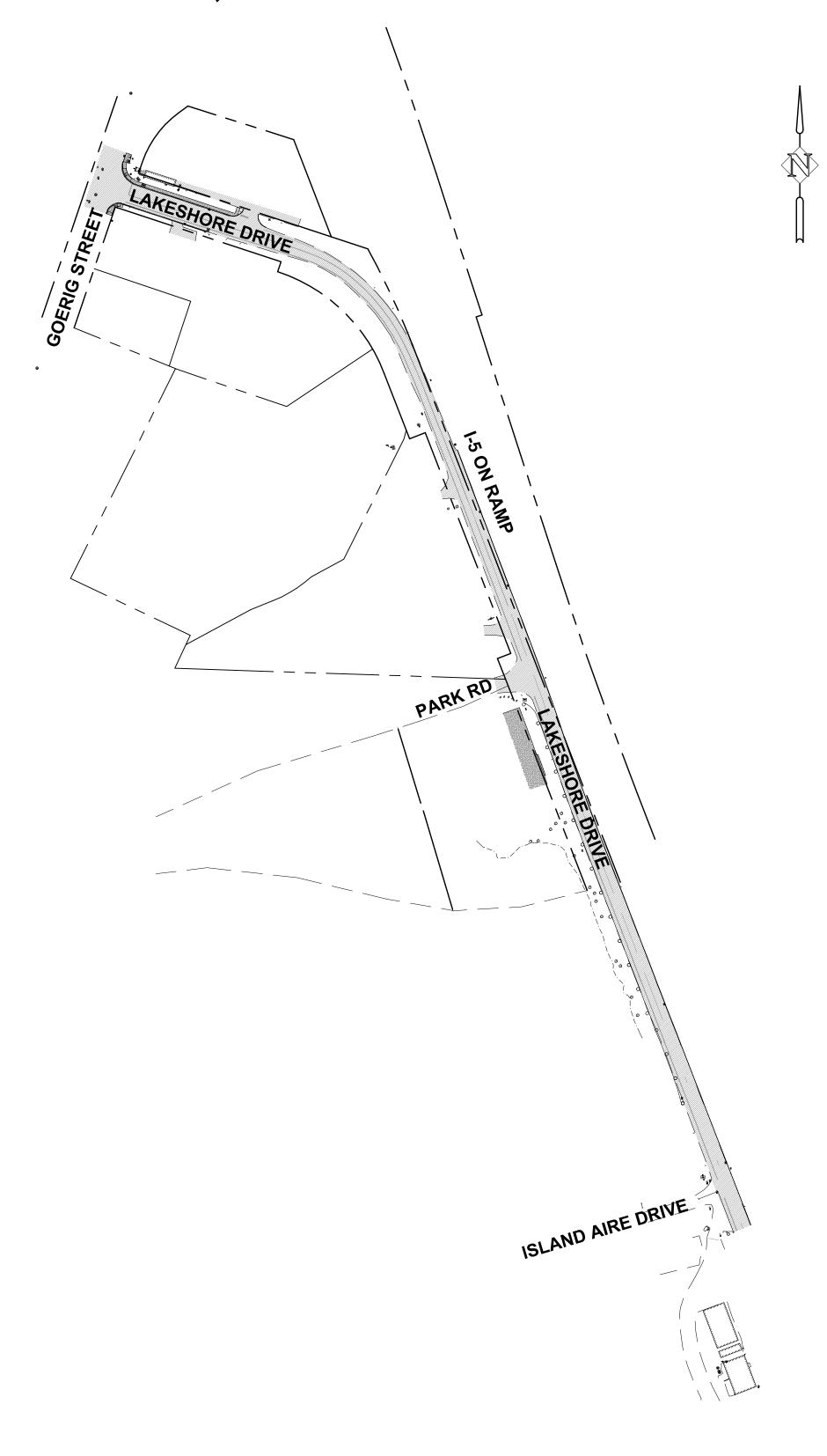
LAKESHORE DRIVE SANITARY AND WATER IMPROVEMENTS

WOODLAND, WASHINGTON

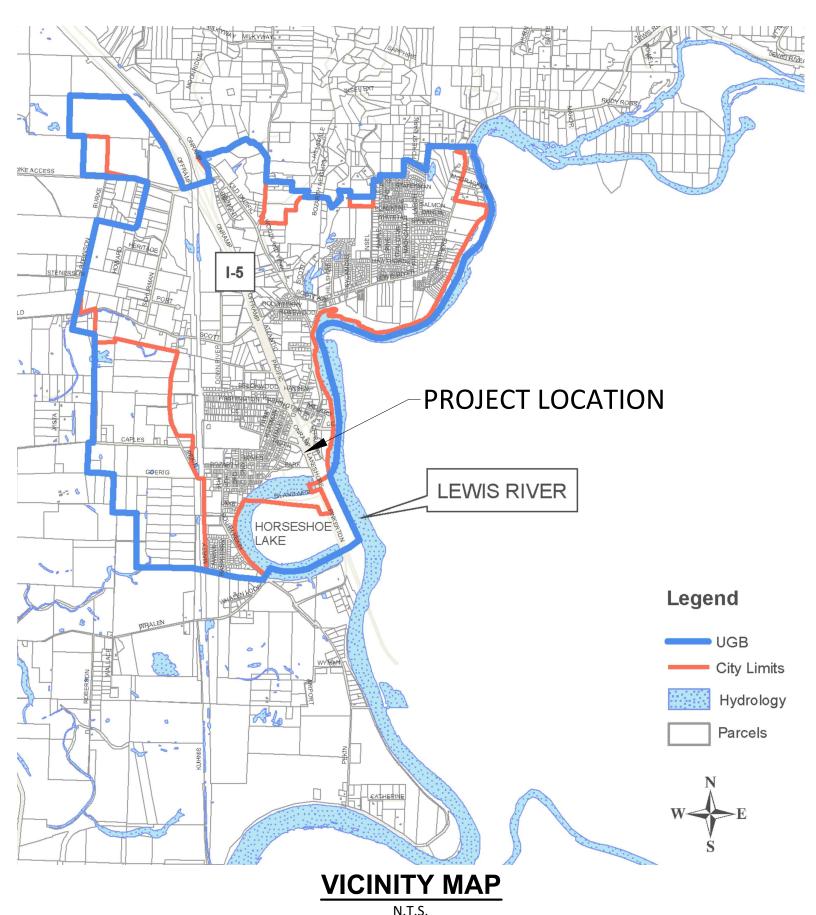


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SANITARY SEWER DETAILS



PROJECT OWNER

CITY OF WOODLAND
CONTACT: TRACY COLEMAN
230 DAVIDSON AVE
WOODLAND, WA 98674
PH: 360-225-7999
FAX: 360-225-7467
E-MAIL: COLEMANT@CI.WOODLAND.WA.US

CIVIL ENGINEER

HARPER HOUF PETERSON RIGHELLIS INC. CONTACT: BRUCE HAUNREITER, P.E. 1220 MAIN STREET, SUITE 150 VANCOUVER, WA 98660 PH: (360) 750-1131 FAX: (360) 750-1141 E-MAIL: BRUCE@HHPR.COM

TOPOGRAPHIC SURVEY BY HARPER HOUF PETERSON RIGHELLIS INC.

HORIZONTAL DATUM:

HORIZONTAL COORDINATES ARE BASED ON WASHINGTON STATE PLANE (SOUTH ZONE) - REFERENCE FRAME: NAD 83 (2011)(EPOCH:2010.0000), US SURVEY FEET. ALL DISTANCES ARE GROUND, SO STATE PLANE COORDINATES ARE APPROXIMATE.

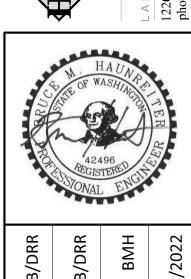
VERTICAL DATUM:

ELEVATION DATUM: NGVD 29



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Harper
Houf Peterson
Righellis Inc.



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SCALE: 1" = 150'

GENERAL NOTES:

ALL CONSTRUCTION, MATERIALS, AND WORKMANSHIP SHALL CONFORM TO THE CITY OF WOODLAND ENGINEERING STANDARDS AND THE LATEST EDITION OF "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION" AS PREPARED BY WSDOT AND APWA.

ALL MATERIALS AND WORK ARE SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF WOODLAND'S DEPARTMENT OF PUBLIC WORKS (360) 225-7999.

THE CONTRACTOR SHALL NOTIFY THE PUBLIC WORKS DEPARTMENT AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.

THE CONTRACTOR SHALL COORDINATE AND ATTEND A PRE-CONSTRUCTION CONFERENCE WITH THE CITY OF WOODLAND PUBLIC WORKS DEPARTMENT PRIOR TO COMMENCING CONSTRUCTION.

ANY DEVIATIONS FROM THE PLANS WILL REQUIRE A WRITTEN REQUEST FROM THE CONTRACTOR AND APPROVAL BY THE PUBLIC WORKS DIRECTOR.

THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS AND LICENSES BEFORE STARTING CONSTRUCTION.

LOCATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ARE APPROXIMATE ONLY AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ADDITIONAL UNDERGROUND UTILITIES MAY EXIST.

THE CONTRACTOR SHALL HAVE ALL EXISTING UTILITIES PROPERLY LOCATED PRIOR TO COMMENCING EXCAVATIONS. THE CONTRACTOR SHALL, AT A MINIMUM, CALL THE UTILITIES COORDINATING COUNCIL 48 HOURS BEFORE BEGINNING EXCAVATIONS. UTILITIES COORDINATING COUNCIL CAN BE REACHED AT 1-800-424-5555.

CONTRACTOR SHALL KEEP AN APPROVED SET OF PLANS ON THE PROJECT SITE AT ALL TIMES.

ALL PIPE BEDDING MATERIAL SHALL MEET THE APPLICABLE SPECIFICATIONS IN THE CITY OF WOODLAND STANDARDS. BEFORE ANY NATIVE MATERIAL IS USED, LABORATORY TEST RESULTS SHALL BE PROVIDED TO THE CITY INSPECTOR INDICATING THAT THE MATERIAL MEETS THE SPECIFICATIONS.

PIPE BEDDING AND BACKFILL SHALL BE PER CITY OF WOODLAND STANDARDS. BACKFILL MATERIAL SHALL BE COMPACTED TO 95% MAXIMUM RELATIVE DENSITY.

SHOULD ANY ITEM OF ARCHAEOLOGICAL INTEREST BE FOUND DURING DEVELOPMENT, YOU ARE REQUIRED TO STOP WORK AND NOTIFY THE CITY INSPECTOR AND THE WASHINGTON STATE OFFICE OF ARCHAEOLOGY AND HISTORIC PRESERVATION AT (360) 753-4011 IMMEDIATELY. FAILURE TO DO SO COULD RESULT IN A FELONY CONVICTION.

AT THE END OF EACH WORK DAY THE CONTRACTOR SHALL CLEAN UP THE PROJECT AREA AND LEAVE IT IN A NEAT AND SECURED MANNER. UPON COMPLETION, THE CONTRACTOR SHALL LEAVE THE PROJECT AREA FREE OF DEBRIS AND UNUSED MATERIAL.

THE CONTRACTOR SHALL PRUNE ALL VEGETATION, AS NECESSARY, AWAY AND UP FROM THE WORK AS WELL AS ANY ROOT PRUNING AS DETERMINED BY THE ENGINEER. THE CONTRACTOR SHALL PROTECT ALL EXISTING LANDSCAPING THAT IS TO REMAIN.

THE CONTRACTOR SHALL MAKE EVERY REASONABLE EFFORT TO PROTECT ANY EXISTING CONCRETE CURBS AND SIDEWALKS TO REMAIN AND SHALL REPLACE DAMAGED CURBS AND SIDEWALKS AT NO ADDITIONAL COST.

THE CONTRACTOR SHALL PROTECT EXISTING UTILITIES. ALL DISTURBED UTILITIES SHALL BE REPAIRED AS DIRECTED. ALL RELOCATED UTILITIES WILL BE RESET IN ACCORDANCE WITH THE APPROPRIATE AGENCY OR OWNER'S STANDARDS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF EXISTING UTILITY LINES DAMAGED OR DESTROYED THROUGH NEGLIGENCE AND/OR INATTENTION.

CONTRACTOR SHALL REPORT ALL DAMAGES IMMEDIATELY TO THE PUBLIC WORKS DIRECTOR'S OFFICE OR CONTACT THE INSPECTOR ON THE JOB.

THE APPLICANT MAY BE REQUIRED TO PROVIDE FLAGGING, SIGNS, AND OTHER TRAFFIC CONTROL DEVICES. ALL SUCH DEVICES SHALL CONFORM TO THE STANDARDS ESTABLISHED IN THE LATEST ADOPTED EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION AND THE MODIFICATIONS TO THE MUTCD FOR STREETS AND HIGHWAYS FOR THE STATE OF WASHINGTON.

TWO-WAY TRAFFIC MUST BE MAINTAINED AT ALL TIMES ON PUBLIC STREETS.

EROSION CONTROL

THE CONTRACTOR IS RESPONSIBLE FOR EROSION CONTROL DURING AND AFTER INSTALLATION OF ALL UTILITY WORK ASSOCIATED WITH UTILITY TRENCHES.

SEDIMENT CONTROL SHALL BE ESTABLISHED PRIOR TO THE COMMENCEMENT OF WORK AND MAINTAINED THROUGH THE LIFE OF THE PROJECT, AS CALLED OUT ON THE PLANS

PAVEMENT SWEEPING AND SHOVELING IS REQUIRED. WASHING THE PAVEMENT INTO THE EXISTING STORM SYSTEM WILL NOT BE PERMITTED.

THE CONTRACTOR SHALL MAINTAIN ON-SITE A WRITTEN DAILY LOG OF EROSION CONTROL PRACTICE MAINTENANCE.

IF THE CITY INSPECTOR OR ENGINEER(S) HAS EVIDENCE OF POOR CONSTRUCTION PRACTICES OR EROSION CONTROL TECHNIQUES, CITATIONS AND/OR A STOP WORK ORDER SHALL BE ISSUED UNTIL PROPER MEASURES HAVE BEEN TAKEN AND APPROVED BY CITY OF WOODLAND. IF THE BMP'S APPLIED ARE INSUFFICIENT TO PREVENT SEDIMENT FROM REACHING WATER BODIES, ADJACENT PROPERTIES, OR PUBLIC RIGHT-OF-WAY, THEN THE DIRECTOR SHALL REQUIRE ADDITIONAL BMP'S.

EROSION CONTROL AS SHOWN ON THE PLANS ARE THE BASE RECOMMENDATIONS, AND ARE IN NO WAY INTENDED TO REPRESENT ALL OF THE POTENTIAL EROSION CONTROL MEASURES THAT MAY BE REQUIRED DURING CONSTRUCTION. ALL ADDITIONAL MEASURES REQUIRED AND NECESSARY TO CONTROL STORM WATER RUNOFF SHALL BE AT CONTRACTOR'S EXPENSE.

SANITARY SEWER

SANITARY SEWER IMPROVEMENTS SHALL CONFORM TO THE LATEST VERSION OF THE WSDOT SPECIFICATIONS AND THE CITY OF WOODLAND GENERAL REQUIREMENTS.

SERVICE LATERAL CONNECTIONS AND PIPING WITHIN THE PUBLIC SEWER EASEMENT SHALL BE CONSTRUCTED TO PUBLIC STANDARDS. CONSTRUCTION SERVICE INSPECTION REQUIRED.

SANITARY SEWER PIPE SHALL BE POLYVINYL CHLORIDE (PVC) AND CONFORM TO ASTM D3034, SDR35 OR C-900 PVC. SEE PLAN AND PROFILE SHEETS C2.01 THROUGH C2.03.

CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND INSPECTIONS.

SEE ADDITIONAL SANITARY SEWER NOTES, SHEET C4.02.

WATER

ALL WATERMAIN INSTALLATION, DISINFECTION AND TESTING SHALL COMPLY WITH WSDOT STANDARD SPECIFICATIONS. UNIFORM PLUMBING CODE, AND CITY OF WOODLAND WATER DESIGN AND CONSTRUCTION STANDARDS.

ALL PIPE DEFLECTIONS SHALL BE WITHIN THE CONSTRAINTS OF THE MANUFACTURE'S SPECIFICATIONS.

CONTRACTOR SHALL POTHOLE TO VERIFY ALL POINTS OF CONNECTION, EXISTING UTILITY CROSSINGS AND SHALL NOTIFY ENGINEER IF CONFLICT EXIST PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL SUPPLY WORKER WHO IS CERTIFIED TO WORK ON A.C. PIPE WHEN ANY A.C. PIPE IS ENCOUNTERED DURING THE PROJECT.

SEE ADDITIONAL WATER NOTES, SHEET C4.04.

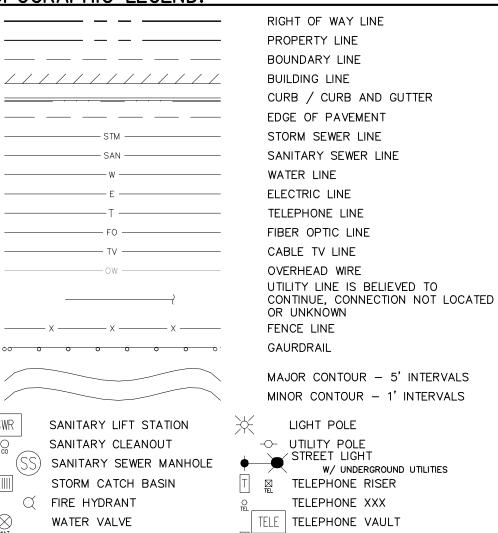
ARCHAEOLOGY

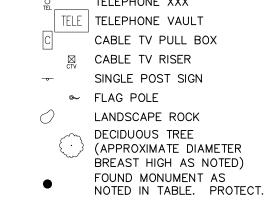
IF ANY CULTURAL RESOURCES AND/OR HUMAN REMAINS ARE DISCOVERED IN THE COURSE OF UNDERTAKING THE DEVELOPMENT ACTIVITY, THE DEPARTMENT OF ARCHAEOLOGY AND HISTORIC PRESERVATION IN OLYMPIA, COWLITZ AND CLARK COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT SHALL BE NOTIFIED. FAILURE TO COMPLY WITH THESE STATE REQUIREMENTS MAY CONSTITUTE A CLASS C FELONY, SUBJECT TO IMPRISONMENT AND/OR

STANDARD DETAIL STATEMENT

ALL MATERIALS AND METHODS OF CONSTRUCTION AND INSTALLATION FOR WATER, SEWER, AND EROSION CONTROL MEASURES, SHALL CONFORM TO CITY OF WOODLAND ENGINEERING SERVICES "GENERAL REQUIREMENTS AND DETAILS FOR THE DESIGN AND CONSTRUCTION OF WATER AND SANITARY SEWER SYSTEMS." CONSTRUCTION SHALL BE AS PER THE MOST CURRENT STANDARD DETAIL CONTAINED THEREIN.

