



VILLAGE OF COVINGTON
ZONING AND PLANNING BOARD
ANNUAL APPLICATION FOR WATER/SEWER CONTRACTORS LICENSE

BUSINESS NAME: _____

ADDRESS: _____

BUSINESS PHONE: _____ FAX: _____ E-MAIL: _____

NAME OF PERSON AUTHORIZED TO OBTAIN LICENSE: _____

Additional Requirements

1. Annual Fee of \$50.00
2. Liability Insurance \$500,000 per person, \$1,000,000 per accident, \$50,000 property damage.
3. Workers Compensation Certificate if applicable.
4. Bond or Certified Check in amount of \$3,000.00

The undersigned hereby applies for a Utility Contractors License and hereby agrees to be subject to and conform to all rules and specifications of the Village of Covington and has received the Water/Sewer specifications packet.

Name (please print) Phone Number

Signature Date

Previously Licensed by the Village Yes No

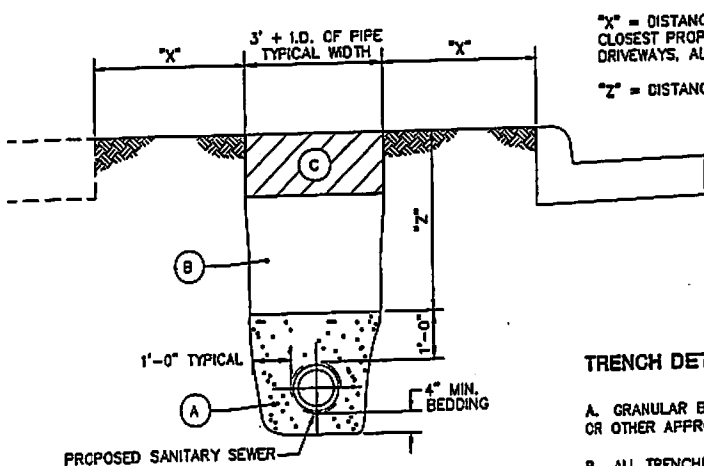
Years of Experience in Water/Sewer Installation: _____

Items Submitted: fee

Bond/certified check
Insurance
Workers Comp

Approval:

Village Administrator _____
Zoning Bd. _____



SANITARY SEWER TRENCH DETAIL

"X" = DISTANCE FROM EDGE OF TRENCH TO EDGE OF CLOSEST PROPOSED OR EXISTING PAVEMENT, CURB, DRIVEWAYS, ALLEYS, STONE AREA OR WALKS.

"Z" = DISTANCE FROM TOP OF BEDDING TO FINISH SURFACE.

TRENCH DETAIL NOTES

A. GRANULAR BEDDING SHALL BE CRUSHED STONE OR GRAVEL, CDOT 603 TYPE 3 (#57 OR #57), OR OTHER APPROVED EQUIVALENT.

B. ALL TRENCHES WHERE "X" IS GREATER THAN "Z" FROM PROPOSED OR EXISTING PAVEMENT, CURB, DRIVEWAYS, ALLEYS, STONE AREA OR WALKS CAN BE COMPACTED EXISTING NATIVE MATERIAL IN 12" MAXIMUM LIFTS OR AS APPROVED BY THE VILLAGE. NO MATERIAL SHALL BE USED FOR BACK FILLING THAT CONTAINS STONES, ROCKS, ETC., GREATER THAN 4" DIAMETER.

ALL TRENCHES WHERE "Z" IS GREATER THAN "X" FROM PROPOSED OR EXISTING PAVEMENT, CURB, DRIVEWAYS, ALLEYS, STONE AREA OR WALKS SHALL BE COMPACTED WITH GRANULAR BACKFILL MATERIAL CDOT 603 TYPE 1 OR TYPE 2, IN 6" MAXIMUM LIFTS OR LOW STRENGTH MORTAR BACKFILL CDOT ITEM 613 TYPE 1 UNTIL THE TOP OF THE COMPACTED GRANULAR BACKFILL OR LOW STRENGTH MORTAR BACKFILL IS HIGH ENOUGH WHERE "X" IS GREATER THAN "Z".

A DENSITY TEST ON GRANULAR BACKFILL OF 98% OF ASTM D698 STANDARD PROCTOR CURVE MAY BE REQUIRED TO BE PERFORMED BY A COMMERCIAL TESTING LAB SATISFACTORY TO THE VILLAGE.

C. OFF-PAVEMENT AREAS SHALL BE PROVIDED WITH A MINIMUM OF 6" OF TOPSOIL OVER THE COMPACTED MATERIAL AND THEN SEEDED AND MULCHED PER CDOT ITEM 659.

IN-PAVEMENT AREAS SHALL FOLLOW TYPICAL PAVEMENT RESTORATION DETAILS SHOWN ON PAGE 300-19.

D. THE OPEN ENDS OF ALL PIPES SHALL BE PLUGGED TO THE APPROVAL OF THE VILLAGE BEFORE LEAVING THE WORK FOR THE NIGHT.

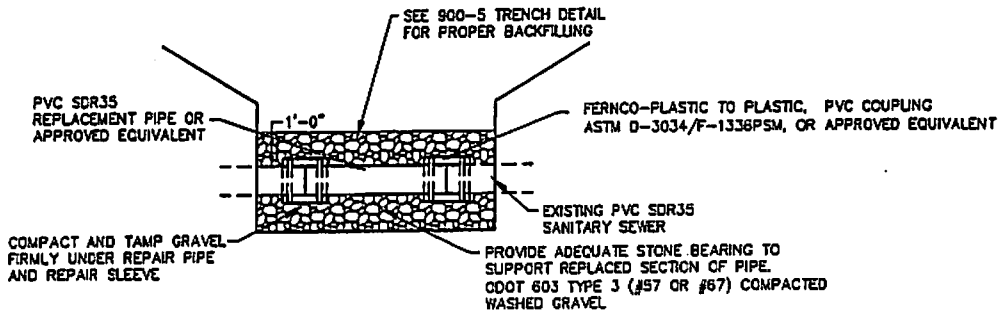
VILLAGE OF COVINGTON



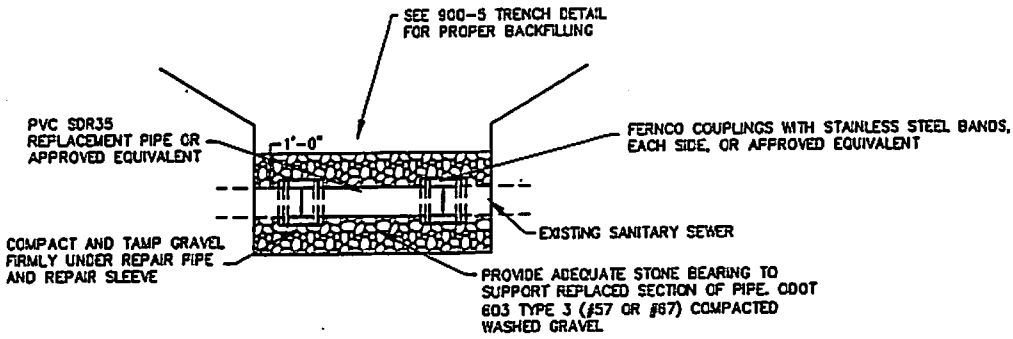
SANITARY SEWER TRENCH DETAIL

REVISIONS:

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REPAIR OF EXISTING PVC SDR35 SANITARY SEWER



REPAIR OF EXISTING SANITARY SEWER OTHER THAN PVC

VILLAGE OF
COVINGTON



**REPAIR OF EXISTING SANITARY SEWER PIPE
DETAIL**

REVISIONS:

