



General Engineering Details

City of Camas General Details ~ INDEX

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GENERAL CONSTRUCTION NOTES:

1. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE MOST RECENTLY ADOPTED EDITION OF THE WSDOT/APWA "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION" AND STANDARD DETAIL SHEETS ATTACHED HEREWITH.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES, INCLUDING THE INVERT AND TOP ELEVATIONS AT CROSSING LOCATIONS, PRIOR TO THE START OF CONSTRUCTION AND TO NOTIFY THE CITY ENGINEER OF ANY POTENTIAL CONFLICTS.
3. CONTRACTOR SHALL CONTACT CLARK COUNTY'S 24-HOUR UTILITY NOTIFICATION CENTER AT CALLBEFOREYOUDIG.ORG OR CALL (800) 424-5555 (OR 811) TO SUBMIT A REQUEST FOR UTILITY LOCATES, A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
4. ALL EXISTING MONUMENTS, PROPERTY CORNERS AND SURVEY MARKERS SHALL BE PROTECTED. REPLACEMENT OF LOST, DESTROYED OR DAMAGED MARKERS SHALL BE DONE BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH RCW 58.09 AT THE CONTRACTORS EXPENSE.
5. THE CONTRACTOR SHALL NOT EXCAVATE OVER FOUR FEET IN DEPTH WITHOUT USING ADEQUATE SAFETY MEASURES. THE CONTRACTOR IS REFERRED TO TITLE 296 WAC, PART N FOR EXCAVATION, TRENCHING AND SHORING REQUIREMENTS.
6. ALL UTILITY TRENCHES SHALL HAVE BEDDING, PRE-COVER AND BACKFILL MATERIAL AS REQUIRED IN GENERAL DETAILS G2 WITHIN PAVED AREAS & G3 WITHIN UNPAVED AREAS.
 - WATER SETTLEMENT OF UTILITY TRENCHES IS NOT ALLOWED.
 - TRENCH LINES LOCATED WITHIN AN EXISTING ROADWAY SHALL BE PLATED OR TOPPED WITH COLD MIX.
 - CRUSHED ROCK BACKFILL OVERNIGHT IS NOT ALLOWED.
 - PLATES SHALL HAVE COLD MIX AROUND ALL EDGES.
7. ALL EROSION/SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE EROSION/SEDIMENT CONTROL PLAN AND CITY OF CAMAS EROSION/SEDIMENT CONTROL DETAILS PRIOR TO ANY CLEARING OR THE START OF ANY CONSTRUCTION.
8. IF THE CITY INSPECTOR OR ENGINEER(S) HAS EVIDENCE OF POOR CONSTRUCTION PRACTICES OR EROSION CONTROL TECHNIQUES, A "STOP WORK" ORDER SHALL BE ISSUED UNTIL PROPER MEASURES HAVE BEEN TAKEN AND APPROVED BY THE CITY ENGINEERING STAFF.
9. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE CAMAS ENGINEERING DEPARTMENT. APPROVAL SHALL BE OBTAINED PRIOR TO THE START OF CONSTRUCTION.
10. THE DEVELOPER/CONTRACTOR SHALL REQUEST A PRE-CONSTRUCTION MEETING WITH THE CITY OF CAMAS ENGINEERING DEPARTMENT PRIOR TO COMMENCING ANY WORK.
11. ANY SIGNIFICANT DEVIATIONS FROM THE PLANS WILL REQUIRE A SUBMITTAL FROM THE APPLICANT'S ENGINEER AND APPROVAL FROM THE CITY OF CAMAS ENGINEERING DEPARTMENT.
12. AN EROSION/SEDIMENT CONTROL BOND MAY BE REQUIRED BY THE CITY OF CAMAS PRIOR TO WORK COMMENCING.



GENERAL DETAIL
CONSTRUCTION NOTES

[Signature] 8-12-22
DETAIL APPROVED BY DATE

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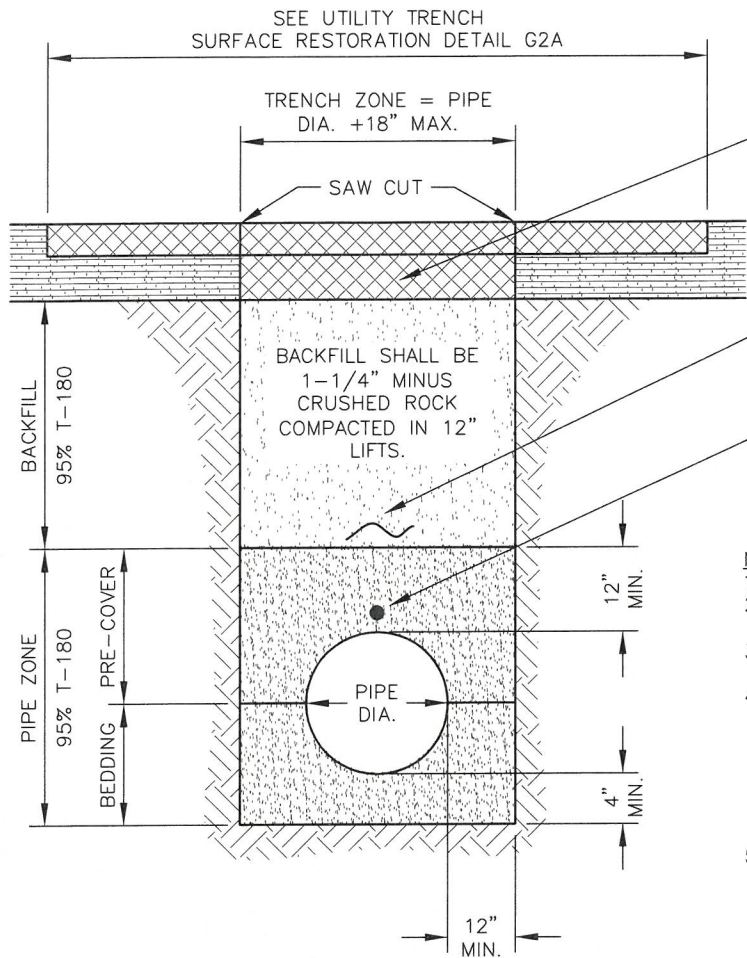
DETAIL NO.

