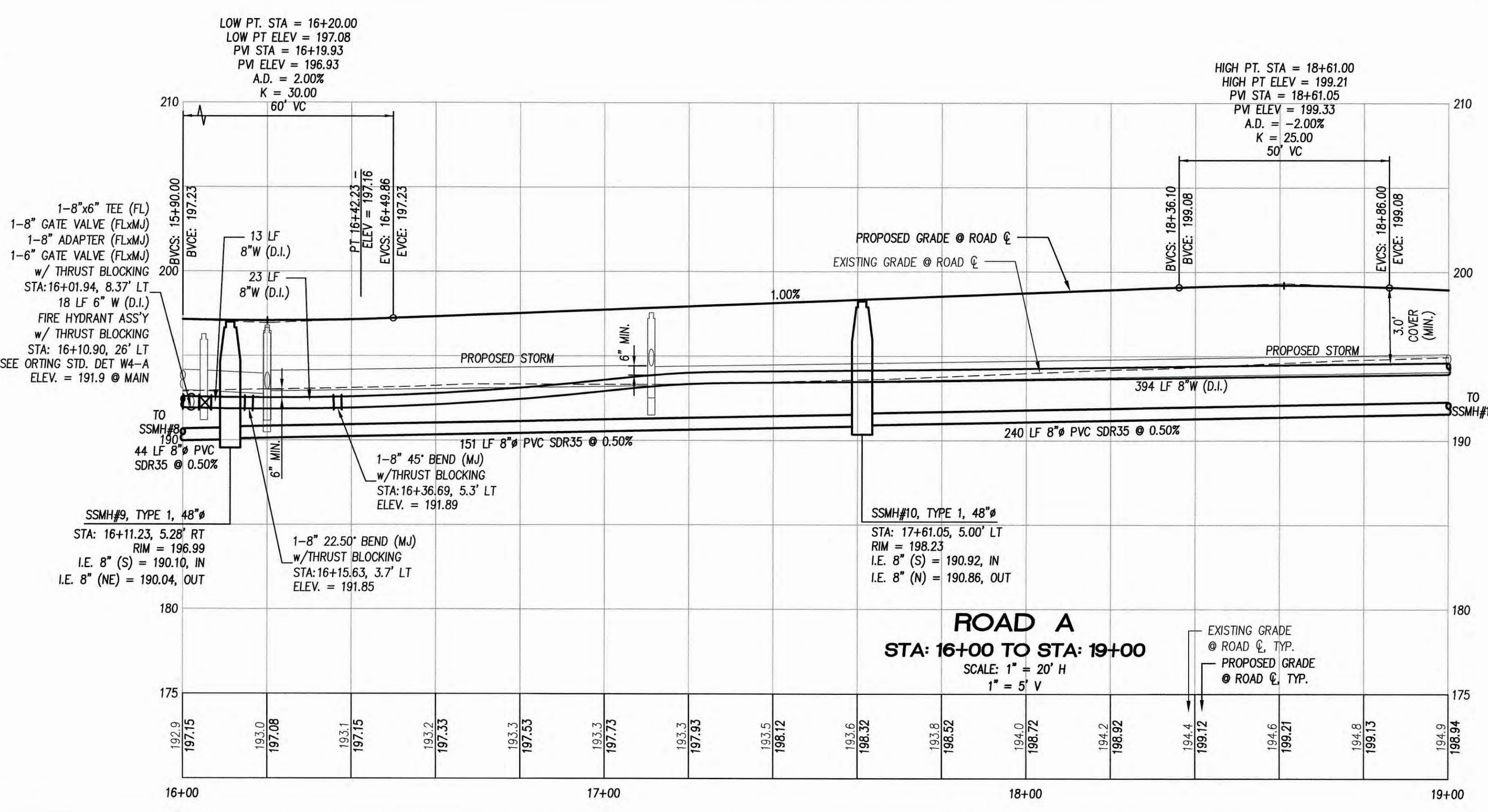
John C. [Signature]  
CITY ENGINEER



- NOTES:**
- SIDE SEWER STUBS SHALL BE SIX INCHES IN SIZE AND SHALL BE A MINIMUM OF FIVE FEET DEEP AT THE END OF THE SIDE SEWER ALIGNMENT SHOWN. SIDE SEWERS SHALL BE MARKED WITH A 2 X 4 STAKE AS SHOWN ON THE CITY OF ORTING STD DETAILS.
  - SANITARY SEWER PIPE LENGTHS AND PIPE SLOPES ARE CALCULATED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE. 0.06 FT DROP INLET IN TO INLET OUT ACROSS THE MANHOLE IS APPLIED.
  - MINIMUM SLOPE OF SIDE SEWER SHALL BE 2%.
  - STATIONING AND OFFSETS TO STRUCTURES SHALL BE TO CENTER OF STRUCTURE.
  - ALL NEW TYPE 1 MANHOLES TO HAVE WATERTIGHT LOCKING LIDS.
  - SIDE SEWERS SHALL EXTEND BEYOND CLEANOUT LOCATION SHOWN ON THE CITY OF ORTING STD DETAIL TO A POINT 5 FT PAST THE DRY UTILITIES EASEMENT AS SHOWN HEREON MAINTAINING A 2% MIN. SLOPE.
  - SIDE SEWER MATERIAL TO BE PVC SDR 35.
  - ALL WATERMAIN JOINTS SHALL BE MECHANICALLY RESTRAINED WITH MEGALUG OR APPROVED EQUAL.
  - ALL WATERMANS SHALL BE DISINFECTED AND BACTERIOLOGICALLY TESTED PER WSDOT STANDARD 7-09.3(24).

**SANITARY SEWER CLEANOUT TABLE**  
I.E. @ CLEANOUT  
LOT NO. (PAD - 5FT.)

14	193.10
15	192.40
16	192.40
17	192.40
18	192.90
19	193.50
20	194.00
21	194.40
22	193.90
30	194.10
31	193.70
32	193.20
33	192.60



**CROSSING NOTES:**

- SEWER AND WATER CROSSINGS SHALL MEET THE 2008 CRITERIA FOR SEWAGE WORKS DESIGN, SECTION C1-9.1.4. UNLESS APPROVED BY CITY OF ORTING. THE LENGTH OF SEWER PIPE SHALL BE CENTERED AT THE POINT OF CROSSING SO THAT THE JOINTS ARE EQUIDISTANT FROM THE WATER LINE. WATER LINE SHALL BE ENCASED IN CONCRETE 10 FEET BEYOND EACH SIDE OF THE CROSSING AND A MINIMUM OF ONE FOOT EACH SIDE OF THE PIPE.
- WATER SHALL BE DEFLECTED AT STORM CROSSINGS TO PROVIDE A MINIMUM OF 6" OF SEPARATION.

REV NO	REVISION DESCRIPTION	DATE

Apex

Engineering  
2601 South 35th, Suite 200  
Tacoma, WA 98409  
(253) 473-4494 FAX: (253) 473-0569

BRIDGEWATER  
PUBLIC SANITARY AND WATER  
PLAN AND PROFILE  
STA 16+00 TO 19+00

BRIDGEWATER 801 LLC  
3106-A SUMNER-TAPPS HWY E  
LAKE TAPPS, WA 98391  
ATTN: MR. ERIC CORLISS

TITLE: CLIENT

DATE SEALED: 9-19-21



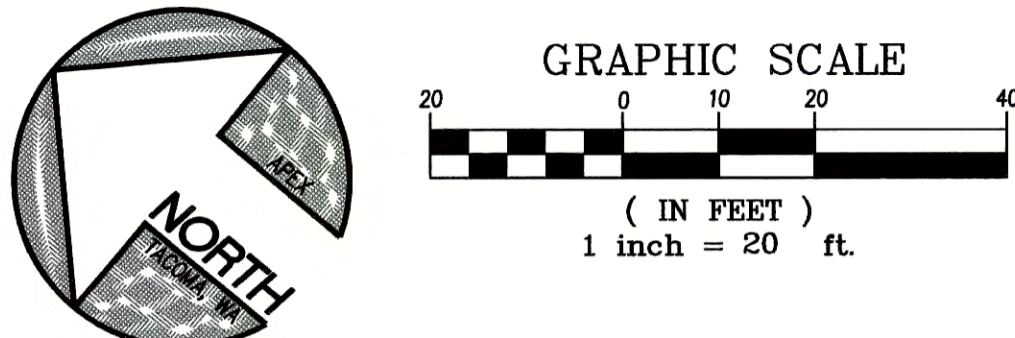
PROJECT MANAGER: CMH

DESIGN: CLJ  
DRAWN: JRE/MSA  
CHECKED: KAB  
SEC 31 T 19 N R 05 E  
FILE NO: L/33008/WORK  
DATE: 02/10/20  
SCALE: 1"=20'



SHEET 19 OF 23  
FILE NO: 33008  
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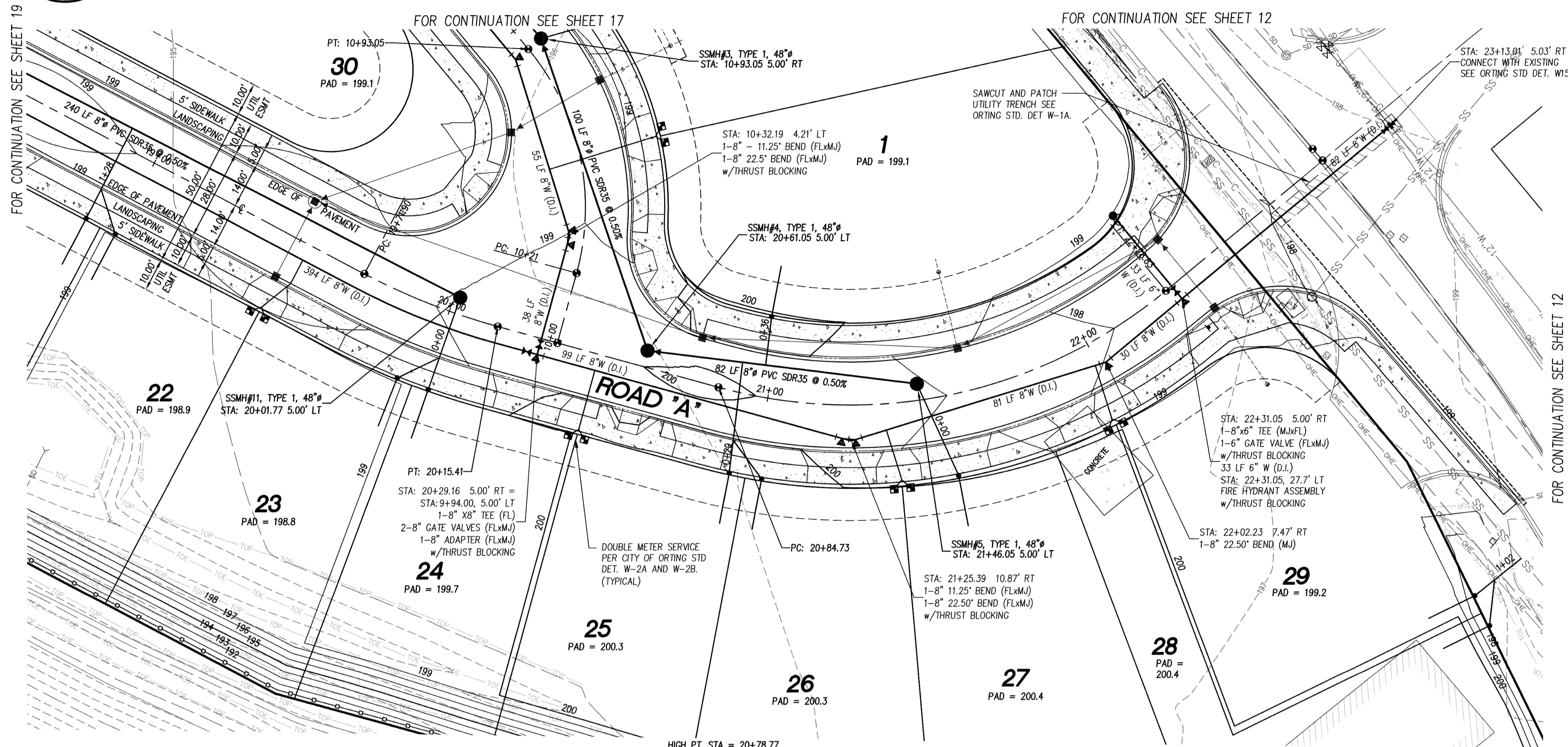
# BRIDGEWATER

## PUBLIC SANITARY AND WATER PLAN AND PROFILE - STA 19+00 TO 23+40

A PORTION OF THE SE 1/4 OF THE NE 1/4 SECTION 31, TOWNSHIP 19 N, RANGE 05 E, W.M.  
CITY OF ORTING, PIERCE COUNTY, WASHINGTON

**CITY OF ORTING**  
**APPROVED FOR CONSTRUCTION**

<i>[Signature]</i> CITY ADMINISTRATOR	1/13/22 DATE
<i>[Signature]</i> CITY ENGINEER	1/12/22 DATE