DATE

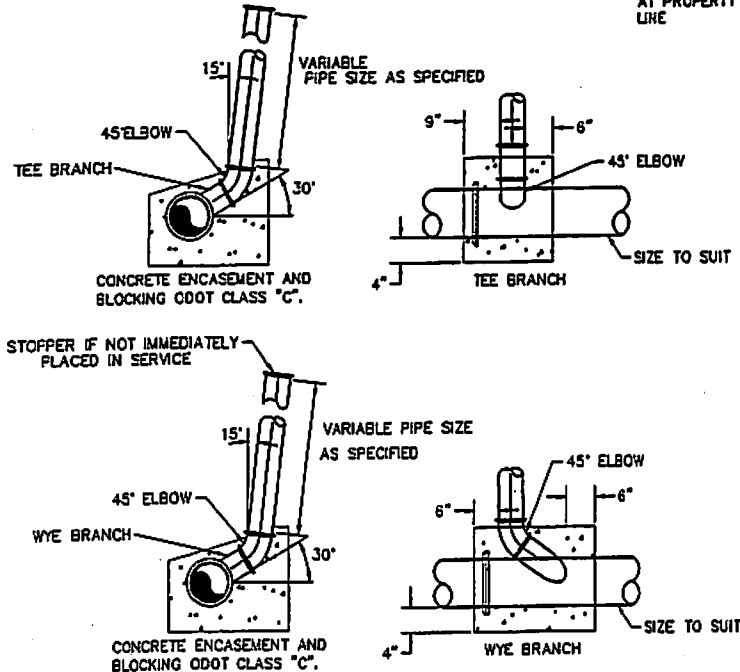
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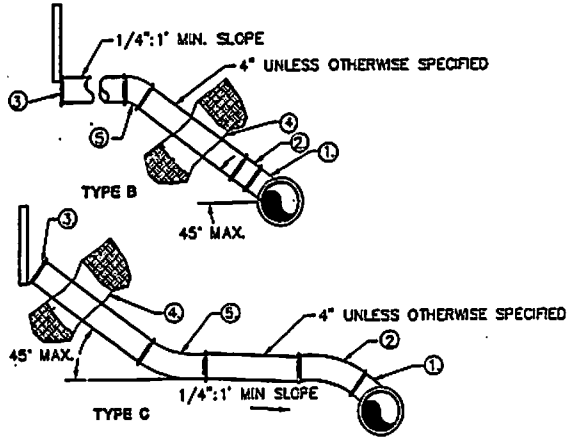
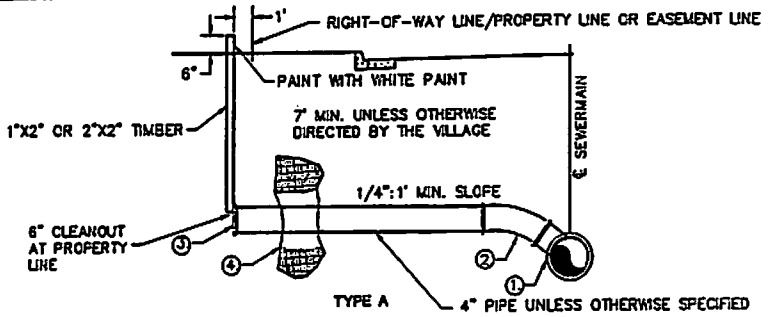
900-6

NOTES

- A. RISER PIPE TO BE BEDDED SOLIDLY AGAINST UNDISTURBED GROUND. ALSO, TEE MAY BE SUBSTITUTED FOR WYE BRANCH IF SPECIFIED.
- B. RISER PIPE TO BE INSTALLED SO THAT CONNECTING SERVICE SHALL HAVE A MINIMUM DEPTH OF 7' AT THE PROPERTY LINE UNLESS OTHERWISE DIRECTED BY THE VILLAGE.
- C. CONCRETE ENCASEMENT AND BLOCKING REQUIRED IF DEPTH OF CONNECTION IS 12' OR GREATER.
- D. EACH SANITARY LATERAL MUST BE IN SEPARATE TRENCHES.

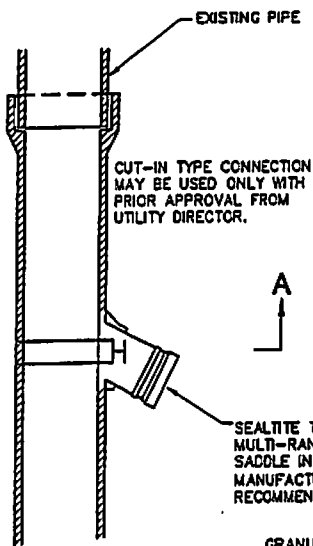


SERVICE RISER



- ① 8" TEE OR WYE—ROTATE 45° FROM HORIZONTAL UNLESS OTHERWISE SPECIFIED.
- ② 8" 1/8 BEND OR 1/16 BEND AS NEEDED.
- ③ CAP UNLESS JOINING EXISTING SERVICE LATERAL.
- ④ BED PIPE WITH 8" GRANULAR MATERIAL AND BACKFILL WITH GRANULAR MATERIAL TO 8" ABOVE PIPE. ODOT 603 TYPE 3 #57 OR #87.
- ⑤ EXACT RECORD OF BEND LOCATIONS MUST BE MADE, AS TO DEPTH FROM SURFACE AND DISTANCE FROM CENTERLINE OF SEWER, BEFORE BACKFILL IS PLACED.

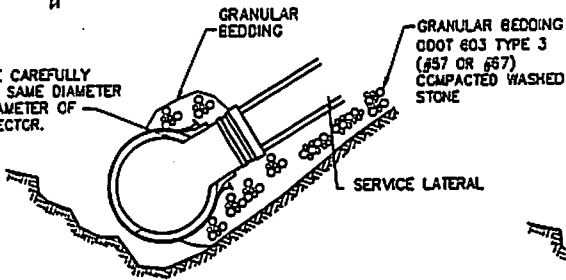
SERVICE LATERAL



CUT-IN TYPE CONNECTION MAY BE USED ONLY WITH PRIOR APPROVAL FROM UTILITY DIRECTOR.

SEALITE TYPE "E" MULTI-RANGE WYE SEWER SADDLE INSTALLED AS PER MANUFACTURER'S RECOMMENDATION

HOLE SHALL BE CAREFULLY CORED AND BE SAME DIAMETER AS OUTSIDE DIAMETER OF LATERAL CONNECTOR.



SECTION A-A

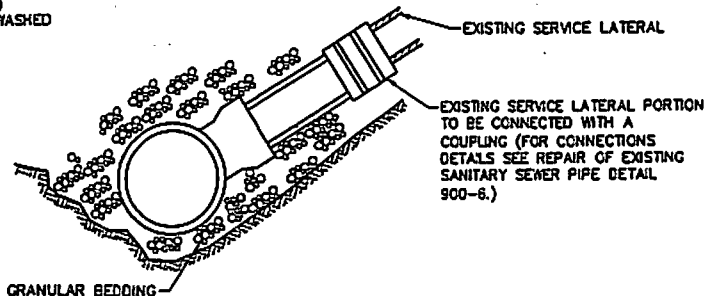
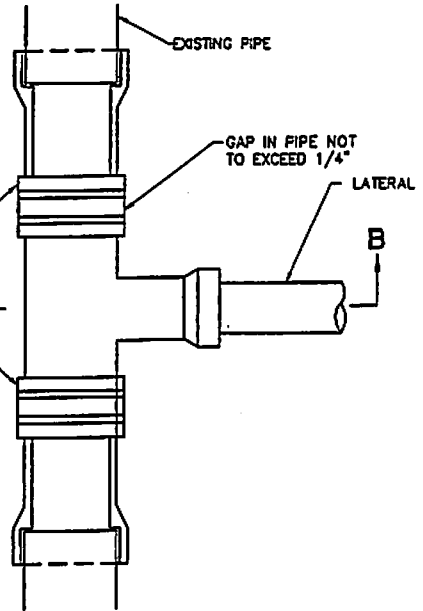
NOTES

A. A TEE MAY BE CUT IN OR SADDLE PLACED ONLY IF AN EXISTING LATERAL IS NOT PROVIDED.
 B. ALL SADDLES AND CUTTING IN TEES MUST BE INSPECTED PRIOR TO COVERING, AND THE HOLE IN THE EXISTING PIPE SHALL BE INSPECTED AND APPROVED PRIOR TO INSTALLATION.

