

**DEVELOPMENT DESIGN
PROCEDURE AND POLICY MANUAL
DWU-RELATED ASSETS**

FULL VERSION



CITY OF DALLAS, TEXAS

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1.0 INTRODUCTION AND PURPOSE

This Development Design Policy Manual is intended to aid the City of Dallas, Developers, and Private Engineers in the management and design of water and wastewater facilities required to serve a proposed development or redevelopment in accordance with established design standards. The guidelines contained in this manual may be used to schedule and coordinate water and wastewater design approval as part of the total development construction schedule. This manual might be used to estimate utility design completion dates and avoid unnecessary delays. These guidelines apply to all projects requiring the submittal of engineering plans and private or joint contracts for acceptance by Dallas Water Utilities under the provisions of Chapter 49 of the Dallas City Code. This manual is specifically referenced in **Chapter 49-61(C)(5)(B)**. It was initially written in 1992 and revised in 2000. General Development is regulated by Chapter 51A of the Dallas City Code. This document contains many of the standard business practices of Dallas Water Utilities (DWU), and the Sustainable Development and Construction Department (SDC).

Water and wastewater design is common to developments designed and constructed within the City of Dallas. After construction, water and wastewater utilities are dedicated to the Dallas Water Utilities for maintenance and ownership. The management of development functions as they relate water and sewer are the responsibility of the Sustainable Development and Construction Department and more specifically the Water and Wastewater Section (W/WW). Projects requiring the construction of water and/or wastewater mains shall be designed in accordance with the guidelines contained in this manual and the following publications:

1. *Dallas Development Guide*. This document is available on line at <http://www.dallascityhall.com/pdf/edd/DevelopmentGuide.pdf>
2. *Dallas City Code – Chapter 49 and 51A*; available online at: http://www.amlegal.com/dallas_tx/
3. *Dallas Water Utilities Drawings, Details and Standard Appurtenances, Latest Edition*; available online at http://www.dallascityhall.com/dwu/dwu_design_standards.html
4. *Standard Specifications for Public Works Construction, October 2004*; available from the North Central Texas Council of Governments, 616 Six Flags Drive, Arlington, Texas. <http://www.nctcog.org/envir/SEEDevEx/pubworks/standards.asp>
5. *City of Dallas Addendum to the Standard Specifications for Public Works Construction, Latest Edition*; available online at: http://www.dallascityhall.com/dwu/dwu_design_standards.html
6. *Dallas Water Utilities Water and Wastewater Procedures and Design Manual, Latest Edition*; available online at: http://www.dallascityhall.com/dwu/dwu_design_standards.html
7. *Dallas Water Utilities Commercial Water/Wastewater Services, Latest Edition*. This booklet may be obtained free of charge from the Permits Section of Dallas Water Utilities, Room 219, 320 E. Jefferson Blvd., Dallas, Texas.
8. *City of Dallas Pavement Cut Manual, Latest Edition*; available online at: http://www.dallascityhall.com/public_works/manuals_construction-standards.html

9. *City of Dallas Paving Design Manual*, Latest Edition; available online at: http://www.dallascityhall.com/public_works/manuals_construction-standards.html
10. *City of Dallas Platting Guidelines for Submission and Processing*, Latest Edition; available online at: <http://www.dallascityhall.com/pdf/planning/PlattingGuidelines.pdf>
11. *Chapter 54 of the Dallas City Code*, Latest publication; available online at: <http://www.dallascityhall.com/pdf/Building/Chap54Plumbing.pdf>
12. *Dallas Water Utilities Standard Protocol for Soil and Groundwater Management on Construction Sites*, Latest Edition, available online at: http://www.dallascityhall.com/dwu/dwu_design_standards.html
13. *DWU Drafting Standards for Water/Wastewater Pipeline Projects Manual*, Latest Edition; available online at: http://www.dallascityhall.com/dwu/dwu_design_standards.html

2.0 DEFINITIONS

The following definitions are general descriptions of what is discussed in this manual. Chapter 49 and 51A also have definitions that might better suit the user of this manual.

