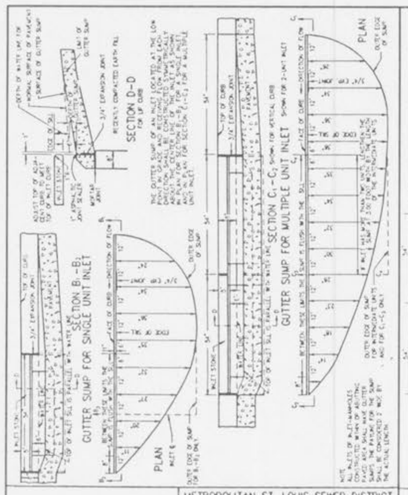
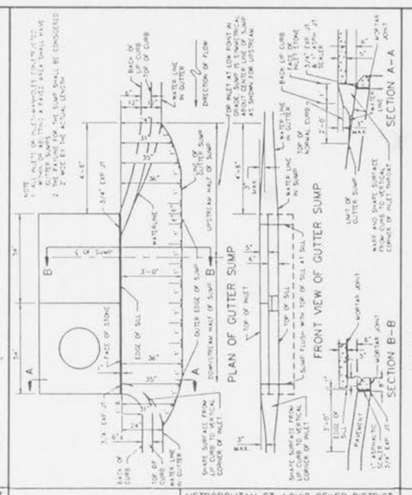


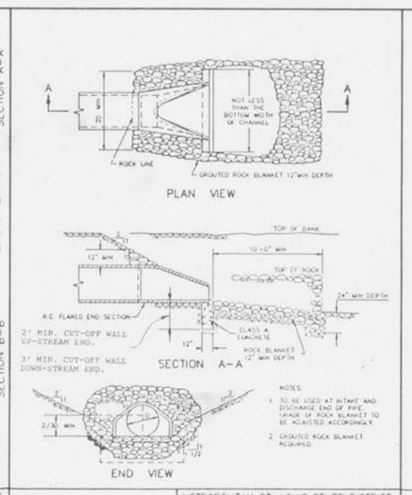
GUTTER SUMPS FOR VERTICAL CURB

METROPOLITAN ST. LOUIS SEWER DISTRICT Standard Details of Sewer Construction			
Dr. WSH Ch. JCK	1992	SHEET 55	



GUTTER SUMP FOR LIP CURB

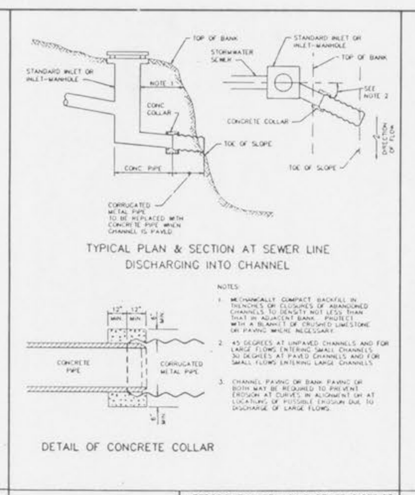
METROPOLITAN ST. LOUIS SEWER DISTRICT Standard Details of Sewer Construction			
Dr. RGW Ch. JCK	1992	SHEET 56	



NOTES:
1. TO BE USED AT INTAKE AND DISCHARGE END OF PIPE. GRADE OF ROCK BLANKET TO BE ADJUSTED ACCORDINGLY.
2. GROUTED ROCK BLANKET REQUIRED.

