CITY OF HOLTVILLE
SANITARY SEWER IMPROVEMENT STANDARD DETAILS

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NOTES:

1. WHERE THE TRENCH DEPTH EXCEEDS 3', THE PIPELINE SUBCONTRACTOR SHALL UTILIZE ANY OF THE FOLLOWING METHODS FOR EXCAVATION AND TRENCH STABILIZATION. THE METHOD OF EXCAVATION AND TRENCH STABILIZATION SHALL BE APPROVED BY CAL OSHA.

   A) SHORING AS APPROVED BY THE ENGINEER.
   B) SLOPING BOTH TRENCH SIDES AT A 1:1 MAXIMUM ABOVE THE BOTTOM 3 FEET.
   C) "STEPPING OR BENCHING" BOTH TRENCH SIDES AT 3 FOOT VERTICAL INCREMENTS, THE WIDTH OF EACH BENCH SHALL BE THE SAME AS THE BOTTOM 3 FEET.
   D) USE OF A STEEL SHIELD.
   E) USE OF TRENCH JACKS.

2. WHEN THE PIPE TRENCH IS UNSTABLE DUE TO GROUND WATER INFILTRATION PLACE 1 FOOT OF 3/4-INCH DIAMETER ROUND ROCK BENEATH THE SANITARY SEWER PIPELINE.
AT THE CONCLUSION OF THE PROJECT, AFTER TRENCH BACKFILL AND COMPACTION ACTIVITIES HAVE BEEN ACCOMPLISHED, THE CONTRACTOR SHALL LEVEL THE SURFACE AREA OF THE TRENCH WITH A "BLADE" OR "MOTOR PATROL" TO THE SATISFACTION OF THE ENGINEER.

PLACE COMPACTED NATIVE MATERIAL TO EXISTING NATIVE GRADE

EXISTING NATIVE MATERIAL

BACKFILL TRENCH WITH NATIVE MATERIAL COMPACTED IN MAXIMUM 12 INCH LIFTS TO 90 PERCENT OF MAXIMUM DENSITY PER ASTM D - 1557. SUBSEQUENT LIFTS SHALL NOT BE INSTALLED UNTIL PREVIOUS LIFTS HAVE BEEN TESTED AND APPROVED.

INSTALL NEW SDR 35 OR SDR 26 PVC SANITARY SEWER PIPELINE. DIAMETER PER PLANS. INSTALL SDR 35 PVC FOR DIAMETERS 4 INCHES THROUGH 15 INCHES. INSTALL SDR 26 PVC FOR DIAMETERS GREATER THAN 15 INCHES IN DIAMETER.

INSTALL GRANULAR SAND MATERIAL WITH SAND EQUIVALENT OF 30 OR GREATER. COMPACT THE SAND BACKFILL TO 95 PERCENT OF MAXIMUM DENSITY PER ASTM D-1557.

NOTES:

1. TRENCH DEPTH SHALL HAVE A MINIMUM OF 3'-6".

2. WHERE THE PERMIT OF A GOVERNING AGENCY SETS FORTH REQUIREMENTS MORE STRINGENT THAN THOSE STATED HEREIN, THE CONTRACTOR SHALL ADHERE TO THE AGENCY REQUIREMENTS.

3. WHERE THE TRENCH DEPTH EXCEEDS 3', THE PIPELINE CONTRACTOR SHALL UTILIZE ANY OF THE FOLLOWING METHODS FOR EXCAVATION AND TRENCH STABILIZATION. THE METHOD OF EXCAVATION AND TRENCH STABILIZATION SHALL BE APPROVED BY CAL OSHA.

A) SHORING AS APPROVED BY THE ENGINEER.
B) SLOPING BOTH TRENCH SIDES AT A 1:1 MAXIMUM ABOVE THE BOTTOM 3 FEET.
C) "STEPPING OR BENCHING" BOTH TRENCH SIDES AT 3 FOOT VERTICAL INCREMENTS, THE WIDTH OF EACH BENCH SHALL BE THE SAME AS THE BOTTOM 3 FEET.
D) USE OF A STEEL SHIELD.
E) USE OF TRENCH JACKS.
SAWCUT EXISTING A.C. PAVEMENT FOR THE FULL DEPTH OF THE A.C. PAVEMENT WHERE APPLICABLE. REMOVE AND DISPOSE OF A.C. PAVEMENT AND UNDERLYING SUBBASE AND NATIVE MATERIAL.