G1

REVISION: 6

DATE: 8/12/2022

GEN-NOTES.DWG



TRENCH ZONE PATCH PER NOTE #5 BELOW

MARKING TAPE REQUIRED FOR ALL SANITARY LINES, 1' ABOVE PIPE

14 GA. HDPE (HMWPE) INSULATED COPPER CLAD STEEL TONING WIRE (GREEN FOR SEWER, BLUE FOR WATER) ON MAINS AND LATERALS WHEN REQUIRED (SEE CHART BELOW), SEAL SPLICE CONNECTIONS WITH 3M DBY OR KING GEL CAPS

NOTES:

1. SAWCUT ALL EDGES FOR TRENCH EXCAVATION.
2. ALL TRENCH COMPACTION SHALL MEET OR EXCEED 95% OF AASHTO T-180.
3. BEDDING AND PRE-COVER (PIPE ZONE) TO BE 5/8" MINUS CRUSHED AGGREGATE.
4. CDF BACKFILL REQUIRED ABOVE PIPE ZONE, FOR ALL TRANSVERSE TRENCHLINE AND UTILITY CROSSINGS, TO A MAXIMUM DEPTH OF 3 FEET, ON ALL DESIGNATED COLLECTOR AND ARTERIAL STREETS. CDF SHALL BE DESIGNED TO HAVE A MINIMUM 28-DAY STRENGTH OF 50 PSI AND A MAXIMUM 28-DAY STRENGTH NOT TO EXCEED 300 PSI.
5. TRENCH ZONE PATCH SHALL CONSIST OF MIN. 3" COMPACTED DEPTH OF CLASS 1/2" PG 64-22 HMA PAVEMENT OVER 12" OF 1 1/4" MINUS CRUSHED AGGREGATE. CONTRACTOR TO MATCH EXISTING ASPHALT DEPTH IF >3".

UTILITY TRENCH WITHIN PAVED AREAS

MINIMUM PIPE COVER TABLE			
UTILITY TYPE	MAIN TYPE	MIN. PIPE (MAIN) COVER	MIN. LATERAL OR SERVICE COVER
WATER	DISTRIBUTION (C)	2.5'	2' (C)
	TRANSMISSION (A)	3'	2' (B)
STORM	MAIN	5'	PER PLAN (MIN. 2')
SEWER:	STEP (C)	5'	1.5' (C)
	STEF (C)	6'	4.5' (C)
	GRAVITY	6'	4.5' (C)
(NOTES)			
A. TONING WIRE REQUIRED FOR MAINS 12" DIA. AND LARGER			
B. SERVICES ONLY ALLOWED WHERE APPROVED			
C. TONING WIRE REQUIRED			



GENERAL DETAIL
UTILITY TRENCH WITHIN PAVED AREAS

DETAIL APPROVED BY *Jan P. Covert* 9-26-23
DATE

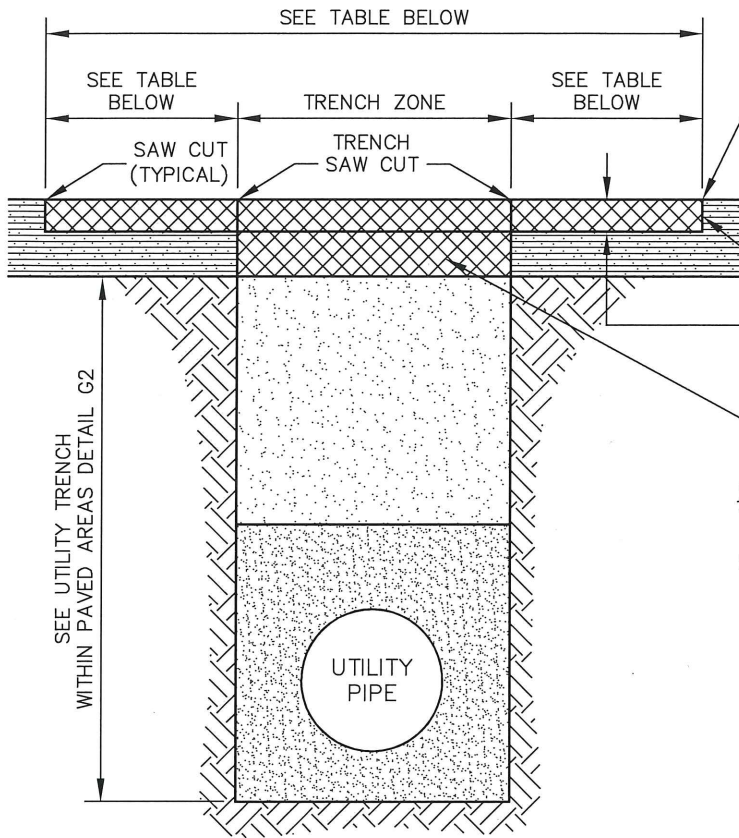
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DETAIL NO.

G2

REVISION: 8 DATE: 09/26/2023

GEN - TRENCH.DWG



ALL ASPHALT TO ASPHALT JOINTS SHALL BE SEALED OVER HOT PAVING ASPHALT, AND SANDED, SAME DAY AS PAVING

TACK ALL COLD JOINTS PRIOR TO ASPHALT PAVEMENT PATCHING

MIN. 2" GRIND & INLAY

TRENCH ZONE PATCH PER NOTE #2 BELOW

NOTES:

1. SAWCUT ALL EDGES FOR SURFACE RESTORATION, INCLUDING GRIND AND INLAY EDGES.
2. TRENCH ZONE PATCH SHALL CONSIST OF MIN. 3" COMPACTED DEPTH OF CLASS 1/2" PG 64-22 HMA PAVEMENT OVER 12" OF 1 1/4" MINUS CRUSHED AGGREGATE. CONTRACTOR TO MATCH EXISTING ASPHALT DEPTH IF >3".