TOPOGRAPHIC LEGEND:





EXISTING CONCRETE SURFACE

EXISTING ASPHALT SURFACE

W WATER METER

IRRIGATION BOX

) POWER MANHOLE

POWER METER

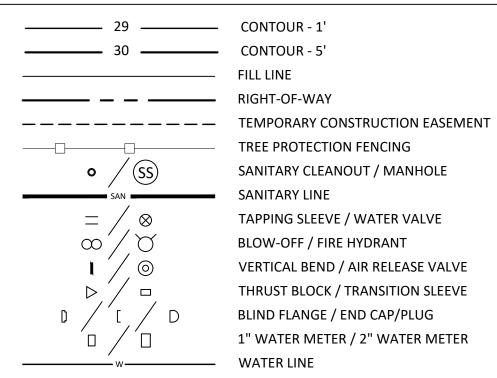
POWER RISER

PWR POWER VAULT

EXISTING TACTILE SURFACE

NOTE: SYMBOLS SHOWN HEREON ARE FOR GRAPHICAL REPRESENTATION PURPOSES AND DO NOT NECESSARILY SHOW SHAPE, SIZE, ROTATION, CONDITION, TYPE, ETC. OF THE ACTUAL PHYSICAL IMPROVEMENTS THAT THEY REPRESENT. CONDITION, TYPE, ROTATION, ETC. MAY VARY AMONGST ITEMS SHOWN BY THE SAME SYMBOL.

PROPOSED LEGEND



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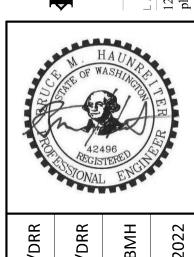
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CONSTRUCTION NOTES:

- (2) INSTALL INLET PROTECTION PER DETAIL, SHEET C4.01.
- (11) CONNECT TO EXISTING SANITARY MANHOLE PER DETAIL S-10, SHEET C4.03.
- (12) CONSTRUCT 12" PVC SANITARY MAIN WITH PIPE BEDDING PER DETAIL S-02, SHEET C4.02. BACKFILL TRENCH PER DETAIL S-03, SHEET C4.02.
- (13) CONSTRUCT 48" SANITARY MANHOLE PER DETAIL S-07, SHEET C4.02.
- (14) CONSTRUCT 8" PVC LATERAL SERVICE WITH WYE CONNECTION PER DETAIL S-04, SHEET
- (15) INSTALL SANITARY STUB MARKER AT PIPE END PER DETAIL S-15, SHEET C4.03.
- (21) CUT AND CONNECT TO EXISTING 8" C.I. WATERMAIN WITH:
- 1 12" x 8" CROSS, FLG. x M.J. 1 - 12" B.F.V., FLG. x M.J.
- 1 12" BLIND FLANGE
- 1 VALVE BOX TOP WITH 6" PVC PIPE EXT. 1 - THRUST BLOCK
- 1 8", CL. 52 D.I. NIPPLE (FIELD FIT LENGTH, SOUTH)
- 1 8" LONG PATTERN TRANSITION SLEEVE, M.J. (D.I./C.I.) INSTALL APPROX. 8 LF OF 8" CL.52, D.I. WATERMAIN PIPE (NORTH, CONNECT AT EXISTING
- MECH. RESTRAIN ALL JOINTS. COORDINATE WITH FIELD INSPECTOR.
- INSTALL 12" C-900, PVC WATERMAIN PIPE PER NOTES AND DETAILS, SHEET C4.04 AND C4.05. SEE PLAN FOR LENGTH
- 1 THRUST BLOCK 1 - THRUST BLOCK MECH. RESTRAIN ALL JOINTS
 - (24) INSTALL FIRE HYDRANT ASSEMBLY PER DETAIL W-14, SHEET C4.05 WITH:
 - 1 4' x 4' CONCRETE PAD 1 - 12" x 6" TEE, M.J. x SIDE FLG.
 - 1 6" G.V., FLG. x M.J.
 - 1 VALVE BOX TOP WITH 6" PVC PIPE EXT.
 - INSTALL 6" CL.52, D.I. WATERMAIN PIPE TO HYDRANT. MECH. RESTRAIN ALL JOINTS FROM TEE TO HYDRANT. SEE PLAN FOR APPROX. LENGTH.
 - (25) INSTALL STD. 2" WATER SERVICE WITH 2" METER BOX AND METER YOKE PER DETAIL
 - (41) CAUTION: UTILITY CROSSING, SEE UTILITY CROSSING TABLE (THIS SHEET) FOR ADDITIONAL INFORMATION.

UTILITY CROSSING TABLE:

- (A) STA. 0+90.99 APPROX. FINISHED GRADE = 28.0±
- EX. 10" SAN. I.E. = 13.7± PROP. 12" WAT. I.E. = 24.0± INSTALL WATERMAIN AT STANDARD DEPTH, MAINTAIN MIN. CLEARANCE.
- (B) STA. 1+08.93 APPROX. FINISHED GRADE = 27.79± EX. 10" SAN. I.E. = 14.2± PROP. 12" WAT. I.E. = 23.79± INSTALL WATERMAIN AT STANDARD DEPTH, MAINTAIN MIN. CLEARANCE.
- (C) STA. 2+99.09 APPROX. FINISHED GRADE = 26.76± EX. TEL. I.E. = UNK. PROP. 12" WAT. I.E. = 22.76± POTHOLE PRIOR TO CONSTRUCTION. INSTALL WATERMAIN AT STANDARD DEPTH, MAINTAIN MIN. CLEARANCE.
- (D) STA. 3+92.71 APPROX. FINISHED GRADE = 26.94± FUT. 12" STM. I.E. = 20.00± PROP. 6" WAT. I.E. = 23.10± INSTALL WATERMAIN AT STANDARD DEPTH, MAINTAIN MIN. CLEARANCE.
- (E) STA. 3+92.71 APPROX. FINISHED GRADE = 26.60± PROP. 12" SAN. I.E. = 15.15± PROP. 6" WAT. I.E. = 23.10± INSTALL WATERMAIN AT STANDARD DEPTH, MAINTAIN MIN. CLEARANCE.
- (F) STA. 3+92.71 APPROX. FINISHED GRADE = 26.48± EX. TEL. I.E. = UNK. PROP. 6" WAT. I.E. = 23.10± POTHOLE PRIOR TO CONSTRUCTION. INSTALL WATERMAIN AT STANDARD DEPTH, MAINTAIN MIN. CLEARANCE.

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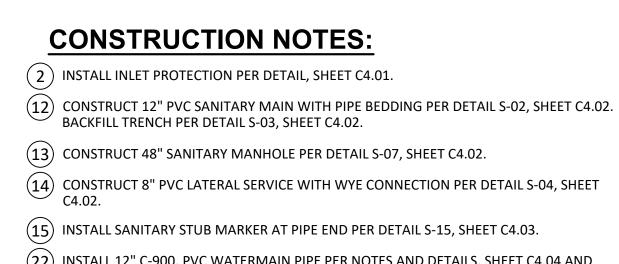
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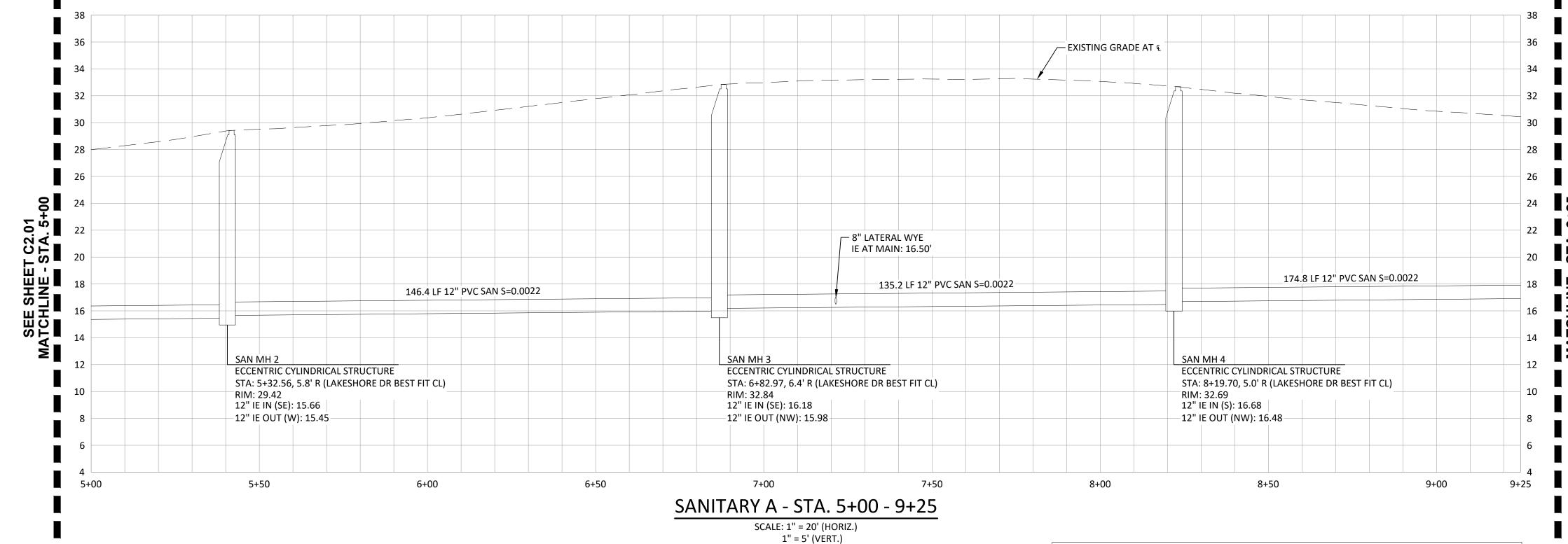


(14) CONSTRUCT 8" PVC LATERAL SERVICE WITH WYE CONNECTION PER DETAIL S-04, SHEET

- (15) INSTALL SANITARY STUB MARKER AT PIPE END PER DETAIL S-15, SHEET C4.03.
- 22) INSTALL 12" C-900, PVC WATERMAIN PIPE PER NOTES AND DETAILS, SHEET C4.04 AND C4.05. SEE PLAN FOR LENGTH.
- (24) INSTALL FIRE HYDRANT ASSEMBLY PER DETAIL W-14, SHEET C4.05 WITH: 1 - 4' x 4' CONCRETE PAD
- 1 12" x 6" TEE, M.J. x SIDE FLG.
- 1 6" G.V., FLG. x M.J.
- 1 VALVE BOX TOP WITH 6" PVC PIPE EXT.
- INSTALL 6" CL.52, D.I. WATERMAIN PIPE TO HYDRANT. MECH. RESTRAIN ALL JOINTS FROM TEE TO HYDRANT. SEE PLAN FOR APPROX. LENGTH.
- (25) INSTALL STD. 2" WATER SERVICE WITH 2" METER BOX AND METER YOKE PER DETAIL W-03, SHEET C4.04. CONTRACTOR SHALL PROVIDE ALL NECESSARY FITTINGS AND COORDINATE WITH FIELD INSPECTOR.
- (26) 1 12" x 8" TEE, M.J. x SIDE FLG. 1 - 8" G.V., FLG. x M.J. 1 - VALVE BOX TOP WITH 6" PVC PIPE EXT.
- 1 END CAP 2 - THRUST BLOCK
- INSTALL 8" C-900, PVC WATERMAIN PIPE. MECH. RESTRAIN ALL JOINTS FROM TEE TO END CAP. SEE PLAN FOR APPROX. LENGTH.
- 1 12" MANUAL AIR RELEASE VALVE, M.J. (LOCATE AT HIGH POINT) FOR MORE INFORMATION, SEE MANUAL AIR RELEASE VALVE DETAIL, SHEET C4.05.
- (41) CAUTION: UTILITY CROSSING, SEE UTILITY CROSSING TABLE (THIS SHEET) FOR ADDITIONAL INFORMATION.

STA. 8+02.70 35 LF (41) H (22) 74 LF STA. 8+76.66 21 LF 22) 163 LF (27) STA. 7+45.11 (22) 53 LF LAKESHORE DRIVE STA. 5450.05 (26) 40 LF 13 SAN MH 4 = FUTURE STREET IMPROVEMENTS (15) SAN SM-03 (CURB & GUTTER, SIDEWALKS, RAMPS, (13) SAN MH 3 (22)8EE SHT C2,01, LOT ACCESS AND STORM-DRAINAGE SYSTEM) PARCEL NO. 50475 OWNER: WOODLAND COMM. **SWIMMING POOL COMMITTEE** #1 (13) <u>SAN MH 2</u> PARCEL NO. 50480 OWNER: FORT VANCOUVER PARCEL NO. 5044001 **REGIONAL LIBRARY** OWNER: HERMANN LLC

PLAN VIEW



SANITARY STUB MARKER TABLE LOCATION PIPE LENGTH/SIZE/SLOPE NUMBER RIM ELEV. INVERT ELEV. LAKESHORE DR BEST FIT CL 33.58 | 6" IE OUT (NE): 16.67 | 17.38 LF PVC/ S=0.0100 STA: 7+17.19, 26.83 R

UTILITY CROSSING TABLE:

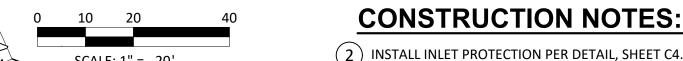
- (G) STA. 5+50.05 APPROX. FINISHED GRADE = 29.61± PROP. 12" SAN. I.E. =15.70± PROP. 8" WAT. I.E. = 25.61± INSTALL WATERMAIN AT STANDARD DEPTH, MAINTAIN MIN. CLEARANCE.
- (H) STA. 8+02.70 APPROX. FINISHED GRADE = 33.00± PROP. 12" SAN. I.E. = 16.44± PROP. 8" WAT. I.E. = 29.17± INSTALL WATERMAIN AT STANDARD DEPTH, MAINTAIN MIN. CLEARANCE.
- (I) STA. 8+76.66 APPROX. FINISHED GRADE = 31.30± PROP. 12" SAN. I.E. = 17.93± PROP. 6" WAT. I.E. = 27.55± INSTALL WATERMAIN AT STANDARD DEPTH, MAINTAIN MIN. CLEARANCE.

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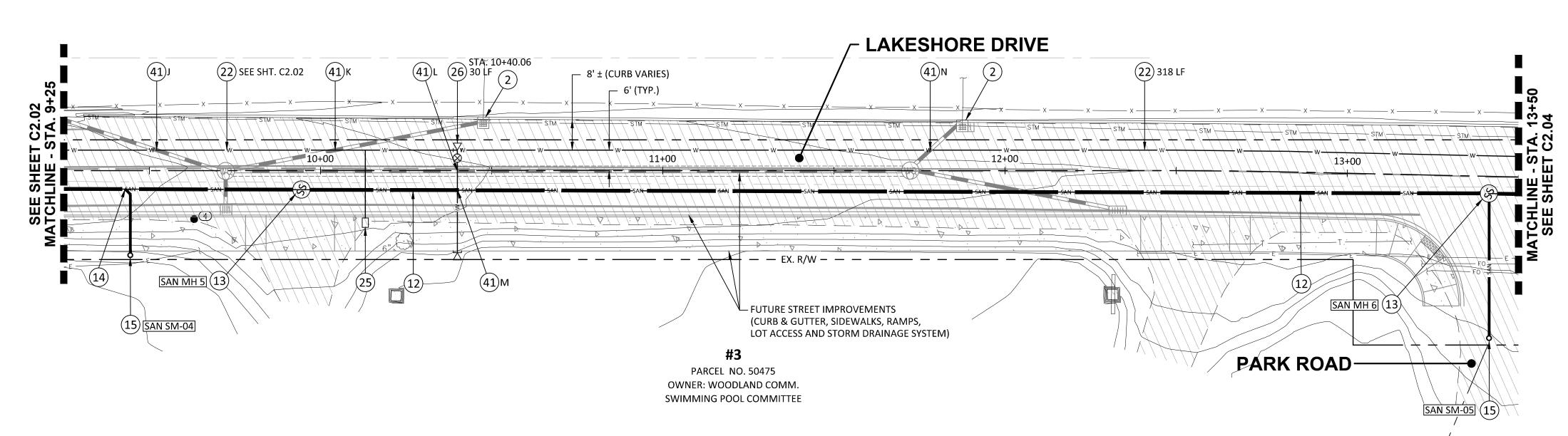
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- (2) INSTALL INLET PROTECTION PER DETAIL, SHEET C4.01.
- CONSTRUCT 12" PVC SANITARY MAIN WITH PIPE BEDDING PER DETAIL S-02, SHEET C4.02. BACKFILL TRENCH PER DETAIL S-03, SHEET C4.02.
- (13) CONSTRUCT 48" SANITARY MANHOLE PER DETAIL S-07, SHEET C4.02.
- CONSTRUCT 8" PVC LATERAL SERVICE WITH WYE CONNECTION PER DETAIL S-04, SHEET C4.02.
- (15) INSTALL SANITARY STUB MARKER AT PIPE END PER DETAIL S-15, SHEET C4.03.
- (22) INSTALL 12" C-900, PVC WATERMAIN PIPE PER NOTES AND DETAILS, SHEET C4.04 AND C4.05. SEE PLAN FOR LENGTH.
- 25) INSTALL STD. 2" WATER SERVICE WITH 2" METER BOX AND METER YOKE PER DETAIL W-03, SHEET C4.04. CONTRACTOR SHALL PROVIDE ALL NECESSARY FITTINGS AND COORDINATE WITH FIELD INSPECTOR.
- 26) 1 12" x 8" TEE, M.J. x SIDE FLG. 1 8" G.V., FLG. x M.J. 1 - VALVE BOX TOP WITH 6" PVC PIPE EXT.