INSTALL 3/4" MAXIMUM CLASS 2 BASE. COMPACT TO 95 PERCENT OF MAXIMUM DENSITY PER ASTM D-1557 PER PLAN.

INSTALL GRANULAR SAND FILL WITH A SAND EQUIVALENT OF 30 OR GREATER. COMPACT TO 95 PERCENT OF MAXIMUM DENSITY PER ASTM D-1557.

INSTALL 6-INCH WIDE MAGNETIC DETECTOR TAPE.

INSTALL AWWA C-900, CLASS 150 OR AWWA C-905, DR 25, PVC PIPELINE. SEE PLAN FOR DIAMETER SIZE OF PIPELINE.

REMOVE AND DISPOSE OF EXISTING NATIVE MATERIAL WITHIN THE PIPE TRENCH FOR THE PIPELINE INSTALLATION.
INSTALL NATIVE MATERIAL IN MAXIMUM 1-FOOT LIFTS. COMPACT NATIVE MATERIAL TO 85 PERCENT OF MAXIMUM DENSITY PER ASTM D-1557. ADDITIONAL LIFTS SHALL NOT BE ADDED UNTIL PREVIOUS LIFTS HAVE ATTAINED THE COMPACTION PERCENTAGE SPECIFIED.

INSTALL GRANULAR SAND BACKFILL WITH A SAND EQUIVALENT OF 30 OR GREATER. COMPACT TO 95 PERCENT OF MAXIMUM DENSITY PER ASTM D-1557.

INSTALL 6-INCH WIDE MAGNETIC DETECTOR TAPE.

INSTALL AWWA C-900, CLASS 150, OR AWWA C-905, DR 25 PVC PIPELINE. SEE PLAN FOR DIAMETER SIZE OF PIPELINE.

REMOVE AND DISPOSE OF EXISTING NATIVE MATERIAL WITHIN THE PIPE TRENCH FOR THE PIPELINE INSTALLATION.
KEYNOTES

1. PIPE MAIN SIZE x 4-INCH SDR 35 PVC WYE FITTING.
2. INSTALL 4 INCH 45 DEGREE SDR 35 PVC FITTING.
3. INSTALL 4" SDR 35 PVC SANITARY SEWER PIPE SECTION.
4. INSTALL 4 INCH SDR 35 PVC WYE FITTING.
5. INSTALL 4 INCH SDR 35 PVC END CAP.
6. PLACE A CLEAN-OUT AT THE PROPERTY LINE. PLACE A 4 INCH SDR 35 PVC END CAP AT THE CLEAN-OUT TERMINATION POINT.
7. INSTALL A 2X4 AT THE END OF EACH LATERAL EXTENDING FROM THE INVERT OF THE LATERAL TERMINATION TO A POINT 2 FEET ABOVE THE EXISTING NATIVE SURFACE.

NOTES:

A. SEWER LATERALS SHALL HAVE A MINIMUM SLOPE OF 2 PERCENT SLOPE EXCEPT AS OTHERWISE SPECIFICALLY NOTED ON THE PLANS.

B. END CAPS SHALL BE COMPOSED OF SDR 35 PVC WITH O-RING GASKETS.

C. IN NO CASE SHALL A LATERAL CONNECT TO THE SEWER MAIN DIRECTLY ON TOP OF THE PIPE.
INSTALL A CAST IRON FRAME AND COVER: ALHAMBRA FOUNDRY NO. A-1240 (O.A.E.), LETTERED "SEWER".
FINISHED A.C. PAVED SURFACE OR FINISH NATIVE GRADE


INSTALL A 6 INCH SDR 35 PVC PIPE SECTION.
INSTALL 6 INCH SDR 35 PVC 45° DEGREE ELBOW.
INSTALL 6 INCH SDR 35 PVC PIPE SECTION.
INSTALL SDR 35 PVC PIPE SECTION. SEE PLANS FOR DIAMETER SIZE OF PIPE MAIN.
INSTALL SDR 35 PVC END CAP. SEE PLANS FOR DIAMETER SIZE OF PIPE MAIN.
INSTALL A MAIN SIZE X MAIN SIZE X 6" SDR 35 PVC WYE FITTING.

