

PIMA COUNTY, ARIZONA
DEPARTMENT OF WASTEWATER MANAGEMENT

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JUNE 1983

REVISED: APRIL 1988

PIMA COUNTY WASTEWATER MANAGEMENT

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REVISED: APRIL 1988

PIMA COUNTY, ARIZONA

DEPARTMENT OF WASTEWATER MANAGEMENT

PROCEDURES

JUNE 1983

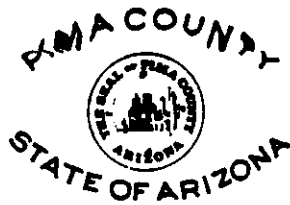
REVISED: APRIL 1988

PIMA COUNTY WASTEWATER MANAGEMENT

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REVISED: APRIL 1988



NUMBER ENG-D-1

DIRECTIVE

EFFECTIVE
March 1, 1982
SUPERSEDES

WASTEWATER MANAGEMENT DEPARTMENT
PIMA COUNTY GOVERNMENTAL CENTER
TUCSON, ARIZONA 85701
PHONE 792-8678

SUBJECT: Connection to the Public Sanitary Sewerage System

It is the policy of the Pima County Wastewater Management Department to allow the connection of new private sewer systems (a.k.a. House Connection Sewers (HCS)) to the existing public sanitary sewerage system in accordance with the following criteria:

AUTHORITY

The Chief Engineer of PCWMD and/or a designated representative has the authority to enforce this directive.

CRITERIA

1. All new residential (including mobile homes) or individual commercial/ industrial properties who front on the existing public gravity sewer facility shall connect into it. A permit is required, from the municipal building codes agency having jurisdiction over the area in which the property exists, to authorize the connection.

A variance to the requirement to connect to the public sewer can only be granted by Wastewater Management--such a variance might allow the use of a private on-site septic/disposal system. In order that the variance be granted, the owner shall submit sufficient documentation to Pima County Wastewater Management to show that the connection to the public system is physically not feasible.

2. The following table lists the preferred method of connection to the system relative to the size (dia) of the public main involved:

<u>Size of Public Main</u>	<u>Method of Connection of the Private System</u>
6", 8", and 10" I.D. ¹	Direct Tap*
12" through 15" I.D.	Connect * at manholes (new or existing)-- unless otherwise approved by the Authority
Larger than 15" I.D.	Connect * only at manholes (new or existing)

* To be accomplished in accordance with applicable PCWMD Standard Details.

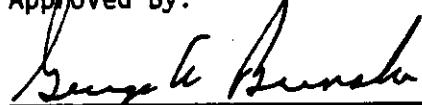
¹ In the event that the private system to be connected has an internal diameter (I.D.) equal to or only one nominal size smaller than the mainline, then the connection shall be made by means of a manhole (new or existing). The one exception is the tapping of a four inch I.D. HCS into a six inch diameter public main.

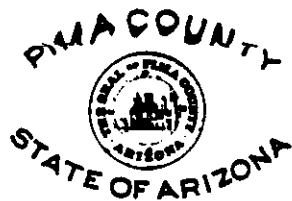
3. All work done to or within an existing manhole in the public system, in order to effect a connection, shall be inspected and approved by PCWMD staff prior to approval of the private sanitary sewer system by the involved Building Codes Agency.
4. If a new manhole is constructed on the public sewer in order to affect a connection, the new manhole facility shall be inspected and approved by PCWMD staff prior to approval of the private sanitary sewer system by the involved Building Codes Agency.
5. New private sewer systems connecting into existing public facilities in public rights-of-way or easements may be constructed with pipe materials and sizes which are approved by the Building Codes Agency having jurisdiction over the public right-of-way or easement.
6. Any damage done to the public system as a result of the new connection will be repaired by PCWMD and/or our authorized representative. All costs incurred in order to accomplish the needed repairs on the public main will be billed to the connection applicant for payment. The Building Codes Department will be requested not to release the project for occupancy until payment for repairs is received. In the event of damage to the public main, PCWMD shall be contacted immediately at the following telephone number: 326-4333 (Monday through Friday, 7:00 a.m. to 4:00 p.m.) and 882-2962 (all other times).
7. New connections, of new private sewer systems (HCS's) to the existing public system via the use of existing HCS stubs or a new tap/connection to the public system) shall not commence without payment in full of the required sewer connection fees (See Pima County Ordinance No. 1980-106 or its successor). Connections of new HCS's to a public mainline sewer shall be accomplished only by properly qualified and/or licensed plumbers or contractors.
8. The construction/installation of a new manhole as required to allow the connection of a private sewer to the public sanitary sewerage system shall not in itself cause the property to be classified as "participating."
9. This Department recommends that all private systems, 6 inches in diameter (I.D.) or larger, be connected to the public system by means of manholes (new or existing), regardless of the size of the public mainline sewer into which connection is being made.