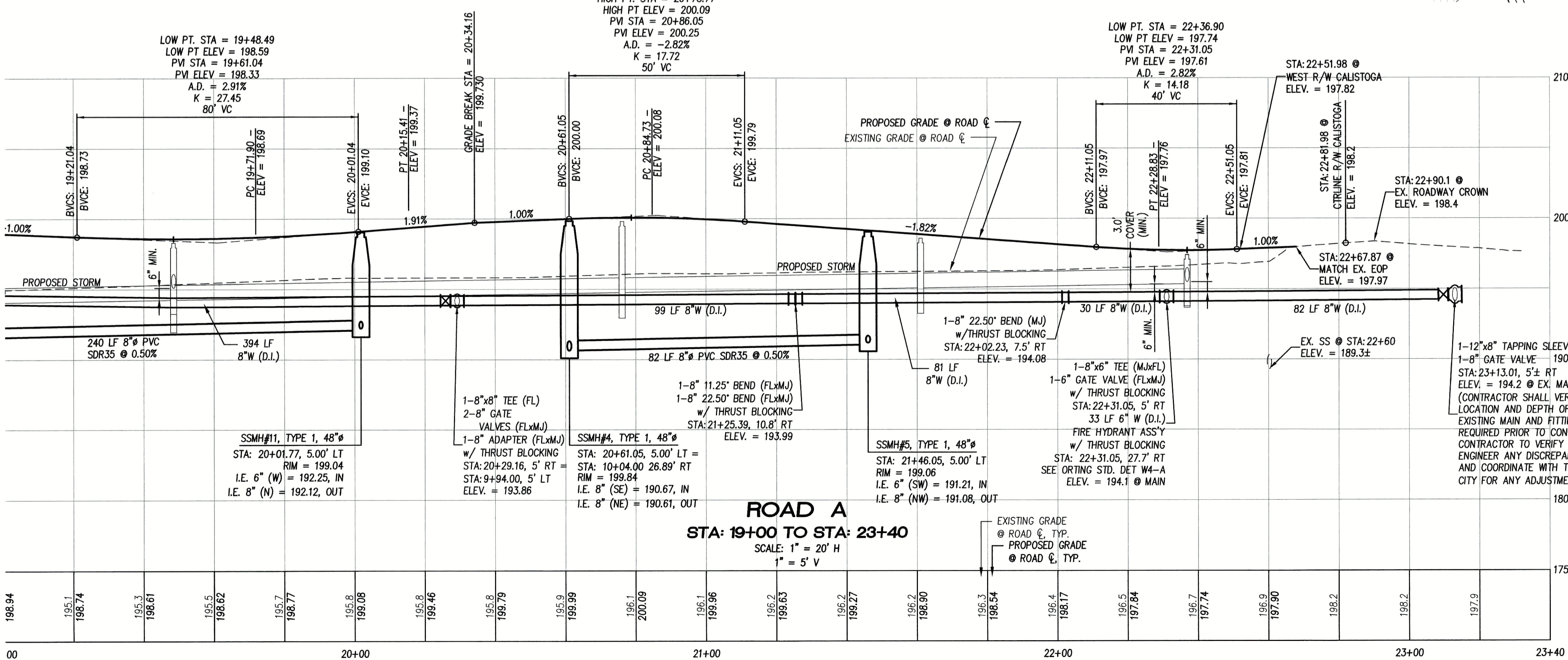


**SANITARY SEWER CLEANOUT TABLE**  
I.E. @ CLEANOUT  
LOT NO. (PAD - 5FT.)

1	194.10
2	193.90
3	193.80
4	194.70
5	195.30
6	195.30
7	195.40
8	195.40
9	194.20

- NOTES:**
- SIDE SEWER STUBS SHALL BE SIX INCHES IN SIZE AND SHALL BE A MINIMUM OF FIVE FEET DEEP AT THE END OF THE SIDE SEWER ALIGNMENT SHOWN. SIDE SEWERS SHALL BE MARKED WITH A 2 X 4 STAKE AS SHOWN ON THE CITY OF ORTING STD DETAILS.
  - SANITARY SEWER PIPE LENGTHS AND PIPE SLOPES ARE CALCULATED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE. 0.06 FT DROP INLET TO INLET OUT ACROSS THE MANHOLE IS APPLIED.
  - MINIMUM SLOPE OF SIDE SEWER SHALL BE 2%.
  - STATIONING AND OFFSETS TO STRUCTURES SHALL BE TO CENTER OF STRUCTURE.
  - ALL NEW TYPE 1 MANHOLES TO HAVE WATERTIGHT LOCKING LIDS.
  - SIDE SEWERS SHALL EXTEND BEYOND CLEANOUT LOCATION SHOWN ON THE CITY OF ORTING STD DETAIL TO A POINT 5 FT PAST THE DRY UTILITIES EASEMENT AS SHOWN HEREON MAINTAINING A 2% MIN. SLOPE.
  - SIDE SEWER MATERIAL TO BE PVC SDR 35.
  - ALL WATERMAIN JOINTS SHALL BE MECHANICALLY RESTRAINED WITH MEGALUG OR APPROVED EQUAL.
  - ALL WATERMANS SHALL BE DISINFECTED AND BACTERIOLOGICALLY TESTED PER WSDOT STANDARD 7-09.3(24).

- CROSSING NOTES:**
- SEWER AND WATER CROSSINGS SHALL MEET THE 2008 CRITERIA FOR SEWAGE WORKS DESIGN, SECTION C1-9.1.4. UNLESS APPROVED BY CITY OF ORTING. THE LENGTH OF SEWER PIPE SHALL BE CENTERED AT THE POINT OF CROSSING SO THAT THE JOINTS ARE EQUIDISTANT FROM THE WATER LINE. WATER LINE SHALL BE ENCASED IN CONCRETE TO FEET BEYOND EACH SIDE OF THE CROSSING AND A MINIMUM OF ONE FOOT EACH SIDE OF THE PIPE.
  - WATER SHALL BE DEFLECTED AT STORM CROSSINGS TO PROVIDE A MINIMUM OF 6" OF SEPARATION.



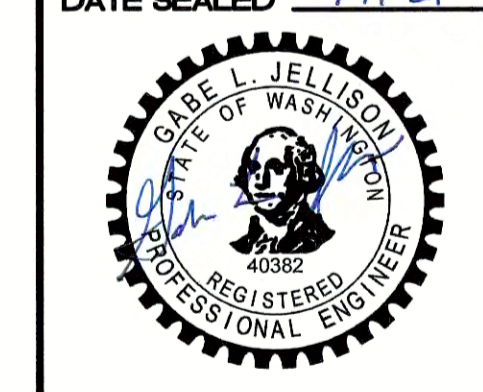
REV NO	REVISION DESCRIPTION	DATE

**Apex Engineering**

2601 South 35th, Suite 200  
Tacoma, Washington 98409-7479  
(253) 473-4494 FAX: (253) 473-0599

**BRIDGEWATER 801 LLC**  
3105-A SUMNER-TAPPS HWY E  
LAKE TAPPS, WA 98391  
ATTN: MR. ERIC CORLIUS

**BRIDGEWATER**  
PUBLIC SANITARY AND WATER  
PLAN AND PROFILE  
STA 19+00 TO 23+40



**PROJECT MANAGER**  
CJM

**DESIGN** CJM  
**DRAWN** JRE/MSA  
**CHECKED** KAS  
**SEC 31** T 19 N R 05 E  
**FILE NO** 1/33008/WORK  
**DATE** 02/10/20  
**SCALE** 1"=20'

**SHEET 20 OF 23**  
**FILE NO 33008**

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A: L33008 (MWA) PAT 12/15/15 L33008-SS-WA-PLUPRF.dwg

# BRIDGEWATER PUBLIC SANITARY SEWER DETAILS

A PORTION OF THE SE 1/4 OF THE NE 1/4 SECTION 31, TOWNSHIP 19 N, RANGE 05 E, W.M.  
CITY OF ORTING, PIERCE COUNTY, WASHINGTON