NOTE: CLEANOUT RING AND COVER SHALL BE RAISED TO FINISHED GRADE AND SUPPORT COLLAR INSTALLED AFTER PAVING OR FINISH GRADING IS COMPLETED.
INSTALL NEW 6-INCH DIAMETER DUCTILE IRON BLIND FLANGE WITH RESTRAINED JOINT FITTINGS

MANHOLE FRAME AND COVER SHALL BE ALHAMBRA FOUNDRY A-1170 OR AN APPROVED EQUAL.

FINISH NATIVE GRADE

BACKFILL AND COMPACT NATIVE MATERIAL PER SEWER FORCemain TRENCH DETAIL.

SEE BLOW UP DETAIL A

INSTALL 8 INCHES OF 3/4" MAXIMUM CLASS 2 BASE. COMPACT TO 95 PERCENT OF MAXIMUM DENSITY PER ASTM D-1557.

INSTALL NEW 6-INCH RESTRAINED JOINT FITTINGS

3/8" A.C. LIP

DOUBLE TROWEL WITH LIGHT BROOM FINISH

INSTALL A 6-INCH DUCTILE IRON PIPE SECTION.

INSTALL 6 INCH MJ X MJ DUCTILE IRON 45° DEGREE ELBOW.

INSTALL A 6-INCH DUCTILE IRON PIPE SECTION.

INSTALL 3-INCHES OF A.C. OVER 9-INCHES OF CLASS 2 BASE AND GRANULAR SAND PER FORCemain TRENCH DETAIL.

INSTALL AWWA C-900, CLASS 150 PVC OR AWWA C-905, DR18 PVC SANITARY SEWER FORCemain PIPELINE. SEE PLANS FOR DIAMETER SIZE OF PIPE MAIN.

INSTALL RESTRAINED JOINT FITTING. SEE PLANS FOR DIAMETER SIZE OF PIPE MAIN.

FLOW

REINFORCED WITH FOUR (4) NO. 6 LONGITUDINAL BARS. TYPICAL

1-1/2" CLG TYP

12" CLG TYP

REINFORCED WITH NO. 4 STIRRUPS 12-INCHES CENTER TO CENTER

FLOW

NOTE: MANHOLE FRAME AND COVER AND P.C.C. SUPPORT COLLAR SHALL BE RAISED TO FINISHED GRADE AFTER NEW A.C. PAVEMENT IS INSTALLED.
MANHOLE FRAME AND COVER SHALL BE ALHAMBRA FOUNDRY A-170 OR AN APPROVED EQUAL.

FINISH NATIVE GRADE

BACKFILL AND COMPACT NATIVE MATERIAL PER SEWER FORCEMAIN TRENCH DETAIL.

SEE BLOW UP DETAIL A

INSTALL 8 INCHES OF 3/4" MAXIMUM CLASS 2 BASE. COMPACT TO 95 PERCENT OF MAXIMUM DENSITY PER ASTM D-1557.

INSTALL NEW 6-INCH DUCTILE IRON BLIND FLANGE WITH RESTRAINED JOINT FITTINGS.

INSTALL 6-INCH MJ X MJ DUCTILE IRON 45° DEGREE ELBOW.

INSTALL A 6-INCH DUCTILE IRON PIPE SECTION.

INSTALL NEW DUCTILE IRON PIPE SECTION.

INSTALL NEW DUCTILE IRON BLIND FLANGE WITH RESTRAINED JOINT FITTINGS AND P.C.C. THRUST BLOCK. SEE PLANS FOR DIAMETER SIZE OF PIPE MAIN.

INSTALL NEW DUCTILE IRON FLANGED COUPLING ADAPTERS WITH RESTRAINED JOINT FITTINGS. SEE PLANS FOR DIAMETER SIZE OF PIPE MAIN.

INSTALL A FL X FL X FL DUCTILE IRON CROSS WITH TWO SANITARY SEWER CLEANOUTS PERPENDICULAR TO THE FORCEMAIN SEE DETAIL B. SEE PLANS FOR DIAMETER SIZE OF PIPE MAIN.