Recommended By:

Jon C. Schladweiler
Chief Engineer

Approved By:

George A. Brinsko
Director



DIRECTIVE

WASTEWATER MANAGEMENT DEPARTMENT
PIMA COUNTY GOVERNMENTAL CENTER
TUCSON, ARIZONA 85701
PHONE 782-8876

NUMBER
ENG-D-2
EFFECTIVE
April 8, 1988
SUPERSEDES
ENG-D-2
July 12, 1982

SUBJECT: Standard Pipe Materials for Public Gravity Sanitary Sewer Mains

It is the policy of the Pima County Wastewater Management Department to routinely allow only specific pipe materials to be used for sanitary sewers which are to become a part of the County's sewerage system.

It is the intent of this directive to list the pipe materials which are acceptable for use in constructing public collector and trunk sewers of less than 18" nominal internal diameter. For new systems involving pressure main, gravity pipe with diameters of 18" or greater, conveyance facilities which require structural provisions, and/or for systems that will be conveying sewage with unique characteristics, Pima County Wastewater Management Department reserves the right to specify which materials shall be considered as being viable--on an individual case basis.

Authority

Pima County Ordinances and enabling legislation affecting Wastewater Management and Control.

Procedural Responsibility

The Chief Engineer of PCWMD and/or a designated representative is responsible for the enforcement of this directive.

General Provisions

Materials

The following sewer pipe materials meeting the appropriate ASTM specification(s) are considered acceptable for installation in public sewer systems:

Extra Strength Vitrified Clay Pipe (ESVCP)	C-700 C-425	See Note No. 1 Below
Ductile Iron Pipe (DIP)	A-746	See Note No. 2 Below
Poly Vinyl Chloride Pipe (PVC)	D-3034	See Note No. 3 Below

Notes:

1. The following types of Extra Strength Vitrified Clay Pipe (ESVCP) are acceptable:

- a. ESVCP with bell & spigot
 - b. Plain-end ESVCP pipe utilizing a mechanical compression coupling type joint with an internally positioned shear ring.
2. All DIP shall have internal and external corrosion protection.
 3. The nominal laying length of each full pipe section of PVC pipe shall be 12.5 feet. All such pipe shall be deflection tested, after completion of the final backfill, with a 5.0% maximum deflection allowed. PVC pipe shall have a maximum Standard Dimension Ratio (SDR) of 35 in conformance to ASTM D-2241. Joints shall be bell & spigot type--with elastomeric gaskets, suitable for sanitary sewer service.

General

A "n" factor of 0.013 shall be utilized for the design/sizing of mainline sewers involving all of the above noted pipe materials.

Installation and Testing

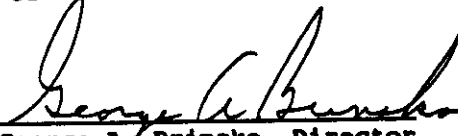
All materials shall be installed and tested in accordance with the then current Pima County Wastewater Standard Details, Specifications and/or Procedures.