1 - END CAP

- 2 THRUST BLOCK INSTALL 8" C-900, PVC WATERMAIN PIPE. MECH. RESTRAIN ALL JOINTS FROM TEE TO END CAP. SEE PLAN FOR APPROX. LENGTH.
- (41) CAUTION: UTILITY CROSSING, SEE UTILITY CROSSING TABLE (THIS SHEET) FOR ADDITIONAL INFORMATION.



PLAN VIEW

EXISTING GRADE AT & SEE SHEET C2.0 MATCHLINE - STA. 8 BTM 12" STM: 24.4' BTM 12" STM: 22.8' TOP 12" SAN: 18.0' **-** Տ 🖺 TOP 12" SAN: 18.7' 6.40' CLEARANCE 4.10' CLEARANCE 346.9 LF 12" PVC SAN S=0.0022 174.8 LF 12" PVC SAN S=0.0022 – 8" LATERAL WYE IE AT MAIN: 17.22' SAN MH 6 SAN MH 5 ECCENTRIC CYLINDRICAL STRUCTURE ECCENTRIC CYLINDRICAL STRUCTURE STA: 13+41.52, 5.0' R (LAKESHORE DR BEST FIT CL) STA: 9+94.47, 5.6' R (LAKESHORE DR BEST FIT CL) RIM: 27.85 RIM: 29.42 8" IE IN (W): 18.52 12" IE IN (S): 17.26 12" IE IN (S): 18.22 -- 12" IE OUT (N): 17.06 12" IE OUT (N): 18.02 11+50 9+50 10+00 10+50 11+00 12+00 12+50 13+00 13+50 9+25 SANITARY A - STA. 9+25 - 13+50 SCALE: 1" = 20' (HORIZ.) SANITARY STUB MARKER TABLE 1" = 5' (VERT.) LOCATION RIM ELEV. INVERT ELEV. PIPE LENGTH/SIZE/SLOPE NUMBER

LAKESHORE DR BEST FIT CL

LAKESHORE DR BEST FIT CL

STA: 13+42.49, 47.31 R

STA: 9+44.47, 24.75 R

25.55 | 6" IE OUT (E): 17.44 | 19.35 LF PVC/ S=0.0100

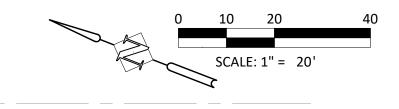
8" IE OUT (E): 18.94 | 42.32 LF PVC/ S=0.0100

SAN SM-04

SAN SM-05

UTILITY CROSSING TABLE:

- (J) STA. 9+52.17 APPROX. FINISHED GRADE = 29.89± FUT. 12 STM. I.E. = 23.46± PROP. 12" WAT. I.E. = 25.89± INSTALL WATERMAIN OVER PROPOSED STORM, MAINTAIN MIN. CLEARANCE.
- (K) STA. 10+05.07 APPROX. FINISHED GRADE = 29.29± FUT. 12" STM. I.E. = 23.23± PROP. 12" WAT. I.E. = 25.28± INSTALL WATERMAIN OVER PROPOSED STORM, MAINTAIN MIN. CLEARANCE.
- (L) STA. 10+40.06 APPROX. FINISHED GRADE = 29.09± FUT. 12" STM. I.E. = 21.15± PROP. 8" WAT. I.E. = 25.04± INSTALL WATERMAIN OVER PROPOSED STORM, MAINTAIN MIN. CLEARANCE.
- (M) STA. 10+40.06 APPROX. FINISHED GRADE = 29.04± PROP. 12" SAN. I.E. = 17.36± PROP. 8" WAT. I.E. = 25.04± INSTALL WATERMAIN AT STANDARD DEPTH, MAINTAIN MIN. CLEARANCE.
- (N) STA. 11+77.32 APPROX. FINISHED GRADE = 27.86± FUT. 12" STM. I.E. = 21.82± PROP. 12" WAT. I.E. = 23.86± INSTALL WATERMAIN OVER PROPOSED STORM, MAINTAIN MIN. CLEARANCE.

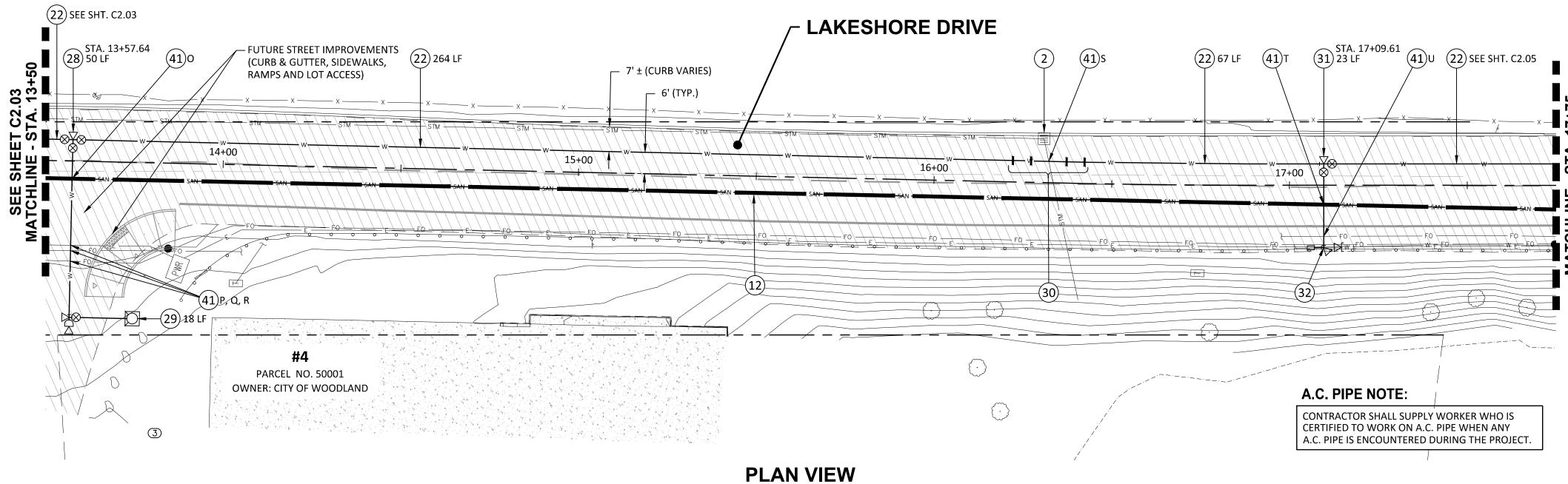


— EXISTING GRADE AT €

17+00

17+50

17+75



500.0 LF 12" PVC SAN S=0.0022

15+50

SANITARY A - STA. 13+50 - 17+75

SCALE: 1" = 20' (HORIZ.)

1" = 5' (VERT.)

16+00

16+50

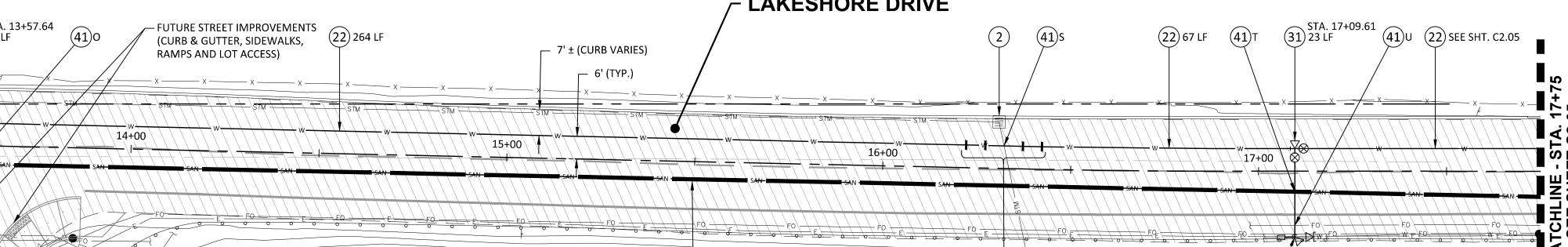
SEE SHEET C2.0
AATCHLINE - STA. 1

13+50

14+00

14+50

15+00

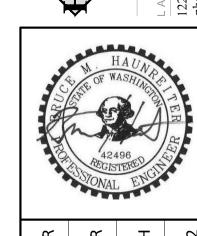


CONSTRUCTION NOTES:

- (2) INSTALL INLET PROTECTION PER DETAIL, SHEET C4.01.
- (12) CONSTRUCT 12" PVC SANITARY MAIN WITH PIPE BEDDING PER DETAIL S-02, SHEET C4.02. BACKFILL TRENCH PER DETAIL S-03, SHEET C4.02.
- (22) INSTALL 12" C-900, PVC WATERMAIN PIPE PER NOTES AND DETAILS, SHEET C4.04 AND C4.05. SEE PLAN FOR LENGTH.
- (28) 1 12" x 8" TEE, FLG. 2 - 12" B.F.V., FLG. x M.J.
- 1 8" G.V., FLG. x M.J. 3 - VALVE BOX TOP WITH 6" PVC PIPE EXT.
- 1 THRUST BLOCK INSTALL 8" C-900, PVC WATERMAIN PIPE. MECH. RESTRAIN ALL JOINTS FROM TEE TO FIRE HYDRANT ASSEMBLY. SEE PLAN FOR APPROX. LENGTH.
- (29) INSTALL FIRE HYDRANT ASSEMBLY PER DETAIL W-14, SHEET C4.05 WITH: 1 - 4' x 4' CONCRETE PAD
- 1 8" x 6" TEE, M.J. x SIDE FLG. 1 - 6" G.V., FLG. x M.J.
- 1 VALVE BOX TOP WITH 6" PVC PIPE EXT. 1 - 8" PLUG, M.J.
- 1 THRUST BLOCK INSTALL 6" CL.52, D.I. WATERMAIN PIPE TO HYDRANT. MECH. RESTRAIN ALL JOINTS
- FROM TEE TO HYDRANT. SEE PLAN FOR APPROX. LENGTH. (30) INSTALL NEW WATERMAIN UNDER EXISTING 18" STORM PIPE WITH:
- 4 12", 22.5 DEG. (VERTICAL) BEND, M.J. W/ MECH. RESTRAINTS APPROX. 20 L.F. OF 12" CL.52, D.I. PIPE (FIELD FIT LENGTHS) FOR MORE INFORMATION, SEE WATERMAIN GRADE ADJUSTMENT DETAIL, SHEET C4.05.
- 31) 1 12" x 6" TEE, FLG. 1 - 12" B.F.V., FLG. x M.J.
 - 1 12" ADAPTER, FLG. x M.J. 1 - 6" G.V., FLG. x M.J.
- 2 VALVE BOX TOP WITH 6" PVC PIPE EXT. 1 - THRUST BLOCK
- INSTALL 6" CL.52, D.I. WATERMAIN PIPE TO 90 DEG. ELBOW (WEST). MECH. RESTRAIN
- (32) CUT AND CONNECT TO EXISTING 6" A.C. WATERMAIN WITH:
 - 1 6" CL. 52, D.I. NIPPLE (FIELD FIT LENGTH)
- 1 6" LONG PATTERN TRANSITION SLEEVE, M.J. (D.I./A.C.)
- 1 THRUST BLOCK MECH. RESTRAIN ALL JOINTS.
- ABANDON EXISTING 6" MAIN PER CITY OF WOODLAND STANDARDS, COORDINATE WITH FIELD INSPECTOR.
- (41) CAUTION: UTILITY CROSSING, SEE UTILITY CROSSING TABLE (THIS SHEET) FOR ADDITIONAL INFORMATION.

UTILITY CROSSING TABLE:

- (O) STA. 13+57.64 ARROX. FINISHED GRADE = 27.28± PROP. 12" SAN. I.E. = 18.26± PROP. 8" WAT. I.E. = 23.83± INSTALL WATERMAIN AT STANDARD DEPTH, MAINTAIN MIN. CLEARANCE.
- (P) STA. 13+57.64 APPROX. FINISHED GRADE = 27.25± EX. PWR. I.E. = UNK. PROP. 8" WAT. I.E. = 23.58± POTHOLE PRIOR TO CONSTRUCTION. INSTALL WATERMAIN AT STANDARD DEPTH, MAINTAIN MIN. CLEARANCE.
- (Q) STA. 13+57.64 APPROX. FINISHED GRADE = 27.19± EX. F.O. I.E. = UNK. PROP. 8" WAT. I.E. = 23.52± POTHOLE PRIOR TO CONSTRUCTION. INSTALL WATERMAIN AT STANDARD DEPTH, MAINTAIN MIN. CLEARANCE.
- (R) STA. 13+57.64 APPROX. FINISHED GRADE = 27.06± EX. F.O. I.E. = UNK. PROP. 8" WAT. I.E. = 23.39± POTHOLE PRIOR TO CONSTRUCTION. INSTALL WATERMAIN AT STANDARD DEPTH, MAINTAIN MIN. CLEARANCE.
- (S) STA. 16+32.15 APPROX. FINISHED GRADE = 27.45± EX. 18" STM. I.E. = 23.1± PROP. 12" WAT. I.E. = 21.6± POTHOLE PRIOR TO CONSTRUCTION. INSTALL WATERMAIN UNDER EXIST. STORM, MAINTAIN MIN. CLEARANCE.
- (T) STA. 17+09.61 APPROX. FINISHED GRADE = 27.76± PROP. 12" SAN. I.E. = 19.03± PROP.6" WAT. I.E. = 23.91± INSTALL WATERMAIN AT STANDARD DEPTH, MAINTAIN MIN. CLEARANCE.
- APPROX. FINISHED GRADE = 27.06± EX. F.O. I.E. = UNK. PROP. 6" WAT. I.E. = 23.56± POTHOLE PRIOR TO CONSTRUCTION. INSTALL WATERMAIN AT STANDARD DEPTH, MAINTAIN MIN. CLEARANCE.



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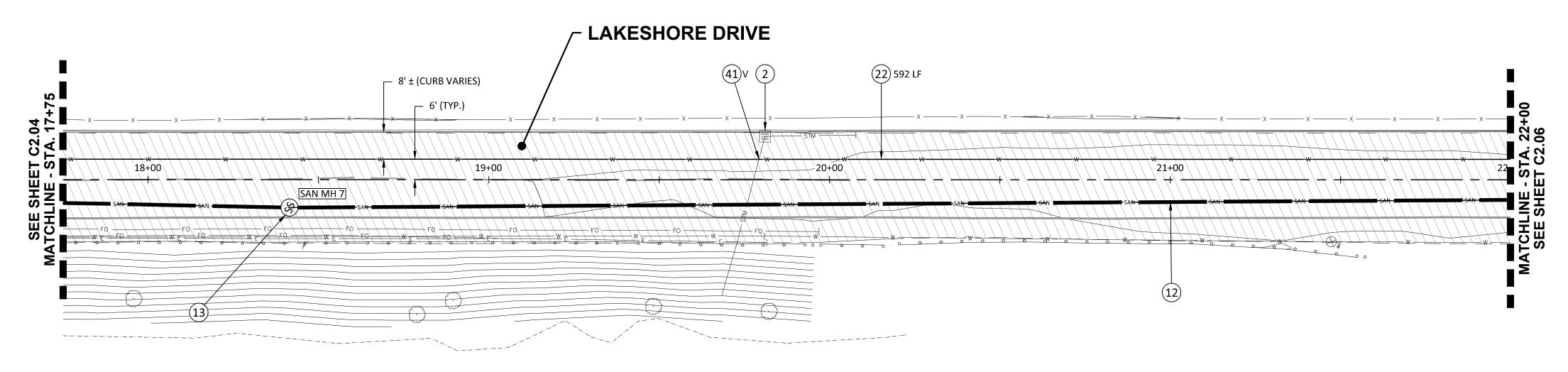
ALL JOINTS. SEE PLAN FOR APPROX. LENGTH. 1 - 6", 90 DEG. ELBOW, M.J.