UTILITY TRENCH SURFACE RESTORATION TABLE		
<u>STREET CLASSIFICATION</u>	<u>TRANSVERSE TRENCH REQUIREMENTS</u>	<u>LONGITUDINAL TRENCH REQUIREMENTS</u>
LOCAL INCLUDING CUL-DE-SACS & DEAD ENDS (A)	3' MINIMUM EACH SIDE OF TRENCH; 10 FT MINIMUM TOTAL (B)(C)	FULL LANE WIDTH GRIND & INLAY (B)
LOCAL THROUGH STREETS (A)	12 FT GRIND & INLAY EACH SIDE OF TRENCH (C)	FULL LANE WIDTH GRIND & INLAY
COLLECTOR	12 FT GRIND & INLAY EACH SIDE OF TRENCH	FULL LANE WIDTH GRIND & INLAY
ARTERIAL	12 FT GRIND & INLAY EACH SIDE OF TRENCH	FULL LANE WIDTH GRIND & INLAY

(NOTES)
 A. MINIMUM REQUIREMENTS FOR PUBLIC AND PRIVATE STREETS
 B. OPTIONAL FULL DEPTH PATCH, OR GRIND AND INLAY
 C. SURFACE RESTORATION LESS THAN MIN. SHOWN REQUIRES PRIOR APPROVAL



GENERAL DETAIL
UTILITY TRENCH SURFACE RESTORATION

DETAIL APPROVED BY *[Signature]* DATE 4/19/19

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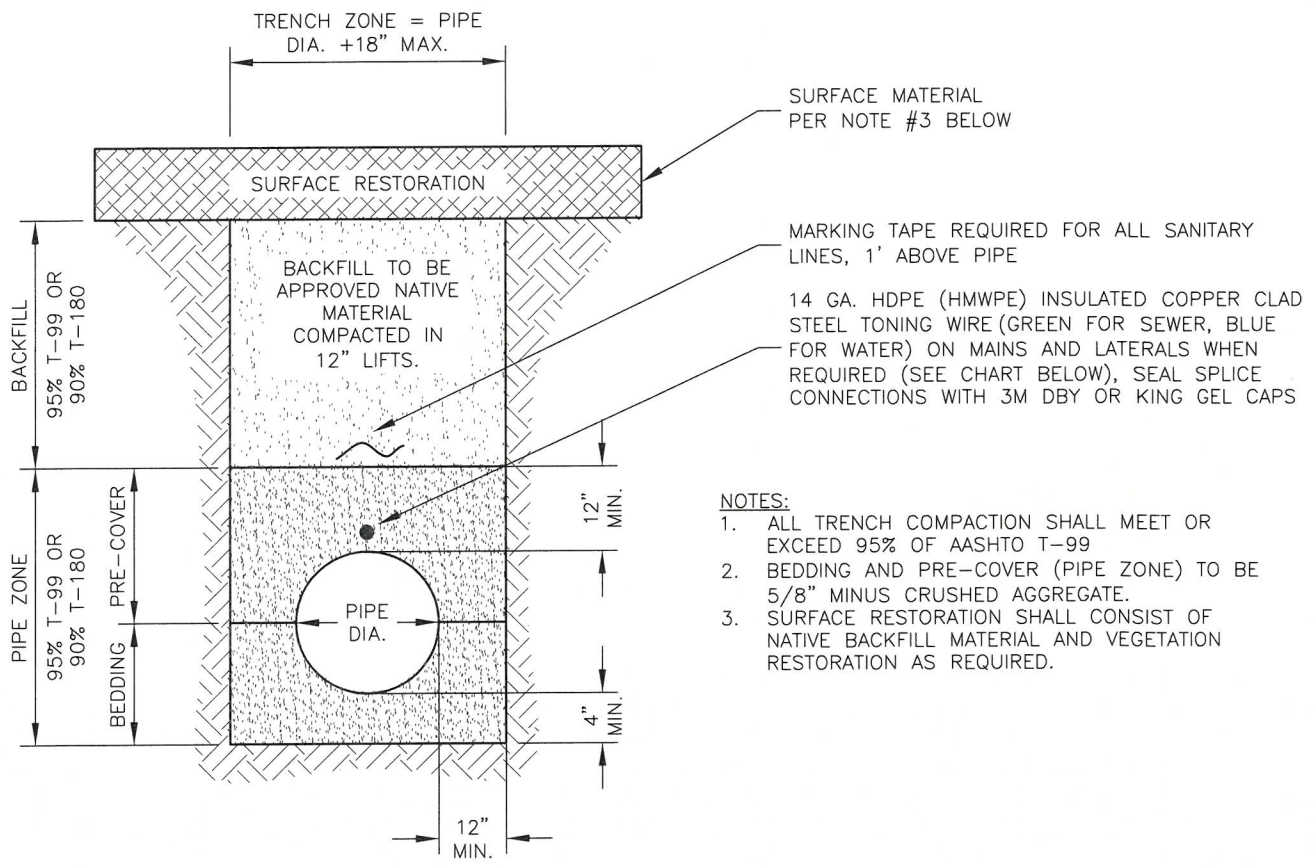
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G2A

REVISION: 1

DATE: 4/18/2019

GEN - TRENCH.DWG

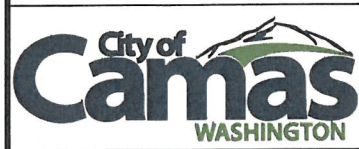


- NOTES:**
1. ALL TRENCH COMPACTION SHALL MEET OR EXCEED 95% OF AASHTO T-99
 2. BEDDING AND PRE-COVER (PIPE ZONE) TO BE 5/8" MINUS CRUSHED AGGREGATE.
 3. SURFACE RESTORATION SHALL CONSIST OF NATIVE BACKFILL MATERIAL AND VEGETATION RESTORATION AS REQUIRED.