Recommended By:

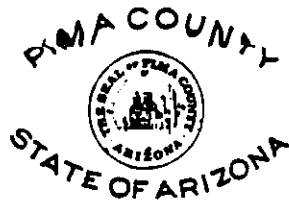

Richard G. Harrington, P.E., R.L.S.
Chief Engineer

May 11, 1988
Date

Approved By:


George A. Brinsko, Director

MAY 17, 1988
Date



DIRECTIVE

NUMBER
ENG-D-3
EFFECTIVE

SUPERSEDES

WASTEWATER MANAGEMENT DEPARTMENT
PIMA COUNTY GOVERNMENTAL CENTER
TUCSON, ARIZONA 85701
PHONE 792-8676

SUBJECT: Standard Details for Public Sanitary Sewerage Facilities

It is the policy of Pima County Wastewater Management Department that all new public sanitary sewerage facilities be constructed/installed in accordance with accepted standard practices. It is the purpose of this Directive to put into effect Standard Details, which shall serve to establish the minimum acceptable engineering standards and procedures by which certain new public sanitary sewerage facilities, or alterations to existing ones, are to be accomplished. New public sanitary sewers and related appurtenances shall be accomplished in full accordance with these details unless otherwise authorized in writing, in advance, by Pima County Wastewater Management.

Authority

Arizona State Regulations, Pima County Ordinances and other enabling legislation which affect the collection, conveyance, treatment and/or control of sanitary sewage.

Procedural Responsibility

The Chief Engineer of Pima County Wastewater Management Department and/or a designated representative is responsible for the enforcement of this Directive and the associated Standard Details.

General Provisions

All new public sanitary sewerage facilities within Pima County shall be planned, designed and constructed in accordance with criteria/standards set forth in Wastewater Management's Manual of Engineering Standards and Procedures. By virtue of this Directive, these Standard Details, and any future additional details or revisions to the existing ones, shall become a part of the aforementioned Manual and thus, placed into full effect.

Recommended By:

Jon C. Schladweiler, P.E.
Chief Engineer

4 May '83
Date

Approved By:

George A. Brinsko, Director

May 5 1983
Date

RESOLUTION 1983- 133

A RESOLUTION OF THE BOARD OF SUPERVISORS OF PIMA COUNTY, ARIZONA, RELATING TO SEWERS; ADOPTING DESIGN STANDARDS AND STANDARD DETAILS FOR DESIGN OF SANITARY SEWER FACILITIES INCORPORATED INTO THE PIMA COUNTY SEWERAGE SYSTEM.

WHEREAS, Pima County is empowered by A.R.S. 11-264 to construct and maintain a sewerage system; and

WHEREAS, it is necessary to establish minimum design standards to be adhered to in the construction plans for facilities which are to be incorporated into the Pima County public sanitary sewerage system; and

WHEREAS, it is necessary to establish standard details to be utilized in the construction plans for facilities which are to be incorporated into the Pima County public sanitary sewerage system;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF SUPERVISORS OF PIMA COUNTY, ARIZONA:

Section 1. That Resolution No. 1978-111, Adoption of Minimum Standards for Design of Sanitary Sewer Facilities Incorporated into the Pima County Sewerage System, is hereby repealed and of no further force and effect.

Section 2. That the document entitled "Pima County, Arizona, Department of Wastewater Management, DESIGN STANDARDS FOR PUBLIC SANITARY SEWERAGE FACILITIES," dated June 1983, attached hereto as Attachment A, is hereby approved and adopted as the minimum standards acceptable for the design of all sanitary sewer facilities which are to be incorporated into the Pima County sewerage system.

Section 3. That the document entitled "Pima County, Arizona, Department of Wastewater Management, STANDARD DETAILS," dated June 1983, attached hereto as Attachment B, is hereby approved and adopted as the standard details acceptable for use in the design of all sanitary sewer facilities which are to be incorporated into the Pima County sewerage system.