(U) STA. 17+09.61

CONSTRUCTION NOTES:

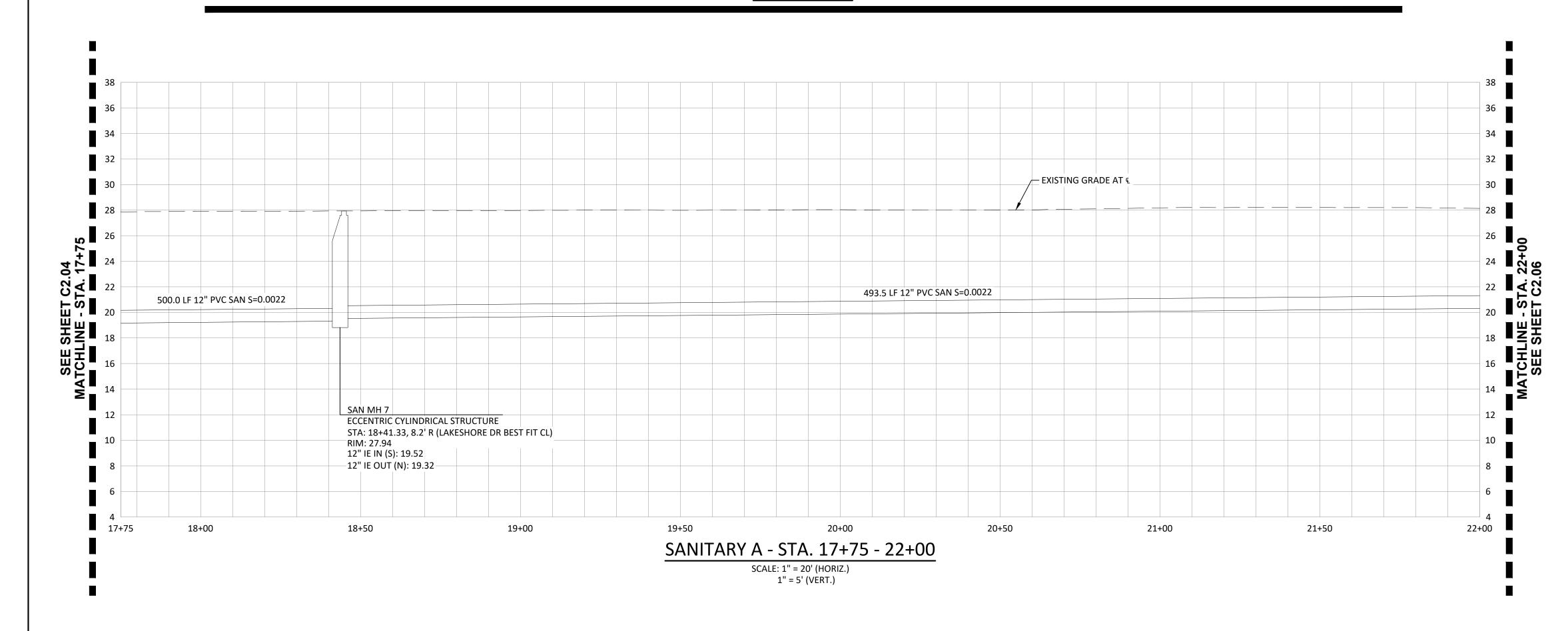
- (2) INSTALL INLET PROTECTION PER DETAIL, SHEET C4.01.
- CONSTRUCT 12" PVC SANITARY MAIN WITH PIPE BEDDING PER DETAIL S-02, SHEET C4.02. BACKFILL TRENCH PER DETAIL S-03, SHEET C4.02.
- (13) CONSTRUCT 48" SANITARY MANHOLE PER DETAIL S-07, SHEET C4.02.
- (22) INSTALL 12" C-900, PVC WATERMAIN PIPE PER NOTES AND DETAILS, SHEET C4.04 AND C4.05. SEE PLAN FOR LENGTH.

(41) CAUTION: UTILITY CROSSING, SEE UTILITY CROSSING TABLE (THIS SHEET) FOR ADDITIONAL INFORMATION.



PLAN VIEW

PARCEL NO. 50001 OWNER: CITY OF WOODLAND



UTILITY CROSSING TABLE:

(V) STA. 19+79.29 APPROX. FINISHED GRADE = 27.91± EX. 18" STM I.E. = 21.1± PROP. 12" WAT. I.E. = 23.6± POTHOLE PRIOR TO CONSTRUCTION. INSTALL WATERMAIN AT STANDARD DEPTH, MAINTAIN MIN. CLEARANCE.

17+75 SANITARY PLAN AND PROFILE (STA. DRIVE SHORE

WOODLAND,

WATER IMPROV

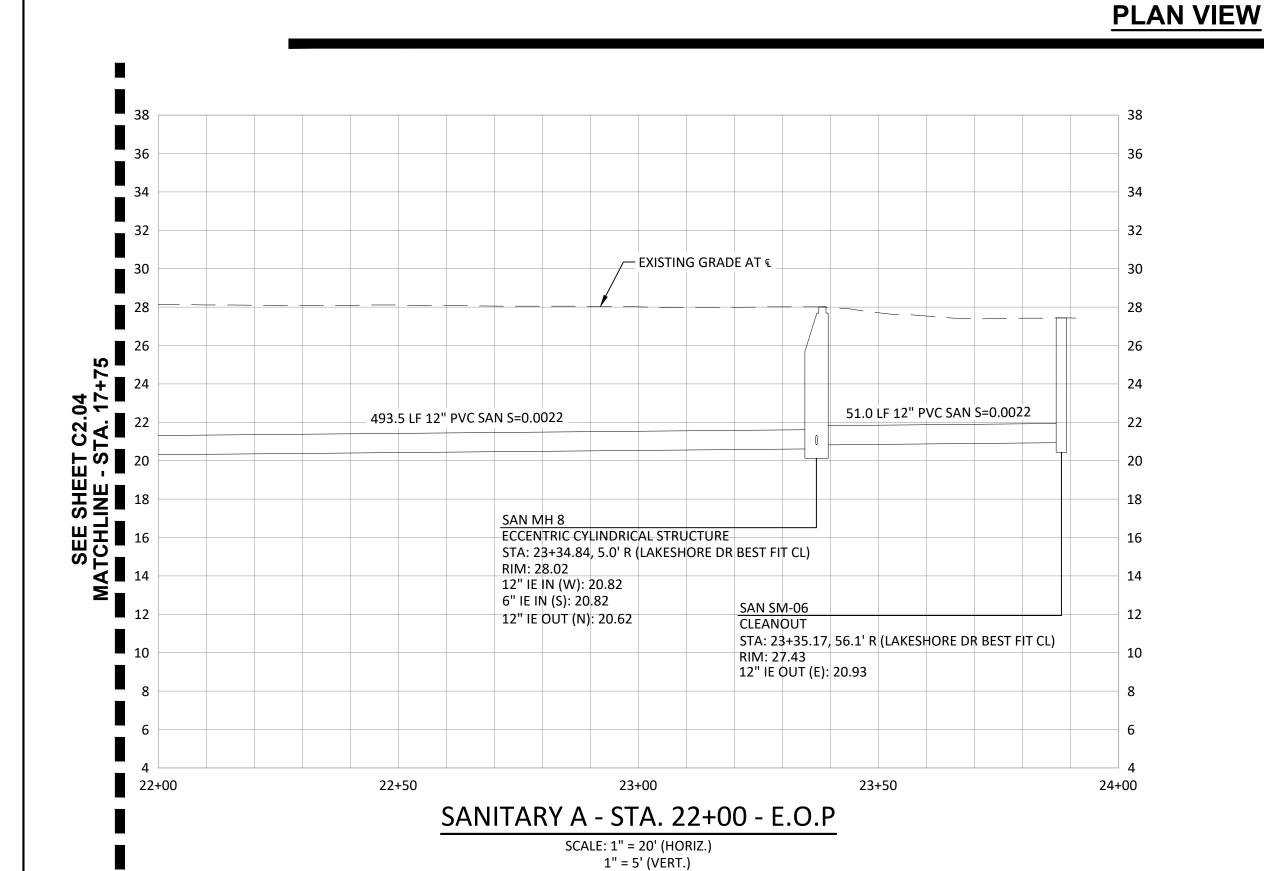
22+00)

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22 40 LF 31 STA. 23+62.27 25 LF

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LAKESHORE DRIVE

25+00

SAN SM-07 (15)

STA. 23+02.10 (22) 20 LF 30 LF (33)

SAN SM-06 (15)

(35) STA. 23+22.16

(22) SEE SHT. C2.05

ISLAND AIRE DR-

	SANITAR	Y STUB N	ARKER TABLE	
NUMBER	LOCATION	RIM ELEV.	INVERT ELEV.	PIPE LENGTH/SIZE/SLOPE
SAN SM-06	LAKESHORE DR BEST FIT CL STA: 23+35.17, 56.07 R	27.43	12" IE OUT (E): 20.93	51.03 LF PVC/ S=0.0022
SAN SM-07	LAKESHORE DR BEST FIT CL STA: 25+00.18, 134.63 R	27.81	6" IE OUT (N): 22.92	210.07 LF PVC/ S=0.0100

CONSTRUCTION NOTES:

- (2) INSTALL INLET PROTECTION PER DETAIL, SHEET C4.01.
- (12) CONSTRUCT 12" PVC SANITARY MAIN WITH PIPE BEDDING PER DETAIL S-02, SHEET C4.02. BACKFILL TRENCH PER DETAIL S-03, SHEET C4.02.
- (13) CONSTRUCT 48" SANITARY MANHOLE PER DETAIL S-07, SHEET C4.02.
- (15) INSTALL SANITARY STUB MARKER AT PIPE END PER DETAIL S-15, SHEET C4.03.
- (22) INSTALL 12" C-900, PVC WATERMAIN PIPE PER NOTES AND DETAILS, SHEET C4.04 AND C4.05. SEE PLAN FOR LENGTH.
- (31) 1 12" x 6" TEE, FLG. 1 - 12" B.F.V., FLG. x M.J. 1 - 12" ADAPTER, FLG. x M.J.
 - 1 6" G.V., FLG. x M.J.
 - 2 VALVE BOX TOP WITH 6" PVC PIPE EXT. 1 - THRUST BLOCK
 - INSTALL 6" CL.52, D.I. WATERMAIN PIPE TO 90 DEG. ELBOW (WEST). MECH. RESTRAIN ALL JOINTS. SEE PLAN FOR APPROX. LENGTH.
- (32) CUT AND CONNECT TO EXISTING 6" A.C. WATERMAIN WITH:
- 1 6", 90 DEG. ELBOW, M.J.
- 1 6" CL. 52, D.I. NIPPLE (FIELD FIT LENGTH)
- 1 6" LONG PATTERN TRANSITION SLEEVE, M.J. (D.I./A.C.) 1 - THRUST BLOCK
- MECH. RESTRAIN ALL JOINTS. ABANDON EXISTING 6" MAIN PER CITY OF WOODLAND STANDARDS, COORDINATE WITH FIELD INSPECTOR.
- (33) 1 12" x 6" TEE, M.J. x SIDE FLG.
 - 1 6" G.V., FLG. x M.J. 1 - VALVE BOX TOP WITH 6" PVC PIPE EXT.
 - INSTALL 6" CL.52, D.I. WATERMAIN PIPE TO EXISTING HYDRANT VALVE. MECH. RESTRAIN ALL JOINTS FROM TEE TO HYDRANT. SEE PLAN FOR APPROX. LENGTH.
- PROVIDE NEW SERVICE TO EXISTING METER. CONTRACTOR SHALL PROVIDE ALL NECESSARY FITTINGS AND COORDINATE WITH FIELD INSPECTOR.
- (35) 1 12" x 8" TEE, M.J. x SIDE FLG. 1 - 8" G.V., FLG. x M.J. 2 - 8", 22.5 DEG. BEND, M.J.
- 2 VALVE BOX TOP WITH 6" PVC PIPE EXT. 3 - THRUST BLOCK
- INSTALL APPROX. 38 LF OF 8" CL.52, D.I. WATERMAIN PIPE (WEST, FIELD FIT LENGTHS) CUT AND CONNECT TO EXISTING 8" PVC WATERMAIN WITH: 1 - 8" LONG PATTERN TRANSITION SLEEVE, M.J. (D.I./PVC)
- MECH. RESTRAIN ALL JOINTS. COORDINATE WITH FIELD INSPECTOR.
- (36) 1 SIDE TAP BLOW-OFF ASSEMBLY, INCLUDING APPROX. 5 LF 12" C-900, PVC WATERMAIN, MAIN CAP AND THRUST BLOCK
- (41) CAUTION: UTILITY CROSSING, SEE UTILITY CROSSING TABLE (THIS SHEET) FOR ADDITIONAL INFORMATION.

UTILITY CROSSING TABLE:

(W) STA. 23+02.10 APPROX. FINISHED GRADE = 27.98± PROP. 12" SAN. I.E. = 20.55±

> PROP. 12" SAN. I.E. = 20.59± PROP 8" WAT. IE = 24.17±

MAINTAIN MIN. CLEARANCE.

PROP. 6" WAT. I.E. = 24.23± INSTALL WATERMAIN AT STANDARD DEPTH, MAINTAIN MIN. CLEARANCE. (X) STA. 23+22.16 APPROX. FINISHED GRADE = 28.00±

INSTALL WATERMAIN AT STANDARD DEPTH,

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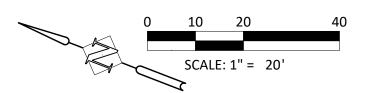
A.C. PIPE NOTE:

CONTRACTOR SHALL SUPPLY WORKER WHO IS CERTIFIED TO WORK ON A.C. PIPE WHEN ANY A.C. PIPE IS ENCOUNTERED DURING THE PROJECT.

WOODLAND,

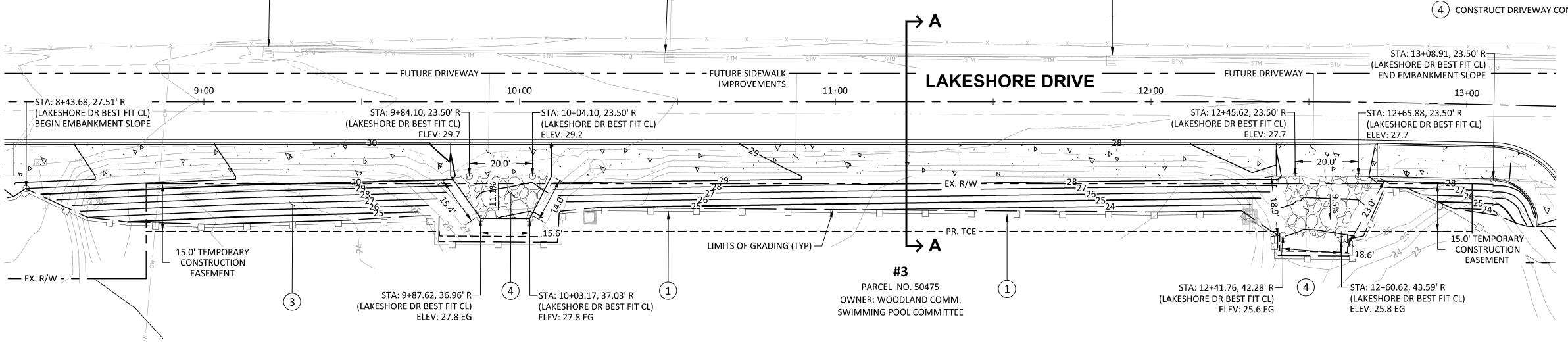
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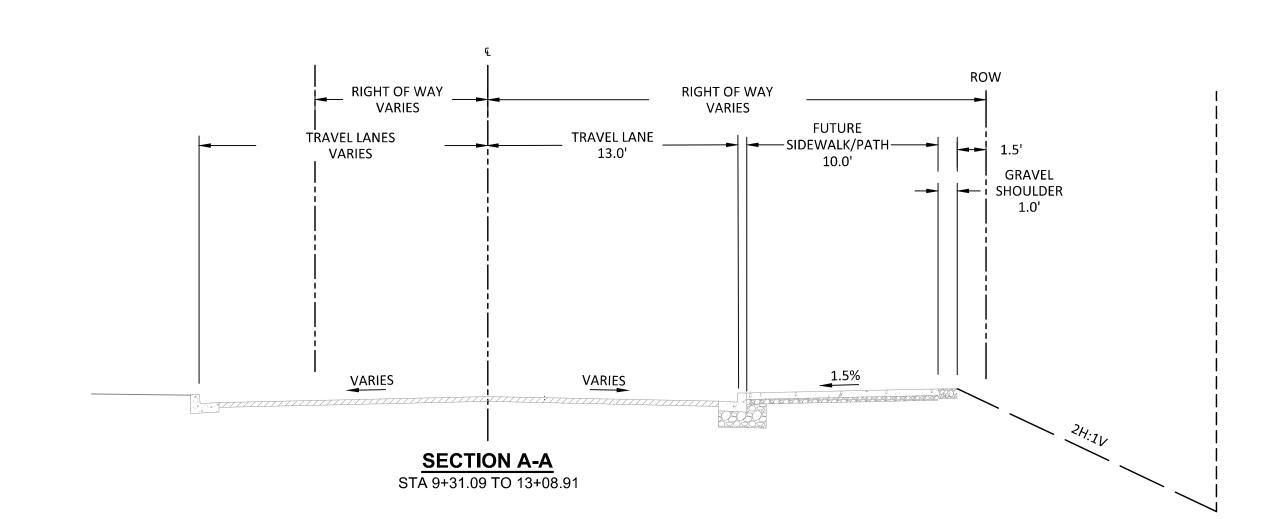
C3.0′





- 1) INSTALL SILT FENCE PER DETAIL, SHEET 4.01.
- (2) INSTALL INLET PROTECTION PER DETAIL, SHEET C4.01.
- (3) PLACE EMBANKMENT FILL AT GRADES SHOWN.
- (4) CONSTRUCT DRIVEWAY CONNECTION. 8" OF 5/8"-0 CRUSHED BASE COURSE.