UTILITY TRENCH SECTION FOR UNPAVED AREAS

MINIMUM PIPE COVER TABLE			
UTILITY TYPE	MAIN TYPE	MIN. PIPE (MAIN) COVER	MIN. LATERAL OR SERVICE COVER
WATER	DISTRIBUTION (C)	2.5'	2' (C)
	TRANSMISSION (A)	3'	2' (B)
STORM	MAIN	5'	PER PLAN (MIN. 2')
SEWER:	STEP (C)	5'	1.5' (C)
	STEF (C)	6'	4.5' (C)
	GRAVITY	6'	4.5' (C)

(NOTES)
 A. TONING WIRE REQUIRED FOR MAINS 12" DIA. AND LARGER
 B. SERVICES ONLY ALLOWED WHERE APPROVED
 C. TONING WIRE REQUIRED



GENERAL DETAIL
 UTILITY TRENCH FOR UNPAVED AREAS
Jim P. Carleton 9-26-23
 DETAIL APPROVED BY DATE

NOT TO SCALE
 REVISION: 7
 DATE: 09/26/2023

DETAIL NO.
 G3

GEN-TRENCH.DWG

CATEGORY	TEST	STANDARD	FREQUENCY	TESTING AGENCY	TIMING	TEST REQUIREMENTS
LOT	LOT AREA COMPACTION	AASHTO T-99 OR AASHTO T-180	MIN. 1 PER EVERY 3' DEPTH, EACH LOT	CERTIFIED LAB	DAILY, AS MAT'L IS PLACED	MINIMUM COMPACTION REQUIRED: 95% WITH T-99 OR 90% WITH T-180
STREET/SUB	SUBGRADE CUT SECTION COMPACTION	CITY OF CAMAS	ALL	CITY OF CAMAS	PRIOR TO BASE ROCK	LOADED 10 CY TRUCK - PROOF ROLL
STREET/SUB	SUBGRADE FILL COMPACTION	AASHTO T-180	EVERY 2500 CY, MIN. 2; AND 1 PER 3 FT. OF DEPTH	CERTIFIED LAB	DAILY, AS MAT'L IS PLACED	95% MIN. COMPACTION
STREET/SUB	SUBGRADE FILL COMPACTION	CITY OF CAMAS	ALL	CITY OF CAMAS	PRIOR TO BASE ROCK	LOADED 10 CY TRUCK - PROOF ROLL
STREET/SUB	SUBGRADE GRADE CHECK ELEV.	CITY OF CAMAS	PER STATION (0+25)	CITY OF CAMAS	PRIOR TO BASE ROCK	+0.04' TOLERANCE
STREET/ROCK	BASE ROCK GRADATION	WSDOT 9-03.9	ONE PER SOURCE	CERTIFIED LAB	PRIOR TO PLACEMENT	COPY TO INSPECTOR
STREET/ROCK	BASE ROCK COMPACTION	AASHTO T-180	EVERY 1000 LF	CERTIFIED LAB	DAILY, AS MAT'L IS PLACED	95% MIN. COMPACTION
STREET/ROCK	BASE ROCK GRADE CHECK ELEV.	CITY OF CAMAS	PER STATION (0+25)	CITY OF CAMAS	PRIOR TO TOP ROCK	MINIMUM SECTION REQUIRED
STREET/ROCK	TOP ROCK GRADATION	WSDOT 9-03.9	ONE PER SOURCE	CERTIFIED LAB	PRIOR TO PLACEMENT	COPY TO INSPECTOR
STREET/ROCK	TOP ROCK COMPACTION	CITY OF CAMAS	ALL	CITY OF CAMAS	PRIOR TO PAVEMENT	LOADED 10 CY TRUCK - PROOF ROLL
STREET/ROCK	TOP ROCK GRADE CHECK ELEV.	CITY OF CAMAS	PER STATION (0+25)	CITY OF CAMAS	PRIOR TO PAVEMENT	+0.02' TOLERANCE
STREET/AC	STORM SYSTEM INSPECTION	CITY OF CAMAS	AS REQUIRED	CITY OF CAMAS	PRIOR TO PLACEMENT	SYSTEM TO BE 100% FUNCTIONAL
STREET/AC	AC GRADE & OIL CONTENT	WSDOT 9-03.8	ONE PER SOURCE	CERTIFIED LAB	PRIOR TO PLACEMENT	COPY TO INSPECTOR
STREET/AC	AC COMPACTION	AASHTO T-209	ONE EVERY 1000 TONS	CERTIFIED LAB	DURING PLACEMENT	91% MIN. COMPACTION
TRENCH	UTILITY BACKFILL COMPACTION (IN RIGHT OF WAY)	AASHTO T-180	EVERY 500 FT, MIN 1/LINE; 2 AT 100 FT FOR FAILED TESTS	CERTIFIED LAB	DAILY, AS MAT'L IS PLACED	95% MIN. COMPACTION
TRENCH	UTILITY BACKFILL COMPACTION (OUT OF RIGHT OF WAY)	AASHTO T-99 OR AASHTO T-180	EVERY 500 FT, MIN 1/LINE; 2 AT 100 FT FOR FAILED TESTS	CERTIFIED LAB	DAILY, AS MAT'L IS PLACED	MINIMUM COMPACTION REQUIRED: 95% WITH T-99 OR 90% WITH T-180
TRENCH	UTILITY BACKFILL COMPACTION (OVER 6 FT. IN DEPTH)	AASHTO T-99 OR AASHTO T-180	EVERY 5 FT. OF DEPTH & SAME AS ABOVE	CERTIFIED LAB	DAILY, AS MAT'L IS PLACED	MINIMUM COMPACTION REQUIRED: 95% WITH T-99 OR 90% WITH T-180



GENERAL DETAIL
STANDARD TESTING REQUIREMENTS - PAGE 1 OF 2

DETAIL APPROVED BY *Jan E. Coe* DATE 6-28-23

NOT TO SCALE

DETAIL NO.