C. OTHER SADDLE TYPES THAT MAY BE APPROVED ON CASE-BY-CASE BASIS BY THE UTILITY DIRECTOR.

D. ON LOW FLOW AND PVC PIPE SDR 35 USE CUT IN TEE.

COUPLING (FOR CONNECTIONS DETAIL SEE REPAIR OF EXISTING SANITARY SEWER PIPE DETAIL 900-6).



SECTION B-B

VILLAGE OF COVINGTON

CHOICE ONE ENGINEERING

SANITARY SEWER SADDLE DETAILS

REVISIONS:

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TRACER WIRE NOTES

A. THE CONTRACTOR WILL FURNISH AND INSTALL TRACER WIRE. WIRE SHALL BE COPPERHEAD HS REINFORCED TRACER WIRE MANUFACTURED BY COPPERHEAD INDUSTRIES, LLC. GREEN FOR SANITARY.

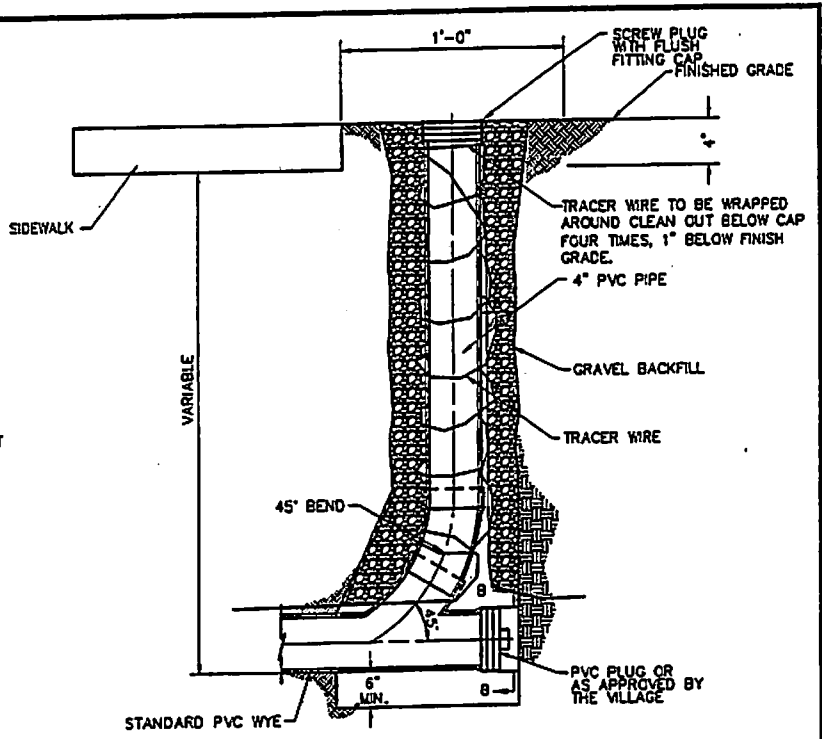
B. TRACER WIRE MUST BE RUN ON TOP OF THE SANITARY SERVICE CONTINUOUSLY WITHOUT SPLICES FOR THE FULL LENGTH OF THE SERVICE. THE TRACER WIRE SHALL BE FASTENED TO THE TOP OF THE SERVICE WITH 1 1/2" POLYETHYLENE TAPE WRAPPED AROUND TWICE AT A MAXIMUM DISTANCE OF 10'.

C. TRACER WIRE THAT MUST BE SPLICED SHALL USE SNAKEBITE TRACER WIRE CONNECTORS MANUFACTURED BY COPPERHEAD INDUSTRIES, LLC.

D. TRACER WIRE WILL BE INSTALLED ON ALL SERVICE INSTALLATIONS AND WILL COME TO THE SURFACE AT THE CLEANOUT AND AT THE BUILDING FOUNDATION.

E. TRACER WIRE SHALL DAYLIGHT AT THE POINT OF ENTRY AT THE FOUNDATION OF THE BUILDING. TAPCON WIRE TO FOUNDATION, 6" ABOVE GROUND LEVEL.

F. ALL MATERIAL, LABOR, EQUIPMENT NEEDED FOR THE INSTALLATION OF THE TRACER WIRE SHALL BE INCIDENTAL TO PIPE INSTALLATION.



CLEANOUT DETAIL

TO BE USED WHEN SANITARY LATERAL WILL BE UNDER PAVEMENT.

VILLAGE OF COVINGTON
CHOICE ONE ENGINEERING

SANITARY SEWER CLEANOUT

REVISIONS:	DATE APPROVED: OCT. 2012
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LOW PRESSURE AIR TEST

A. AFTER BACKFILLING, THE AIR TEST SHALL BE CONDUCTED BETWEEN TWO CONSECUTIVE MANHOLES. ALL PIPE OUTLETS MUST BE PLUGGED IN THE SECTION BEING TESTED WITH SUITABLE TEST PLUGS. ONE OF THE PLUGS USED AT A MANHOLE MUST BE TAPPED AND EQUIPPED FOR AN AIR INLET CONNECTION FOR FILLING THE LINE FROM THE AIR COMPRESSOR. AIR SHALL BE SUPPLIED SLOWLY TO THE TEST SECTION UNTIL THE INTERNAL PRESSURE REACHES APPROXIMATELY 4 PSI. IF THE PIPE IS BELOW EXISTING GROUNDWATER LEVEL, THE INTERNAL PRESSURE SHALL BE INCREASED BY THE AVERAGE BACK PRESSURE OF ANY GROUNDWATER THAT MAY BE OVER THE PIPE, BUT IN NO CASE SHOULD THE INTERNAL PRESSURE EVER EXCEED 5 PSI.

B. AT LEAST 2 MINUTES SHALL BE ALLOWED FOR THE AIR PRESSURE TO STABILIZE. WHEN THE PRESSURE HAS STABILIZED AND IS AT OR ABOVE 3.5 PSI, THE AIR SUPPLY SHALL BE DISCONNECTED AND TIMING SHALL BEGIN WITH A STOP WATCH. THE STOP WATCH SHALL BE ALLOWED TO RUN UNTIL THE PRESSURE HAS DROPPED 1.0 PSI. IF THE TIME SHOWN ON THE STOP WATCH IS GREATER THAN THE SPECIFIED MINIMUM TIME, THE SECTION SHALL BE CONSIDERED TO HAVE PASSED THE TEST. TIME MAY BE INTERPOLATED FROM THE FIGURES LISTED BELOW.

DEFLECTION TEST

A. DEFLECTION TESTS SHALL BE PERFORMED BY THE CONTRACTOR ON ALL FLEXIBLE PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS TO PERMIT STABILIZATION OF THE SOIL-PIPE SYSTEM.

B. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. IF DEFLECTION EXCEEDS 5%, REPLACEMENT OR CORRECTION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE REQUIREMENTS OF APPROVING AGENCY.

C. THE RIGID BALL OR MANDREL USED FOR THE DEFLECTION TEST SHALL HAVE A DIAMETER NOT LESS THAN 95% OF THE BASE INSIDE DIAMETER OR AVERAGE INSIDE DIAMETER OF THE PIPE DEPENDING ON WHICH IS MANUFACTURED. THE PIPE SHALL BE MEASURED IN COMPLIANCE WITH ASTM D-2122 STANDARD TEST METHOD OF DETERMINING DIMENSIONS OF THERMOPLASTIC PIPE AND FITTINGS. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.

MANHOLE VACUUM TEST

ALL SANITARY SEWER MANHOLES SHALL BE VACUUM TESTED BY THE CONTRACTOR USING THE FOLLOWING PROCEDURES FROM ASTM C-1244.

A. PREPARATION OF THE MANHOLE

1. ALL LIFT HOLES SHALL BE PLUGGED.
2. ALL PIPES ENTERING THE MANHOLE SHALL BE TEMPORARILY PLUGGED TAKING CARE TO SECURELY BRACE THE PIPES AND PLUGS TO PREVENT THEM FROM BEING DRAWN INTO THE MANHOLE.