**CITY OF ORTING**  
APPROVED FOR CONSTRUCTION

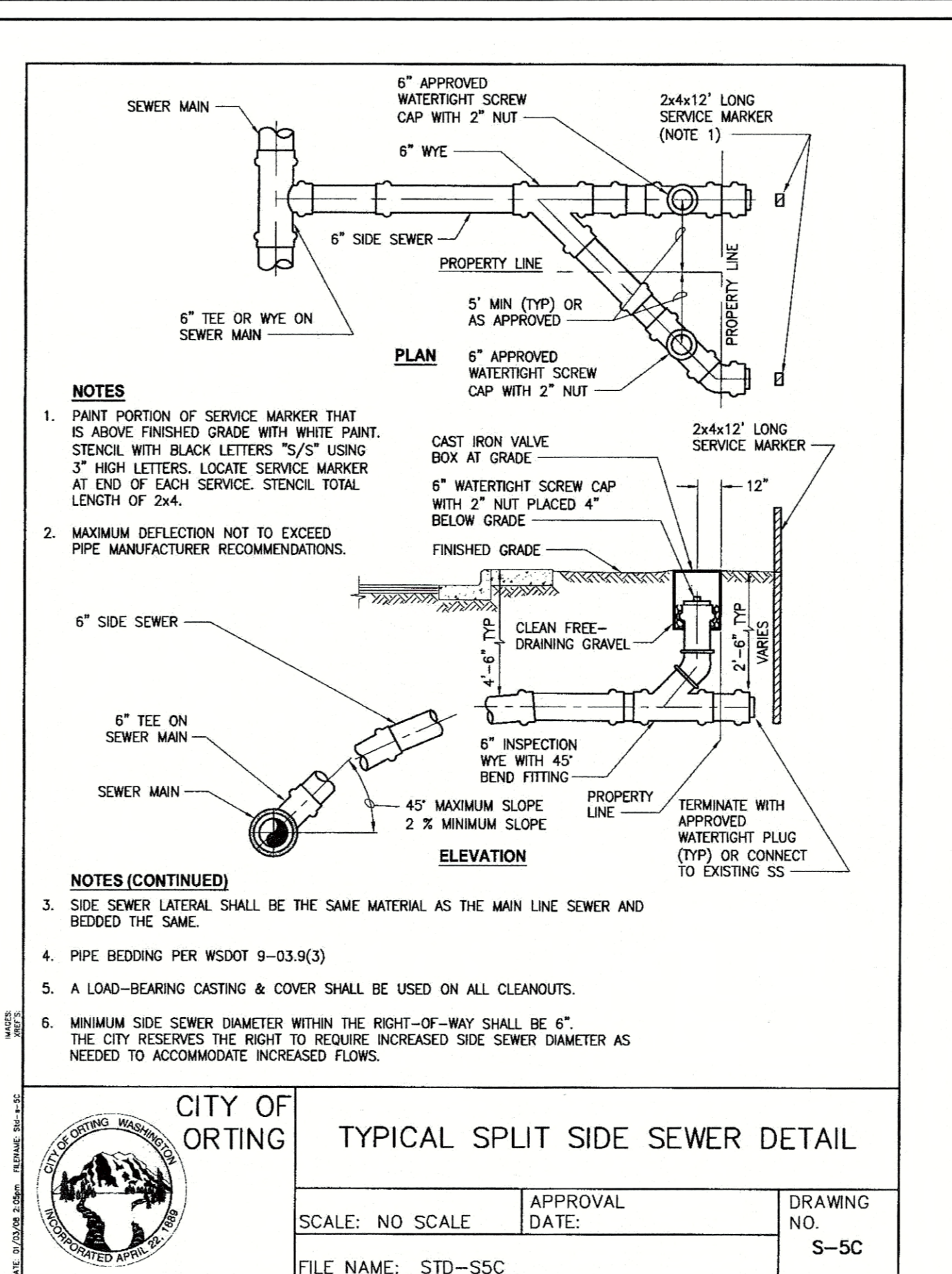
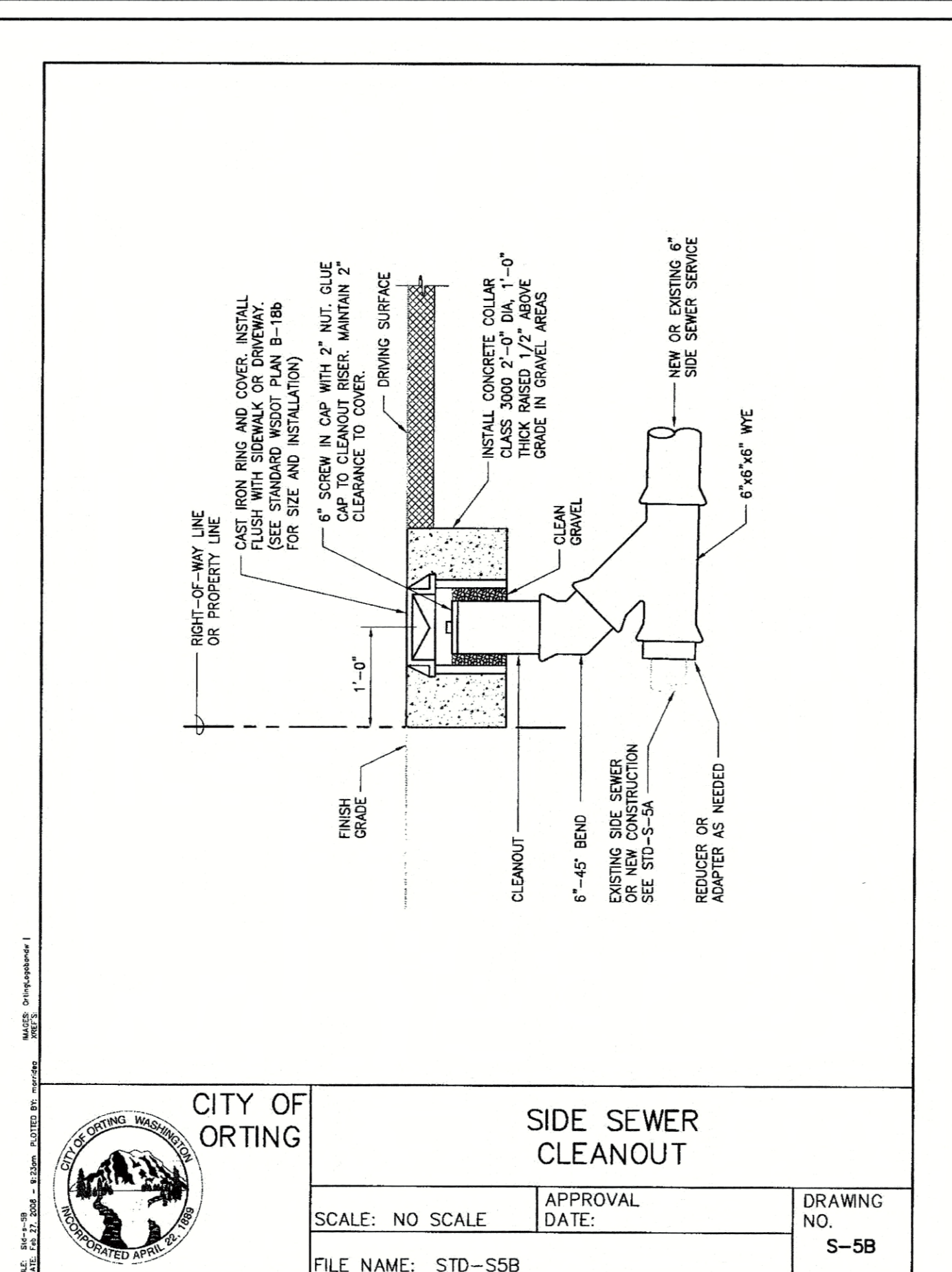
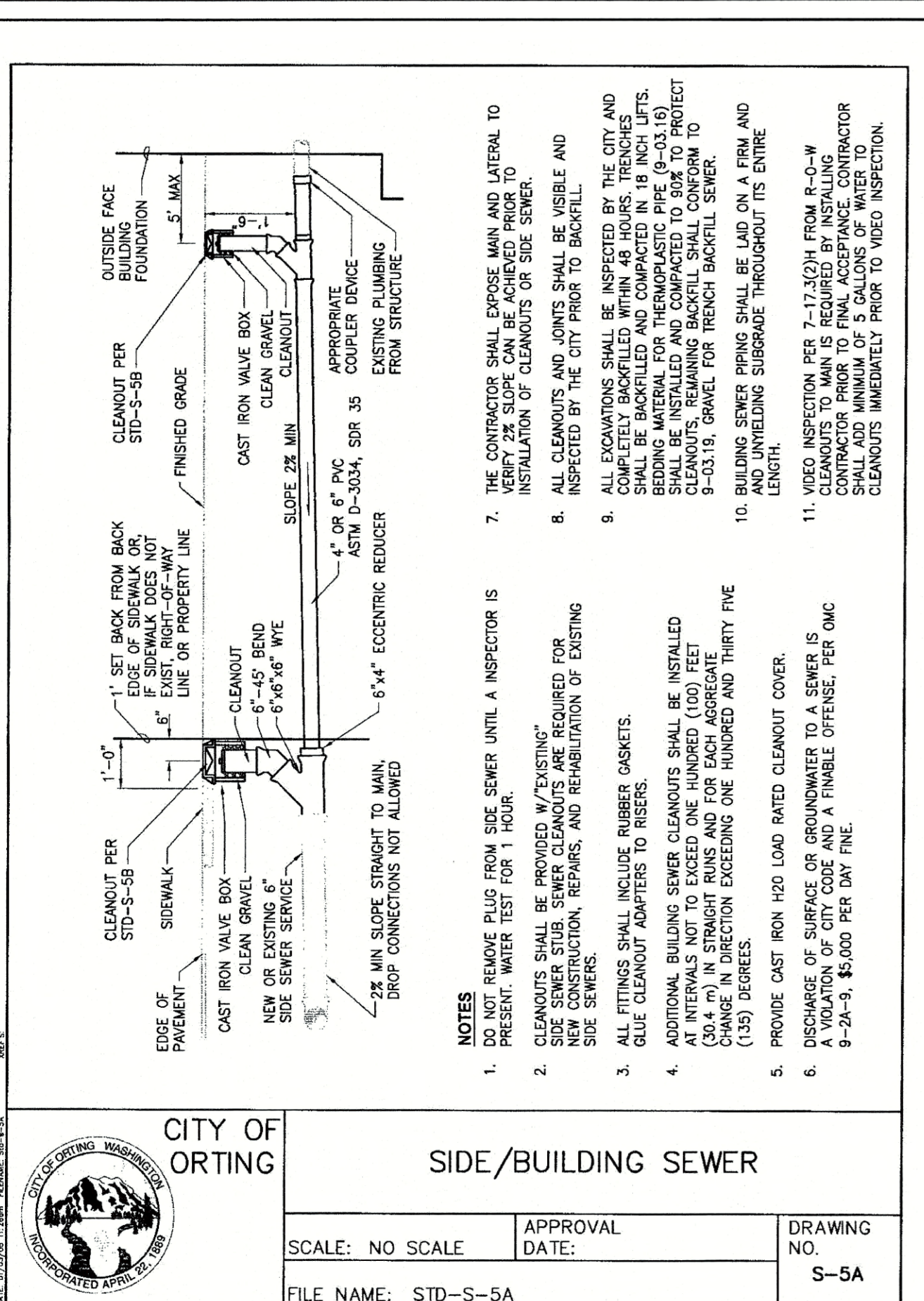