FLARED END SECTION

METROPOLITAN ST. LOUIS SEWER DISTRICT Standard Details of Sewer Construction			
Dr. WSH Ch. JCK	1992	SHEET 57	



NOTES:
1. MECHANICALLY COMPACT BACKFILL IN TRENCHES OR CLEVISES OF ABANDONED CHANNELS TO DENSITY NOT LESS THAN 90% OF ASTM D698 (STANDARD PROCTOR) WITH A BLANKET OF CRUSHED LIMESTONE OR PAVING WHERE NECESSARY.
2. 45 DEGREES AT UNPAVED CHANNELS AND FOR LARGE FLOWS ENTERING SMALL CHANNELS. 90 DEGREES AT PAVED CHANNELS AND FOR SMALL FLOWS ENTERING LARGE CHANNELS.
3. CHANNEL PAVING OR BANK PAVING OR BOTH MAY BE REQUIRED TO PREVENT EROSION. THIS MAY BE DETERMINED ON AN INDIVIDUAL OR PERSONAL EXPERIENCE DUE TO DISCHARGE OF LARGE FLOWS.

STORMWATER CHANNELS

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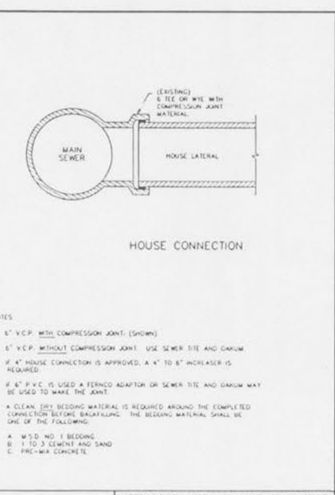

NOTES
1. 6" V.C.P. WITH COMPRESSION JOINT. (SHOWN)
2. 6" V.C.P. WITHOUT COMPRESSION JOINT. USE SEWER TITE AND GANUM.
3. IF 4" HOUSE CONNECTION IS APPROVED, A 4" TO 6" INCREASER IS REQUIRED.
4. IF 6" P.V.C. IS USED A FERNCO ADAPTOR OR SEWER TITE AND GANUM MAY BE USED TO MAKE THE JOINT.
5. A CLEAN, DRY BEDDING MATERIAL IS REQUIRED AROUND THE COMPLETED CONNECTION BEFORE BACKFILLING. THE BEDDING MATERIAL SHALL BE ONE OF THE FOLLOWING:
   A. W.S.D. NO. 1 BEDDING
   B. 1 TO 3 CEMENT AND SAND
   C. PRE-MIX CONCRETE

HOUSE CONNECTION TO EXISTING TEE OR WYE

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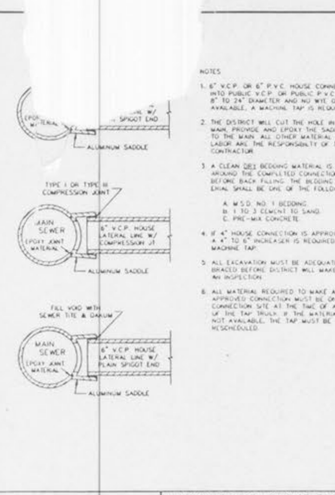


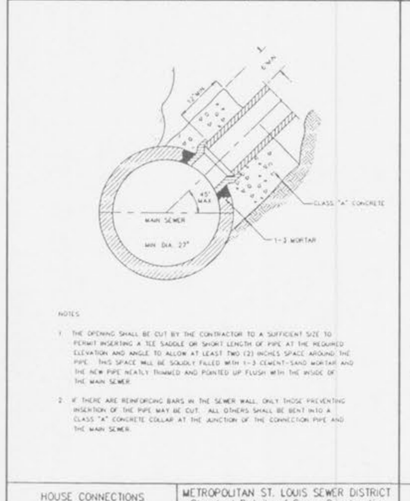
NOTES
1. 6" V.C.P. OR 6" P.V.C. HOUSE CONNECTION INTO PUBLIC V.C.P. OR PUBLIC P.V.C. MAIN 8" TO 24" DIAMETER AND NO WYE OR TEE AVAILABLE, A MACHINE TAP IS REQUIRED.
2. THE DISTRICT WILL CUT THE HOLE IN THE MAIN, PROVIDE AND EPOXY THE SADDLE TO THE MAIN. ALL OTHER MATERIAL AND LABOR ARE THE RESPONSIBILITY OF THE CONTRACTOR.
3. A CLEAN, DRY BEDDING MATERIAL IS REQUIRED AROUND THE COMPLETED CONNECTION BEFORE BACK FILLING. THE BEDDING MATERIAL SHALL BE ONE OF THE FOLLOWING:
   A. W.S.D. NO. 1 BEDDING
   B. 1 TO 3 CEMENT TO SAND
   C. PRE-MIX CONCRETE
4. IF 4" HOUSE CONNECTION IS APPROVED, A 4" TO 6" INCREASER IS REQUIRED AT MACHINE TAP.
5. ALL EXCAVATION MUST BE ADEQUATELY BRACED BEFORE DISTRICT WILL MAKE INSPECTION.
6. ALL MATERIAL REQUIRED TO MAKE AN APPROVED CONNECTION MUST BE ON THE CONNECTION SITE AT THE TIME OF ARRIVAL OF THE TAP TRUCK. IF THE MATERIAL IS NOT AVAILABLE, THE TAP MUST BE RESCHEDULED.