B. PROCEDURE

1. THE FIRST HEAD SHALL BE PLACED AT THE TOP OF THE MANHOLE IN THE CASTING IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

2. A VACUUM OF 10" OF MERCURY (4.9 PSI) SHALL BE DRAWN ON THE MANHOLE. THE VALVE ON THE VACUUM LINE OF THE TEST HEAD CLOSED, AND THE VACUUM PUMP SHUT OFF. THE TIME SHALL BE MEASURED FOR THE VACUUM TO DROP TO 9" OF MERCURY (4.4 PSI).

3. THE MANHOLE SHALL PASS IF THE TIME FOR THE VACUUM READING TO DROP FROM 10" OF MERCURY (4.9 PSI) TO 9" OF MERCURY (4.4 PSI) MEETS OR EXCEEDS THE VALUES INDICATED ON THE TABLE.

4. IF THE MANHOLE FAILS THE INITIAL TEST, NECESSARY REPAIRS SHALL BE MADE BY AN APPROVED METHOD. THE MANHOLE SHALL THEN BE RETESTED UNTIL A SATISFACTORY TEST IS OBTAINED.

SANITARY SEWER TV REQUIREMENTS

BEFORE THE VILLAGE ACCEPTS ANY SANITARY SEWER AND BEFORE THE FINAL PAYMENT, THE CONTRACTOR WILL SUPPLY THE VILLAGE WITH A PASSING VHS TAPE OR CD AND WRITTEN LOG OF THE ENTIRE NEW SYSTEM. THIS TAPE MUST SHOW THE LOCATION OF ALL LATERALS, THEIR CLOCK POSITIONS AND DISTANCE FROM THE MANHOLE. THE TAPE MUST ALSO SHOW A SYSTEM CLEAR OF ANY BENDS, BELLIES, LEAKS, PIPE IMPERFECTIONS, GEEBIS OR ANY CONDITIONS NOT SPECIFICALLY SHOWN ON THE PLANS. THE CONTRACTOR MUST ALSO SUPPLY A WRITTEN COPY OF ALL LATERAL LOCATIONS. ANY SEWER JETTING OR OTHER CLEANING ASSOCIATED WITH A PASSING VHS TAPE IS THE RESPONSIBILITY OF THE CONTRACTOR.

THE VILLAGE SHALL REQUIRE THE USE OF A PAN AND TILT TYPE CAMERA TO REVIEW ALL LATERAL CONNECTIONS ON SEWER MAIN REPLACEMENT PROJECTS.

THE ABOVE PROCEDURES WILL BE AT THE CONTRACTOR'S EXPENSE.

THE VILLAGE RESERVES THE RIGHT TO A FINAL TELEVIEWING OF THE SEWER SYSTEM AT THE VILLAGE'S EXPENSE BEFORE THE PROJECT IS FINALIZED.

PIPE DIA. (IN.)	Time for Longer Length (sec)	Specified Minimum for Length (L) Shown (min:sec)							
		100 FT.	150 FT.	200 FT.	250 FT.	300 FT.	350 FT.	400 FT.	400 FT.
4	0:38.0L	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46
6	0:55.4L	5:40	5:40	5:40	5:40	5:40	5:40	5:40	5:42
8	1:52.0L	7:34	7:34	7:34	7:34	7:36	8:52	10:08	
10	2:37.4L	9:28	9:28	9:28	9:53	11:52	13:51	15:49	
12	3:41.8L	11:20	11:20	11:24	14:15	17:05	19:56	22:47	
15	5:34.2L	14:10	14:10	17:48	22:15	26:42	31:09	35:36	
18	7:59.2L	17:00	19:13	23:38	32:03	38:27	44:52	51:16	
21	10:47.0L	19:50	26:10	34:54	43:37	52:21	61:00	69:48	
24	13:67.4L	22:47	34:11	45:34	56:58	68:22	79:46	91:10	

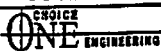
SPECIFICATION TIME FOR LENGTH (L) SHOWN (MIN-SEC)

*ALL TESTS SHALL BE WITNESSED BY A VILLAGE REPRESENTATIVE.

DEPTH (FT.)	DIAMETER, INCHES		
	48	60	72
8 OR LESS	20	26	33
10	25	33	41
12	30	39	49
14	35	46	57
16	40	52	67
18	45	59	73
20	50	65	81
22	55	72	89
24	59	78	97
28	64	85	105
28	69	91	113
30	74	98	121

MINIMUM TEST TIMES FOR VARIOUS MANHOLE DIAMETERS

VILLAGE OF COVINGTON



SANITARY SEWER TESTING NOTES

REVISIONS: 09-10-09

DATE APPROVED: NOV. 2003

PAGE No.

900-10

MISCELLANEOUS SANITARY SEWER NOTES

DATE: NOV. 2003
APPROVED:
PAGE NO. 900-11

REVISIONS:

- A. LASER METHOD - OFFSET AND GRADE AT EACH MANHOLE, OFFSET AND GRADE 50' AND 100' OUT FROM EACH MANHOLE UNLESS OTHERWISE APPROVED.
- B. ALL TEMPORARY PAVEMENT AND SIDEWALK SHALL BE MAINTAINED BY THE CONTRACTOR OR DEVELOPER AT HIS OWN EXPENSE IN A SUITABLE AND SAFE CONDITION FOR TRAFFIC UNTIL PERMANENT REPLACEMENT IS MADE OR THE PROJECT IS FINALLY ACCEPTED BY THE VILLAGE.
- C. ROOF DRAINS, FOUNDATION DRAINS, SWAMP PUMPS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.
- D. WHEN A SEWER IS TO BE EXTENDED AT THE DOWNSTREAM MANHOLE OR FIRST MANHOLE IN THE NEW LINE, IT SHALL BE PLUGGED BEFORE CONSTRUCTION BEGINS. IF THE SEWER IS SMALLER OR EQUAL TO 12" DIAMETER, IT SHALL BE PLUGGED BY PLACING A POLY-ETHYLENE BAG APPROXIMATELY 6" INTO THE SEWER PIPE AND POURING CONCRETE INTO AND AROUND THE SEWER PIPE AS DIRECTED BY THE VILLAGE. SIZES LARGER THAN 12" WILL BE PLUGGED BY OTHER APPROVED METHODS. NO PLUGS SHALL BE REMOVED UNTIL CONSTRUCTION IS COMPLETED AND SOIL IS STABILIZED AND THEN ONLY AS DIRECTED BY THE VILLAGE.
- E. CONSTRUCTION OF SANITARY SEWERS SHALL INCLUDE THE VILLAGE DYE TESTING AS DETERMINED BY THE VILLAGE OF ALL PIPES TO BE CONNECTED TO THE NEW SEWER PRIOR TO BACKFILLING.
- F. WHEN A CASTING OR OTHER PUBLIC PROPERTY IS ABANDONED IT REMAINS VILLAGE PROPERTY.
- G. NEW SEWERS MUST HAVE EPA PLAN APPROVAL.

EXCAVATION AND PIPE LAYING

- A. THE LAYING OF THE PIPE SHALL COMMENCE AT THE LOWEST POINT, WITH THE BELL END LAID UPGRADE. THE PIPE SHALL BE CENTERED IN THE TRENCH AND ALL PIPE AND GRADE.
- B. LASER SHALL BE USED UNLESS OTHERWISE APPROVED.
- F. ALL ABANDONED SEWER LATERALS SHALL BE CAPPED AT THE OWNER'S EXPENSE.
- E. A PERMIT TO OPEN INTO, ALTER, OR DISTURB ANY PUBLIC SEWER MUST BE OBTAINED.
- D. LATERALS FROM THE MAIN TO THE PROPERTY LINE SHALL BE 4" MINIMUM WITH CLEANOUT AT THE PROPERTY LINE.