GENERAL EROSION PREVENTION & SEDIMENT CONTROL NOTES

- 1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE AND IN WORKING CONDITION PRIOR TO ANY LAND DISTURBING ACTIVITY CAUSED BY CLEARING OR GRADING. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE APPROVED BY THE CITY EROSION CONTROL SPECIALIST PRIOR TO THE COMMENCEMENT OF WORK, THE CONTRACTOR SHALL CALL FOR AN ON-SITE INSPECTION WHEN EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE
- THE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE SITED, DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS IN THE CITY OF WOODLAND'S LATEST STANDARD DETAILS AND THE WASHINGTON STATE DEPARTMENT OF ECOLOGY STORMWATER MANUAL FOR WESTERN WASHINGTON, WHERE THE CITY OF WOODLAND GENERAL REQUIREMENTS SHALL TAKE PRECEDENCE.
- 3. THE DEVELOPER IS RESPONSIBLE FOR MAINTAINING EROSION PREVENTION AND SEDIMENT CONTROL MEASURES DURING AND AFTER INSTALLATION OF ALL UTILITY WORK ASSOCIATED WITH UTILITY TRENCHES.
- 4. PRIOR TO ANY SITE EXCAVATION, ALL STORM DRAINAGE INLETS SHALL BE PROTECTED DOWN SLOPE FROM ANY DISTURBED OR CONSTRUCTION AREAS PER THE STANDARD DETAILS TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAINAGE SYSTEM PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREAS. CLEAN THE FILTER FABRIC AS NECESSARY TO MAINTAIN DRAINAGE. REMOVE FILTER AND CLEAN CATCH BASINS FOLLOWING COMPLETION OF SITEWORK.
- 5. THE CONTRACTOR SHALL NOT ALLOW SEDIMENT OR DEBRIS TO ENTER NEW OR EXISTING PIPES, CATCH BASINS OR INFILTRATION SYSTEMS.
- 6. NEWLY CONSTRUCTED OR MODIFIED INLETS AND CATCH BASINS ARE TO BE PROTECTED IMMEDIATELY UPON INSTALLATION.
- 7. TEMPORARY SEEDING AND MULCHING OF FILL SLOPES AND DIVERSION DIKES SHALL BE COMPLETED WITHIN ONE WEEK AFTER ROUGH GRADING.
- 8. ALL EXPOSED AND UNWORKED SOILS SHALL BE STABILIZED BY THE APPROPRIATE BEST MANAGEMENT PRACTICES (PMPs). DURING THE PERIOD FROM OCTOBER 1 TO APRIL 30 NO SOIL SHALL BE EXPOSED FOR MORE THAN TWO (2) DAYS. FROM MAY 1 TO SEPTEMBER 30 NO SOIL SHALL BE EXPOSED FOR MORE THAN
- 9. MATERIAL STOCKPILES ARE TO BE PROTECTED BY THE FOLLOWING MEANS:
 TEMPORARY: COVER PILES WITH TARPS OR PLASTIC SHEETING WEIGHTED WITH CONCRETE BLOCKS, LUMBER OR TIRES.
 PERMANENT: COVER PILES WITH TARPS OR PLASTIC, OR RESEED. PERIMETER AREAS AROUND PILES ARE TO BE SURROUNDED WITH EROSION CONTROL FILTER FABRIC FENCES UNTIL SOIL SURFACE IS STABILIZED WITH RESEEDING.
- 10. THE CONTRACTOR SHALL MAINTAIN ON SITE A WRITTEN DAILY LOG OF EROSION CONTROL BMP MAINTENANCE.
- 11. IF THE CITY INSPECTOR OR ENGINEER(S) HAS EVIDENCE OF POOR CONSTRUCTION PRACTICES OR IMPROPER EROSION PREVENTION BMP8, CITATIONS AND/OR A STOP WORK ORDER SHALL BE ISSUED UNTIL PROPER MEASURES HAVE BEEN TAKEN AND APPROVED BY THE CITY OF WOODLAND. IF THE BMP8 APPLIED TO A SITE ARE INSUFFICIENT TO PREVENT SEDIMENT FROM REACHING WATER BODIES, ADJACENT PROPERTIES, OR PUBLIC RIGHT—OF—WAY, THEN THE PUBLIC WORKS DIRECTOR SHALL REQUIRE ADDITIONAL BMP8.

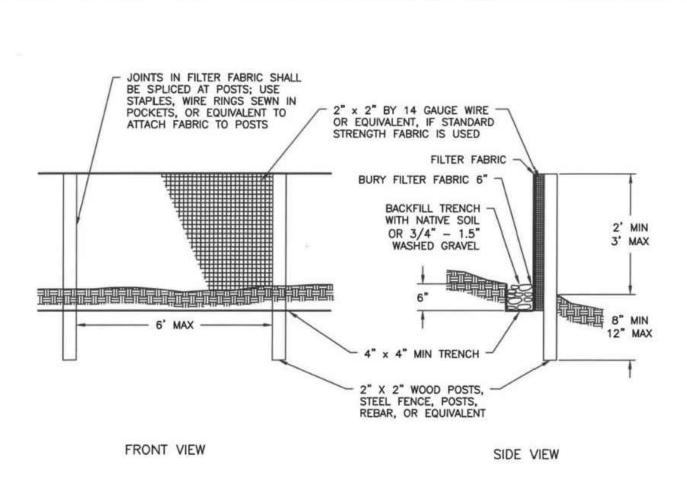
PROTECTION OF ADJACENT PROPERTIES, ROADS AND STREETS

- 12. PROVIDE A 12-INCH DEEP PAD OF CRUSHED ROCK FOR A DISTANCE OF 100 FEET INTO THE SITE FOR ALL ACCESS POINTS UTILIZED BY CONSTRUCTION EQUIPMENT AND TRUCKS. WIDTH OF THE PAD SHALL BE A MINIMUM OF 20 FEET. ALL TRUCKS LEAVING THE SITE SHALL EGRESS ACROSS THE PAD. ACCUMULATED SOIL SHALL BE PERIODICALLY REMOVED, OR ADDITIONAL ROCK SHALL BE PLACED UPON THE PAD SURFACE. ROCK SHALL BE CLEAN 4 INCH TO 8 INCH QUARRY SPALLS. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE
- 13. PAVEMENT SWEEPING AND SHOVELING IS REQUIRED. WASHING THE PAVEMENT INTO THE STORM SYSTEM IS NOT PERMITTED.
- 14. AT SITES WITH LESS THAN 1 ACRE OF EXPOSED SOIL, PAD LENGTH MAY BE REDUCED TO 50 FEET. SINGLE FAMILY LOT ENTRANCES MAY HAVE THE PAD LENGTH REDUCED TO 20 FEET. IF CONSTRUCTION OCCURS SIMULTANEOUSLY ON ADJACENT LOTS WITH THE SAME OWNER DURING CONSTRUCTION, ONE LOT ENTRANCE MAY BE USED FOR THE ADJACENT LOTS.
- 15. INSTALL SEDIMENT FENCE IN ACCORDANCE WITH THIS DETAIL SHEET PRIOR TO BUILDING CONSTRUCTION AND/OR EXCAVATION TO PREVENT SILT INTRUSION UPON ADJACENT LOTS. IF CONSTRUCTION OCCURS SIMULTANEOUSLY ON ADJACENT LOTS AND THE LOTS HAVE THE SAME OWNER DURING CONSTRUCTION, THE SILT FENCE ALONG THE COMMON LOT LINE MAY BE ELIMINATED.
- 16. CONSTRUCTION ROADS AND PARKING AREAS SHALL BE STABILIZED WHEREVER THEY ARE CONSTRUCTED, WHETHER PERMANENT OR TEMPORARY, FOR THE USE OF CONSTRUCTION TRAFFIC. MAINTENANCE OF SEDIMENT CONTROL BMPs
- 17. MAINTAIN AND REMOVE ALL SEDIMENT CONTROLS AS SPECIFIED IN THE STANDARD DETAILS. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT FROM THE CATCH BASINS, DRYWELLS, UTILITY TRENCHES AND STORM PIPES PRIOR TO ACCEPTANCE BY THE CITY.
- 18. SEDIMENT CONTROL BMP8 SHALL BE INSPECTED WEEKLY AND AFTER ANY STORM EVENT PRODUCING RUNOFF. THE INSPECTION FREQUENCY FOR STABILIZED, INACTIVE SITES SHALL BE ONCE EVERY TWO WEEKS OR MORE FREQUENTLY AS DETERMINED BY THE LOCAL PERMITTING AUTHORITY DASED ON THE LEVEL OF SOIL STABILITY AND POTENTIAL FOR ADVERSE ENVIRONMENTAL IMPACTS.
- 19. ALL TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER SITE STABILIZATION IS ACHIEVED OR AFTER TEMPORARY BMP6 ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DISTURBED SOIL AREAS RESULTING FROM REMOVAL SHALL BE PERMANENTLY STABILIZED.
- 20. IN AREAS SUBJECT TO SURFACE AND AIR MOVEMENT OF DUST ONE OR MORE OF THE FOLLOWING PREVENTATIVE MEASURES SHALL BE TAKEN FOR DUST A. MINIMIZE THE PERIOD OF SOIL EXPOSURE THROUGH THE USE OF TEMPORARY GROUND COVER AND OTHER TEMPORARY STABILIZATION PRACTICES.

 B. SPRINKLE THE SITE WITH WATER UNTIL THE SURFACE IS WET.

 C. SPRAY EXPOSED SOIL AREAS WITH A DUST PALLIATIVE. NOTE: USE OF PETROLEUM PRODUCTS OR POTENTIALLY HAZARDOUS MATERIALS ARE PROHIBITED
- 21. EXPOSED SURFACES THAT WILL NOT BE BROUGHT TO FINAL GRADE OR GIVEN A PERMANENT COVER TREATMENT WITHIN 30 DAYS OF THE EXPOSURE SHALL HAVE SEED MIX AND MULCH PLACED TO STABILIZE THE SOIL AND REDUCE EROSION SEDIMENTATION. SEEDED AREAS SHALL BE CHECKED REGULARLY TO ASSURE A GOOD STAND OF GRASS IS BEING MAINTAINED. AREAS THAT FAIL TO ESTABLISH VEGETATION COVER ADEQUATE TO PREVENT EROSION WILL BE
- 22. APPLY AN APPROVED TEMPORARY SEEDING MIXTURE TO THE PREPARED SEED BED AT A RATE OF 120 LBS/ACRE, NOTE: "HYDROSEEDING" APPLICATIONS WITH APPROVED SEED-MULCH-FERTILIZER MIXTURES MAY ALSO BE USED.

	EROSION PREV	ENTION	AND	SEDIME	NT CONT	ROL	
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PUBLIC WORKS	PUBLIC WORKS DIRECTOR	DATE					

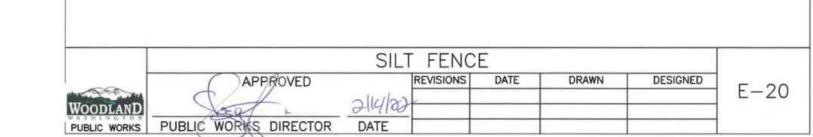


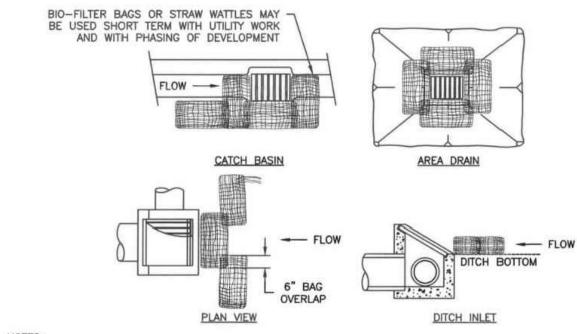
1. FILTER FABRIC FENCES SHALL BE INSTALLED ALONG CONTOUR WHENEVER POSSIBLE. 2. POST SPACING MAY BE INCREASED TO 8' IF WIRE BACKING IS USED.

MAINTENANCE STANDARDS:

CONVEYED TO A SEDIMENT POND.

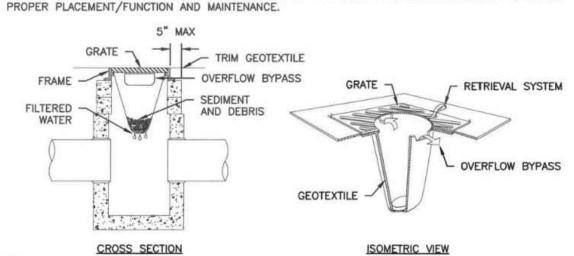
- 1. SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- 2. IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND
- 3. IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGNS OF THE FENCE CLOGGING AND ACTING AS A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO THE FENCE. IF THIS OCCURS, REPLACE THE FENCE OR REMOVE THE TRAPPED SEDIMENT.
- SEDIMENT DEPOSITS SHALL EITHER BE REMOVED WHEN THE DEPOSIT REACHES APPROXIMATELY ONE—THIRD THE HEIGHT OF THE SILT FENCE, OR A SECOND SILT FENCE SHALL BE INSTALLED.
- 5. IF THE FILTER FABRIC (GEOTEXTILE) HAS DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE





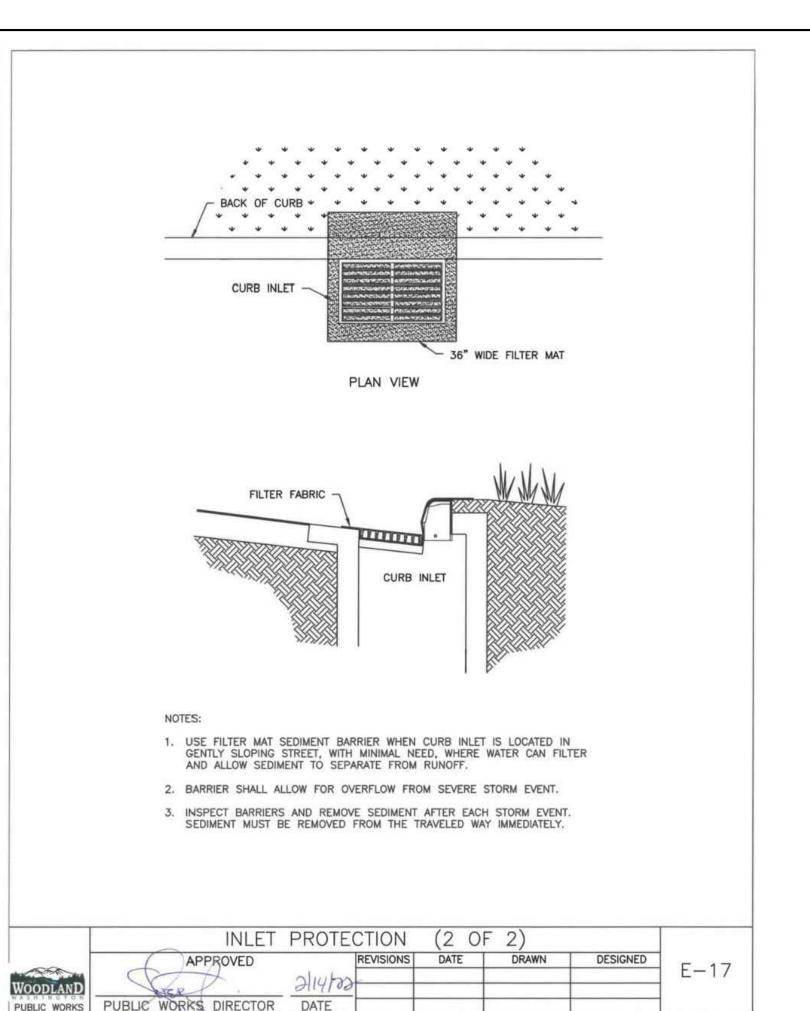
NOTES:

- 1. ADDITIONAL MEASURES MUST BE CONSIDERED DEPENDING ON SOIL TYPE.
- 2. BIO-FILTER BAGS SHOULD BE STAKED WHERE APPLICABLE USING (2) 1" x 2" WOODEN STAKES OR APPROVED EQUAL PER BAG.
- 3. STRAW WATTLES MUST BE STABILIZED BY ATTACHING WIRE CLIPS TO THE CATCH BASIN PER MANUFACTURER
- 4. INLET PROTECTION MUST BE REGULARLY INSPECTED BY THE EROSION CONTROL INDIVIDUAL TO INSURE



- 1. SIZE THE BELOW GRATE INLET DEVICE (BGID) FOR THE STORM WATER STRUCTURE IT WILL SERVICE.
- 2. THE REMOVAL SYSTEM MUST ALLOW REMOVAL OF THE BGID WITHOUT SPILLING THE COLLECTED MATERIAL.
- 3. THE BGID SHALL HAVE A BUILT-IN HIGH-FLOW RELIEF SYSTEM (OVERFLOW BYPASS).
- 4. THE CONTRACTOR SHALL INSPECT THE BAG AFTER EACH STORM EVENT AND AT REGULAR INTERVALS.
- 5. THE FILTER BAG SHALL BE CLEANED OR REPLACED WHEN THE BAG BECOMES HALF FULL.

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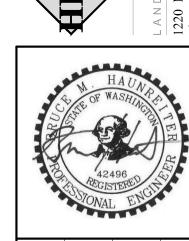
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GENERAL NOTES FOR SANITARY SEWER

ALL MATERIALS AND INSTALLATION OF SANITARY SEWERS SHALL BE IN CONFORMANCE WITH THE MOST CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS", PREPARED BY THE WASHINGTON STATE CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA) AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, EXCEPT AS NOTED HEREIN OR ON THE STANDARD PLANS. WHEREVER THE STANDARD SPECIFICATIONS REFER TO THE OWNER AS EITHER THE "STATE" OR "SECRETARY" OR WHEN REFERENCE IS MADE TO THE DEPARTMENT OF TRANSPORTATION IT SHALL BE UNDERSTOOD THAT THE STANDARD SPECIFICATIONS SHOULD READ THE "CITY".

ALL SANITARY SEWER CONSTRUCTION IS SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF WOODLAND PUBLIC WORKS DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE CITY AT (360) 225-7999 AT LEAST 48-HOURS PRIOR TO THE START OF CONSTRUCTION. A PRE-CONSTRUCTION CONFERENCE MAY

THE CONTRACTOR IS REQUIRED TO NOTIFY ALL UTILITIES 48 HOURS PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR MUST CONTACT THE UNDERGROUND UTILITY NOTIFICATION CENTER "CALL BEFORE YOU DIG" AT (800) 424-5555 OR "811".