Section 4. The Director of the Wastewater Management Department and his designated representatives may allow variances to the Design Standards and Standard Details when strict adherence would less adequately provide for the development, maintenance, efficiency and effectiveness of public sanitary sewerage facilities. The variance shall secure substantially the objectives of the Design Standard or Standard Detail to which the variance is granted. Variances may be allowed when:

- o design slopes less than the Standard minimums would eliminate the need for a pump station;
- o a substitution for or change in a Standard material results in the use of a material which can be clearly demonstrated to be of equal or superior quality;

- o a strict adherence to a Design Standard or Standard Detail would be impractical or impossible because of field conditions such as existing utility facilities or incompatible existing sewerage facilities; or
- o an emergency situation prohibits strict adherence to a Design Standard or Standard Detail.

Any major variances so allowed to the Design Standards or to the Standard Details will be reported to the Board of Supervisors.

ADOPTED AND APPROVED, this 14th day of June, 1983.

PIMA COUNTY BOARD OF SUPERVISORS

By: Sam Luna
Chairman

ATTEST:

Eugenia H. Wells
Clerk, Board of Supervisors

APPROVED AS TO FORM:

Alvin Kritz
Deputy County Attorney

RESOLUTION 1984- 44

A RESOLUTION OF THE BOARD OF SUPERVISORS OF PIMA COUNTY, ARIZONA, RELATING TO SEWERS: ADOPTING PRELIMINARY SEWER LAYOUT REQUIREMENTS AND STANDARD SPECIFICATIONS FOR CONSTRUCTION OF SANITARY SEWER FACILITIES INCORPORATED INTO THE PIMA COUNTY SEWERAGE SYSTEM.

WHEREAS, Pima County is empowered by A.R.S. 11-264 to construct and maintain a sewerage system; and

WHEREAS it is necessary to establish preliminary sewer layout requirements to be adhered to in the preparation of tentative plats and development plans showing sewerage facilities which are to be incorporated into the Pima County public sanitary sewerage system; and

WHEREAS, it is necessary to establish standard specifications to be utilized in the construction of facilities which are to be incorporated into the Pima County public sanitary sewerage system;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF SUPERVISORS OF PIMA COUNTY, ARIZONA:

Section 1. That should conflicts arise between the contents of that certain document entitled "Sanitation Requirements for Rezoning" dated November 5, 1973 and the document entitled "Pima County, Arizona, Department of Wastewater Management Preliminary Sewer Layout Requirements", attached hereto as Attachment A, then the contents of Attachment A shall prevail.

Section 2. That the document entitled "Pima County, Arizona Department of Wastewater Management, Preliminary Sewer Layout Requirements," dated March 1984, attached hereto as Attachment A, is hereby approved and adopted as the preliminary sewer layout requirements for all sanitary sewer facilities which are to be incorporated into the Pima County sewerage system.

Section 3. That the document entitled "Pima County, Arizona, Department of Wastewater Management Standard Specifications," dated March, 1984 attached hereto as Attachment B, is hereby approved and adopted as the standard specifications acceptable for use in the construction of all sanitary sewer facilities which are to be incorporated into the Pima County sewerage system.

Section 4. The Director of the Wastewater Management Department and his designated representatives may allow variances to the Preliminary Sewer Layout Requirements and Standard Specifications when strict adherence would less adequately provide for the development, maintenance, efficiency and effectiveness of public sanitary sewerage facilities. The variance shall secure substantially the objectives of the Preliminary Sewer Layout Requirements or Standard Specifications to which the variance is granted.

Variances may be allowed when:

- o design slopes less than the Standard minimums would eliminate the need for a pump station;
- o a substitution for or change in a Standard material results in the use of a material which can be clearly demonstrated to be of equal or superior quality;
- o a strict adherence to Standard Specifications would be impractical or impossible because of field conditions such as existing utility facilities or incompatible existing sewerage facilities; or
- o an emergency situation prohibits strict adherence to Preliminary Sewer Layout Requirements or Standard Specifications.

Any major variances so allowed to the Preliminary Sewer Layout Requirements or to the Standard Specifications will be reported to the Board of Supervisors.


ADOPTED AND APPROVED, this 20th day of March, 1984.

PIMA COUNTY BOARD OF SUPERVISORS

By: 

Chairman

ATTEST:


Clerk, Board of Supervisors

APPROVED AS TO FORM:


Deputy County Attorney