ANCILLARY PROCESS Processes not directly related to platting or design review. Processes associated with independent requests from the Developer

APPLICANT A person who makes application to receive a service from the department.

CERTIFICATE OF ACCEPTANCE –formal written approval from the DWU Construction inspector for the assets constructed by the Contractor for acceptance into the DWU systems for maintenance

CHAPTER 49 Section of the City of Dallas Code that refers to the approved rules and Guidelines of Dallas Water Utilities.

CITY CONTRACTS Contracts managed for Design and Construction out of DWU Pipeline Program.

CONTRACT ADMINISTRATOR Coordinator in Water-Wastewater Section of Sustainable Development and Construction Department whose primary role is to facilitate the Private (P) Contract and track information for DWU Capital Service Operations and DWU Financial Service Operations.

CONTRACTOR Construction party paid by Developer primarily responsible for the construction of DWU Related utilities in a project.

COORDINATOR Individual in Water-Wastewater Section of Sustainable Development and Construction Department responsible for carrying out the requested service or process.

CUSTOMER MENU Menu and fees associated with various requests made by outside party of the Water-Wastewater section.

DALLAS WATER UTILITIES (DWU) Primary Water and Wastewater Utility Provider for the City of Dallas.

DEVELOPED Property is “Developed” by modifying the property to lots or tracts of property for further sale, lease, development, or redevelopment for residential, commercial, or industrial uses.

DEVELOPER The owner or agent of the owner platting, replatting, or otherwise developing lots or tracts of property for further sale, lease, development, or redevelopment for residential, commercial, or industrial uses. OR a person who does not otherwise qualify as an individual owner under Chapter 49-1(32).

DEVELOPMENT AGREEMENT Agreement entered into by the City and Private Party. These agreements are primarily executed out of the Economic Development Department in conjunction with the Sustainable Development and Construction Department. They require Dallas City Council Approval and signatures before they become legal policy.

DEVELOPMENT IMPACT REPORT Report written by the Engineer explaining the unique circumstances of a project to Dallas Water Utilities and the Sustainable Development and Construction Department. See Section 3.5

DWU ENGINEERING SERVICES Primary DWU Liaison to Water-Wastewater Section of the Sustainable Development and Construction Department located at 2121 Main Street, Suite 500, Dallas, Texas 75201.

DWU FINANCIAL SERVICES Program within DWU that tracks and audits finances for private development contracts. Upon request, it provides funding information to the Contract Administrator.

DWU WHOLESALE SERVICES Program within DWU Financial Services that works with customer city accounts and coordinates wholesale service agreements, reciprocal agreements and other issues with these parties.

EARLY RELEASE OF BUILDING PERMIT (EBP) Chapter 51A allows a building permit to be released prior to having a recorded plat, which typically saves time for the developer. Review of the Early Building Permit Release Application is done by the Sustainable Development and Construction Department - Engineering Division, Water and Waste Water Section, Paving and Drainage Section, and the Sustainable Development and Construction Department - Real Estate Division. (Note: Other releases may be required. For example, Historical Districts require Landmark Commission Approval.)

ENGINEER The individual who seals the Water and Wastewater Design Drawings for the Developer.

EXTENSIONS An extension of water or wastewater service to a lot, tract or other parcel of land as defined by Chapter 49-60.

EXTRA TERRITORIAL JURISDICTION (ETJ) Per Section 212.001 of the Local Government Code, Extraterritorial jurisdiction is a municipality's extraterritorial jurisdiction as determined under Chapter 42, except that for a municipality that has a population of 5,000 or more and is located in a county bordering the Rio Grande River, "extraterritorial jurisdiction" means the area outside the municipal limits but within five miles of those limits.

"F" CONTRACTS Contracts managed out of DWU Engineering Services-Relocations Section. These typically involve an outside agency or department and the need to improve or adjust DWU existing utilities.