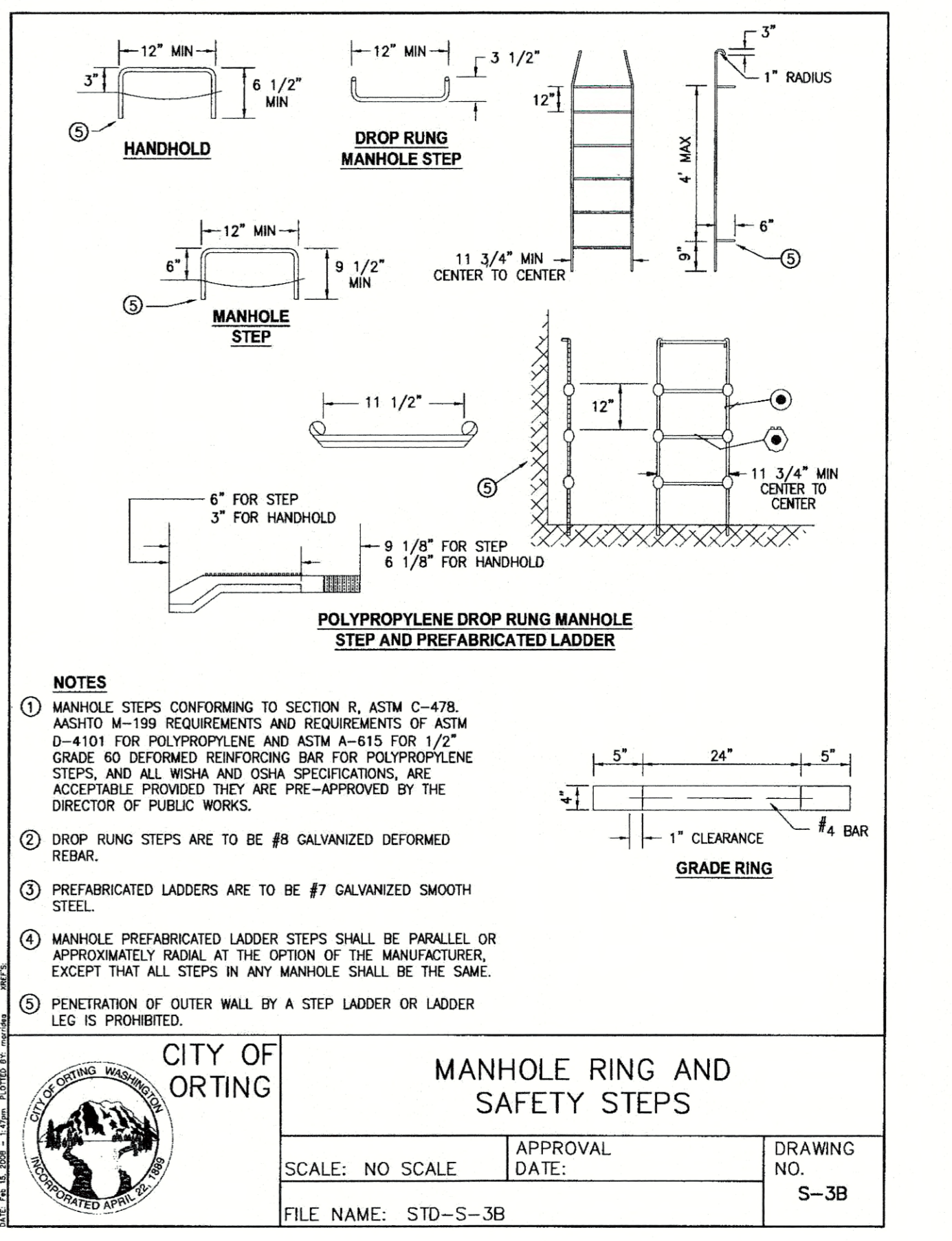
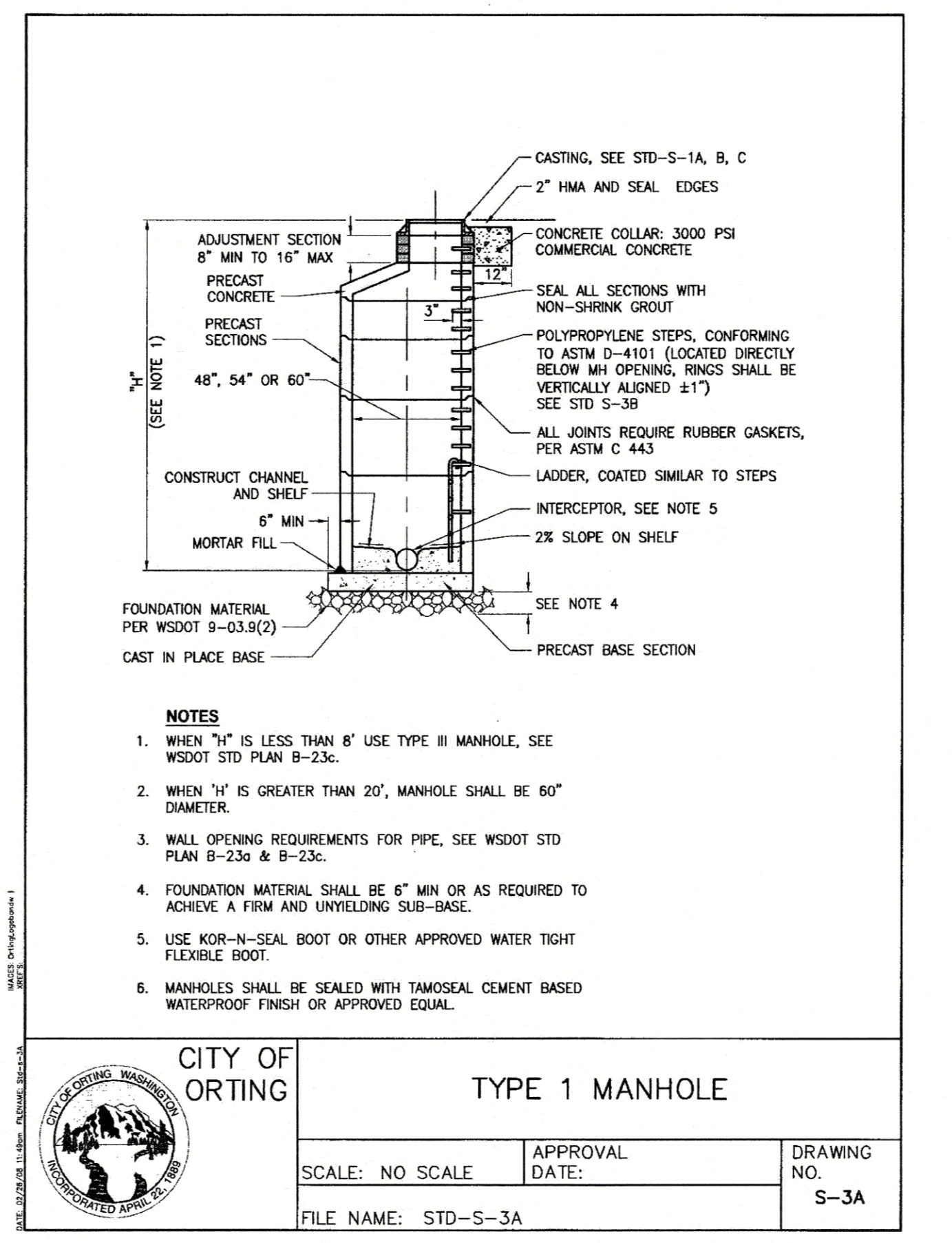
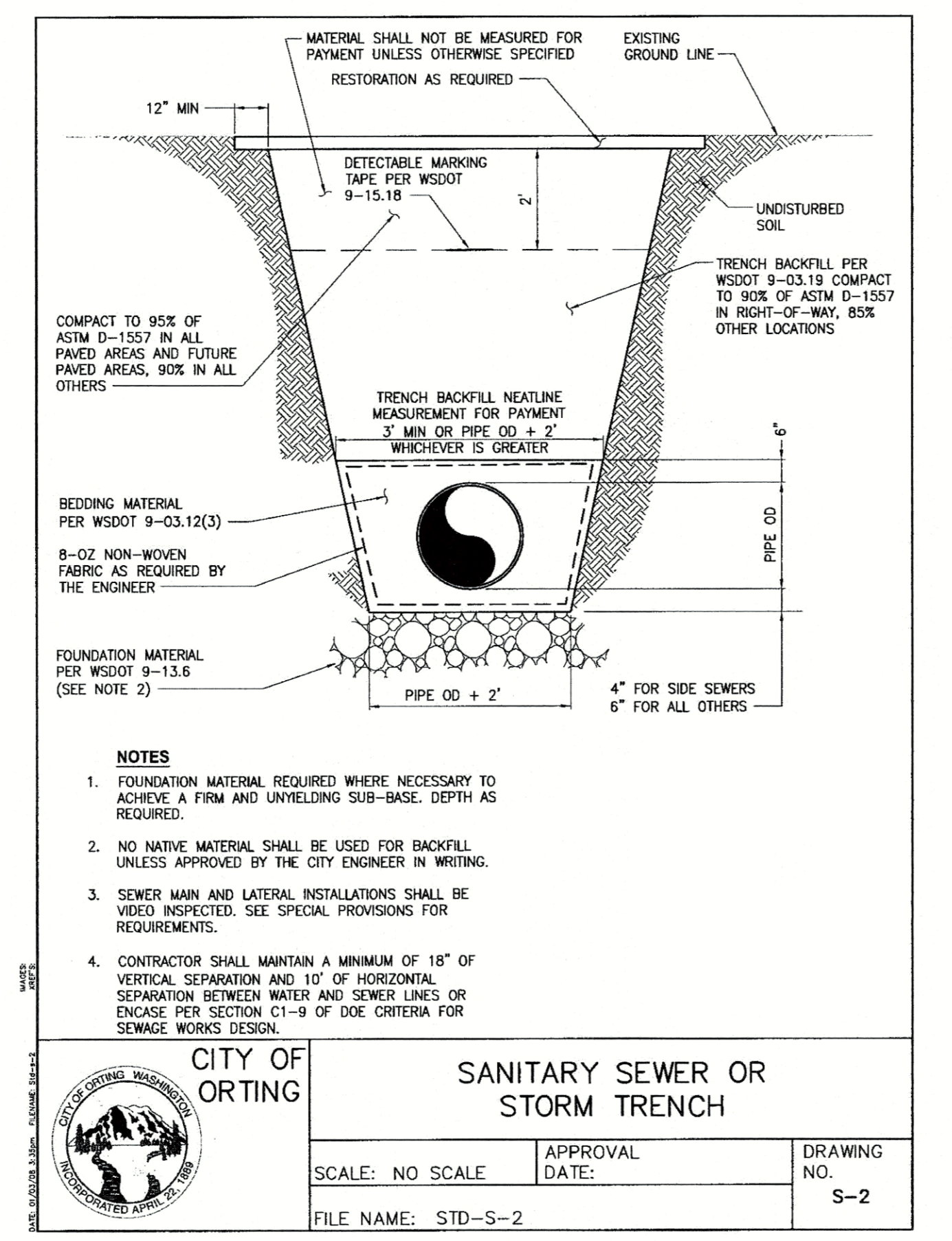
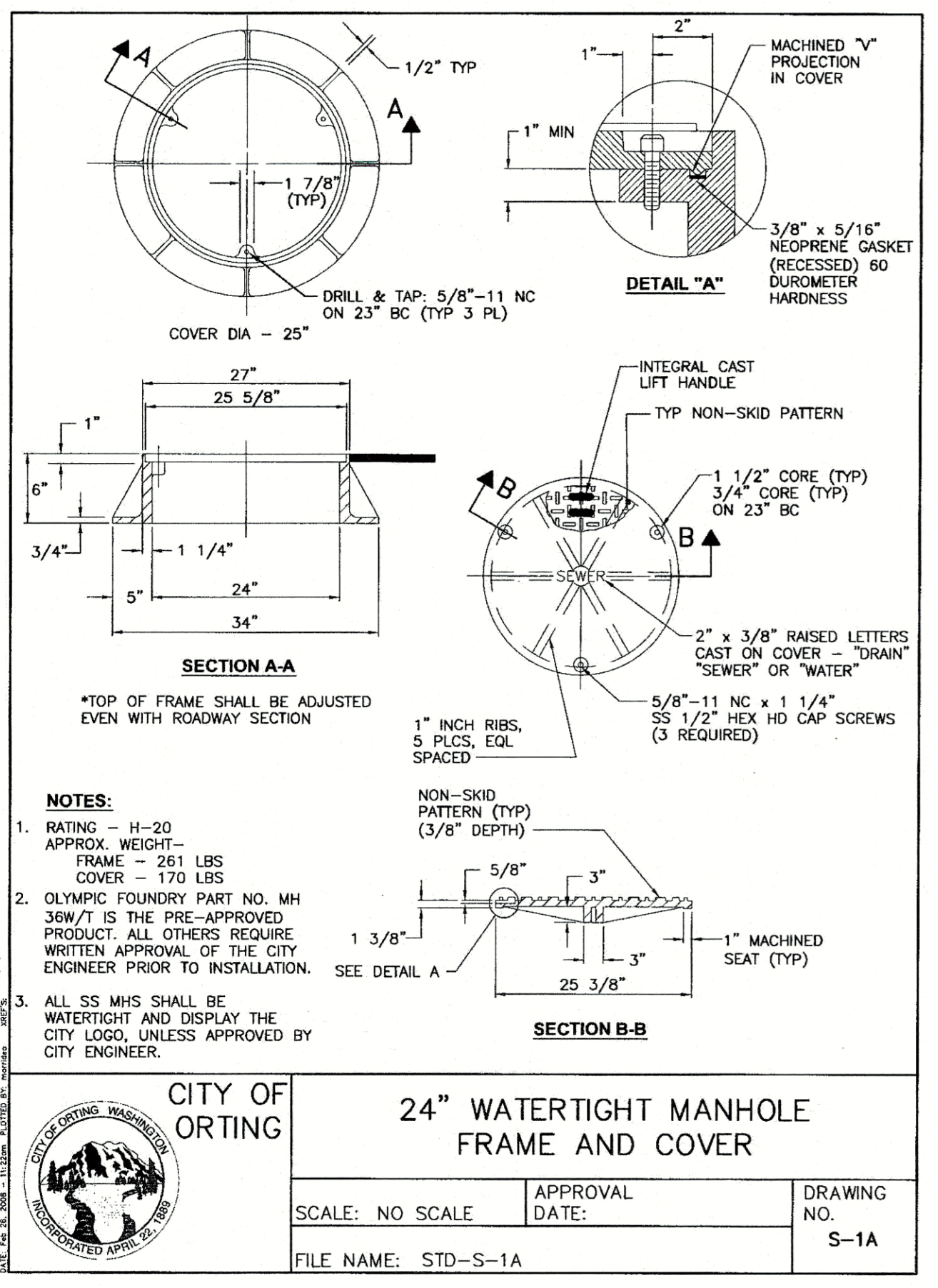
1/13/22  
DATE