HOUSE CONNECTIONS

- A. NO SERVICE LINE SHALL BE ALLOWED TO CONNECT DIRECTLY INTO A MANHOLE SUBJECT TO APPROVAL BY THE VILLAGE IN SPECIFIC CASES.
- B. THE ENDS OF ALL SERVICE LINES OR TEES SHALL BE ACCURATELY LOCATED, MAPPED, AND GIVEN TO THE VILLAGE WITHIN 15 DAYS AFTER INSTALLATION.
- C. BEFORE MAKING A CONNECTION TO AN EXISTING SEWER TAP OR SEWER LATERAL, THE CONTRACTOR SHALL CHECK THE EXISTING PIPE BY UTILIZING A SEWER BELL STRAP, OR SEWER ROD TO SEE THAT THE EXISTING PIPE IS CONNECTED TO THE MAIN SEWER. IF NECESSARY, THE VILLAGE WILL PROVIDE AT THE CONTRACTOR'S EXPENSE, A HYDRAULIC SEWER CLEANER WHICH WILL PRODUCE LARGE VOLUMES OF WATER TO CHECK THE LATERAL.
- D. LATERALS FROM THE MAIN TO THE PROPERTY LINE SHALL BE 4" MINIMUM WITH CLEANOUT AT THE PROPERTY LINE.
- E. A PERMIT TO OPEN INTO, ALTER, OR DISTURB ANY PUBLIC SEWER MUST BE OBTAINED.
- F. ALL ABANDONED SEWER LATERALS SHALL BE CAPPED AT THE OWNER'S EXPENSE.

TESTING

- A. ALL PIPE AND SPECIALS SHALL BE PVC SDR-35 UNLESS OTHERWISE APPROVED BY THE VILLAGE. MINIMUM DIAMETER OF PIPE SHALL BE 8".
- B. DUCTILE IRON PIPE WILL BE USED IN STREAM CROSSINGS AND WHERE MAXIMUM SEPARATION CAN NOT BE MAINTAINED.
- C. ALL JOINTS SHALL BE OF THE BELL AND SPIGOT TYPE. THE BELLS BEING FORGED INTERGALLY WITH THE PIPE. THE BELLS SHALL CONTAIN A FACTORY INSTALLED ELASTOMERIC GASKET WHICH IS POSITIVELY RETAINED. NO SOLVENT CEMENT JOINTS WILL BE PERMITTED IN FIELD CONSTRUCTION EXCEPT AS SPECIFICALLY AUTHORIZED BY THE VILLAGE.

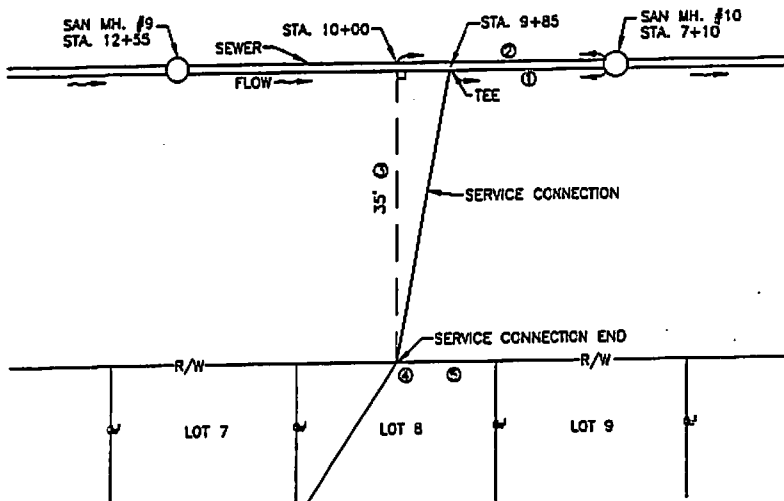
PIPE

DUCTILE IRON	ANSI A-21.51 &	AWWA C-111
POLYVINYL CHLORIDE	ASTM D-3034	ELASTOMERIC GASKET
PIPE STIFFNESS = 46PSI	ASTM D-3212	
PIPE SPECIFICATIONS		
MATERIAL		
JOINT		
SPECIFICATIONS		

- 1. SDR = OUTSIDE DIAMETER DIVIDED BY WALL THICKNESS.
- 2. THE SPECIFICATIONS ABOVE SHALL BE THOSE MOST RECENTLY ADOPTED BY THE APPROPRIATE STANDARDS SETTING ORGANIZATIONS.

NOTES

- A. NO WORK SHALL BE APPROVED OR ACCEPTED BY THE VILLAGE UNLESS 2 WORKING DAYS NOTICE OF COMMENCING WORK IS GIVEN TO THE VILLAGE.



EXAMPLE

1. 275'
2. 250'
3. 35'
4. 8.9'
5. 942.9

THE CONTRACTOR SHALL SUPPLY THE FOLLOWING INFO TO THE SATISFACTION OF THE VILLAGE

- ① HORIZONTAL DISTANCE OF TEE TO DOWNSTREAM MANHOLE.
- ② HORIZONTAL DISTANCE OF SERVICE CONNECTION END TO DOWNSTREAM MANHOLE ALONG SEWER.
- ③ PERPENDICULAR DISTANCE FROM SEWER TO SERVICE CONNECTION END.
- ④ DEPTH OF SERVICE CONNECTION END FLOW LINE TO ORIGINAL GROUND.
- ⑤ ELEVATION OF SERVICE CONNECTION END FLOW LINE.
- ⑥ ELEVATION OF BACK OF CURB OR SOME OTHER REFERENCE POINT ABOVE LATERAL.