FINAL PLAT A Plat Map that has been approved, has all the required signatures, and is recorded per the *City of Dallas Platting Guideline for Submission & Processing Manual*.

FLAG LOT Long, slender strips of land resembling flag poles which extend from the typically rectangular main sections of these lots, or the "flags", out to the street. These "flags" are usually for street access or for utilities.

HOMEOWNERS EXTENSION Extension of Pipe 100 or less, excluding the street, as referenced in Chapter 49-56(b).

INDUSTRIAL WASTE (Discharge) Wastewater or other water-borne solids, liquids, grease, sand, or gaseous substances resulting from an industrial, manufacturing, or food processing operation, from the operation of a food service establishment, from the development of a natural resource, or from any

other nondomestic source, or any mixture of these substances with water or normal domestic wastewater.

INSPECTOR DWU Pipeline Construction inspector.

“J” CONTRACTS OR JOINT CONTRACTS This is a Design or Construction Contracts where the City is developing a site. J Contracts must follow all the provisions of this manual but staff does not assess fees on “J” contracts nor is reimbursement applicable.

LOT FEE When an individual owner of a property using the water/wastewater system for the first time connects to an existing main which is entitled to DWU participation under Section 49-62, the individual owner shall be charged a lot fee. The fee is assessed per square foot of a lot that is part of a subdivided tract utilizing an existing water/wastewater main.

MUNICIPAL MANAGED DISTRICT (MMD) MMDs are special districts that are self governed, but are approved by the host municipality. Through their fundraising powers they can provide infrastructure and other services within the district according to a district-approved service plan. MMDs can be created, (Ch 375 Local Government Code), through the Texas Commission on Environmental Quality (TCEQ) or by the State Legislature. The MMD does not replace existing city services, but provides supplemental services. They can be dissolved by the City Council, property owner petition, or by a vote of its board. The exact powers of the MMD will be determined by the Dallas City Council on a case-by-case basis.

MUNICIPAL UTILITY DISTRICT (MUD) A district created under Article 16, Section 59 of the Texas Constitution and the Texas Water Code Chapter 54 authorized to engage in the supply of water, conservation, irrigation, drainage, fire fighting, solid waste (garbage) collection and disposal, wastewater (sewage treatment), and recreational facilities within the established boundaries of the MUD.

OFF-SITE EXTENSIONS Offsite water or wastewater main(s) are required to be constructed by a developer in order to adequately serve the proposed development. When a pipe is required to be oversized at the request of the City, the City will participate in the oversize costs per Chapter 49-62(a).

ON-SITE EXTENSIONS The developer must construct all new on-site extensions necessary to adequately serve the development per Chapter 49-62(b). When a pipe is required to be oversized at the request of the City, the City will participate in the oversize costs per Chapter 49-62(a).

OVERSIZE COSTS Refer to “Oversized Main” Definition.

OVERSIZED MAIN Per Chapter 49-62(a), the city will participate in the cost of any oversize main the developer is required to construct, by purchasing the excess capacity in the main at the oversize cost of the main. The director's determination of the size of main necessary to adequately serve the subdivision, and the necessary degree of over-sizing, is final. Oversize cost will be based upon the evaluated cost tables of Section [49-18.11](#) and will be paid after acceptance of the oversize main by the city.

OWNER The legal person who is the Owner of a property being developed or improved.

PARTICIPATE The City of Dallas will participate in the cost of infrastructure per Chapter 49-62 with regard to On-Site Extensions, Off-Site Extensions, and Oversize Mains.

PLAT As defined by Chapter 51A-8.201, a Plat is the graphic presentation of one (1) or more lots or tracts of land, or of a subdivision, re-subdivision, combination or recombination of lots or tracts. It establishes a legal building site and is generally required before a building permit or certificate of occupancy can be issued. Refer to the *City of Dallas Platting Guidelines for Submission and Processing Manual*.