FOR 90 DEGREE BENDS INSTALL A FL X FL X FL DUCTILE IRON WYE FITTING.

INSTALL NEW AWWA C-900, CLASS 150 OR AWWA C-905 DR 18 PVC SANITARY SEWER FORCEMAIN PIPELINE. SEE PLANS FOR DIAMETER SIZE OF PIPE MAIN.

INSTALL NEW AWWA C-900, CLASS 150 OR AWWA C-905 DR 18 PVC SANITARY SEWER FORCEMAIN PIPELINE. SEE PLANS FOR DIAMETER SIZE OF PIPE MAIN.

INSTALL NEW 6-INCH DUCTILE IRON BLIND FLANGE WITH RESTRAINED JOINT FITTINGS.

INSTALL A MAIN SIZE X MAIN SIZE X 6" FL X FL X FL DUCTILE IRON WYE FITTING.

INSTALL NEW DUCTILE IRON FLANGED COUPLING ADAPTER WITH RESTRAINED JOINT FITTINGS.

INSTALL A FL X FL X FL DUCTILE IRON CROSS. SEE PLANS FOR DIAMETER SIZE OF PIPE MAIN.

REINFORCED WITH FOUR (4) NO. 6 LONGITUDINAL BARS. TYPICAL

REINFORCED WITH NO. 4 STIRRUPS 12-INCHES CENTER TO CENTER

DETAIL A

DETAIL B

NOTE: MANHOLE FRAME AND COVER SHALL BE RAISED TO FINISHED GRADE AND SUPPORT COLLAR INSTALLED AFTER PAVING OR FINISH GRADING IS COMPLETED.
MANHOLE FRAME AND COVER SHALL BE ALHAMBRA FOUNDRY A-1170 OR AN APPROVED EQUAL.

INSTALL A 1'-0" WIDE, 1'-0" DEEP CONCRETE RING CIRCUMFERENTIALLY AROUND THE MANHOLE FRAME. PLACE THE CONCRETE RING FLUSH WITH THE EXISTING PAVEMENT OR 0.10 FEET ABOVE NATIVE SURFACES. MANHOLE FRAME AND COVER TO BE LOWERED 0.20 FEET BELOW GRADE PRIOR TO PAVING. MANHOLE FRAME AND COVER SHALL BE RAISED TO FINISH GRADE AFTER PAVING OPERATIONS ARE COMPLETE.

PLACE GRADE RINGS AS REQUIRED TO ADJUST THE MANHOLE COVER TO GRADE.

PLACE CEMENT FLUSH WITH THE INTERIOR AND EXTERIOR SURFACES OF THE MANHOLE ALONG ALL CONCRETE JOINTS.

PRECAST CONCRETE CONES AND SHAFTS.

INSTALLED A ZEBRON 386 COATING SYSTEM OVER ALL CONCRETE SURFACES OF THE MANHOLE.

GROUT ANNUAL SPACE CREATED FOR SEWER PIPELINE.

SANITARY SEWER MAIN DIAMETER PER PLANS.

INSTALL SDR 35 PVC END CAP FITTING WITH O-RING AT THE TERMINATION POINT OF THE PIPELINE FOR PIPELINE STUBOUTS TYPICAL.

EXTEND PIPE FROM MANHOLE SHAFT.

SANITARY SEWER MAIN DIAMETER PER PLANS.

5'-0"

ADJ. RING
11" MAX.

24"

1'-0"

TYP.

4'-0"

2'-0"

1'-0"

TYP.

1'-0"

TYP.

GROUT ANNUAL SPACE CREATED FOR SEWER PIPELINE.

SANITARY SEWER MAIN DIAMETER PER PLANS.

INSTALL SDR 35 PVC END CAP FITTING WITH O-RING AT THE TERMINATION POINT OF THE PIPELINE FOR PIPELINE STUBOUTS.

SANITARY SEWER PIPELINE.

CONSTRUCT NEW CONCRETE MANHOLE BASE OVER THE SANITARY SEWER PIPELINE.

SECTION A-A

NOTES:

1. EXCEPT AS NOTED HEREON, THE PRECAST UNITS SHALL BE MANUFACTURED AND TESTED IN ACCORDANCE WITH ASTM C-476. THE CURING OF THE PRECAST UNITS SHALL CONFORM TO SECTION 207-2.7 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. THE MINIMUM WALL THICKNESS SHALL BE 6 INCHES.