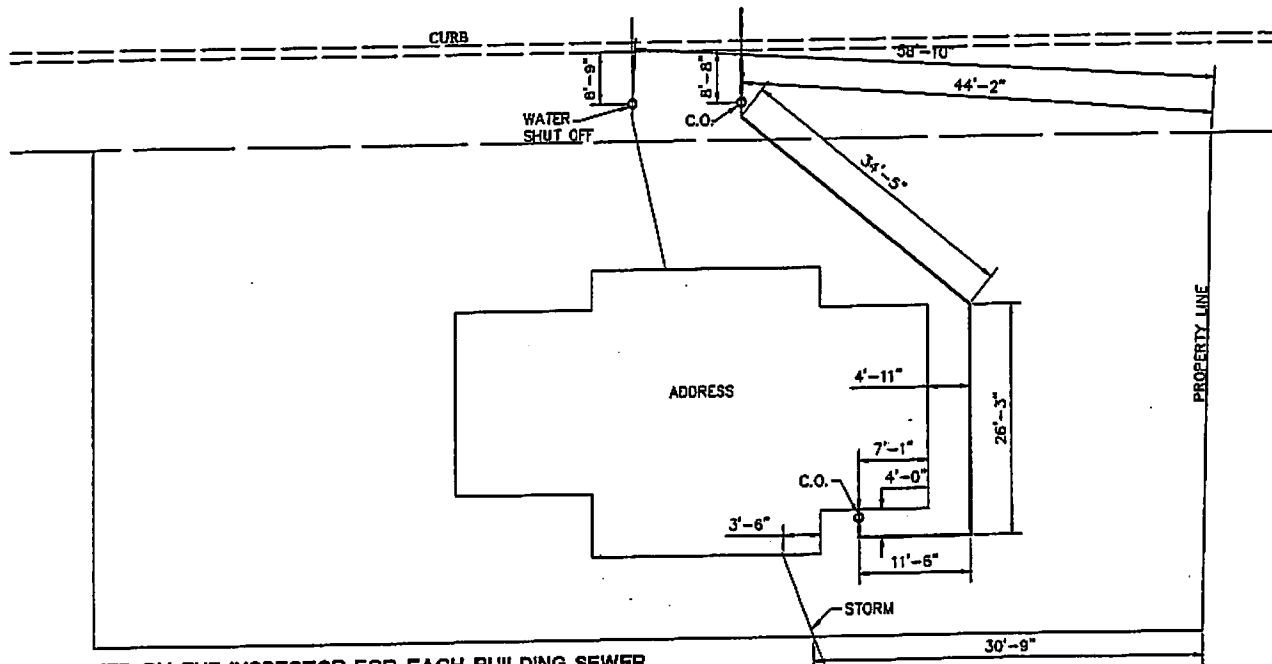
VILLAGE OF COVINGTON

CHOICE ONE ENGINEERING

SERVICE CONNECTION LOCATION REFERENCE

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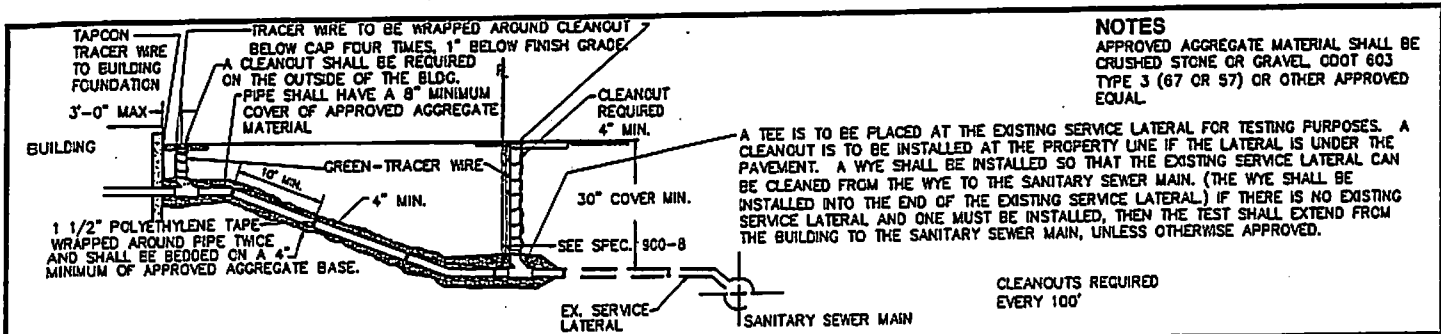
TO BE COMPLETED BY THE INSPECTOR FOR EACH BUILDING SEWER
 SAMPLE SITE SKETCH. GIVE DIMENSIONS FOR ALL UNDERGROUND PIPES. MAKE A DIFFERENT SKETCH FOR
 EACH UTILITY, IF NEEDED. FOR EXAMPLE, IF THIS HOUSE HAD DOWN SPOUT LEADERS, A SEPARATE
 STORM SHEET WOULD BE NEEDED.

VILLAGE OF
 COVINGTON
 CHOICE
 ONE ENGINEERING

**SERVICE CONNECTION LOCATION REFERENCE
 (BUILDING IN PLACE)**

REVISIONS:

DATE
 APPROVED:
 FEB. 2002
 PAGE No.
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NOTES

APPROVED AGGREGATE MATERIAL SHALL BE CRUSHED STONE OR GRAVEL, COOT 603 TYPE 3 (67 OR 57) OR OTHER APPROVED EQUAL.

A TEE IS TO BE PLACED AT THE EXISTING SERVICE LATERAL FOR TESTING PURPOSES. A CLEANOUT IS TO BE INSTALLED AT THE PROPERTY LINE IF THE LATERAL IS UNDER THE PAVEMENT. A WYE SHALL BE INSTALLED SO THAT THE EXISTING SERVICE LATERAL CAN BE CLEANED FROM THE WYE TO THE SANITARY SEWER MAIN. (THE WYE SHALL BE INSTALLED INTO THE END OF THE EXISTING SERVICE LATERAL.) IF THERE IS NO EXISTING SERVICE LATERAL AND ONE MUST BE INSTALLED, THEN THE TEST SHALL EXTEND FROM THE BUILDING TO THE SANITARY SEWER MAIN, UNLESS OTHERWISE APPROVED.

CLEANOUTS REQUIRED EVERY 100'

NOTES

- A. SEPTIC TANKS, WHEN ABANDONED, SHALL BE DEWATERED AND PROPERLY FILLED WITH GRANULAR MATERIAL WITH ALL TILES BEING PLUGGED WITH CONCRETE.
 - B. ROOF DOWNSPOUTS, EXTERIOR FOUNDATION DRAINS, AREAWAY DRAINS OR OTHER SURFACE RUNOFF OR GROUNDWATER SHALL NOT BE CONNECTED TO THE SANITARY SEWER MAIN. ALSO SEE MISC. NOTE 8.
 - C. ANY INDIVIDUAL OR FIRM INSTALLING SEWER CONNECTIONS SHALL BE APPROVED BY THE VILLAGE.
 - D. BEFORE BEGINNING WORK, A SEWER TAP PERMIT MUST BE OBTAINED.
 - E. WHEN THE BUILDING CONNECTION MUST ENTER INTO A PAVED PORTION OF THE STREET OR ALLEY, APPROVAL MUST BE OBTAINED BEFORE BEGINNING WORK.
 - F. WATER SERVICES SHALL BE A MINIMUM OF 10' MEASURED HORIZONTALLY FROM THE SEWER SERVICE AND SHALL BE A MINIMUM OF 18" ABOVE THE CROWN (WHENEVER POSSIBLE) OF THE SANITARY SEWER MAIN WHERE THE WATER SERVICE CROSSES THE SEWER MAIN.
- PIPE**
- A. THE PIPE MATERIAL SHALL BE PVC SDR 35, SCHEDULE 40, UTILIZING PURPLE PRIMER, OR AN APPROVED EQUIVALENT.
 - B. PIPE SIZES FOR BUILDING CONNECTIONS SHALL BE 4" MINIMUM FOR SINGLE RESIDENCE AND 6" MINIMUM FOR ALL OTHER USES. THE LATERALS SHALL BE RAN TO WITHIN 3' OF THE OUTSIDE OF THE BUILDING.

INSPECTION

- A. A TAP INSPECTION SHALL BE REQUIRED ON ALL NEW BUILDING CONNECTIONS AND ALSO ON THE REPLACEMENT OF EXISTING BUILDING CONNECTIONS.
- B. WHEN THE BUILDING SEWER IS READY FOR INSPECTION, THE VILLAGE SHALL BE GIVEN 24 HOURS ADVANCE NOTICE. THE PIPE SHALL BE LEFT UNCOVERED UNTIL AN INSPECTION HAS BEEN MADE AND APPROVED.
- C. ANY NEW BUILDING CONNECTION INSTALLED WITHOUT AN INSPECTION SHALL RESULT IN NO ISSUANCE OF A WATER METER FOR THE BUILDING. IF THIS OCCURS, THE ENTIRE LATERAL SHALL BE UNCOVERED SO THAT A PROPER INSPECTION CAN BE MADE.
- D. NO TAP FEE IS REQUIRED IF AN OLD BUILDING SEWER IS TO BE REUSED. AN INSPECTION WILL BE REQUIRED. THE PUBLIC UTILITY DEPT. SHALL INSPECT THE ENTIRE BUILDING CONNECTION FROM THE CLEANOUT TO THE PROPERTY LINE CONNECTION OR TO THE MAIN SEWER, WHICHEVER IS APPLICABLE.

TESTING

- A. THE OUTSIDE PLUMBER SHALL BE RESPONSIBLE FOR THE TESTING FROM THE CONNECTION TO THE EXISTING SERVICE LATERAL TO THE CLEANOUT.
- B. ALL NEW BUILDING CONNECTIONS SHALL BE BY AIR WITH 5 PSI PRESSURE.
- C. THE SEWER TEST SHALL BE FROM THE CLEANOUT TO THE PROPERTY LINE CONNECTION OR TO THE MAIN SEWER, WHICHEVER IS APPLICABLE.

- D. WHEN A SUBSTANTIAL AMOUNT OF AN EXISTING LATERAL IS REPLACED, THE NEW PORTION OF THE LATERAL SHALL REQUIRE A TEST UNLESS OTHERWISE APPROVED.

MISC.

- A. BASEMENTS MUST HAVE A FLOOR DRAIN AND BE CONNECTED TO THE STORM SEWER (SUMP PUMP).