PRELIMINARY PLAT The initial Plat proposed by the applicant, which is reviewed by city staff and presented by staff to the city plan commission for consideration. If the commission determines that approval subject to conditions is appropriate, the subdivision administrator ensures that those conditions are met before the Plat is finalized for endorsement by the commission chair.

PRIVATE DEVELOPMENT CONTRACT (P CONTRACT) A utility Contract where the City of Dallas holds the contract and the bonds, the contractor builds the project, and the Developer pays the contractor. The Contract Administrator manages the P Contracts. (Refer to Chapter 51A-8.612)

PRIVATE METER Meter located on private property used typically for sub-metering Capacity. These meters are inspected by DWU and are maintained by the owner. More information on private meters is available in the *Dallas Water Utilities Water and Wastewater Procedures and Design Manual*.

PRIVATE PLUMBING Any utility conduit not owned by the City of Dallas. Typical examples include plumbing from the water meter, wastewater cleanout, or property line to the building that serves the property.

PROGRAMMED EXTENSION Project or pipeline identified by Dallas Water utilities for replacement in its Capital Program Division. These are designed and constructed by DWU through an F Contract. This is typically represented by a Project Identification (PID) number on DWU WebGIS system. There may be thousands of planned DWU program extensions.

PROJECT SITE Project area being developed.

PROJECT SITE PERIMETER The project limits of the development.

REAL ESTATE SERVICES (RES) A Division within the Sustainable Development and Construction (SDC) Department that is responsible for processing easement dedications, city owned property abandonments, license agreements, and other property related functions for city owned property.

RECORDED REPLAT One or more properties being divided into two or more lots, two or more lots being combined into one lot, or to modify existing boundaries of existing lots. In the case of a re-plat the plat document will show the new property lines.

REIMBURSEMENT Payment made to developer where the project has applicable participation , has been completed by Contractor, and approved by DWU Inspector.

S-CONTRACT A method where by residential water and/or wastewater services are installed prior to obtaining a building permit. By this method, vacant lots can have service lines installed before Water or Wastewater permits are obtained.

SITE PLAN A preliminary exhibit designating the existing and proposed water, wastewater, and storm drain pipes with all existing and proposed dedications and easements, street locations, building locations, and other information as defined by Section 4.2 of this Manual and per Chapter 49-60 (c) & (d)) of City Code.

SUBDIVISION COORDINATOR Coordinator in the Sustainable Development and Construction (SDC) Department primarily responsible for approving preliminary and final plats for water utilities.

SUSTAINABLE DEVELOPMENT AND CONSTRUCTION (SDC) Department in the City of Dallas primarily responsible for assisting developers through the city approved development process and enforcing various Chapter 51A and 46 regulations concerning private developments.

SUSTAINABLE DEVELOPMENT WATER / WASTEWATER PLAN REVIEW CHECK LIST Checklist to be followed and submitted with engineering plans for water and wastewater design. (See Form 11.4)

TAKE AREA Area near the banks of Lake Ray Hubbard owned by the City of Dallas but leased to the adjacent Cities.

WATER-WASTEWATER SECTION (W/WW) Group whose role is to enforce the standards of both Dallas Water Utilities and City of Dallas Sustainable Development and Construction Department. This group includes several coordinators and the Contract Administrator.

3.0 **GENERAL DESIGN AND PROCEDURAL REQUIREMENTS**

3.1 **GENERAL DESIGN REQUIREMENTS**

The following are the general rules for water and wastewater pipeline design:

- Development projects shall be presented as either 1"=20' or 1"=40' horizontal scale.
- All Profiles of Development projects shall be presented at a 1"=6' vertical scale.
- Drafting of the design plans shall meet the standard of the *DWU Drafting Standards for Water/Wastewater Pipeline Projects Manual*, Latest Edition.
- Appurtenance callouts must reference drawings in the *Dallas Water Utilities Drawings - Details and Standard Appurtenances Manual*, Latest Edition.
- Coordinator and Engineer shall use checklists located in Form 11.4 of the appendix to ensure that basic design criteria are followed.
- A City contract reference number will be assigned during the review process.
- GIS Files and documents are available upon request and approval of DWU Engineering Services. This information can be valuable when doing preliminary design and in the creation of a Development Impact Report (Section 3.5). These requests typically take 5 business days to fulfill.