FINAL ACCEPTANCE OF SANITARY SEWERS ARE SUBJECT TO SECTIONS 1-05.11, 1-05.12, 7-17.3(2)E, 7-17.3(2)F, 7-17.3(2)G AND 7-17.3(2)H OF THE STANDARD SPECIFICATIONS. TELEVISION INSPECTION SHALL INCLUDE VIDEO OF ALL MANHOLES IN ADDITION TO THE PIPE. THE CONTRACTOR SHALL WARRANTY ALL WORK DONE UNDER CITY CONTRACT FOR A PERIOD OF TWO (2) YEARS AS PER OF THE CITY OF WOODLAND GENERAL PROVISIONS FOR MUNICIPAL CONSTRUCTION.

LOCAL VARIATIONS IN SLOPE (I.E. "BELLIES") MUST BE NO MORE THAN 1/2" MAXIMUM. VARIATIONS IN EXCESS OF THESE TOLERANCES MUST BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE CITY.

ALL PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING:

- A. POLYVINYL CHLORIDE (PVC) SEWER PIPE 15" DIAMETER OR LESS SHALL CONFORM TO ASTM D3034, SDR 35. IT SHALL HAVE A MINIMUM PIPE STIFFNESS OF 46 PSI. PVC PIPE 18" DIAMETER SHALL CONFORM TO ASTM F 679. ALL PVC PIPE SHALL HAVE AN INTEGRAL BELL GASKETED JOINT WITH ELASTOMERIC GASKET AND SHALL BE FURNISHED IN 12-1/2 FOOT LAYING LENGTHS.
- B. DUCTILE IRON (DI) PIPE SHALL CONFORM TO ANSI A21.51 OR AWWA C151, WITH PUSH-ON JOINTS, CLASS 52, UNLESS OTHERWISE NOTED.

INSTALLATION OF PIPE AND MANHOLES SHALL CONFORM TO THE FOLLOWING: A. PIPE SHALL BE INSTALLED IN CONFORMANCE WITH PIPE DETAIL S-02 AND TRENCHING DETAIL S-03. B. MANHOLES SHALL CONFORM WITH STANDARD DETAILS S-07 THROUGH S-14.

MANHOLES, CLEANOUTS, SERVICE LATERAL CONNECTIONS, TRENCH EXCAVATION, PIPE BEDDING AND STREET RESTORATION, AND APPURTENANCES SHALL CONFORM TO THE CITY OF WOODLAND STANDARD PLANS, THE WSDOT STANDARD DETAILS CONTAINED AND THE STANDARD PLANS FOR ROAD, BRIDGE AND MUNICIPAL

THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF ALL PERMITS ISSUED OR EASEMENTS GRANTED TO THE CITY IN CONJUNCTION WITH THE CONSTRUCTION OF SANITARY SEWERS. THE CONTRACTOR SHALL

THE CONTRACTOR SHALL SUBMIT AN APPROVED TRAFFIC CONTROL PLAN. APPROVAL SHALL BE OBTAINED PRIOR TO BEGINNING CONSTRUCTION.

OBTAIN A RIGHT-OF-WAY PERMIT FOR WORK WITHIN THE PUBLIC RIGHT-OF-WAY.

12" PRE-COVER 95% COMPACTION PIPE ZONE I.D. " MIN TO 9" MAX FOR 27" I.D. AND UNDER 6" FOR OVER 27" I.D. GRANULAR TRENCH FOUNDATION - BEDDING PER 9-03.12(3) STABILIZATION (IF REQUIRED)

- 1. WHERE DIRECTED BY THE ENGINEER GRANULAR TRENCH FOUNDATION STABILIZATION SHALL BE PLACED PRIOR TO PLACEMENT OF THE BEDDING. SIZE AND DEPTH ARE DEPENDENT ON SOIL
- 2. BEDDING AND BACKFILL MATERIALS IN THE PIPE ZONE SHALL BE COMPACTED AS SPECIFIED PRIOR TO BACKFILLING THE REMAINDER OF THE TRENCH.
- 3. FOR ROCK AND OTHER INCOMPRESSIBLE MATERIALS, THE TRENCH SHALL BE OVER-EXCAVATED A MINIMUM OF 6" AND REFILLED WITH GRANULAR MATERIALS AS DIRECTED BY THE ENGINEER.
- 4. BACKFILL AND COMPACTION ABOVE THE PIPE ZONE SHALL BE AS SHOWN IN TRENCHING DETAIL
- 5. PVC PIPE INSTALLATION SHALL CONFORM TO UNIBELL PLASTIC PIPE ASSOCIATION STANDARD SPEC.
- UNI-B-5 (LATEST EDITION) EXCEPT AS NOTED. 6. FINAL INSTALLATION TO BE TESTED PER SECTION 7-17.3 OF THE STANDARD SPECIFICATIONS.
- 7. ALTERNATIVE PRE-COVER MATERIALS ARE ALLOWABLE FROM PIPE CENTERLINE TO ONE FOOT ABOVE THE TOP OF PIPE, ALTERNATE PRE-COVER MATERIALS MUST BE PRE-APPROVED BY THE INSPECTOR AND MAY BE SAND, CRUSHER SCREENINGS, GRAVEL, OR OTHER CLEAN GRANULAR MATERIAL

APPROVAL FOR ALTERNATE MATERIALS WILL BE GRANTED UPON CONFIRMATION BY TEST OF ITS COMPLIANCE WITH THESE REQUIREMENTS. SUBMIT 50 LB SAMPLE FOR TESTING TO THE CITY INSPECTOR AND OBTAIN MATERIAL PRIOR TO STARTING PIPE INSTALLATION WORK. THE TEST REQUIRES A MINIMUM OF FIVE BUSINESS DAYS TO COMPLETE.

CONTAINING NO ROCK LARGER THAN 1-1/4" IN LENGTH.

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- 8. TRENCH WIDTH SHALL NOT EXCEED ONE AND ONE-HALF THE INSIDE DIAMETER OF THE PIPE PLUS 18" AT THE TOP OF THE PIPE ZONE. ANY SUBSIDENCE OF SURROUNDING PAVEMENT DUE TO TRENCHING SHALL BE EXCAVATED BEYOND ORIGINAL PAVEMENT OR TRENCH LIMITS AND REPAIRED TO
- 9. NATIVE MATERIAL MAY BE USED, OUTSIDE OF THE ROAD PRISM FOR DUCTILE IRON IN LIEU OF IMPORTED MATERIAL FOR BEDDING SPECIFIED, PROVIDED THAT THE NATIVE MATERIAL CONFORMS TO SECTION 9-03.15 OF THE STANDARD SPECIFICATIONS, AND AS APPROVED BY THE CITY OF WOODLAND. THE CONTRACTOR SHALL SUBMIT A SAMPLE OF THE NATIVE MATERIAL TO THE CITY OF WOODLAND AT LEAST 72-HOURS PRIOR TO USE. THE CITY MAY APPROVE, REJECT, OR REQUIRE LABORATORY TESTING OF THE MATERIAL.

PIPE BEDDING

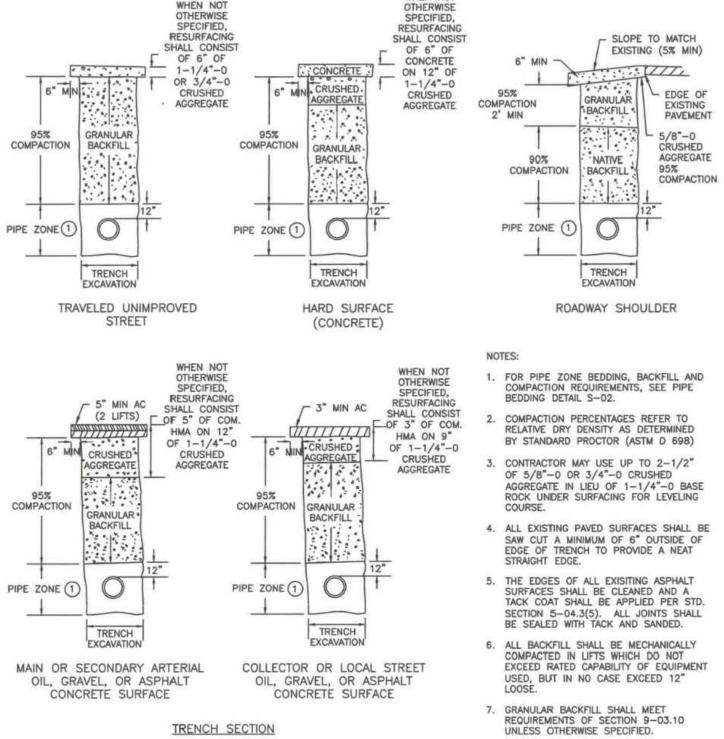
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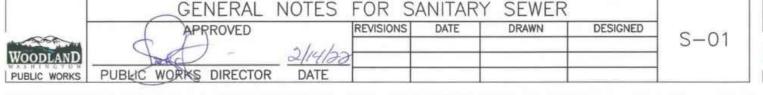
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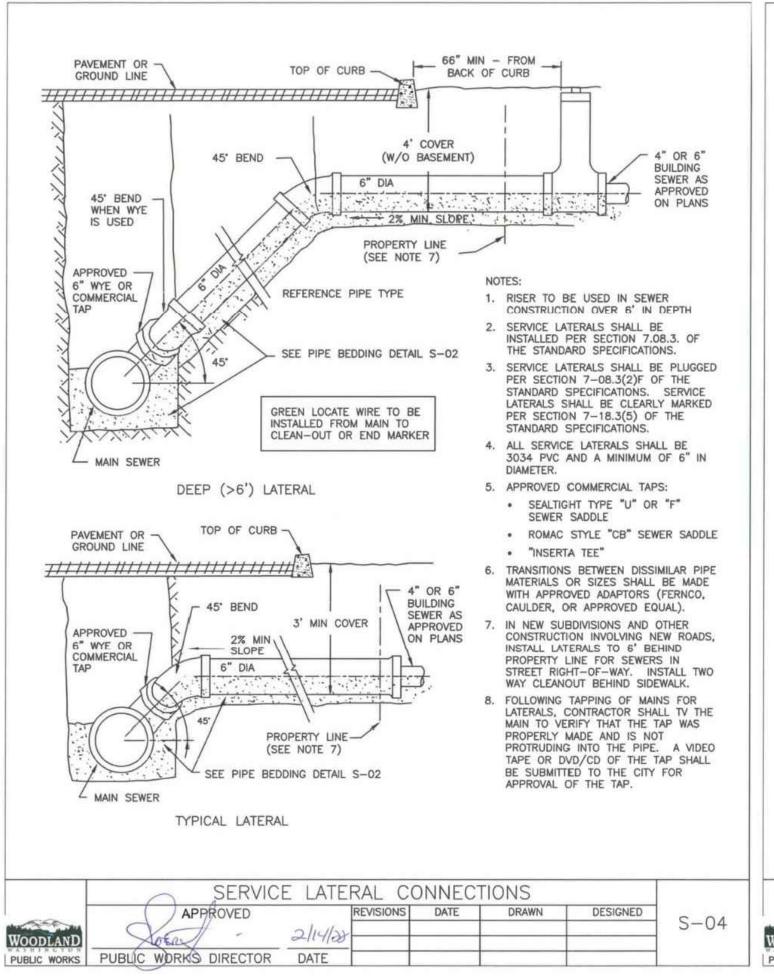


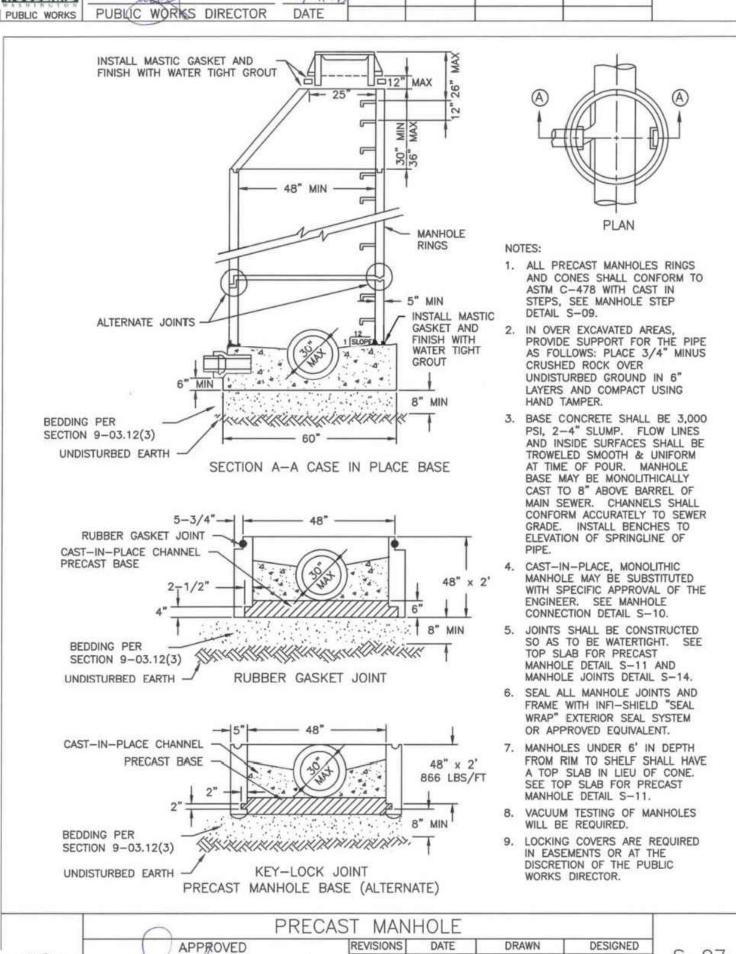
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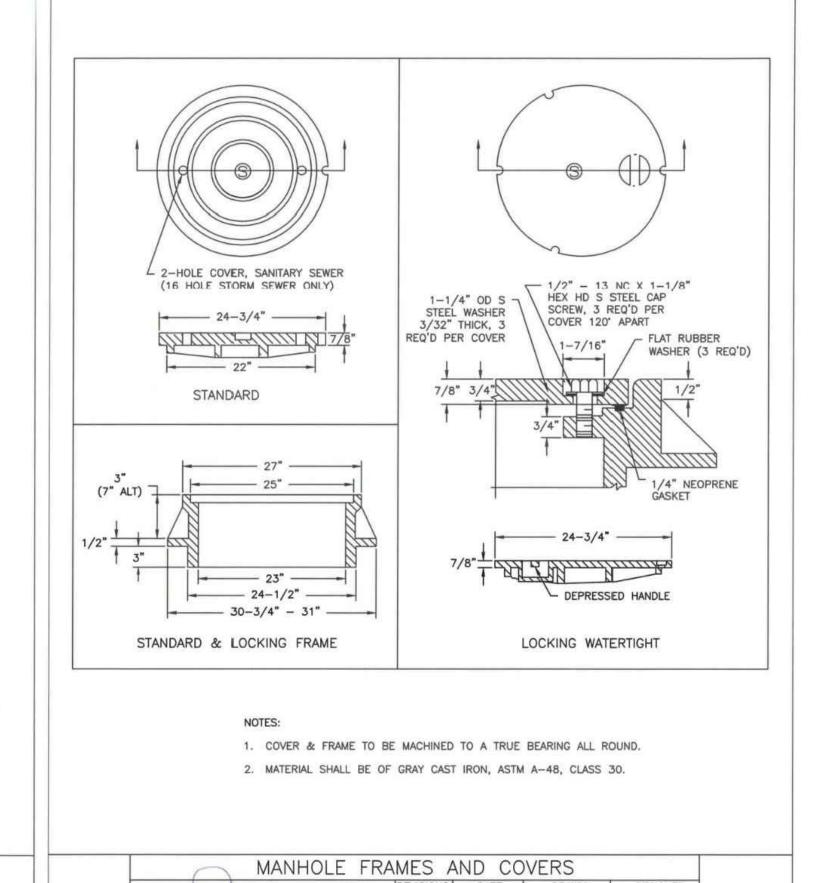