G4A

REVISION: 6

DATE: 06/27/2023

CATEGORY	TEST	STANDARD	FREQUENCY	TESTING AGENCY	TIMING	TEST REQUIREMENTS
LOT	LOT AREA COMPACTION	AASHTO T-99 OR AASHTO T-180	MIN. 1 PER EVERY 3' DEPTH, EACH LOT	CERTIFIED LAB	DAILY, AS MAT'L IS PLACED	MINIMUM COMPACTION REQUIRED: 95% WITH T-99 OR 90% WITH T-180
STORM	STORM SEWER MANDREL TEST	WSDOT 7-17.3	AT CITY REQUEST	CONTRACTOR	PRIOR TO BASE ROCK	EFFECTIVE LENGTH > D, MANDREL DIA > 0.95D
STORM	STORM SEWER TV TEST	WSDOT 7-17.3	AT CITY REQUEST	CONTRACTOR	PRIOR TO BASE ROCK	INSPECTION REPORT AND VIDEO RECORDING ON DVD
SEWER	CONVENTIONAL SEWER - AIR TEST	WSDOT 7-17.3	MAINS, LATERALS	CONTRACTOR	PRIOR TO BASE ROCK	4 PSI FOR 1 MINUTE PER 100 LF OF MAIN
SEWER	STEF & CONVENTIONAL SEWER - MANDREL TEST	WSDOT 7-17.3	AT CITY REQUEST	CONTRACTOR	PRIOR TO BASE ROCK	EFFECTIVE LENGTH > D, MANDREL DIA > 0.95D
SEWER	STEF & CONVENTIONAL SEWER - TV TEST	WSDOT 7-17.3	REQUIRED ON MAINS	CONTRACTOR	PRIOR TO BASE ROCK	INSPECTION REPORT AND VIDEO RECORDING ON DVD
SEWER	CONVENTIONAL SEWER TV TEST	WSDOT 7-17.3	REQUIRED ON MAINS AND LATERALS	CONTRACTOR	PRIOR TO FINAL ACCEPTANCE	INSPECTION REPORT AND VIDEO RECORDING ON DVD
SEWER	STEF & CONVENTIONAL SEWER - MANHOLE VACUUM TEST	CITY OF CAMAS	1:4 MH MINIMUM; ADD 1 MH PER FAILURE	CERTIFIED LAB	AFTER PAVEMENT INSTALLED, PRIOR TO MANHOLE COATING	-10 IN. Hg VACUUM FOR 60 SECONDS
SEWER	STEF & CONVENTIONAL SEWER - MANHOLE COATING ADHESION TEST	ASTM D-4541 AND ASTM D-7234	ALL MANHOLES	CONTRACTOR	PRIOR TO FINAL ACCEPTANCE	COATING MANUFACTURERS RECOMMENDED TEST PROCEDURE
SEWER	STEF SEWER - AIR TEST	WSDOT 7-17.3	MAINS, LATERALS	CONTRACTOR	PRIOR TO BASE ROCK	5 PSI FOR 1 MINUTE PER 100 FT.
SEWER	STEF SEWER - TONE TEST	CITY OF CAMAS	MAINS, SERVICES	CITY OF CAMAS	PRIOR TO BASE ROCK	CONTINUOUS TONE
SEWER	STEP SEWER - TONE TEST	CITY OF CAMAS	MAINS, SERVICES	CONTRACTOR	PRIOR TO BASE ROCK	CONTINUOUS TONE
SEWER	STEP SEWER - HYDROSTATIC TEST	CITY OF CAMAS	MAINS, AIR/VAC	CITY OF CAMAS	PRIOR TO BASE ROCK	15 MIN. AT 150 PSI (MIN.) OR WORKING PRESSURE (HIGHER OF 2), < 200 PSI
SEWER	STEP SEWER - SERVICE	CITY OF CAMAS	ALL SERVICES	CONTRACTOR	PRIOR TO BASE ROCK	PIPE MANUFACTURER RECOMMENDED HYDROSTATIC TEST PROCEDURE
SEWER	ALL SEWER - OPERATIONS INSPECTION	CITY OF CAMAS	MAINS, SERVICES	CITY OF CAMAS	PRIOR TO PAVING	OPERATIONS TO INSPECT PRIOR TO FINAL PAVE
WATER	CHLORINATE WATER MAINS	WSDOT 7-09.3 (24)	ALL	CONTRACTOR	PRIOR TO BACTERIA SAMPLE	50mg/l AT INSERTION, 25 mg/l AFTER 24 HRS, AVAILABLE CHLORINE, WATER DEPT. TO FILL LINES
WATER	BACTERIA WATER SAMPLE	AWWA	MIN. 1 PER BLOWOFF	CITY OF CAMAS	PRIOR TO PRESSURE TEST AND BASE ROCK	E. COLI & COLIFORM ABSENT
WATER	WATER LINE PRESSURE TEST	WSDOT 7-09.3(23)	MAIN, SERVICE, F.H., AIR/VAC DUCTILE/HDPE	CONTRACTOR	PRIOR TO BASE ROCK	15 MIN. AT 200 PSI (MIN.) AT HIGH POINT. NOT TO EXCEED 250 PSI AT LOW POINT.
WATER	ALL WATER - OPERATIONS INSPECTION	CITY OF CAMAS	MAINS, SERVICES	CITY OF CAMAS	PRIOR TO PAVING	OPERATIONS TO INSPECT PRIOR TO FINAL PAVE