3.2 **GENERAL WATER DESIGN GUIDELINES**

Water Utilities designed in conjunction with a development must abide by the guidelines in the *DWU Water/Wastewater Procedures and Design Manual*, Latest Edition, Chapter 2. This includes standards for materials, sizing, depth, placement, horizontal alignment, vertical alignment, etc. The *DWU Standard Drawings and Drafting Design Manual* has submittal plan requirements for drafting standards, drawing configuration, unit, color, style and weight guidelines, level management, plot configuration, drafting library resources, tables, and figures. DWU reserves the right to review and approve all utility plans but generally defers this approval to the Sustainable Development and Construction (SDC) Department. All facilities such as pump stations, tanks, and other water infrastructure that may serve other properties shall be reviewed and approved by DWU Engineering Services.

The Coordinator must check DWU WebGIS for any potential environmental issues that might occur on the project. The Engineer must verify all available resources to ensure that contaminated soil will not impact the proposed DWU Water Pipeline. All utilities constructed in known contaminated soil zones must be coordinated with DWU Engineering Services and follow the *DWU Standard Protocol for Soil and Groundwater Management on Construction Site*, Latest Edition. The Developer may be required to request Ancillary Processes (Refer to Section 7) before the design plans are approved.

More advanced or complicated designs may require coordination between the Developer, Sustainable Development and Construction (SDC), and DWU Engineering Services. DWU Engineering Services may request a Development Impact Report (Refer to Section 3.5) from the developer when a project requires additional analysis.

The burden of proof for assessing functionality and the feasibility of water to serve the project is the responsibility of the Developer per Chapter 49-60.c.1. Some land in Dallas is more difficult to service with water utilities than other land. Any required hydraulic modeling is the responsibility of the Developer.

3.3 GENERAL WASTEWATER DESIGN GUIDELINES

Wastewater Utilities designed in conjunction with a Development must abide by the guidelines in the *DWU Water/Wastewater Procedures and Design Manual, Latest Edition*, Chapter 3. This includes standards for materials, sizing, horizontal alignment, vertical alignment depth, placement, etc. The *DWU Standard Drawings and Drafting Design Manual* has submittal plan requirements for drafting standards, drawing configuration, unit, color, style and weight guidelines, level management, plot configuration, drafting library resources, tables, and figures. DWU reserves the right to review and approve all utility plans, but generally defers this approval to the Sustainable Development and Construction (SDC) Department. All facilities such as Lift Stations, Force Mains, and other wastewater infrastructure that may serve other properties shall be reviewed and approved by DWU Engineering Services.

The Coordinator must check DWU WebGIS for any potential environmental issues that might occur on the project. The Engineer must check all available resources to ensure that contaminated soil will not impact the proposed DWU Wastewater Pipeline. All utilities constructed in known contaminated soil zones must be coordinated with DWU Engineering Services and follow the *DWU Standard Protocol for Soil and Groundwater Management on Construction Sites, Latest Edition*. The Developer may be required to request Ancillary Processes (Refer to Section 7) before the design plans are approved.

Pipeline Size or Capacity reductions for gray water and re-use systems as referenced in the Dallas City Code addendum to the 2006 International Plumbing Code (Chapter 54) will be reviewed on a case-by-case basis by DWU Engineering Services.

More advanced or complicated designs may require coordination between the Developer, the Sustainable Development and Construction (SDC) Department, and DWU Engineering Services. DWU Engineering Services may request a Development Impact Report when a project requires additional analysis (Refer to Section 3.5).

The burden of proof for assessing functionality and the feasibility of wastewater capacity to serve the project is the responsibility of the Developer per Chapter 49-60.c.1. Some land in Dallas is more difficult to service with wastewater utilities than other land. Any required hydraulic modeling is the responsibility of the Developer.