CITY ADMINISTRATOR

1/12/22  
DATE

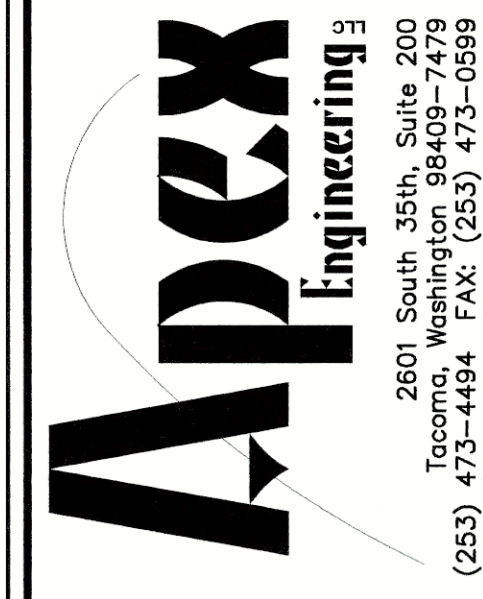
CITY ENGINEER

REV. NO.	REVISION DESCRIPTION	DATE



**CITY OF ORTING**  
**SANITARY SEWER NOTES:**

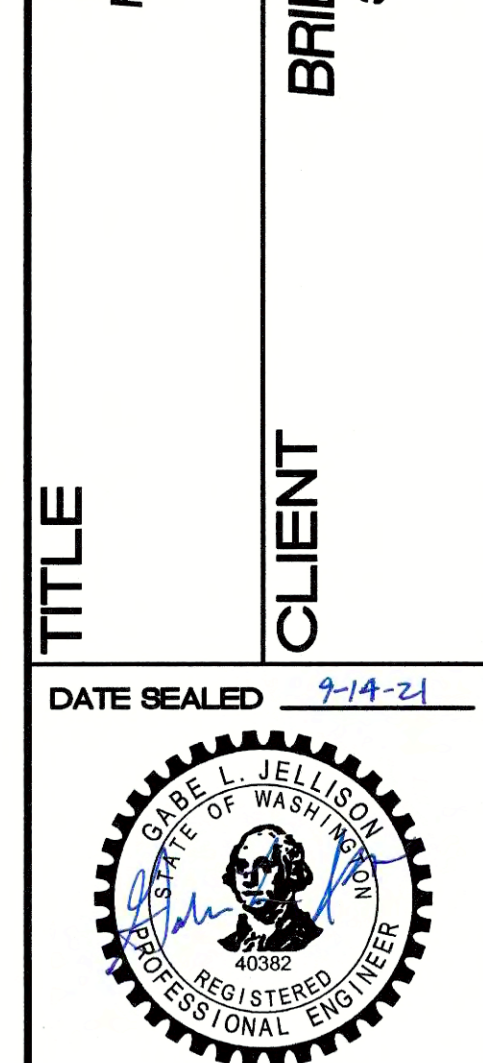
- WORK SHALL NOT COMMENCE UNTIL APPROVAL IS RECEIVED FROM THE STATE DEPARTMENT OF ECOLOGY.
- NOTIFY THE CITY OF ORTING 72 HOURS (3 WORKING DAYS) PRIOR TO BEGINNING CONSTRUCTION AND FOR ANY RESTART OF WORK.
- PROVIDE THE CITY'S OBSERVER WITH A COPY OF ALL CUT SHEETS PRIOR TO CONSTRUCTION.
- CONNECTION TO AN EXISTING MAIN SHALL BE DONE SO AS TO PREVENT ANY FOREIGN MATERIALS FROM ENTERING EXISTING SEWERS.
- IN THE EVENT THAT AN EXISTING UTILITY IS DAMAGED DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE CITY AND THE UTILITY COMPANY (IF APPLICABLE) IMMEDIATELY.
- THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO ENSURE THAT THE EXISTING FACILITIES REMAIN FULLY OPERATIONAL DURING ALL STAGES OF CONSTRUCTION.
- ANY STRUCTURE AND/OR OBSTRUCTION WHICH REQUIRES REMOVAL OR RELOCATION RELATING TO THIS PROJECT SHALL BE DONE SO AT THE CONTRACTOR'S EXPENSE.
- SIDE SEWERS SHALL BE INSTALLED IN ACCORDANCE WITH CITY STANDARD DWGS S-5A AND S-5C. INSTALLATION WORK SHALL BE DONE IN ACCORDANCE WITH THE WASHINGTON INDUSTRIAL SAFETY AND HEALTH ACT (WISHA).
- THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 10' HORIZONTAL AND 18" OF VERTICAL CLEARANCE BETWEEN WATER AND SANITARY SEWER LINES. IF THIS CRITERIA CANNOT BE MET, THE CONTRACTOR SHALL PROVIDE ENCASEMENT PER SECTION CT-9.1 OF THE WASHINGTON DEPARTMENT OF ECOLOGY CRITERIA FOR SEWAGE WORKS DESIGN MANUAL.
- ALL SEWER PIPE SHALL BE PVC OR DUCTILE IRON. PVC SEWER PIPE SHALL CONFORM TO ASTM D-3034, SDR35 FOR PIPE SIZES 15-INCH AND SMALLER, DUCTILE IRON PIPE SHALL BE CLASS 51 OR GREATER UNLESS OTHERWISE NOTED. TRENCHING, BEDDING, AND BACKFILL SHALL BE IN ACCORDANCE WITH CITY STANDARD DWG S-2. MINIMUM COVER ON PVC PIPE SHALL BE 3.0 FEET. MINIMUM COVER ON DUCTILE IRON PIPE SHALL BE 1.0 FOOT.
- PRIOR TO ACCEPTANCE, THE CONTRACTOR SHALL VERIFY THAT THE LINE AND GRADE OF THE MAIN MEETS THE CITY OF ORTING STANDARDS. IMMEDIATELY PRIOR TO STARTING THE VIDEO INSPECTION, THE CONTRACTOR SHALL FLUSH THE MAINS AND INSERT A VISIBLE DYE (COLOR AS APPROVED BY THE CITY) INTO THE MAINS TO AID IN IDENTIFYING THE DEPTHS OF ANY PONDS ENCOUNTERED DURING THE INSPECTION. PONDED DEPTHS THAT EXCEED 1/2 INCH WILL REQUIRE THE MAIN TO BE REPAIRED UNLESS OTHERWISE APPROVED BY THE CITY.
- SEWER SHALL BE TESTED ACCORDING TO SECTION 7-17 OF THE LATEST EDITIONS OF THE CITY OF ORTING DEVELOPMENT STANDARDS AND WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION.
- ALL SANITARY SEWER PIPING SPECIFIED AS DUCTILE IRON SHALL BE PRESSURE TESTED TO ENSURE WATER TIGHTNESS PRIOR TO BACKFILLING.
- ALL DUCTILE IRON PIPE FOR SANITARY SEWER APPLICATIONS SHALL BE LINED WITH PROTECTO 401 CERAMIC EPOXY OR APPROVED EQUAL.
- FIELD LOK GASKETS ARE REQUIRED ON ALL DUCTILE IRON PIPE FOR SANITARY SEWER APPLICATIONS.