GENERAL DETAIL
STANDARD TESTING REQUIREMENTS - PAGE 2 OF 2

DETAIL APPROVED BY *Jim P. Caruth* DATE 9-26-23

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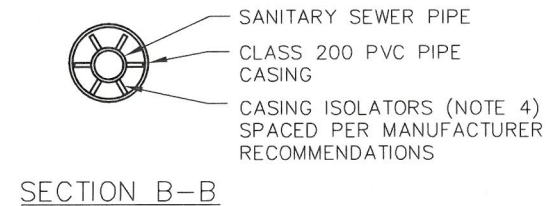
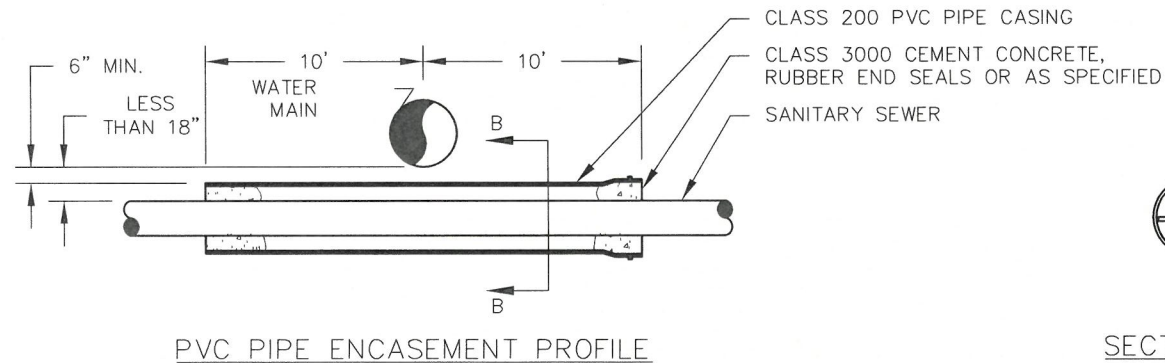
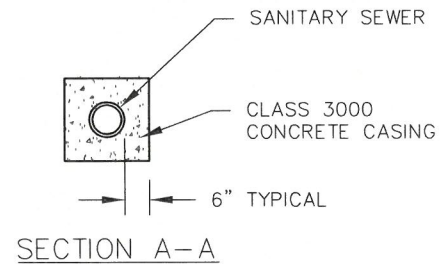
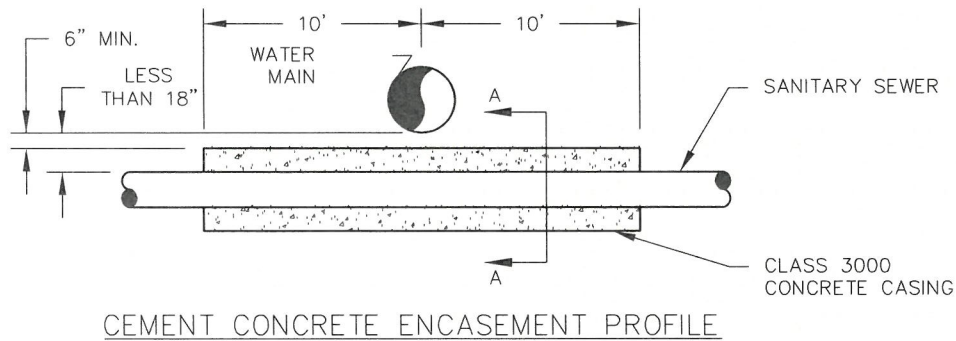
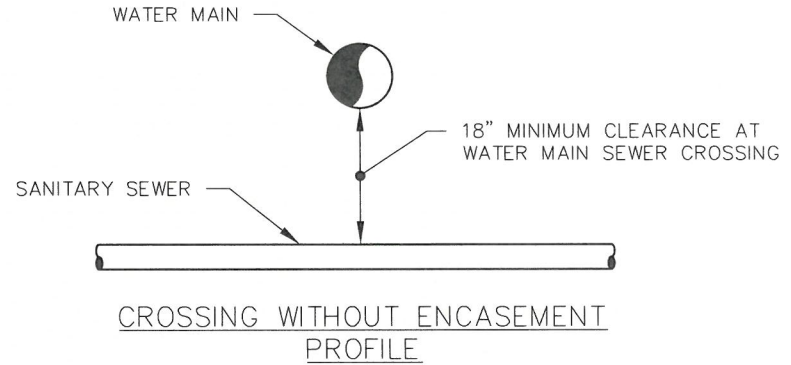
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REVISION: 7 DATE: 09/26/2023

GEN - TESTING.DWG

NOTES:

1. MINIMUM HORIZONTAL CLEARANCE BETWEEN WATER AND SEWER MAINS SHALL BE 10 FEET.
2. MINIMUM HORIZONTAL CLEARANCE BETWEEN WATER OR SEWER MAINS AND FRANCHISE UTILITY MAINS SHALL BE 5 FEET.
3. IF VERTICAL CLEARANCE IS LESS THAN 18", THE SEWER PIPE SHALL BE ENCASED. MINIMUM CLEARANCE WITH CASING SHALL BE 6".
4. CASING SHALL BE A 20' LENGTH OF CLASS 200 P.V.C. WITH BOTH ENDS PLUGGED, OR 6" CLASS 3000 CEMENT CONCRETE AS SHOWN BELOW.
5. MINIMUM VERTICAL CLEARANCE FOR WATER-ENCASEMENT, WATER-STORM OR SANITARY-STORM CROSSINGS SHALL BE 6".
6. SPACERS FOR PVC PIPE ENCASEMENT SHALL BE PSI RANGER II, OR EQUIVALENT, NON-METALLIC CASING ISOLATORS AS SHOWN IN SECTION B-B.
7. RUBBER END SEALS FOR PVC PIPE ENCASEMENT SHALL BE PSI MODEL "W", MODEL "S" OR EQUIVALENT.
8. PIPE JOINTS WITHIN ENCASEMENT SHALL BE RESTRAINED JOINTS.
9. NO PRIVATE UTILITES SHALL BE ALLOWED IN CITY OF CAMAS CASINGS



CITY OF CAMAS

CITY ENGINEER

DATE

REVISION NO.	SHEETS AFFECTED	INITIAL APPROVAL	DATE

REV. NO.	DATE	BY	APPR.
1	1/1/11	SCD	JC



CITY OF CAMAS ~ GENERAL DETAIL
SIGNATURE AND REVISION BLOCK

Sam E. Caruth 1-4-11
DETAIL APPROVED BY DATE

NOT TO SCALE

DETAIL NO.