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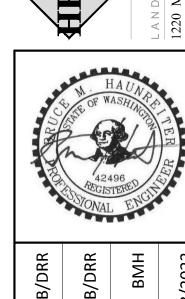
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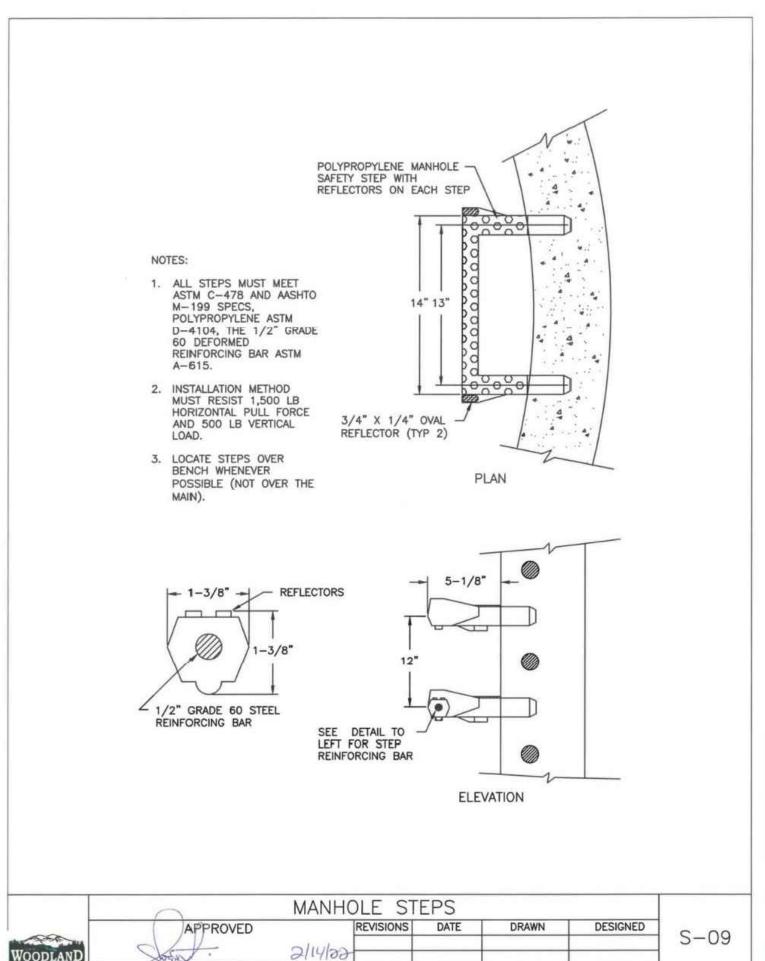
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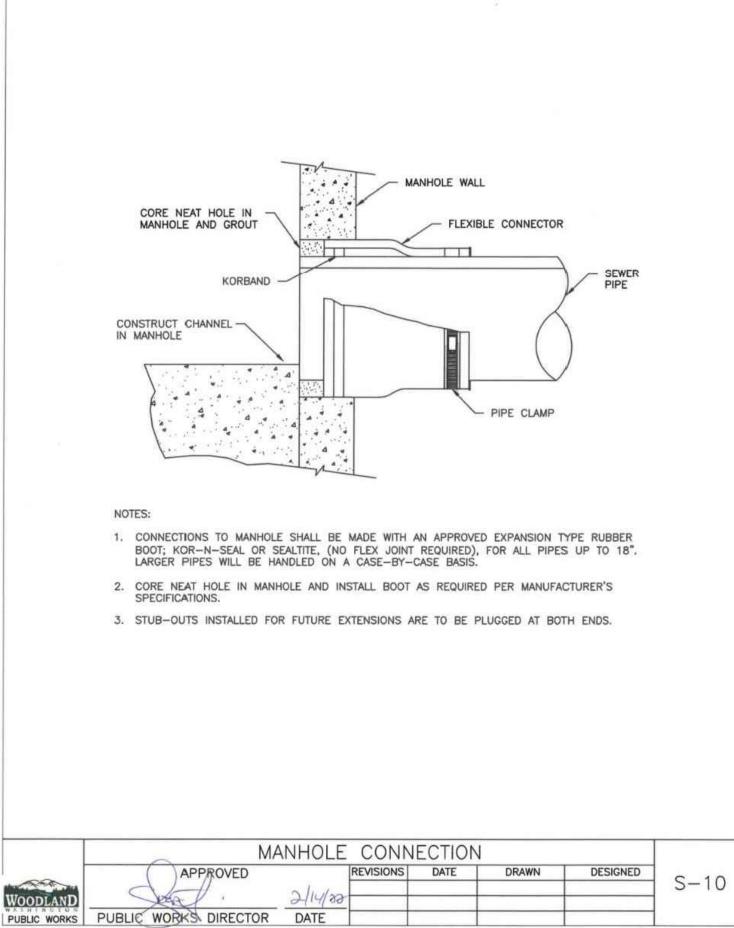
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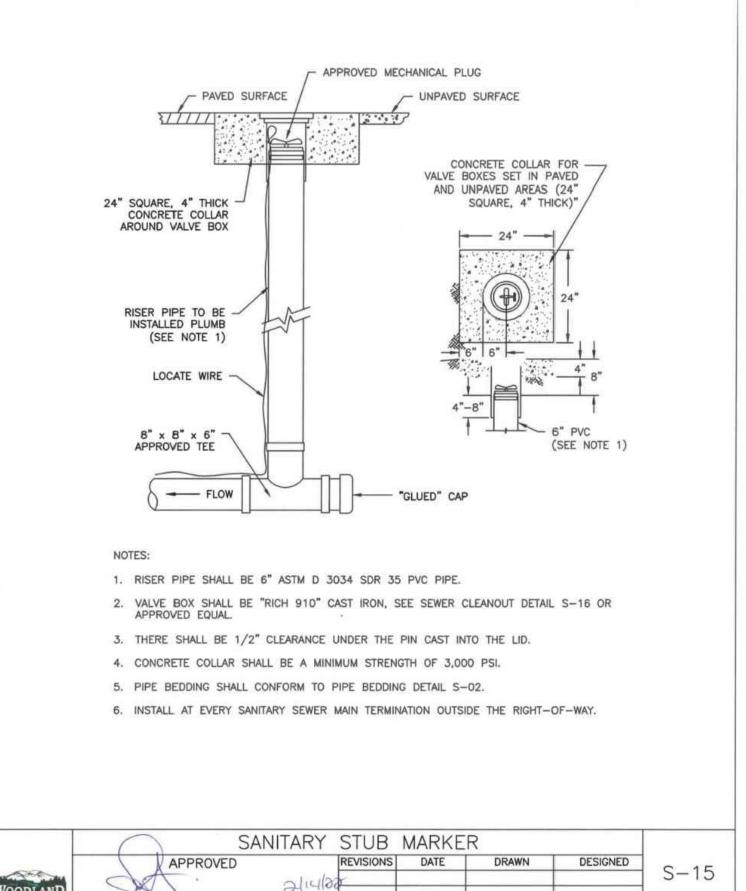
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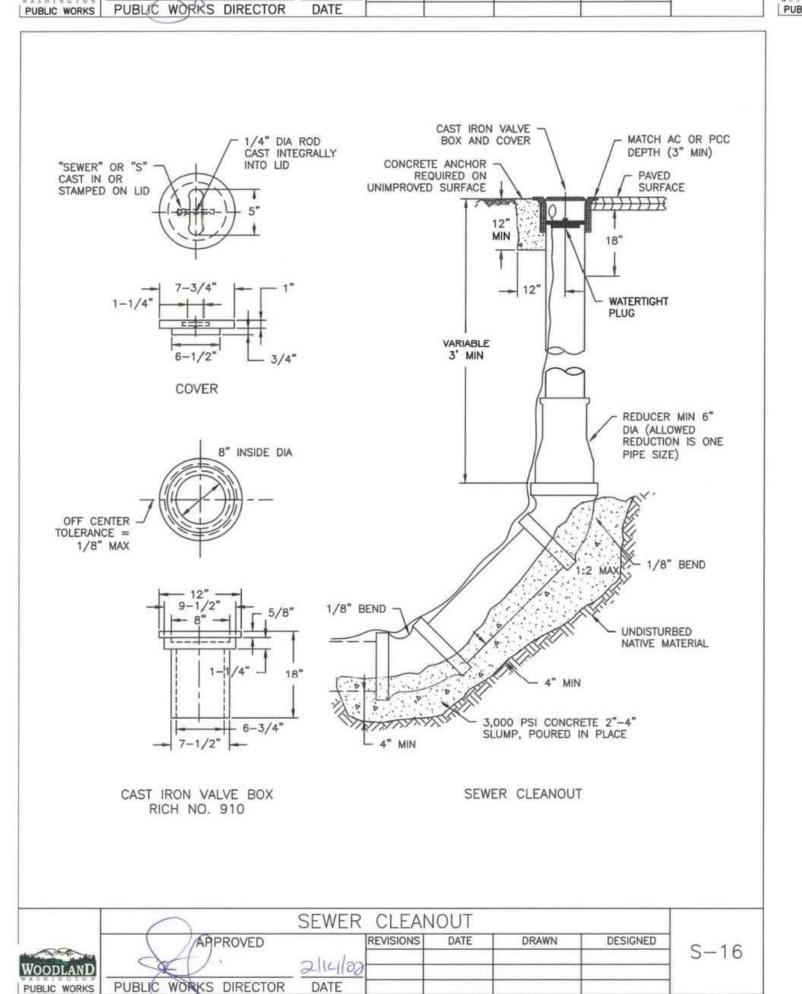


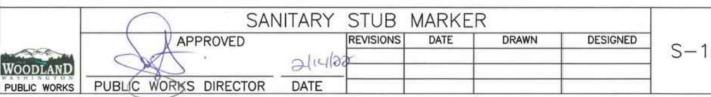
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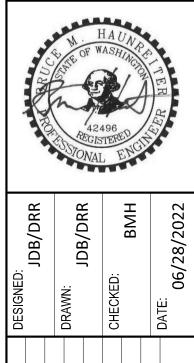






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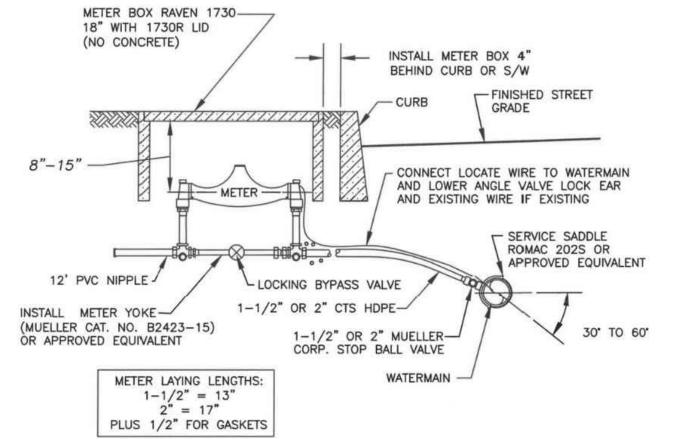


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GENERAL NOTES FOR WATER MAIN INSTALLATION

- ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH THE WSDOT/APWA STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION HEREIN IDENTIFIED AS THE "STANDARD SPECIFICATIONS", AND AWWA SPECIFICATIONS, EXCEPT AS MODIFIED BELOW OR BY CITY OF WOODLAND STANDARD DETAILS.
- 2. A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH CITY OF WOODLAND AT LEAST 48-HOURS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE CONSTRUCTION SCHEDULES AND TRAFFIC CONTROL PLANS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. PROPOSED "EQUIVALENTS" MUST BE SUBMITTED TO THE CITY OF WOODLAND FOR APPROVAL.
- 3. THE CONTRACTOR SHALL NOTIFY THE CITY PUBLIC WORKS DEPARTMENT AT (360) 225-7999, 48-HOURS PRIOR TO LIVE TAPS OR OTHER CONNECTIONS TO EXISTING WATERMAINS. WHERE CONNECTIONS REQUIRE SHUT-DOWN OF SERVICE, CONNECTION POINTS WILL BE EXPOSED FOR "FIELD VERIFICATION" BY CONTRACTOR AND CONNECTION DETAILS SHALL BE VERIFIED 48 HOURS PRIOR TO DISTRIBUTING SHUT-DOWN NOTICES.
- CALL UNDERGROUND LOCATE AT 811 A MINIMUM OF 48—HOURS PRIOR TO ANY EXCAVATIONS.
- UNLESS OTHERWISE ESTABLISHED IN WRITING BY THE CITY, ALL WATER MAINS SHALL BE STAKED FOR GRADES AND ALIGNMENT BY AN ENGINEERING OR SURVEYING FIRM CAPABLE OF PERFORMING SUCH WORK.
- EXISTING VALVES AND ANY VALVES INSTALLED DIRECTLY TO AND CONNECTED TO A
 PORTION OF ACTIVE WATER SYSTEM ARE TO BE OPERATED BY CITY OF WOODLAND
 REPRESENTATIVES ONLY.
- 7. WATER MAINS SHALL BE PVC IN ACCORDANCE WITH AWWA C900, MINIMUM DR18 OR DUCTILE IRON PRESSURE CLASS 52 OR AS NOTED ON DRAWING. ALL MATERIAL IN SUBSTANTIAL CONTACT WITH DRINKING WATER MUST CONFORM TO ANSI/NSF STANDARD 61 AND BE LEAD FREE.
- ALL LINES SHALL BE CHLORINATED AND TESTED IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS PRIOR TO USE.
- HARD COPY AND ELECTRONIC "AS-BUILT" DRAWINGS SHALL BE SUBMITTED TO CITY OF WOODLAND UPON COMPLETION OF THE WORK.
- ALL WATERMAINS, FIRE HYDRANTS, BLOW OFF ASSEMBLIES, VACUUM BREAKERS, AND WATER SERVICES MUST HAVE LOCATE WIRE INSTALLED.
- 11. ALL MECHANICAL JOINT FITTINGS SHALL BE RESTRAINED USING MJ FOLLOWER GLANDS, MEGALUG, OR EQUAL.

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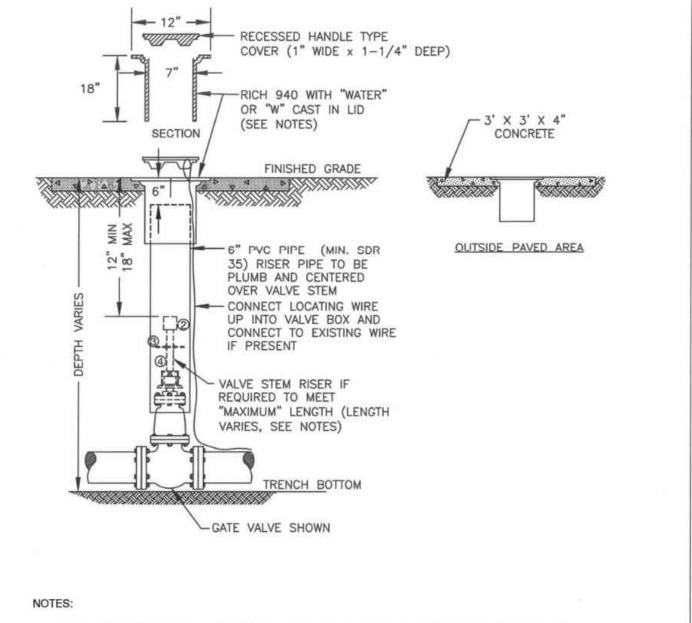
NOTES:

- ALL DOMESTIC AND IRRIGATION METERS SHALL BE SUPPLIED, OWNED, AND INSTALLED BY THE CITY OF WOODLAND.
- 2. PRIOR TO CITY INSTALLATION OF METERS, ALL SERVICE APPLICATIONS MUST BE COMPLETED AND APPROVED.
- APPROVED, SERVICE FEES PAID IN FULL AND AS-BUILTS SUBMITTED AND APPROVED.

 3. CONTRACTOR SHALL CONTACT THE CITY OF WOODLAND PUBLIC WORKS OFFICE (360) 225-7999
- 48-HOURS PRIOR TO INSTALLING ANY WATER SERVICE CONNECTIONS.

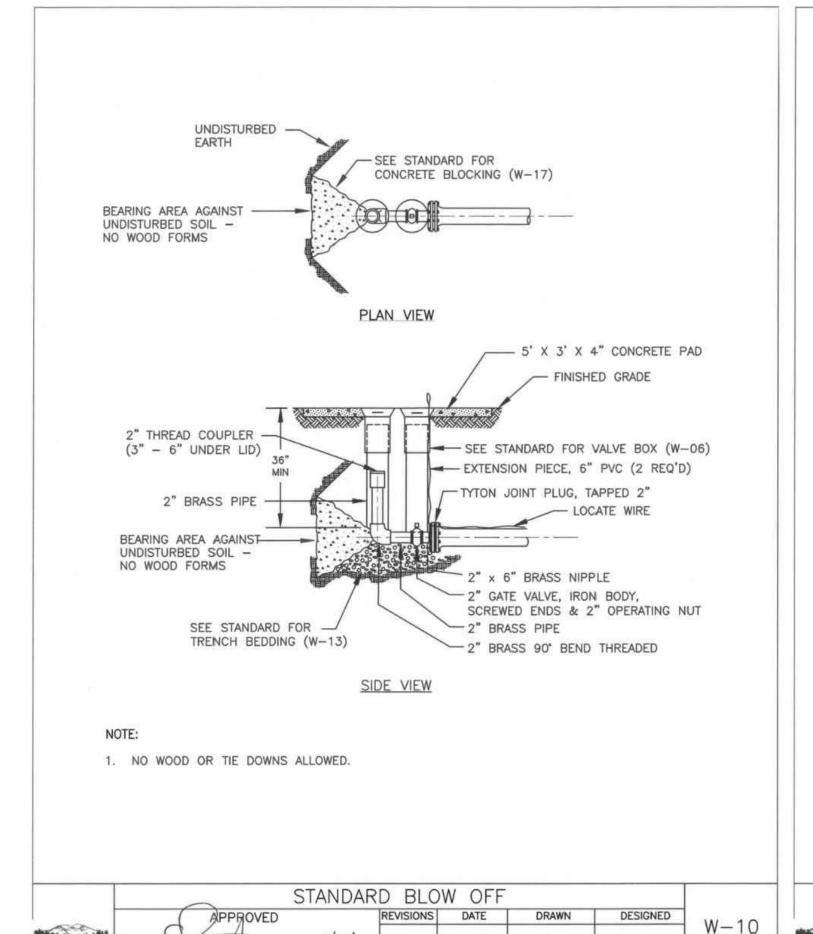
 4. METERS WILL NOT BE SET BY THE CITY PRIOR TO DISINFECTION OF THE MAIN AND SERVICE, AND
- PRIOR TO A SUCCESSFUL BACTERIOLOGICAL TEST.
- SERVICE LINES ON NEW WATERMAINS SHALL BE PRESSURE TESTED UP TO THE LOCKING ANGLE BALL VALVE AS PART OF THE WATERMAIN TESTING.
- 6. DURING THE PRESSURE TEST, THE MAIN SHALL BE OPEN FOR INSPECTION OF ALL CORPORATION
- 7. USE 1-7/8" BIT FOR ALL 2" SADDLE TAPS AND 1-3/8" BIT FOR 1-1/2" SADDLE TAPS.
- 8. METER BOXES ARE NOT ALLOWED IN HARD SURFACED AREAS WITHOUT PRIOR WRITTEN APPROVAL. METER BOXES IN HARD SURFACE AREAS SHALL BE SLIGHTLY HIGHER (1/8" MAX) THAN SURROUNDING GRADE AND BOTH THE BOX AND LID MUST BE TRAFFIC RATED.
- 9. 1 1/2" METER CAN BE INSTALLED IN A 2" SETTING WITH ADAPTORS.