MACHINE TAP

METROPOLITAN ST. LOUIS SEWER DISTRICT Standard Details of Sewer Construction			
Dr. WSH Ch. JCK	1992	SHEET 60	

REV. 07-09-98 CITY COMMENTS

CONSTRUCTION DETAILS



NOTES
1. THE OPENING SHALL BE CUT BY THE CONTRACTOR TO A SUFFICIENT SIZE TO PERMIT INSERTING A TEE SADDLE OR SHORT LENGTH OF PIPE AT THE REQUIRED ELEVATION AND ANGLE TO ALLOW AT LEAST TWO (2) INCHES SPACE AROUND THE PIPE. THIS SPACE WILL BE SUBSEQUENTLY FILLED WITH 1-3 CEMENT-SAND MORTAR AND THE NEW PIPE NEATLY FINISHED AND POINTED UP FLUSH WITH THE INSIDE OF THE MAIN SEWER.
2. IF THERE ARE REINFORCING BARS IN THE SEWER WALL, ONLY THOSE PREVENTING INSERTION OF THE PIPE MAY BE CUT. ALL OTHERS SHALL BE BENT INTO A CLASS "A" CONCRETE COLLAR AT THE JUNCTION OF THE CONNECTION PIPE AND THE MAIN SEWER.

HOUSE CONNECTIONS ALLOWED BY TEE SADDLE

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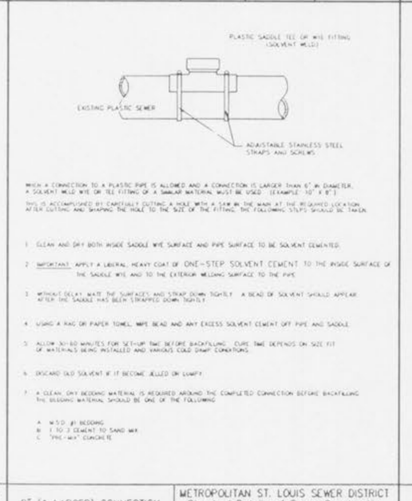


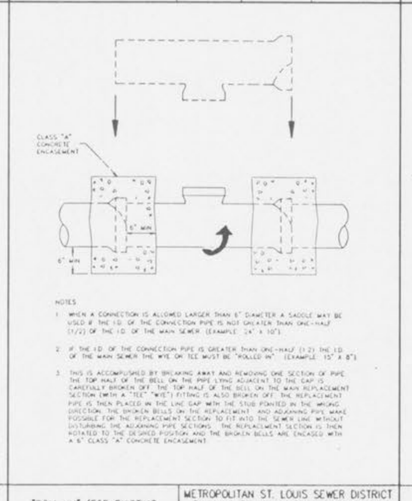
WHEN A CONNECTION TO A PLASTIC PIPE IS ALLOWED AND A CONNECTION IS LARGER THAN 6" IN DIAMETER, A SOLVENT WELD WYE OR TEE FITTING OR A SIMILAR MATERIAL MUST BE USED. (EXAMPLE: 10" X 8")

THIS IS ACCOMPLISHED BY CAREFULLY CUTTING A HOLE WITH A TRIM THE WALL AT THE REQUIRED LOCATION. AFTER CUTTING AND SHAPING THE HOLE TO THE SIZE OF THE FITTING, THE FOLLOWING STEPS SHOULD BE TAKEN.