**BRIDGEWATER PUBLIC SANITARY SEWER DETAILS**

**CLIENT**

**BRIDGEWATER 801 LLC**  
3106-A SUMNER-TAPPS HWY E  
LAKE TAPPS, WA 98391  
ATTN: MR. ERIC CORLISS



**PROJECT MANAGER**  
CMH

**DESIGN** QJL  
**DRAWN** JRE/MSA  
**CHECKED** KAS  
**SEC** 31 T 19 N R 05 E  
**FILE NO** 1/33008/WORK  
**DATE** 02/10/20  
**SCALE** AS SHOWN

**SHEET 21 OF 23**  
**FILE NO 33008**

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# BRIDGEWATER PUBLIC WATER SYSTEM DETAILS

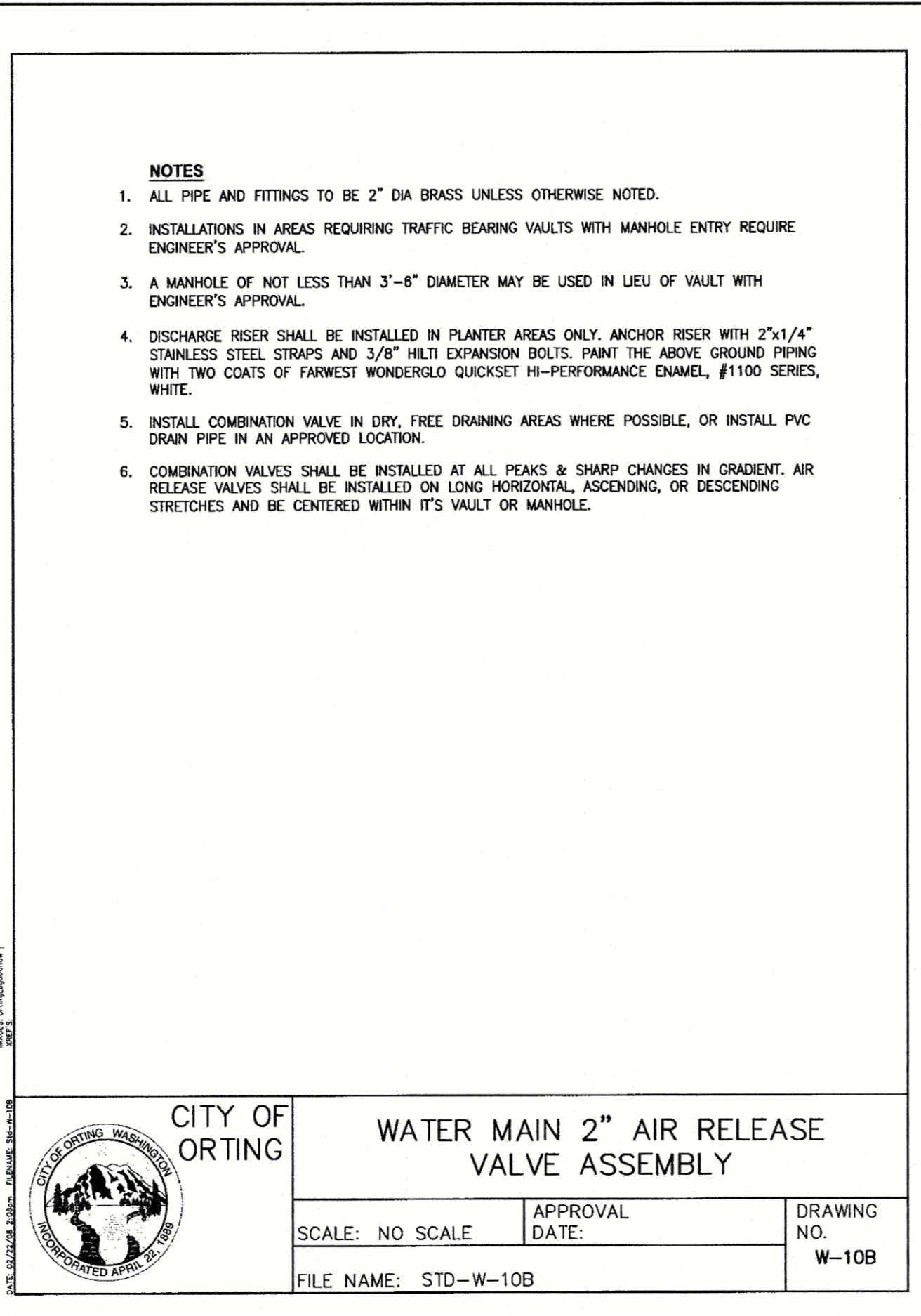
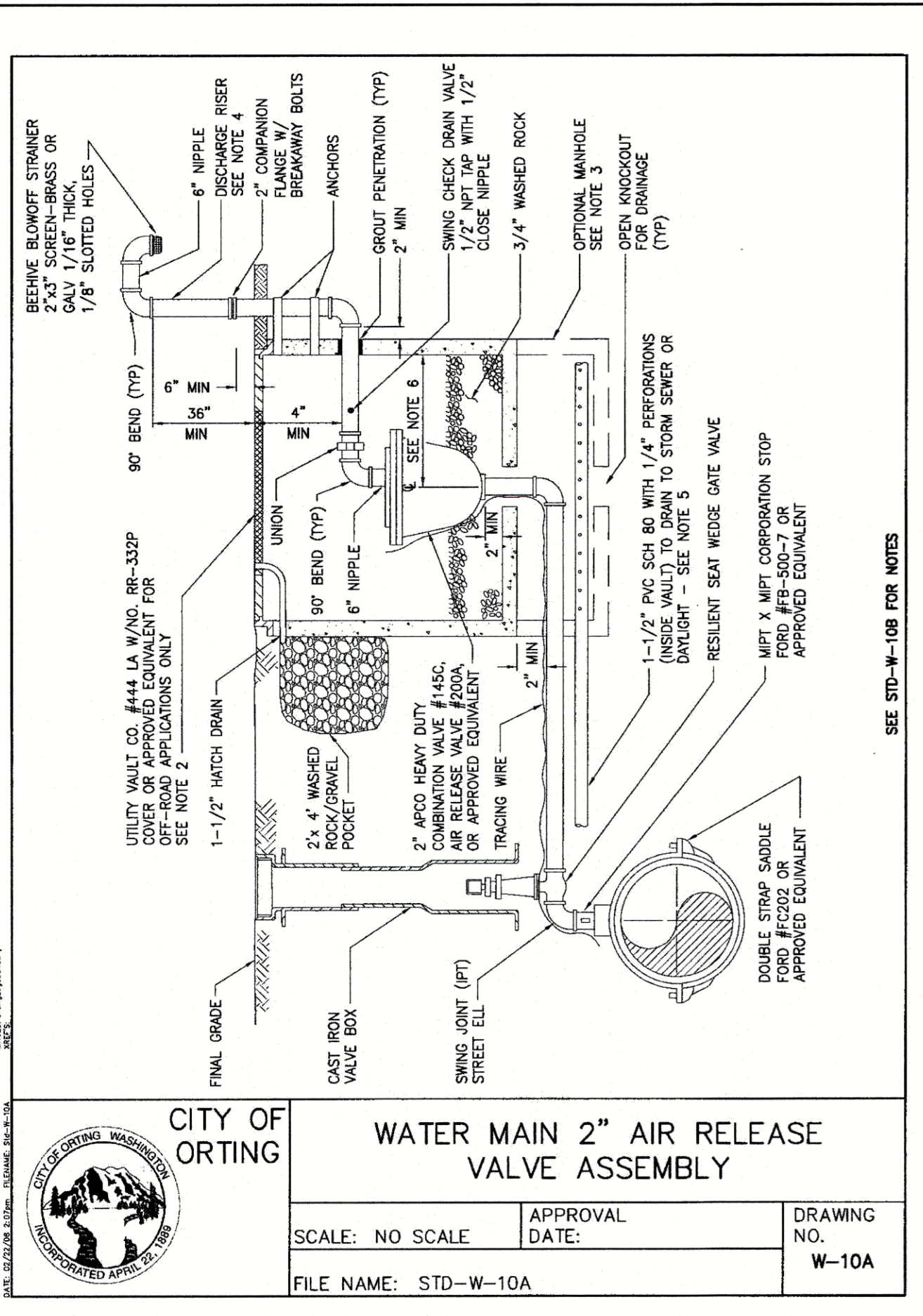
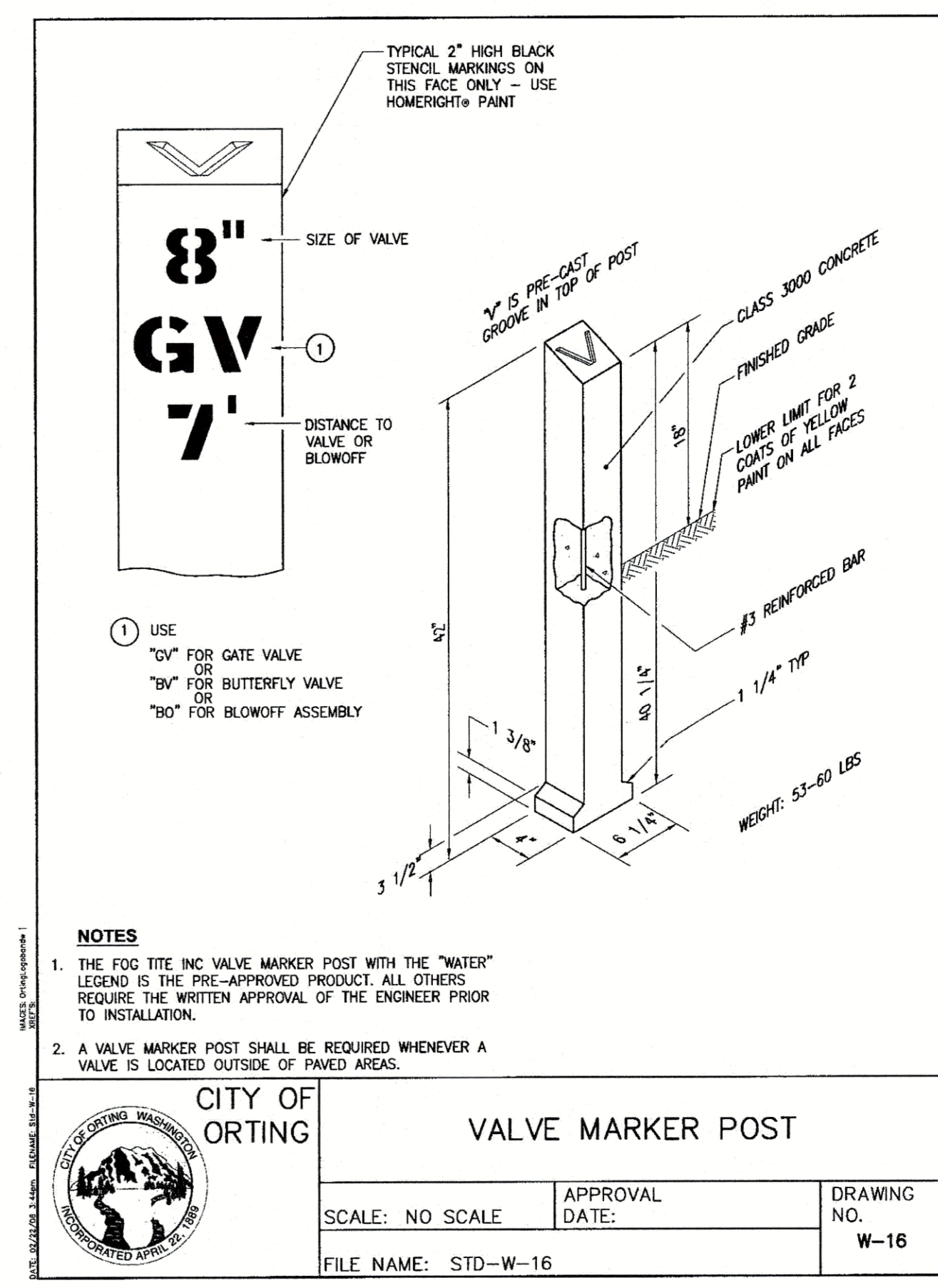
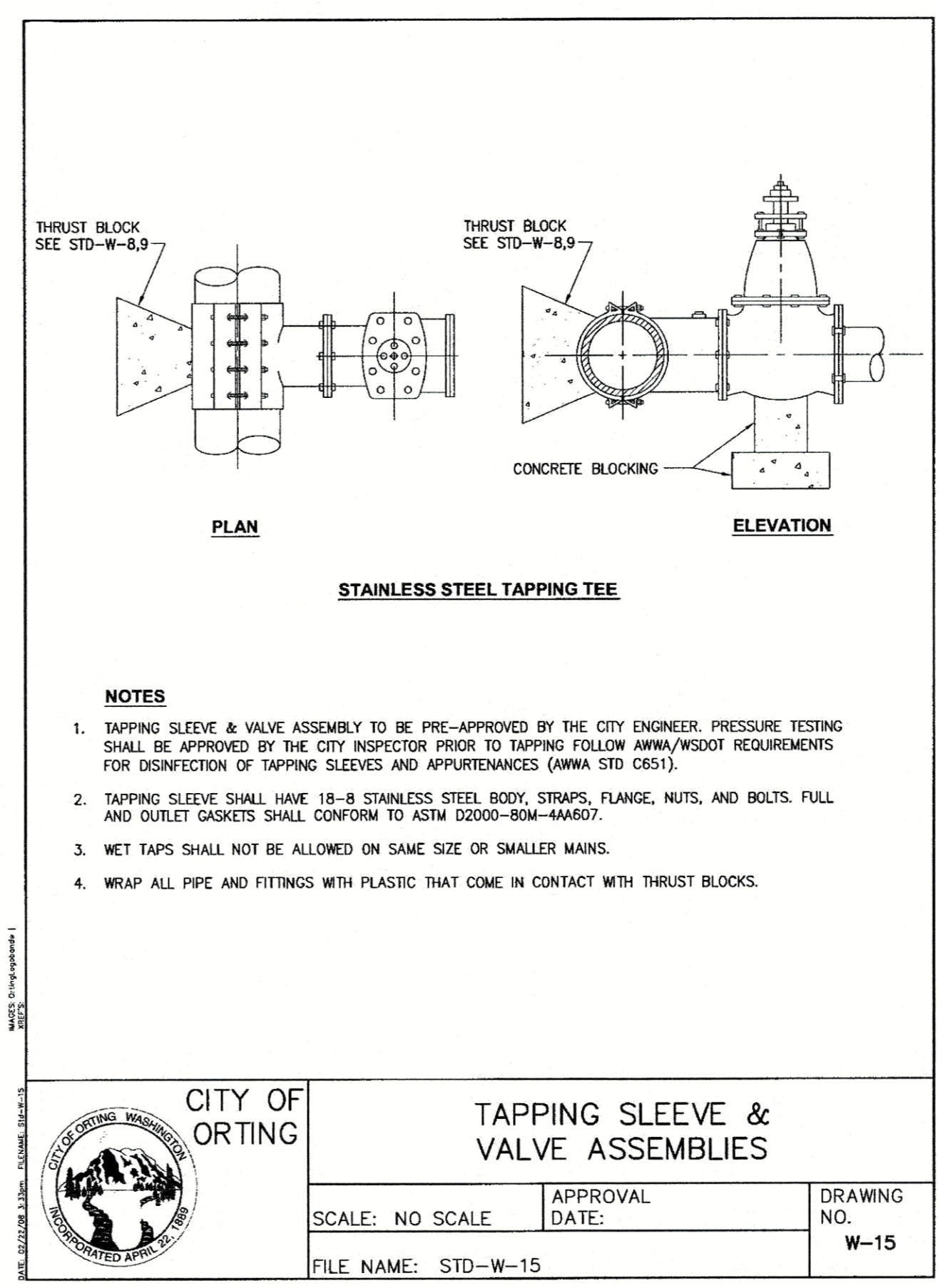
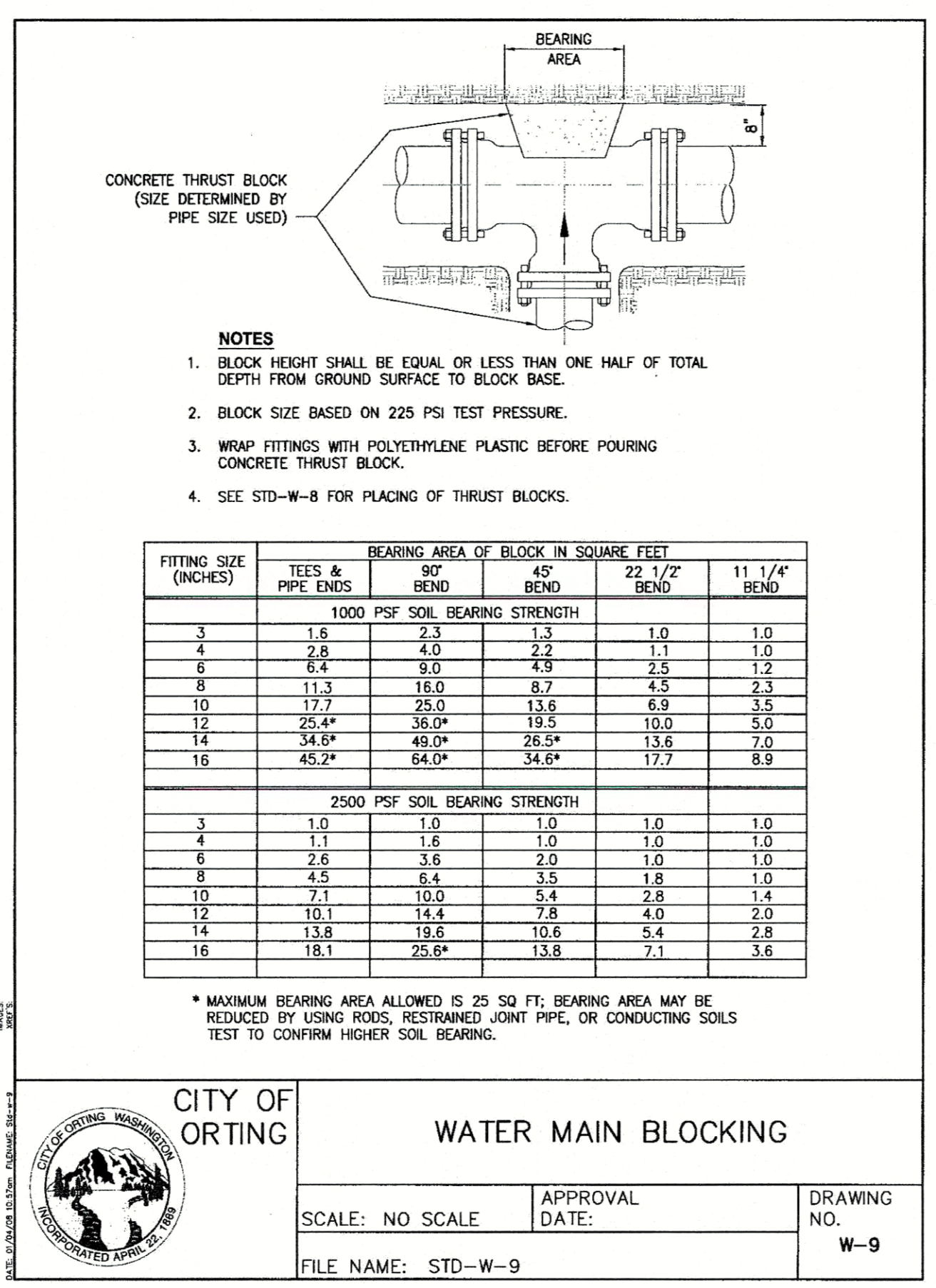
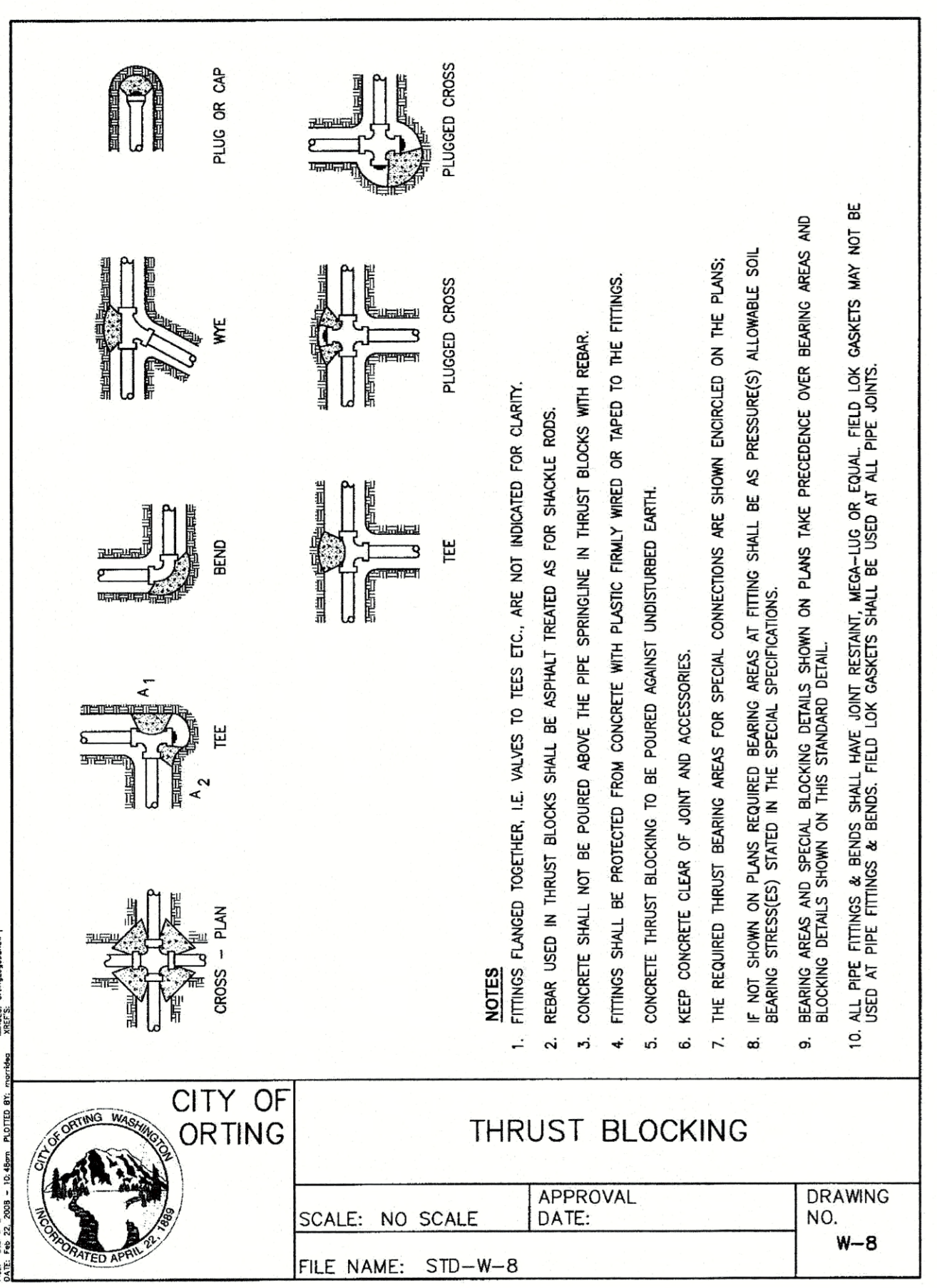
A PORTION OF THE SE 1/4 OF THE NE 1/4 SECTION 31, TOWNSHIP 19 N., RANGE 05 E., W.M.  
CITY OF ORTING, PIERCE COUNTY, WASHINGTON