2. THE CONCRETE SHELF OF THE MANHOLE SHALL BE SLOPED AT 1/4 INCH PER FOOT. THE SHELF SHALL RECEIVE A DOUBLE TROWEL FINISH. THE CONCRETE UTILIZED FOR THE CONCRETE BASE AND MANHOLE COLLAR SHALL CONTAIN 6 1/2 SACKS OF CONCRETE PER CUBIC YARD AND ATTAIN A COMPRESSIVE-STRENGTH OF 4,500 P.S.I. AFTER 28 DAYS CURING.

3. WHENEVER PRACTICABLE, THE FRAME AND COVER SHALL BE PLACED DIRECTLY OVER THE INLET OF THE STRUCTURE EXCEPT AS OTHERWISE NOTED ON THE PLANS.

4. MANHOLE SHAFTS, CONES AND GRADE RINGS SHALL BE SET PLUMB.

5. PLACE CEMENT GROUT IN THE OPENINGS BETWEEN PRECAST MANHOLE UNITS AND GRADE RINGS FLUSH WITH THE INTERIOR AND EXTERIOR SURFACES PRIOR TO APPLYING THE ZEBRON COATING OR COMPLETING BACKFILL WORK AROUND THE EXTERIOR OF THE MANHOLE.

6. THE PIPELINE INVERTS SHALL DROP 0.10 FEET BETWEEN INLET AND OUTLET PIPELINES AT 90 DEGREE ANGLES.

7. VERTICAL WALL OF CONE SHALL BE OPPOSITE OUTLET SIDE OF MANHOLE.
SECTION A-A

NOTES:

1. EXCEPT AS NOTED HEREON, THE PRECAST UNITS SHALL BE MANUFACTURED AND TESTED IN ACCORDANCE WITH ASTM C-478. THE CURING OF THE PRECAST UNITS SHALL CONFORM TO SECTION 207.2.7 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. THE MINIMUM WALL THICKNESS SHALL BE 6 INCHES.

2. THE CONCRETE SHELF OF THE MANHOLE SHALL BE SLOPED AT 1/4 INCH PER FOOT. THE SHELF SHALL RECEIVE A DOUBLE TROWEL FINISH. THE CONCRETE UTILIZED FOR THE CONCRETE BASE AND MANHOLE COLLAR SHALL CONTAIN 6 1/2 SACKS OF CONCRETE PER CUBIC YARD AND ATTAIN A COMPRESSIVE STRENGTH OF 4,500 P.S.I. AFTER 28 DAYS CURING.

3. WHENEVER PRACTICABLE, THE FRAME AND COVER SHALL BE PLACED DIRECTLY OVER THE INLET OF THE STRUCTURE EXCEPT AS OTHERWISE NOTED ON THE PLANS.

4. MANHOLE SHAFTS, CONES AND GRADE RINGS SHALL BE SET PLUMB.

5. PLACE CEMENT GROUT IN THE OPENINGS BETWEEN PRECAST MANHOLE UNITS AND GRADE RINGS FLUSH WITH THE INTERIOR AND EXTERIOR SURFACES PRIOR TO APPLYING THE ZEBRON COATING OR COMPLETING BACKFILL WORK AROUND THE EXTERIOR OF THE MANHOLE.

6. THE PIPELINE INVERTS SHALL DROP 0.10 FEET BETWEEN INLET AND OUTLET PIPELINES AT 90 DEGREE ANGLES.

7. VERTICAL WALL OF CONE SHALL BE OPPOSITE OUTLET OF MANHOLE.
EXFILTRATION RING (TYP.)

OUTLET

4" MIN.

A

A

INLET

PLAN

PLACE NON-SHRINK GROUT IN ANNULAR SPACE.

DROP MANHOLE TEE

SEE MANHOLE DETAILS ON THE NEXT PAGE FOR MANHOLE CONSTRUCTION REQUIREMENTS.

INVERT ELEV. SHOWN ON PLANS

DIAMETER PER PLANS

SDR 35 PVC PIPELINE, DIAMETER SIZE PER PLANS.