G6

GEN-SIGNATURE

EASEMENT DESIGN NOTES:

1. PUBLIC EASEMENTS FOR WATER, SEWER OR STORMWATER UTILITES LOCATED BETWEEN LOTS, ALONG BACK LOT LINES, WITHIN OPEN SPACES OR THROUGH OTHER TRACTS OR PARCELS WITHIN OR ADJACENT TO A DEVELOPMENT ARE DISCOURAGED AND ONLY ALLOWED ON A CASE BY CASE BASIS AS APPROVED BY THE CITY.
2. IF SUCH EASEMENT IS ALLOWED THE FOLLOWING REQUIREMENTS AND RESTRICTIONS SHALL THEREBY APPLY TO ALL SUCH EASEMENTS UNLESS SUCH REQUIREMENTS AND RESTRICTIONS ARE SPECIFICALLY WAIVED BY THE CITY.
 - a. ALL PUBLIC UTILITIES LOCATED WITHIN A PERMITTED EASEMENT SHALL BE INSTALLED IN ACCORDANCE WITH AND MEET THE REQUIREMENTS OF CITY OF CAMAS GENERAL DETAIL #G2 AS SHOWN IN THE CITY OF CAMAS DESIGN STANDARD MANUAL.
 - b. CONSTRUCTION OR INSTALLATION OF ACCESSORY STRUCTURES, SHEDS, BRICK CONCRETE OR MASONRY GRILLS OR BARBEQUES, DECKS, PLAY STRUCTURES, JUNGLE GYMS, SWING SETS, COVERED PATIOS, SWIMMING POOLS, SPORT COURTS, BRICK OR STONE PAVER WALKWAYS OR DRIVES, LANDSCAPING (OTHER THAN BARK DUST OR LAWN), LANDSCAPING WATER FEATURES SUCH AS COY PONDS OR WATERFALLS, RAISED BED GARDENS OR ANY OTHER PERMANENT OR SEMI-PERMANENT IMPROVEMENTS WITHIN OR ACROSS THE LIMITS OF THE EASEMENT IS PROHIBITED.
 - c. CONSTRUCTION OR INSTALLATION OF CONCRETE SIDEWALKS OR DRIVEWAYS, ASPHALT DRIVEWAYS OR PATHS, GRAVEL DRIVES OR RV PADS, LAWNS OR BARK DUST AREAS ARE ALLOWED WITHIN THE LIMITS OF THE EASEMENT.
 - d. SHOULD THE CITY BE REQUIRED TO DISRUPT THE SURFACE OF THE UTILITY EASEMENT THE CITY WILL PROVIDE SURFACE RESTORATION LIMITED TO THOSE APPROVED SURFACE TREATMENTS NOTED IN SECTION c. ABOVE.
 - e. FOR PUBLIC UTILITY EASEMENTS LOCATED ON SLOPES OF 6% OR GREATER (CROSS SLOPE OR PROFILE GRADE) THERE SHALL BE INSTALLED A MINIMUM 12' WIDE ACCESS ROAD CAPABLE OF SUPPORTING AN H2O TRAFFIC LOAD INSTALLED WITH A MAXIMUM CROSS SLOPE OF 2%. FOR PROFILE GRADES 6% OR STEEPER (TO A MAXIMUM GRADE OF 15%) THE MINIMUM 12' WIDE SURFACE WIDTH SHALL BE PAVED.

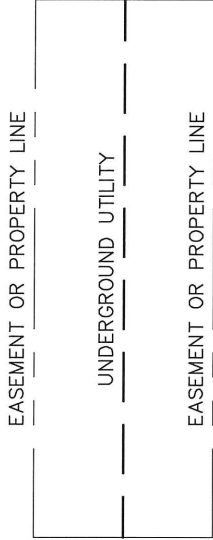
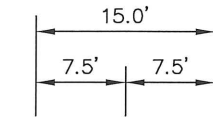
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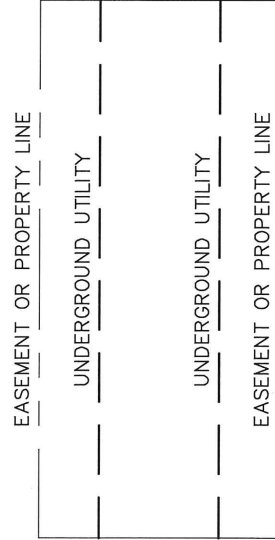
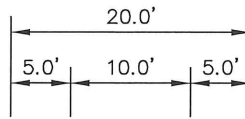
CITY OF CAMAS ~ GENERAL DETAIL
 UTILITY EASEMENT NOTES
Sam P. Coates 10-21-14
 DETAIL APPROVED BY DATE