1. CLEAN AND DRY BOTH INSIDE SADDLE WYE SURFACE AND PIPE SURFACE TO BE SOLVENT CEMENTED.
2. IMPORTANT: APPLY A LIBERAL, HEAVY COAT OF ONE-STEP SOLVENT CEMENT TO THE INSIDE SURFACE OF THE SADDLE WYE AND TO THE EXTERIOR WELDING SURFACE TO THE PIPE.
3. WITHOUT DELAY, WAIT THE SURFACES AND STRAP DOWN TIGHTLY. A BEAD OF SOLVENT SHOULD APPEAR AFTER THE SADDLE HAS BEEN STRAPPED DOWN TIGHTLY.
4. USING A RAG OR PAPER TOWEL, WIPE BEAD AND ANY EXCESS SOLVENT CEMENT OFF PIPE AND SADDLE.
5. ALLOW 30-60 MINUTES FOR SETTUP TIME BEFORE BACKFILLING. CURE TIME DEPENDS ON SIZE FIT OF MATERIALS BEING INSTALLED AND VARIOUS COLD SHAP CONDITIONS.
6. DISCARD OLD SOLVENT IF IT BECOME JELLED OR LUMPY.
7. A CLEAN, DRY BEDDING MATERIAL IS REQUIRED AROUND THE COMPLETED CONNECTION BEFORE BACKFILLING. THE BEDDING MATERIAL SHOULD BE ONE OF THE FOLLOWING:
   A. W.S.D. #1 BEDDING
   B. 1 TO 3 CEMENT TO SAND MIX
   C. PRE-MIX CONCRETE

8" (& LARGER) CONNECTION TO PLASTIC MAIN

METROPOLITAN ST. LOUIS SEWER DISTRICT Standard Details of Sewer Construction			
Dr. DAB Ch. JCK	1992	SHEET 62	



NOTES
1. WHEN A CONNECTION IS ALLOWED LARGER THAN 6" DIAMETER A SADDLE MAY BE USED IF THE I.D. OF THE CONNECTION PIPE IS NOT GREATER THAN ONE-HALF (1/2) OF THE I.D. OF THE MAIN SEWER. (EXAMPLE: 24" x 10")
2. IF THE I.D. OF THE CONNECTION PIPE IS GREATER THAN ONE-HALF (1/2) THE I.D. OF THE MAIN SEWER THE WYE OR TEE MUST BE "ROLLED IN". (EXAMPLE: 15" X 8")
3. THIS IS ACCOMPLISHED BY BREAKING AWAY AND REMOVING ONE SECTION OF PIPE. THE TOP HALF OF THE BELL ON THE PIPE LYING ADJACENT TO THE GAP IS CAREFULLY BROKEN OFF. THE TOP HALF OF THE BELL ON THE MAIN REPLACEMENT SECTION (WITH A "TEE" "WYE") FITTING IS ALSO BROKEN OFF. THE REPLACEMENT PIPE IS THEN PLACED IN THE LINE GAP WITH THE STUB POINTED IN THE WRONG DIRECTION. THE BROKEN BELLS ON THE REPLACEMENT AND ADJOINING PIPE MAKE POSSIBLE FOR THE REPLACEMENT SECTION TO FIT INTO THE SEWER LINE WITHOUT DISTURBING THE ADJOINING PIPE SECTIONS. THE REPLACEMENT SECTION IS THEN ROTATED TO THE DESIRED POSITION AND THE BROKEN BELLS ARE ENCASED WITH A 6" CLASS "A" CONCRETE ENCASEMENT.