AWWA C-900, CLASS 200 PVC SEWER PIPELINE AND PVC FITTINGS. DIAMETER SIZE IDENTICAL TO SANITARY SEWER MAIN DIAMETER SIZE PER PLANS.

VERTICAL DROP PIPELINE.

INSTALL 4,500 PSI P.C.C. PIPE ENCASEMENT.

CONSTRUCTION JOINT

DROP MANHOLE 1/4 BEND

INVERT ELEV. SHOWN ON PLANS

SECTION A-A

SLOPE 1": 12"
GENERAL NOTES:

1. FOUNDATION FOR DROP PIPELINE SECTION SHALL BE Poured MONOLITHIC WITH MANHOLE BASE.

2. P.C.C. CONCRETE SHALL CONTAIN 6 1/2 SACKS PER CUBIC YARD AND ATTAIN A COMPRESSIVE STRENGTH OF 4,500 PSI AFTER 28 DAYS.

3. MANHOLE SECTIONS SHALL BE PRECAST REINFORCED CONCRETE HAVING A MINIMUM THICKNESS OF SIX INCHES AND CONFORMING TO ASTM C-478 REQUIREMENTS FOR MATERIALS AND MANUFACTURE AND ASTM REQUIREMENTS FOR REINFORCEMENT.

4. VERTICAL WALL OF CONE SHALL BE OPPOSITE OUTLET SIDE OF MANHOLE.

5. CONE SHALL BE RAISED WHEN GRADE RINGS EXCEED 11".

6. SUPPORT COLLAR SHALL CONSIST OF CLASS "3" CONCRETE.

7. JOINTS SHALL CONSIST OF 1-2 CEMENT MORTAR, NEATLY STRUCK AND POINTED, 3/8" MIN. THICKNESS, OR RAM-NECK, EXCEPT FOR GRADE ADJUSTING RINGS WHICH SHALL BE 1-2 CEMENT MORTAR ONLY.

8. CONCRETE FOR SUPPORT COLLAR SHALL BE TYPE V CEMENT WHICH SHALL ATTAIN A COMpressive STRENGTH OF 4,500 PSI AFTER 28 DAYS CURING.

9. SHELF SHALL HAVE A STEEL TROWEL FINISH.

10. THIS MANHOLE IS FOR DEPTHS GREATER THAN 3 FOOT AND LESS THAN 25 FOOT. MAXIMUM PIPE INTERNAL DIAMETER IS 36 INCHES.

11. ALL PIPE AND FITTINGS IN DROP CONNECTION SHALL BE AWWA C-900, CLASS 200 OR AWWA C-905, DR 14 AND OF THE SAME SIZE AS THE SEWER MAIN, UNLESS SHOWN OTHERWISE ON THE PLANS.

12. TROUGH:
   A. SHALL NOT HAVE A FLAT BOTTOM.
   B. SHALL HAVE A STEEL TROWELED FINISH.
   C. DIAMETER OF FEEDLINE SHALL NOT "FLARE OUT" WHERE IT JOINS THE MAINLINE TROUGH.

13. "JIFFY RINGS" SHALL NOT BE ALLOWED.

14. FOR STRAIGHT THROUGH FLOW THE "Y" SHALL NOT BE CONSTRUCTED UNLESS A STUB OR LATERAL IS SHOWN ON THE PLANS AS BEING REQUIRED.

15. ZEBRON 386 SHALL BE REQUIRED TO BE APPLIED TO ALL INTERIOR CONCRETE SURFACES OF THE MANHOLE.

16. MANHOLE RING AND COVER SHALL BE RAISED TO FINISH GRADE AND SUPPORT COLLAR INSTALLED AFTER PAVING OR FINE GRADING.

17. EXFILTRATION RINGS SHALL BE CONSISTENT WITH PIPE MANUFACTURER'S RECOMMENDATIONS.
INSTALL 8 INCH WIDE, 8 INCH DEEP P.C.C. CONCRETE RING CONCENTRIC WITH THE EXTERIOR OF THE VALVE RISER.

NEW A.C. PAVEMENT

T=3/8"

DEPTH PER PLAN

BACKFILL PER PIPE TRENCH DETAILS AND TECHNICAL SPECIFICATION.