PIPE LAYING

- A. THE OPEN ENDS OF ALL PIPES SHALL BE PLUGGED OR OTHERWISE CLOSED WITH A WATERTIGHT PLUG TO THE APPROVAL OF THE VILLAGE BEFORE LEAVING THE WORK SITE FOR THE NIGHT.
- B. THE JOINING OF PIPE WITH CONCRETE SHALL NOT BE ACCEPTED.
- C. BEFORE MAKING A CONNECTION TO AN EXISTING SEWER OR SERVICE LATERAL, THE CONTRACTOR SHALL CHECK THE EXISTING PIPE BY UTILIZING A SEWER EEL, STRAP, OR SEWER ROD TO SEE THAT THE EXISTING PIPE IS CONNECTED TO THE SANITARY SEWER MAIN.
- D. IN THE CASE WHERE A 90° CORNER IS REQUIRED IN THE BUILDING CONNECTION LINE, 2 45° BENDS SHALL BE USED IN LIEU OF A 90° BEND. A CLEANOUT WILL BE REQUIRED.
- E. THE BUILDING CONNECTION LINE SHALL BE LAID IN AS STRAIGHT A LINE, FROM THE BUILDING TO THE EXISTING LATERAL, AS POSSIBLE.
- F. ALL NEW CONSTRUCTION SHALL HAVE SANITARY LATERALS INSTALLED.
- G. DRAWINGS SHOWING LATERAL LOCATIONS SHALL BE SUBMITTED WITH A BUILDING PERMIT.
- H. TRACER WIRE WILL BE INSTALLED ON ALL NEW PVC SANITARY SERVICE INSTALLATIONS FROM SANITARY MAIN TO BUILDING AND WILL COME TO SURFACE AT EVERY CLEANOUT. (SEE 900-9)

<p>VILLAGE OF COVINGTON</p>	<p style="text-align: center; font-size: 24pt;">BUILDING CONNECTION DETAIL</p>	<p>REVISIONS:</p>	<p>DATE APPROVED: OCT. 2012</p>
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WATER MAIN SERVICE CONNECTION

REVISIONS: 10-4-2012
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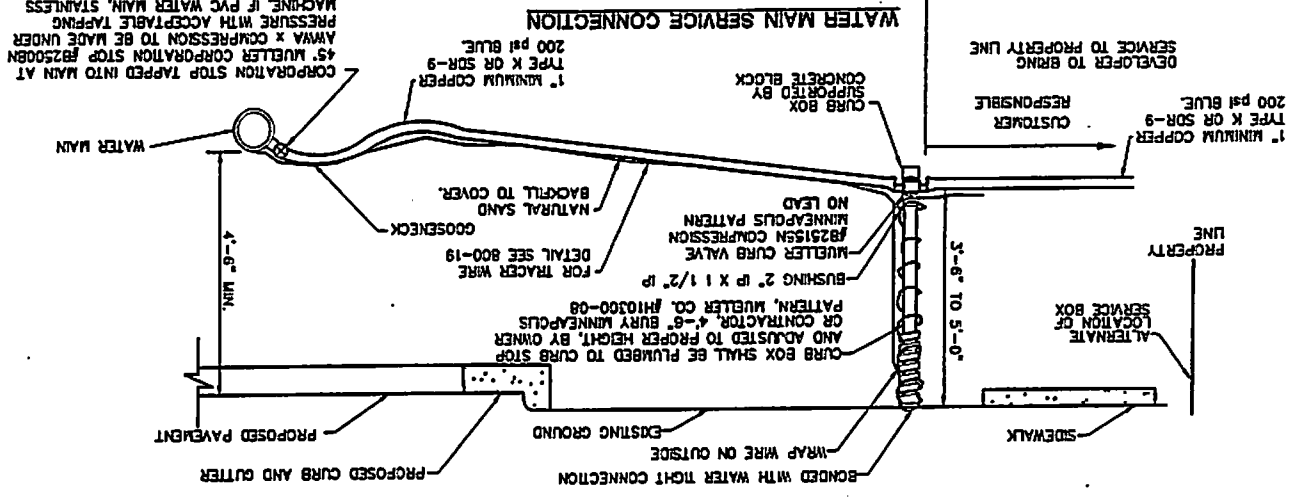
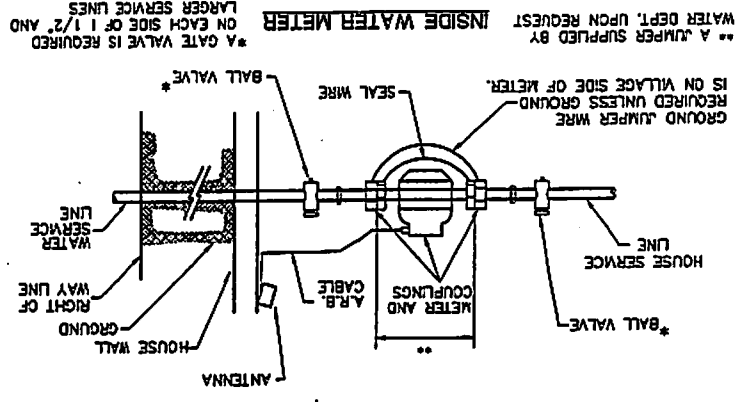
NOTES

A. MINIMUM 1" WATER SERVICE SHALL BE COPPER TYPE K OR SDR-9 200 psi BLUE.

B. WATER SERVICE SHALL BE A MINIMUM OF 10' MEASURED HORIZONTALLY FROM THE SEWER MAIN AND SHALL BE A MINIMUM OF 18" ABOVE THE CROWN OF THE SANITARY SEWER MAIN WHERE THE WATER SERVICE CROSSES THE SEWER MAIN. WATER SERVICE MAY BE LAID ON BENCH IN THE SEWER LATERAL TRENCH IF CROWN IS AT LEAST 18" BELOW INVERT OF WATER SERVICE, AND THE MINIMUM DISTANCE BETWEEN THE WATER SERVICE AND THE SEWER LATERAL IS 5'-0".

C. INSIDE METER PROVIDED WITH TAP FEELSIDE SETTER CUSTOMER IS RESPONSIBLE FOR METER FREEZE UP. VILLAGE INSTALLS METER AND REMOTE WIRE. CURB BOX MAY BE PLACED BETWEEN SIDEWALK AND PROPERTY LINE.

E. ANY TAPS IN C909 OR # 2" AND LARGER WILL REQUIRE A SADDLE.



TRACER WIRE FOR WATER SERVICE DETAIL

DATE: _____
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TRACER WIRE NOTES

A. THE CONTRACTOR WILL FURNISH AND INSTALL TRACER WIRE. WIRE SHALL BE COPPERHEAD HS REINFORCED TRACER WIRE MANUFACTURED BY COPPERHEAD INDUSTRIES, LLC, BLUE FOR WATER.