"ROLL-IN" (FOR EXISTING CLAY OR CONCRETE PIPE)

METROPOLITAN ST. LOUIS SEWER DISTRICT Standard Details of Sewer Construction			
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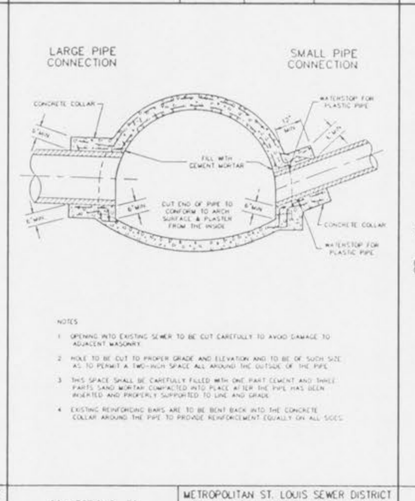

NOTES
1. OPENING INTO EXISTING SEWER TO BE CUT CAREFULLY TO AVOID DAMAGE TO ADJACENT MASONRY.
2. HOLE TO BE CUT TO PROPER GRADE AND ELEVATION AND TO BE OF SUCH SIZE AS TO PERMIT A TWO-INCH SPACE ALL AROUND THE OUTSIDE OF THE PIPE.
3. THIS SPACE SHALL BE CAREFULLY FILLED WITH ONE PART CEMENT AND THREE PARTS SAND MORTAR COMPACTED INTO PLACE AFTER THE PIPE HAS BEEN INSERTED AND PROPERLY SUPPORTED TO LINE AND GRADE.
4. EXISTING REINFORCING BARS ARE TO BE BENT BACK INTO THE CONCRETE COLLAR AROUND THE PIPE TO PROVIDE REINFORCEMENT EQUALLY ON ALL SIDES.

CONNECTIONS TO LARGE SEWERS

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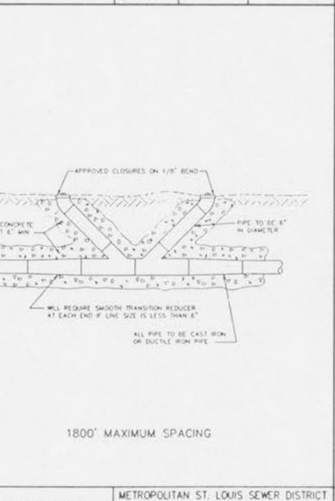
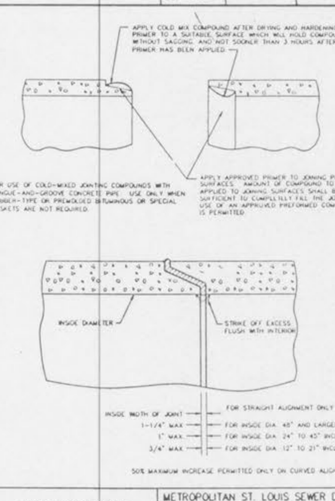
Dr. WSH Ch. JCK	1992	SHEET 64	



FORCE MAIN CLEANOUT (6" DIA. & SMALLER)

METROPOLITAN ST. LOUIS SEWER DISTRICT Standard Details of Sewer Construction			
Dr. RGW Ch. JCK	1992	SHEET 65	



TONGUE AND GROOVE CONCRETE PIPE JOINTS

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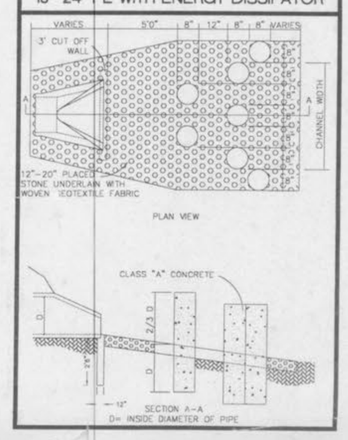
18"-24" FE WITH ENERGY DISSIPATOR



CONSTRUCTION DETAILS

THE VILLAS AT WOODLAWN

96-8344A

JUNE 9, 1998