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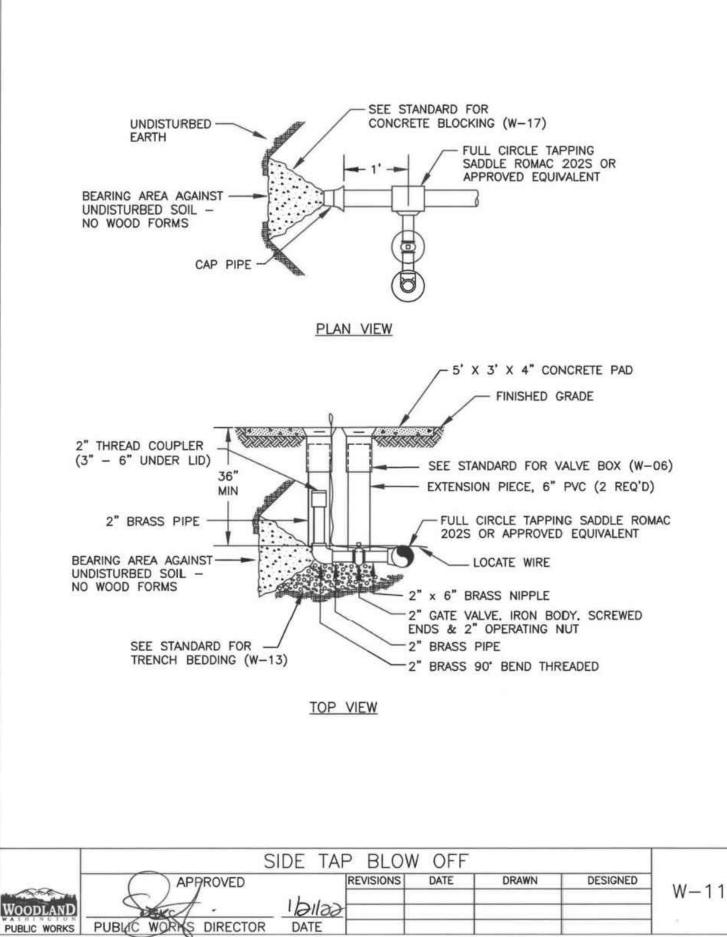
- 1. VALVE STEM EXTENSION TO INCLUDE THE FOLLOWING WELDS TO BE 1/4" FILLET WELD ALL AROUND.
- 2. VALVE OPERATING NUT OR 1-7/8" X 1-7/8" X 2" HIGH GRADE STEEL.
- 3. 3/16" THICK X 5-1/5" DIA STEEL GUIDE PLATE SHAFT.
- 4. 2" X 2" X 3/16" SQUARE STRUCTURAL STEEL TUBING TO FIT OPERATING NUT.
- 5. FOR NEW VALVES IN EXISTING STREET, RESTORE PAVEMENT PER CITY OF WOODLAND STANDARDS.

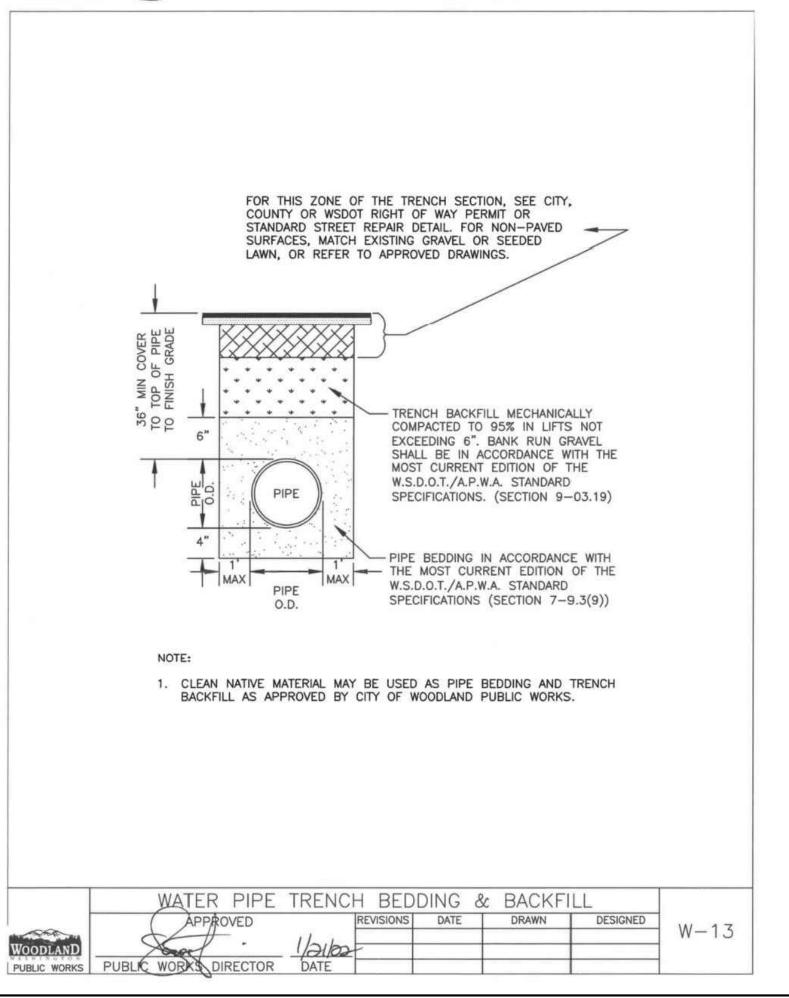
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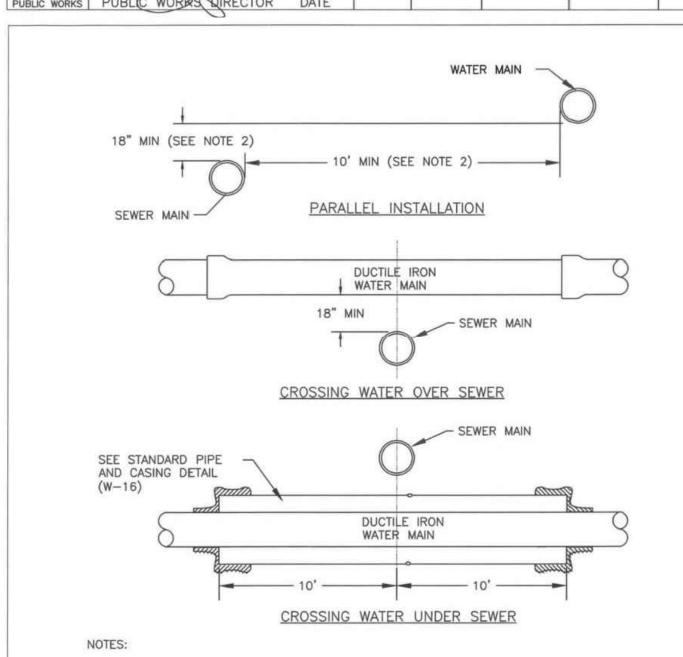
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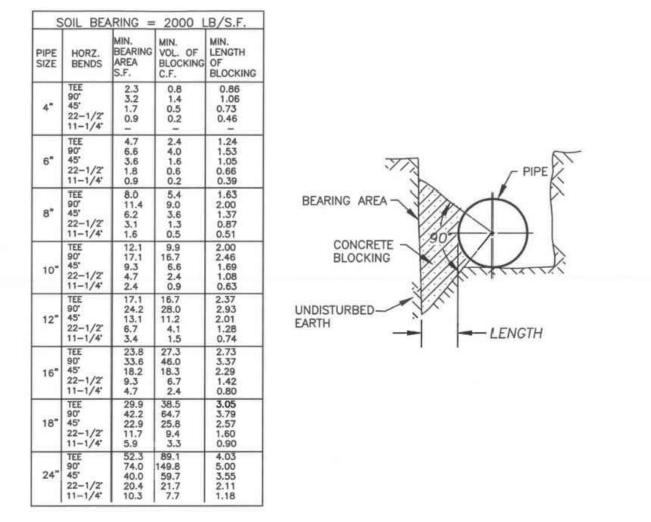
- IN GENERAL, FIRE HYDRANT LOCATIONS SHALL BE AS SHOWN ON THE PLANS AND SHALL CONFORM TO THIS DETAIL. FIRE HYDRANTS SHALL NOT BE SET UNTIL LOCATION AND DEPTH ARE APPROVED BY THE CITY OF WOODLAND PUBLIC WORKS DEPARTMENT.
- FIRE HYDRANT INSTALLATION SHALL BE APPROVED BY THE CITY OF WOODLAND PUBLIC WORKS DEPARTMENT PRIOR TO BACKFILLING.
- 3. HYDRANT TO BE WATEROUS WB67 CLASS 250.
- 4. HYDRANT TO BE 5-1/4" COMMERCIAL W/ (2) 2-1/2" NST, (1) 4-1/2" NST THREADED PORT(S) WITH (1) 5" TWO LUG QUARTER TURN STORZ OR APPROVED EQUAL PUMPER PORT CONNECTION.
- 5. THE FIRE HYDRANT SHALL BE INSTALLED SO THAT IT IS PLUMB IN ALL DIRECTIONS.
- 6. FOUR (4) GUARD POSTS TO BE INSTALLED IN UNPROTECTED AREAS (4' RADIUS).
- FIRE HYDRANTS SHALL BE FACTORY PAINTED OR QUALITY FIELD PAINTED WITH RODDA SILICONE ALKYD ENAMEL HEAVY DUTY GLOSS SAFETY YELLOW 7-32616-1 TO NEW CONDITION.
- 8. HYDRANT STANDARD BURY IS 4' UNLESS OTHERWISE NOTED ON THE PLANS, OR WHEN BREAKAWAY JOINT IS INSTALLED 7" ABOVE FINISHED GRADE.
- 9. ALL JOINTS SHALL BE RESTRAINED UTILIZING MECHANICAL RESTRAIN SYSTEMS. CONCRETE THRUST BLOCKS SHALL NOT BE ALLOWED.
- 10. STORZ ADAPTORS ARE REQUIRED.
- 11. INSTALL LOCATING WIRE AND CONNECT TO EXISTING WIRE IF PRESENT.

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- 1. EXCEPTIONS SHALL BE APPROVED BY THE CITY OF WOODLAND IN WRITING.
- WHERE MINIMUM CLEARANCES CANNOT BE MET, THE SEWER MAIN SHALL BE PLACED IN SEPARATE TRENCHES AND CONSTRUCTED OF MATERIALS EQUIVALENT TO THE CITY OF WOODLAND WATER MAIN STANDARDS, INCLUDING PRESSURE TESTING. ADEQUATE RESTRAINT SHALL BE PROVIDED TO ALLOW TESTING TO OCCUR.
- 3. ALL SEWER CROSSINGS OVER OR UNDER WATER MAINS SHALL MAXIMIZE THE JOINT SEPARATION BY USING THE LONGEST STANDARD LENGTH PIPE AVAILABLE FROM THE MANUFACTURER FOR BOTH THE WATER AND SEWER MAINS. BOTH PIPES SHALL BE CENTERED AT THE POINT OF CROSSING.
- 4. ALL SEWER CROSSING OVER WATER MAINS SHALL BE CONSTRUCTED OF MATERIALS EQUIVALANT TO THE CITY OF WOODLAND WATER MAIN STANDARDS, INCLUDING PRESSURE TESTING

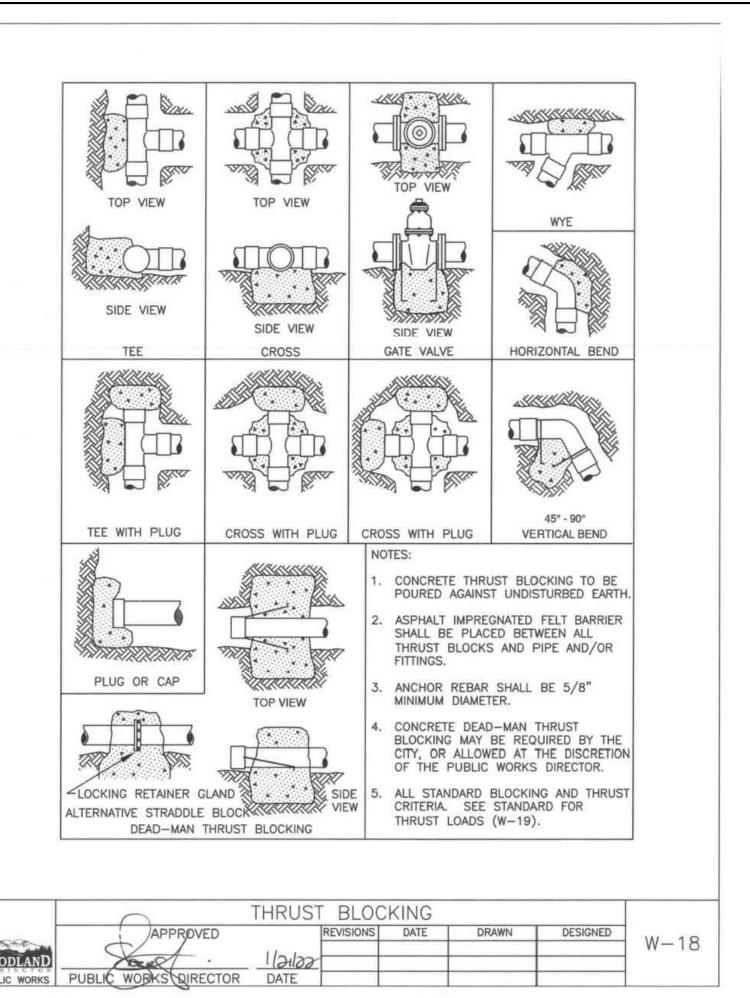
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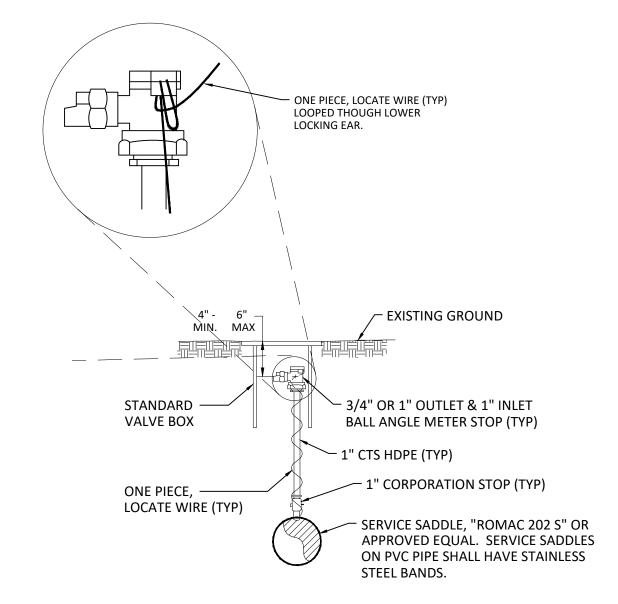


NOTES:

- 1. ALL BLOCKING SHALL BE POURED AGAINST FIRM UNDISTURBED SOIL.
- ALL CONCRETE BLOCKING SHALL BE POURED IN PLACE WITHOUT DIRECT CONTACT TO PIPE, FITTINGS OR FLANGES. 15 LB. ASPHALT— IMPREGNATED FELT, OR EQUIVALENT AS APPROVED BY THE INSPECTOR, SHALL BE PLACED BETWEEN THE CONCRETE AND PIPE, FITTINGS OR FLANGES.
- 3. LAYOUT TO BE APPROVED BY THE INSPECTOR PRIOR TO AND AFTER CONCRETE POUR.
- 4. CONCRETE FOR ALL BLOCKING SHALL HAVE A 28-DAY MINIMUM COMPRESSIVE STRENGTH OF 2,300 P.S.I.
- THIS CHART IS NOT APPLICABLE TO VERTICAL BENDS. LOCATION SPECIFIC DESIGN IS REQUIRED FOR SUCH INSTALLATIONS.
- WHERE THE TRENCH SOIL HAS A BEARING PRESSURE LESS THAN 2000 POUNDS PER SQUARE FOOT, LOCATION SPECIFIC DESIGN IS REQUIRED.

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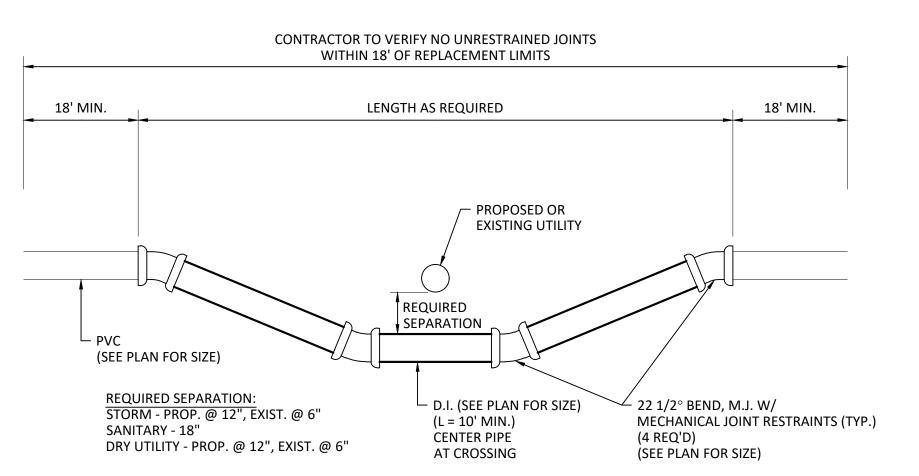




NOTES:

- ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE WOODLAND PUBLIC WORKS CONSTRUCTION SPECIFICATIONS, STANDARD DETAILS AND THE LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" PUBLISHED BY WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT).
- 2. LOCATE WIRE SHALL BE NON-COATED, NO. 14 GA. SOFT DRAWN SOLID COPPER.
- 3. ALL COMPRESSION FITTINGS TO HAVE STAINLESS STEEL INSERTS.

MANUAL AIR RELEASE VALVE



WATERMAIN GRADE ADJUSTMENT AT UTILITY CONFLICT N.T.S.

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