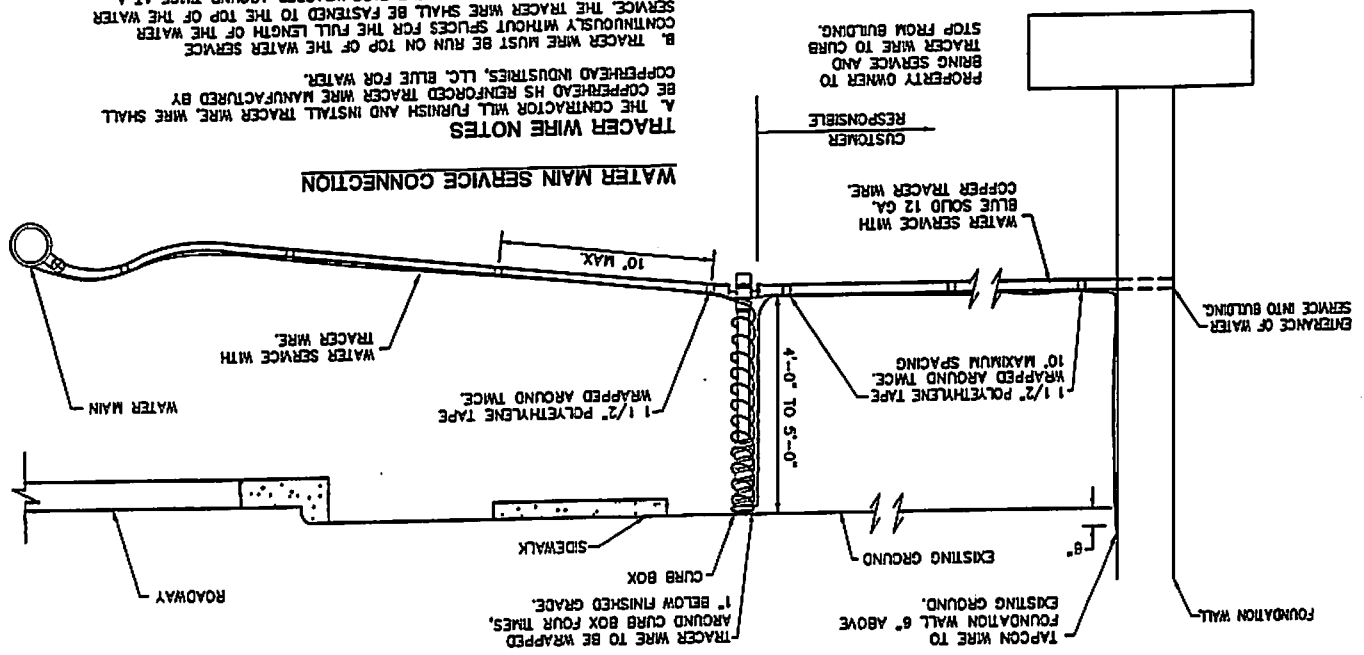
B. TRACER WIRE MUST BE RUN ON TOP OF THE WATER SERVICE CONTINUOUSLY WITHOUT SPICES FOR THE FULL LENGTH OF THE WATER SERVICE. THE TRACER WIRE SHALL BE FASTENED TO THE TOP OF THE WATER SERVICE WITH 1 1/2" POLYETHYLENE TAPE WRAPPED AROUND TWICE AT A MAXIMUM DISTANCE OF 10".

C. TRACER WIRE THAT MUST BE SPLICED SHALL USE SNAKEBITE TRACER WIRE CONNECTORS MANUFACTURED BY COPPERHEAD INDUSTRIES, LLC.

D. TRACER WIRE WILL BE INSTALLED ON ALL NEW WATER SERVICE INSTALLATIONS AND WILL COME TO THE SURFACE AT THE CURB BOX AND AT THE BUILDING FOUNDATION.

E. TRACER WIRE SHALL DAYLIGHT AT THE POINT OF ENTRY AT THE FOUNDATION OF THE BUILDING. TAPCON WIRE TO FOUNDATION, 6" ABOVE GROUND LEVEL.

F. ALL MATERIAL, LABOR, EQUIPMENT NEEDED FOR THE INSTALLATION OF THE TRACER WIRE SHALL BE INCIDENTAL TO PIPE INSTALLATION.



WATER MAIN SERVICE CONNECTION

TRACER WIRE TO BE WRAPPED AROUND CURB BOX FOUR TIMES, 1" BELOW FINISHED GRADE.

FOUNDATION WALL 6" ABOVE EXISTING GROUND.

EXISTING GROUND.

1 1/2" POLYETHYLENE TAPE WRAPPED AROUND TWICE, 10" MAXIMUM SPACING.

WATER SERVICE WITH BLUE SOLID 12 GA. COPPER TRACER WIRE.

CUSTOMER RESPONSIBLE

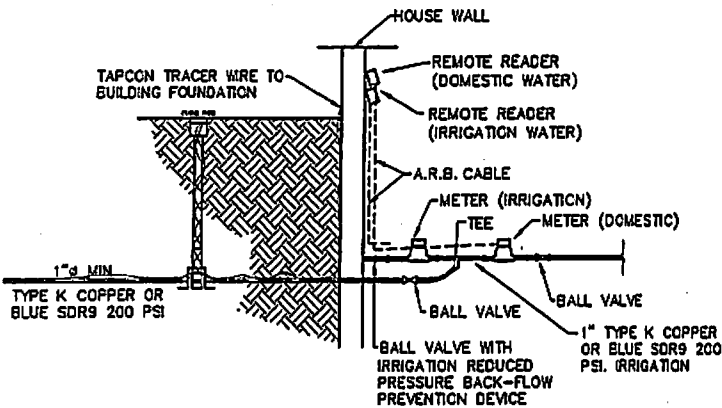
PROPERTY OWNER TO BRING SERVICE AND TRACER WIRE TO CURB STOP FROM BUILDING.

NOTES

- A. SEE "STANDARDS FOR TAPS, SERVICES AND METERS" FOR TYPICAL NOTES.
- B. BACKFLOW PREVENTION DEVICE REQUIRED—CONTACT WATER METER DEPARTMENT FOR APPROVED DEVICE.
- C. PROVIDE APPROVED DRAIN FOR IRRIGATION SYSTEM.
- D. ALTERNATE DESIGNS MUST BE SUBMITTED FOR APPROVAL.
- E. IF METER IS INSTALLED INSIDE CRAWL SPACE AREA, IT SHALL BE PLACED WITHIN 2' OF OPENING.
- F. THE CURB BOX MUST BE BROUGHT UP TO FINISH GRADE.
- G. NO OUTLETS ARE ALLOWED BETWEEN METER AND THE BACKFLOW PREVENTER OR HOSE BIBB VACUUM BREAKER WITH THE EXCEPTION OF ONE SCREW PLUG-IN TAP FOR WINTERIZING/DRAINAGE PURPOSES.
- H. THE UNDERGROUND WATER SERVICE SHALL BE K-COPPER UP TO THE BACKFLOW PREVENTER OR HOSE BIBB VACUUM BREAKER.
- I. IN CASE OF ADD-ON CONSTRUCTION (WITH AN EXISTING DOMESTIC METER AND SERVICE) LEAD FREE SOLDERED JOINTS WILL BE ACCEPTED AT THE TAKE-OFF TEE ONLY.
- J. THE INSTALLATION SHALL BE INSPECTED BY THE VILLAGE.

**INSTRUCTIONS FOR
THE INSTALLATION OF IRRIGATION METERS
AND
BACKFLOW PREVENTERS FOR IRRIGATION**

- A. MAKE DRAWING OF THE PROPOSED IRRIGATION SYSTEM. THIS DRAWING MUST BE APPROVED BY VILLAGE AND MIAMI COUNTY HEALTH DEPARTMENT.
- B. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE VILLAGE "STANDARDS FOR TAPS, SERVICES AND METERS".
- C. GET THE NECESSARY PERMITS.
 - 1) TAPPING FEE
- D. GET FORMS AT MIAMI COUNTY HEALTH DEPARTMENT FOR EACH BACKFLOW PREVENTER TO BE INSTALLED, PRIOR TO DOING THE WORK.
- E. AFTER THE BACKFLOW PREVENTERS HAVE BEEN INSTALLED, PLEASE FILL OUT THE FORMS COMPLETELY WITH THE OWNER/LEASEHOLDER'S NAME, ADDRESS (WHERE THE BACKFLOW PREVENTER WAS INSTALLED), LOCATION OF THE BACKFLOW PREVENTER, SIZE, MAKE, MODEL, TEST RESULTS BY A LICENSED PLUMBER, ANNUAL TEST RESULTS THERE AFTER, AND SERIAL NUMBER OF THE BACKFLOW PREVENTER. PLEASE RETURN THE COMPLETED FORMS TO THE VILLAGE.
- F. CONTACT BOTH VILLAGE AND THE MIAMI COUNTY HEALTH DEPARTMENT AFTER THE WORK HAS BEEN COMPLETED. BACKFLOW PREVENTERS HAVE TO BE INSPECTED BY BOTH VILLAGE AND THE MIAMI COUNTY HEALTH DEPARTMENT.
- G. SEPARATE VALVES, ONE BEFORE AND AFTER, MUST BE PLACED NEAR THE BACKFLOW PREVENTER WHENEVER THE EXISTING BACKFLOW IS REMOVED.
- H. HOME OWNER IS RESPONSIBLE FOR FULL COST OF IRRIGATION METER AND BACKFLOW PREVENTION DEVICE.



VILLAGE OF
COVINGTON



**STANDARD INSTALLATION FOR IRRIGATION
METERS AND BACKFLOW PREVENTER**

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