**CITY OF ORTING**  
**APPROVED FOR CONSTRUCTION**

*[Signature]* 1/13/22  
CITY ADMINISTRATOR DATE

*[Signature]* 1/12/22  
CITY ENGINEER DATE

REV NO	REVISION DESCRIPTION	DATE



- CITY OF ORTING WATER NOTES:**
- ALL WATER SYSTEM IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THESE APPROVED PLANS. ANY DEVIATION FROM THE PLANS WILL REQUIRE APPROVAL FROM THE ENGINEER, CITY AND APPROPRIATE PUBLIC AGENCIES.
  - NOTIFY THE CITY OF ORTING 72 HOURS (3 WORKING DAYS) PRIOR TO BEGINNING CONSTRUCTION AND FOR ANY RESTARTS OF WORK.
  - THE CITY OF ORTING SHALL BE NOTIFIED 3 WORKING DAYS PRIOR TO THE TIME THE CONTRACTOR WOULD LIKE TO CONNECT TO EXISTING MAINS OR FOR INSTALLATION OF TAPPING TEES. THE CONNECTION SHALL BE DONE IN ACCORDANCE WITH THE CITY REQUIREMENTS. THE CONTRACTOR SHALL NOT OPERATE ANY VALVES WITHIN THE EXISTING SYSTEM; THESE WILL BE OPERATED BY THE CITY OF ORTING PERSONNEL ONLY.
  - AIR RELEASE VALVES SHALL BE PROVIDED AT ALL HIGH POINTS IN THE WATER LINE. IF LOCATIONS DIFFER FROM THE APPARENT HIGH POINTS IDENTIFIED ON THE PLANS, THE CONTRACTOR SHALL RECEIVE CITY APPROVAL PRIOR TO INSTALLING THE AIR RELEASE VALVES.
  - MINIMUM VERTICAL CLEARANCE BETWEEN WATER AND STORM LINES TO BE 6" UNLESS OTHERWISE APPROVED.
  - THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 10' HORIZONTAL AND 18" OF VERTICAL CLEARANCE BETWEEN WATER AND SANITARY SEWER LINES. IF THIS CRITERIA CANNOT BE MET, THE CONTRACTOR SHALL PROVIDE ENCASEMENT PER SECTION C1-9.1 OF THE WASHINGTON DEPARTMENT OF ECOLOGY CRITERIA FOR SEWAGE WORKS DESIGN MANUAL.
  - ALL WATER PIPE DUCTILE IRON CL 52. TRENCHING, BEDDING, AND BACKFILL SHALL BE IN ACCORDANCE WITH CITY STANDARD DWG W-1A. MINIMUM COVER ON PIPE SHALL BE 3.5 FEET.
  - ALL JOINTS SHALL BE MECHANICALLY RESTRAINED.
  - FIELD LOK GASKETS ARE REQUIRED ON ALL PIPE JOINTS.
  - THE WATER MAIN CONSTRUCTION PHASE WILL NOT BE CONSIDERED COMPLETE UNTIL THE INSTALLATION IS ACCEPTABLE TO THE CITY OF ORTING INCLUDING A SATISFACTORY HYDROSTATIC PRESSURE TEST, A SATISFACTORY DISINFECTION TEST, SATISFACTORY FLOW OF SERVICE LINES, AND COMPLETION OF ALL ITEMS ON THE INSPECTOR'S PUNCH LIST.
  - WATER SHALL BE TESTED ACCORDING TO SECTION 7-09 OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION LATEST EDITION.

**Apex Engineering**

2601 South 35th, Suite 200  
Tacoma, WA 98404  
(253) 473-4694 FAX: (253) 473-0559

**BRIDGEWATER 801 LLC**  
3106-A SUMNER-TAPPS HWY E  
LAKE TAPPS, WA 98391  
ATTN: MR. ERIC CORLISS

**CITY OF ORTING**  
**REGISTERED PROFESSIONAL ENGINEER**

DATE SEALED 9-19-21

**PROJECT MANAGER**  
GMH

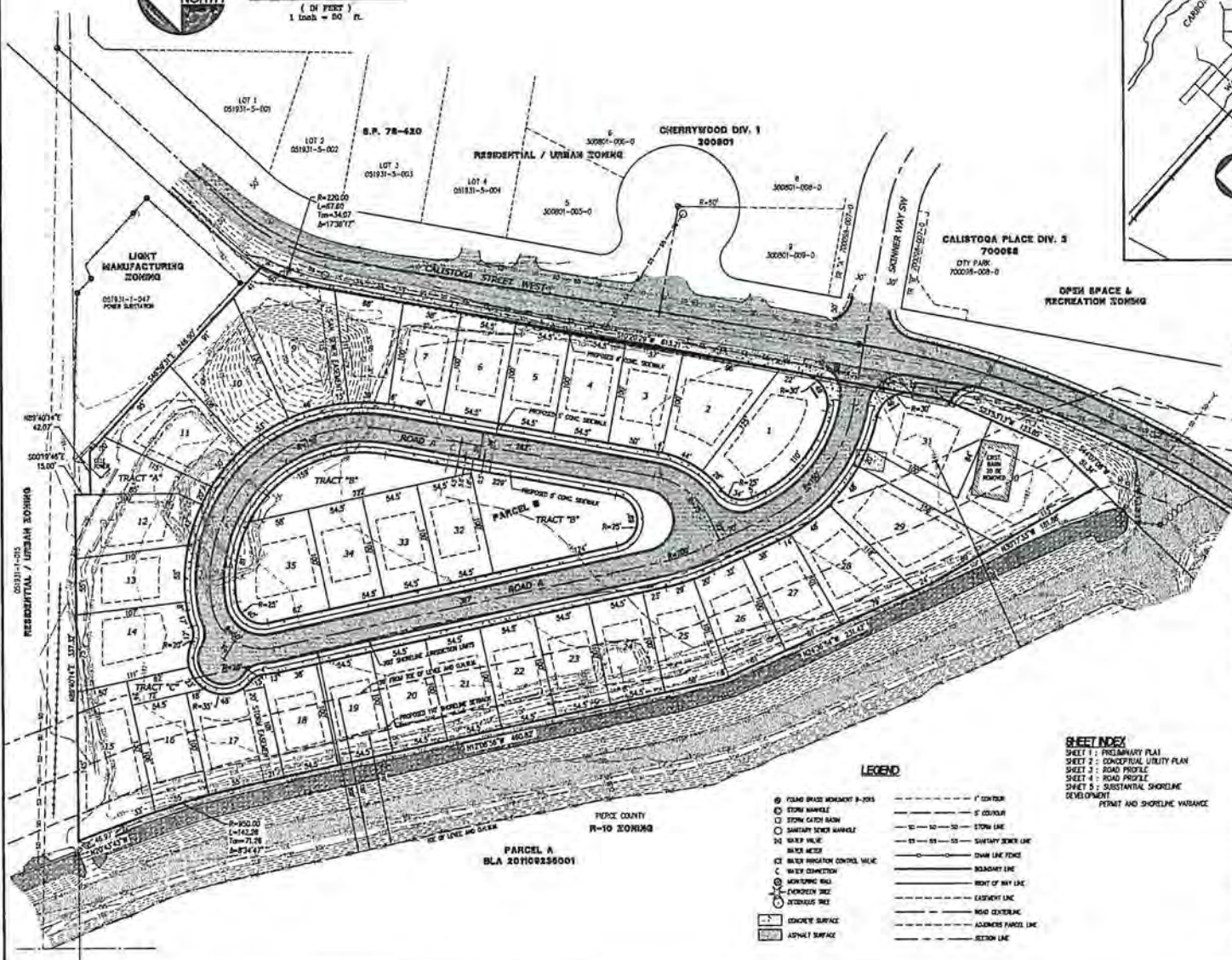
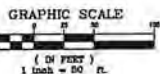
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**DRAWN** JFE/MBA  
**CHECKED** KAS  
**SEC** 31 T 19 N R 05 E  
**FILE NO** 1/23008/WOR  
**DATE** 02/10/20  
**SCALE** AS SHOWN

**SHEET 23 OF 23**  
**FILE NO 33008**

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# BRIDGEWATER PRELIMINARY PLAN

A PORTION OF THE SE 1/4 OF THE NE 1/4 OF SECTION 31, TOWNSHIP 19 NORTH, RANGE 05 EAST, W.M.  
CITY OF ORTING, PERCE COUNTY, WASHINGTON



**LEGAL DESCRIPTION**  
PARCELS 8, AS SHOWN ON THAT CERTAIN BOUNDARY LINE REVISION RECORDED UNDER RECORDING NO. 201109235001, BEING A PORTION OF THE NORTHEAST 1/4 OF SECTION 31, TOWNSHIP 19 NORTH, RANGE 5 EAST OF THE W.M. IN PERCE COUNTY, WASHINGTON.  
EXCEPT THAT PORTION CONVEYED TO THE CITY OF ORTING BY DEED RECORDED UNDER RECORDING NUMBER 20110550716.

**UTILITIES**  
WATER: CITY OF ORTING  
SEWER: CITY OF ORTING  
POWER: PUYET SOUND ENERGY  
TELEPHONE: CANTON/RYAN  
CABLE TV: COMCAST  
GAS: PUYET SOUND ENERGY

**PLAT DATA**  
PLAT AREA: 138,652 +/- SF. ( 3.16 +/- ACRES )  
PARCEL NUMBER: 021931-1-003  
EXISTING ZONING: RUF  
NUMBER OF LOTS: 35  
MIN. LOT AREA: 1,450 SF.  
AVG. LOT AREA: 6,819 +/- SF.  
NUMBER OF TRACTS: 3  
TRACT "A" = 4,114 +/- SF. ACCESS TRACT  
TRACT "B" = 17,145 +/- SF. PARK/OPEN SPACE  
TRACT "C" = 1,563 +/- SF. PRIVATE ACCESS  
TOTAL TRACT AREA: 22,822 +/- SF. ( 0.52 +/- ACRES )  
STREETS: 1,366 +/- LF 50' PUBLIC R/W, 72,153 +/- SF. ( 1.64 +/- ACRES )  
STREET SECTION: CITY OF ORTING T-5A  
TOPOGRAPHY: APEX ENGINEERING, PLLC  
BOUNDARY: APEX ENGINEERING, PLLC

POSSIBLE MONUMENT SONS W/ EASEMENTS  
YARD SETBACKS: FRONT YARD = 25 FEET  
SIDE YARD = 8 FEET INTERIOR, 20 FEET STREET SIDE  
REAR YARD = 25 FEET

**SHEET INDEX**  
SHEET 1: PRELIMINARY PLAN  
SHEET 2: CONCEPTUAL UTILITY PLAN  
SHEET 3: ROAD PROFILE  
SHEET 4: ROAD PROFILE  
SHEET 5: SUBSTANTIAL SHORELINE DEVELOPMENT PERMIT AND SHORELINE VARIANCE

**LOT AREAS**

LOT 1 = 4,797 SF.	LOT 17 = 7,246 SF.
LOT 2 = 7,375 SF.	LOT 18 = 5,450 SF.
LOT 3 = 5,838 SF.	LOT 19 = 5,450 SF.
LOT 4 = 5,450 SF.	LOT 20 = 5,450 SF.
LOT 5 = 5,450 SF.	LOT 21 = 5,450 SF.
LOT 6 = 5,450 SF.	LOT 22 = 5,450 SF.
LOT 7 = 5,613 SF.	LOT 23 = 5,450 SF.
LOT 8 = 5,613 SF.	LOT 24 = 5,450 SF.
LOT 9 = 10,533 SF.	LOT 25 = 5,004 SF.
LOT 10 = 8,199 SF.	LOT 26 = 8,892 SF.
LOT 11 = 7,218 SF.	LOT 27 = 5,004 SF.
LOT 12 = 4,452 SF.	LOT 28 = 6,733 SF.
LOT 13 = 5,841 SF.	LOT 29 = 9,007 SF.
LOT 14 = 7,659 SF.	LOT 30 = 11,813 SF.
LOT 15 = 6,644 SF.	LOT 31 = 7,655 SF.
LOT 16 = 5,450 SF.	LOT 32 = 5,450 SF.
LOT 18 = 5,644 SF.	LOT 33 = 5,450 SF.
	LOT 34 = 5,450 SF.
	LOT 35 = 7,853 SF.

\* PVE STEM = 2,012 SF, LOT = 9,600 SF.