INSTALL CAST IRON STAR PIPE PRODUCTS VALVE EXTENSION RISER No. 562-A, No. 564-A or No. 664-A (AS APPLICABLE) AND CAST IRON COVER STAMPED "SEWER". APPLY TWO (2) COATS OF GREEN METALLIC PAINT TO CAST IRON COVER.

D.I. EPOXY COATED RESILIENT WEDGE GATE VALVE.

INSTALL NEW VALVE EXTENSION RISER AND COVER STAMPED SEWER FLUSH WITH NEW PAVEMENT SURFACE.
NOTES:

1. EXTEND BOTH ENDS OF CRADLE OR ENCASEMENT TO A POINT ONE INCH SHORT OF FIRST PIPE JOINT BEYOND LOCATIONS SPECIFIED ON PLAN.

2. APPLY FORM OIL, THIN PLASTIC SHEET, OR OTHER ACCEPTABLE MATERIAL TO PIPE TO PREVENT BOND BETWEEN PIPE AND CONCRETE.


4. SEE FOLLOWING DETAILS FOR WATER AND SEWER CROSSING REQUIREMENTS.

5. EXPANSION JOINTS MUST BE PLACED AT 20' INTERVALS, AT THE PIPE JOINT ON CONTINUOUS ENCASEMENT OR CRADLE.

6. DR-14 PVC C-900, 12" AND SMALLER; DR-14 PVC C-905, 14" OR LARGER MAY BE USED IN LIEU OF CONCRETE ENCASEMENT.
INDEX

CROSSING
SANITARY SEWER AND WATER LINE

NOTE:
DIMENSIONS ARE FROM OUTSIDE OF Pipe TO OUTSIDE OF Pipe.

GROUND SURFACE

SEWER PIPELINES NOT ALLOWED IN THIS AREA
WATER MAINS NOT ALLOWED IN THIS AREA
INDICATES PRESSURE WATERMAIN FOR POTABLE WATER
INDICATES SANITARY SEWER PIPELINE

CROSSING
HOUSE SERVICE CONNECTION FOR POTABLE WATER

2' MIN. COVER ON SERVICE CONNECTION

NO JOINTS PERMITTED IN WATER LINE

HOUSE SERVICE CONNECTION FOR POTABLE WATER, 2" MAX.

10' 10'
CASE 1 - NEW SEWER

ZONE
P
A
B

SPECIAL CONSTRUCTION
CONSTRUCTION PROHIBITED
CONSTRUCTION PROHIBITED
1. VCP, TYPE "G" JOINT
2. PVC-AWWA C-900, CL 200
   OR AWWA C-905 DR-14

CASE 2 - NEW WATER

ZONE
P
A
B

SPECIAL CONSTRUCTION
CONSTRUCTION PROHIBITED
CONSTRUCTION PROHIBITED
1. CLASS 52 DUCTILE IRON PIPE
   (CEMENT MORTAR LINED)
2. PVC - AWWA C-900, CLASS 200
   OR AWWA C-905, DR-14

*W = EXISTING WATER LINE
**S = EXISTING SEWER LINE
CASE 1 - NEW SEWER

ZONE SPECIAL CONSTRUCTION
P CONSTRUCTION PROHIBITED
D CONSTRUCTION PROHIBITED
C 1. PVC - AWWA C-900, CLASS 200
   OR AWWA C-905, DR-14
   2. DUCTILE IRON PIPE IN 1/4"
      STEEL SLEEVE, WELDED
      JOINTS
   • NEW PIPE TO BE CENTERED
     OVER PIPE BEING INSTALLED

CASE 1
NEW SEWER
*W= EXISTING WATER

NEW WATER SERVICE
PIPELINE.

CASE 2 - NEW WATER

ZONE SPECIAL CONSTRUCTION
P CONSTRUCTION PROHIBITED
D CONSTRUCTION PROHIBITED
C 1. DUCTILE IRON PIPE
   (CEMENT MORTAR LINED)
   2. PVC - AWWA C-900, CLASS 200
      OR AWWA C-905, DR-14
   • NEW PIPE TO BE CENTERED
     OVER PIPE BEING INSTALLED

CASE 2 & 3
NEW WATER/WATER SERVICE
**S= EXISTING SEWER