NOT TO SCALE

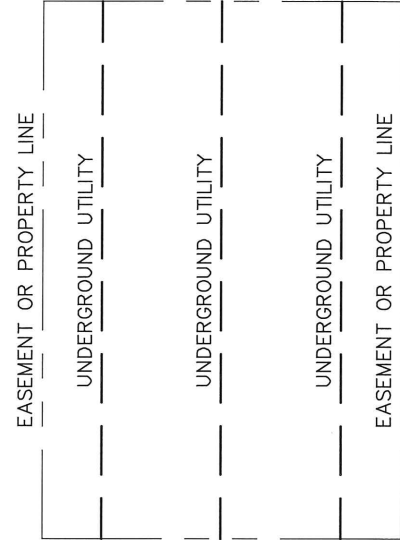
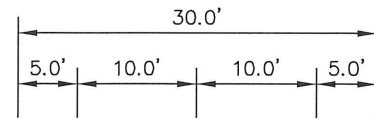
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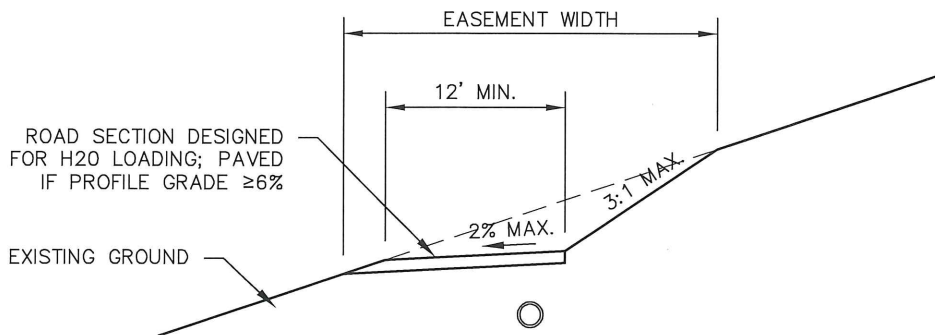
ONE UTILITY
15' WIDE



TWO UTILITIES
20' WIDE



THREE UTILITIES
30' WIDE



EASEMENT ACCESS ROAD SECTION

NOTES:

1. NO PRIVATE UTILITIES SHALL BE ALLOWED IN CITY OF CAMAS EASEMENTS.

REV. NO.	DATE	BY	APPR.
1	10/21/14	SCD	JC



CITY OF CAMAS ~ GENERAL DETAIL

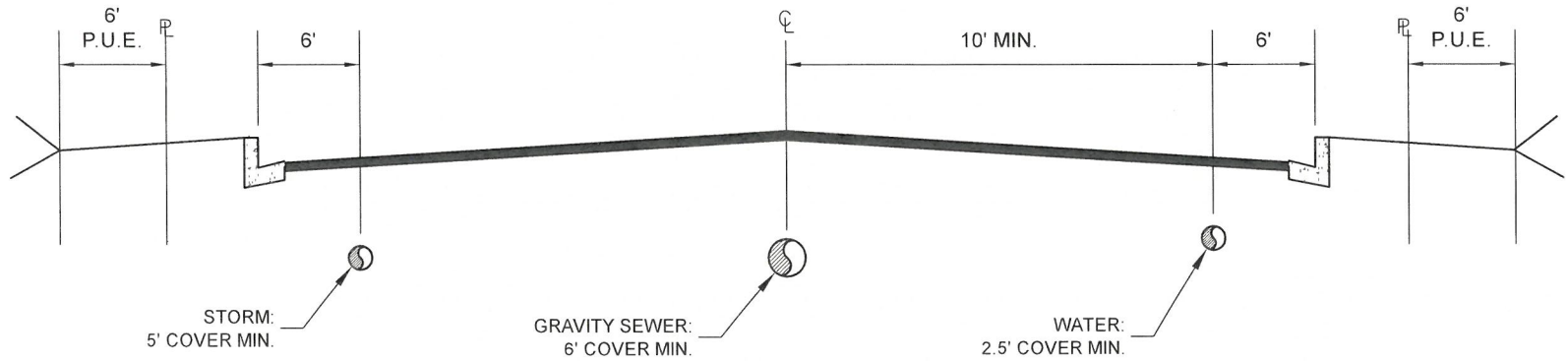
UTILITY EASEMENTS

Jan P. Carther 10-21-14
DETAIL APPROVED BY DATE

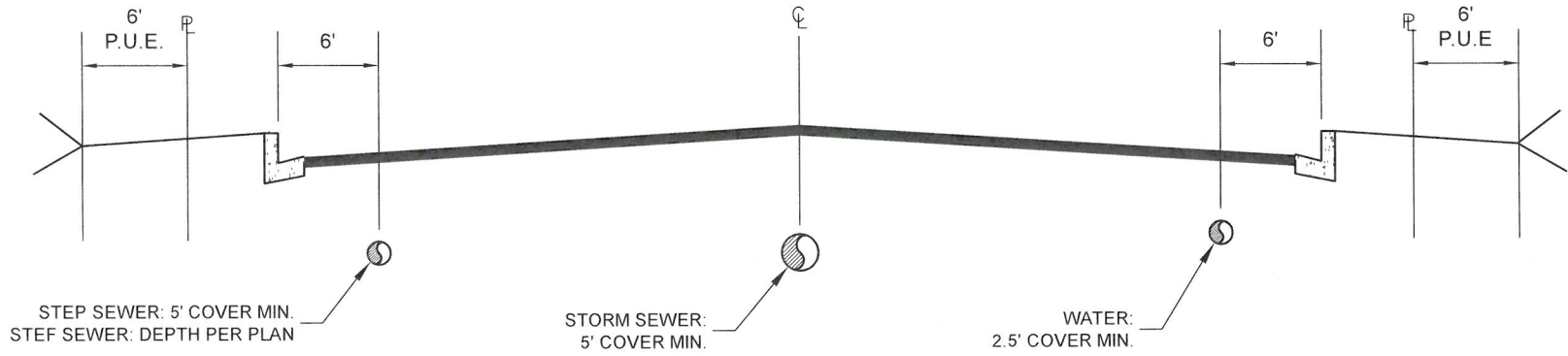
DETAIL NO.

G8

NOT TO SCALE



STANDARD UTILITY LOCATION W/GRAVITY SEWER



STANDARD UTILITY LOCATION W/STEF OR STEP SEWER