**LEGEND**

- PERCE BRIDGE MONUMENT 3-2005
  - STORM MANHOLE
  - STORM CATCH BASIN
  - SANITARY TRENCH MANHOLE
  - WATER MANHOLE
  - WATER METER
  - WATER PURGATION CONTROL VALVE
  - WATER CONNECTION
  - WORKING WELL
  - FLOODING WELL
  - INTERFERING WELL
  - UNKNOWN SURFACE
  - ASPHALT SURFACE
- 1" CENTER
  - 6" CENTER
  - 12" TO 30" - 120" LINE
  - 36" TO 60" - 36" SAFETY BENCH LINE
  - CHAIN LINE POINT
  - BOUNDARY LINE
  - RIGHT OF WAY LINE
  - EASEMENT LINE
  - ROAD CENTERLINE
  - ADJACENT PARCEL LINE
  - SECTION LINE

REV. NO.	REVISION DESCRIPTION	DATE



**BRIDGEWATER**  
PRELIMINARY PLAN  
AMERICAN CONCRETE INC.  
3800 N. BRANFLOTT RD. #100  
LAKE WAUWATOSA, WI 53009  
ATTN: M. J. COOPER



**PROJECT MANAGER**  
GROUP ENGINEER

**DESIGNER**  
DRAWN BY

**CHECKED BY**  
REV. NO. T.B.M. W.D.E.

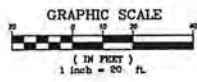
**FILE NO.** 2011-05-01

**DATE** 02-28-2011

**SCALE** 1"=80'

**SHEET 1 OF 5**  
FILE NO. 33008  
© APEX ENGINEERING, PLLC 2011

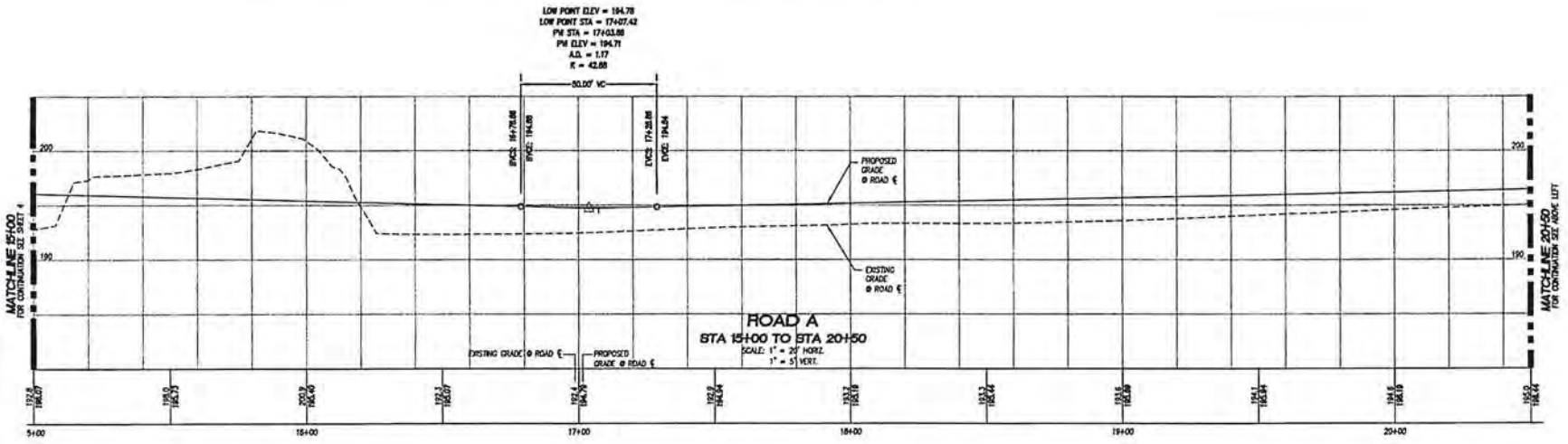
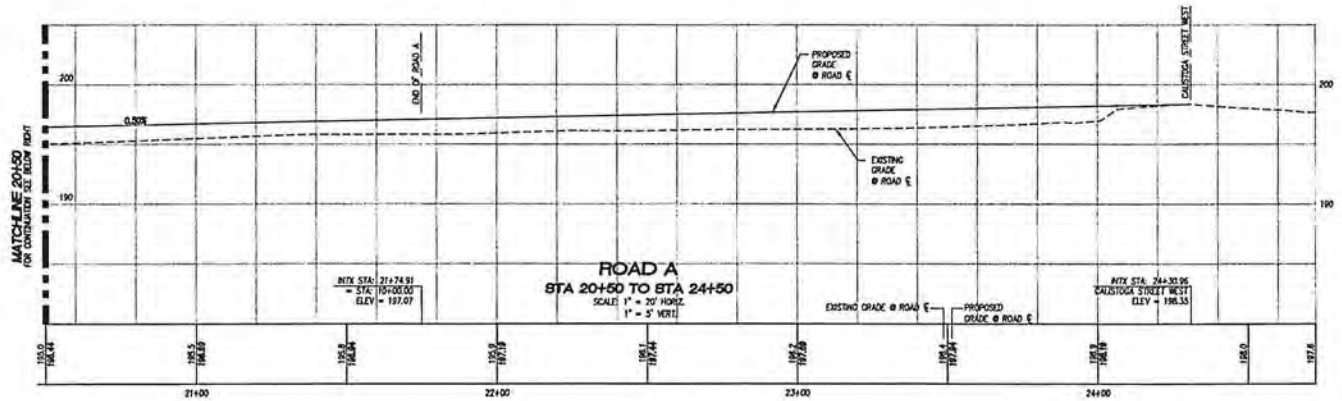




# BRIDGEWATER

## ROAD PROFILE

A PORTION OF THE SE 1/4 OF THE NE 1/4 OF SECTION 31, TOWNSHIP 19 NORTH, RANGE 05 EAST, WM.  
CITY OF ORTING, PIERCE COUNTY, WASHINGTON



REV NO	REVISION DESCRIPTION	DATE BY



**TITLE** BRIDGEWATER ROAD PROFILE

**CLIENT** AMERICAN CONCRETE INC.  
500-A BARNES AVENUE E  
LAKE TAPPEL WA 98309  
ATTN: MARI ETC CORLES



**PROJECT MANAGER** CROFF @ APEX/PE

**DRAWN** KZL  
**CHECKED** GDE  
**REV** 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

**FILE NO** 15-02-05  
**DATE** 08-26-2008  
**SCALE** 1"=20'

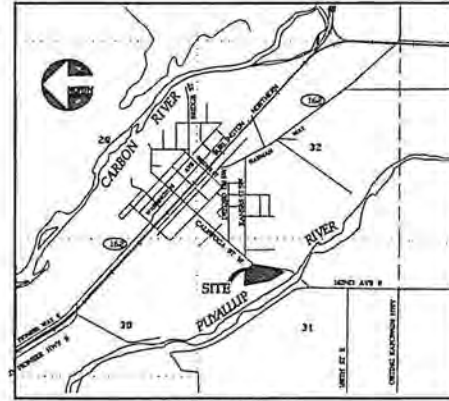
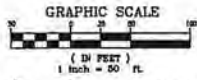
**SHEET 2 OF 5**  
**FILE NO** 33008  
**APEX ENGINEERING P.L.L.C. 2015**

1:12000 (Metric) 1:24000 (Imperial) 1:24000 (Imperial) 1:24000 (Imperial)



# BRIDGEWATER

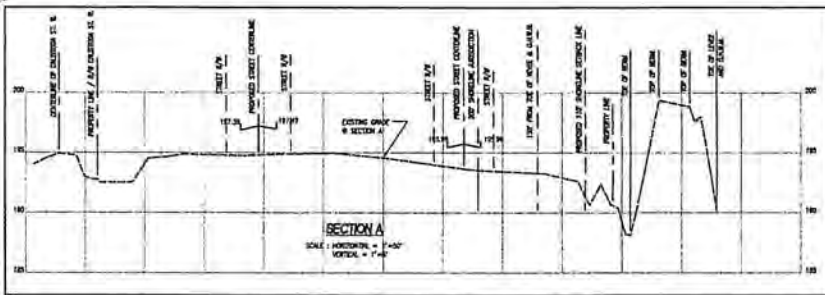
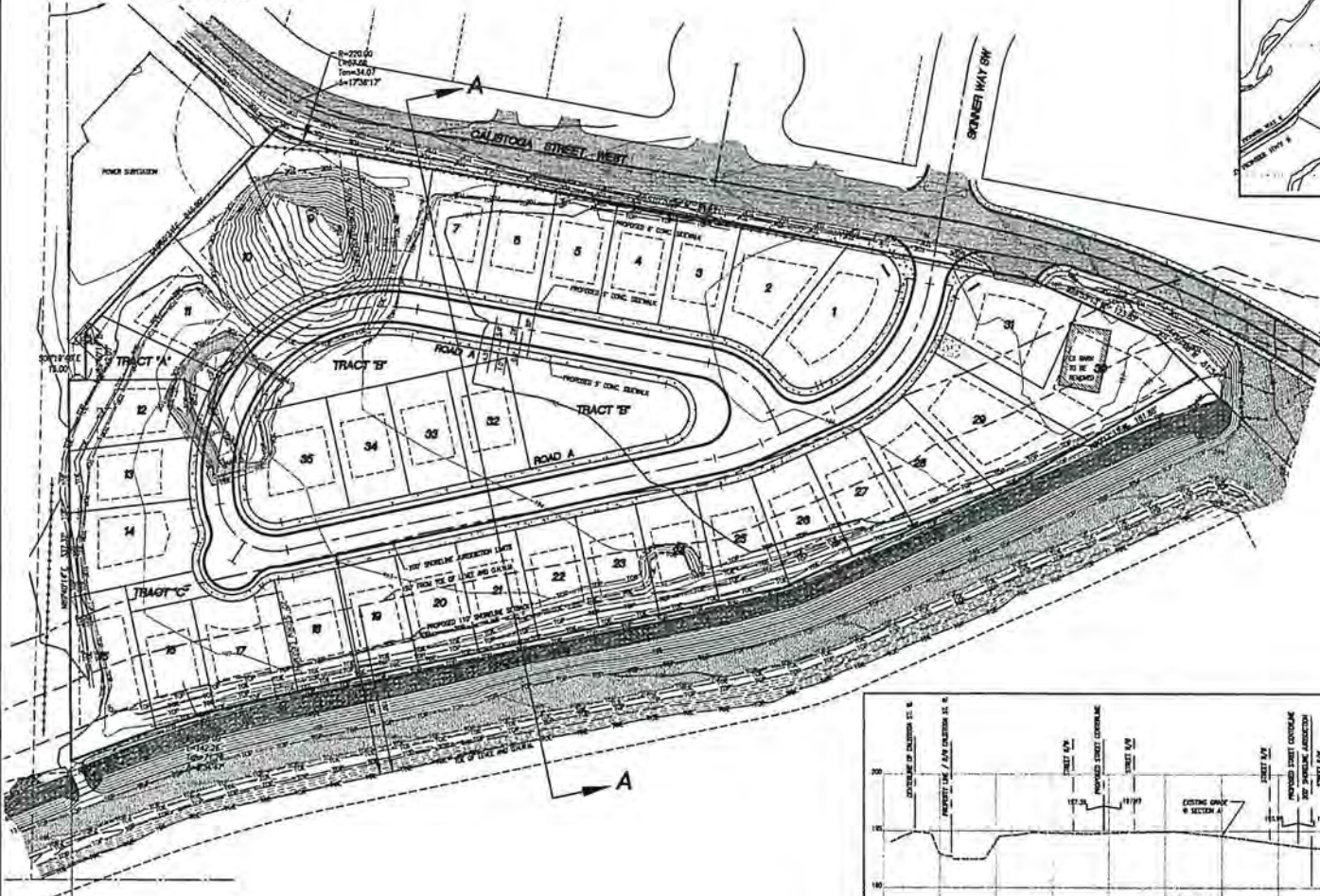
**SUBSTANTIAL SHORELINE DEVELOPMENT PERMIT AND SHORELINE VARIANCE**  
 A PORTION OF THE SE 1/4 OF THE NE 1/4 OF SECTION 31, TOWNSHIP 19 NORTH, RANGE 05 EAST, W.M.  
 CITY OF ORTING, PIERCE COUNTY, WASHINGTON



**VICINITY MAP**  
SCALE: 1" = 400'

**LEGAL DESCRIPTION**

PARCELS 18, AS SHOWN ON THAT CERTAIN BOUNDARY LINE REVISION RECORDED UNDER RECORDING NO. 201109230001, BEING A PORTION OF THE NORTHWEST 1/4 OF SECTION 31, TOWNSHIP 19 NORTH, RANGE 5 EAST OF THE W.M. IN PIERCE COUNTY, WASHINGTON;  
 EXCEPT THAT PORTION CONVEYED TO THE CITY OF ORTING IN DEED RECORDED UNDER RECORDING NUMBER 201110000713.



REV. NO.	REVISION DESCRIPTION	DATE BY

**Apex**  
 Engineering  
 2632 34th Ave, Suite 200  
 Tacoma, Washington 98402-7479  
 (253) 473-4484 FAX (253) 473-5899

**TITLE** BRIDGEWATER  
 SUBSTANTIAL SHORELINE DEVELOPMENT PERMIT  
 AND SHORELINE VARIANCE  
**CLIENT** AMERICAN CONCRETE, INC.  
 3508-A BRIMMER-TAPPIN HWY E  
 LAKE TAPPAWA WA 98008  
 ATTN: METRIC CORELUS



**PROJECT MANAGER** GREGORY S. BENVENUE  
**DESIGNER** ETR  
**DRAWN** ETR  
**CHECKED** ETR  
**REVISED BY** T.M.H. on 08/11  
**FILE NO.** 33008  
**DATE** 08-26-2008  
**SCALE** AS SHOWN

**SHEET 5 OF 5**  
 FILE NO. 33008  
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