3.3.1 Minimum Allowable Wastewater Pipe Size

Gravity wastewater lines must be able to handle not only the calculated demand produced by the surrounding community in the sewer shed, they must also handle peak flows created due to rainfall, unusual circumstances, and unexplained discharges. For this reason, when designing a new wastewater line, consideration is given to Peaking Factors as shown in Table 3.4.2.2 (page 3-8 of the *Water and Wastewater Pipeline Design Manual, Latest Edition*.)

According to the Texas Commission on Environmental Quality (TCEQ), gravity wastewater lines are designed using Manning's equation with a Minimum Velocity of 2 feet per second and a Maximum Velocity of 10 feet per second, when the pipe is flowing full. However, when a pipe is flowing full, there is no additional capacity for rainfall, unusual circumstances, or unexplained discharges. More importantly, there is no additional capacity for system growth; therefore, gravity wastewater lines shall be sized in the following manner:

The Wastewater Demands (Flows) will be based on the criteria shown in Paragraph 3.4.3 *Sizing Criteria* of the *Water and Wastewater Pipeline Design Manual, Latest Edition*. This criteria defines the Average Daily Flow for various types of uses within the City.

Once the Average Daily Flows have been established, a Peaking Factor shown in Table 3.4.2.2 *Wastewater Peaking Factor* of the *Water and Wastewater Pipeline Design Manual, Latest Edition*, shall be applied. If there is known metering data for a particular basin, the peaking factor may be evaluated for consistency with known metered flows.

Pipe Sizing will then be determined using the velocity and sizing constraints set in section 3.4.3 of the *Water and Wastewater Procedures and Design Manual, Latest Edition*.

Except in unusual situations, all gravity flow calculations shall be based on Manning's Formula. Per Chapter 217 of the Texas Commission on Environmental Quality (§217.53 (l)(2)(A)(i)), all Manning's "n" shall be 0.013.

3.4 GENERAL RE-USE WATER DESIGN GUIDELINES

Bringing DWU re-use water to a site may be an option for some developers located in the vicinity of specific infrastructure. Chapter 4 of the *DWU Water & Wastewater Procedures and Design Manual* covers the basic guidelines for designing a re-use system to a site. The Engineer is encouraged to meet with DWU Engineering Services to discuss re-use early in the process of design and development to ensure the feasibility of specific re-use options. The Engineer is expected to fill out Forms WeC2, WE_Water Use Reduction, WEc1_Water Efficiency. These are related to the City's green building program and are on line at <http://www.dallascityhall.com/html/FormsDept.html#Engineering> DWU cannot be responsible for the feasibility or availability of re-use water should the Developer not meet with DWU Engineering Services early in the design and development process.

For on-site private plumbing, Chapter 54 of the Dallas City Code Appendix C contains further reclaimed and gray water system guidelines that must be followed by the Developer.

3.5 DEVELOPMENT IMPACT REPORT

A Development Impact Report (DIR) is required when the proposed development:

- Is over 250 acres, OR
- Requires approximately 1 million gallons of water per day (MGD) (or more) at build out, OR
- Requires construction of over 5000 LF of water pipe, OR
- Requires over 2000 gallons per minute at any time during any 24-hour period, OR
- Requires construction of a municipal (not private) water tank, OR
- Impacts DWU programmed extensions, OR
- Requires construction of a pump station, OR
- Requires over 0.75 million gallons of downstream wastewater capacity per day at build out, OR
- Is proposing the construction of a wastewater treatment plant, OR
- Is proposing a process that will require pre-treatment
- Requires construction of a public lift station to be maintained by DWU, OR
- Will have a Development Agreement that will include specific provisions for water or wastewater water utilities.

The requirements of a Development Impact Report (DIR) are shown in 11.1 of the Appendix. One report can provide information on an entire piece of property, including additional phases. The

Developer should note that this final report must have a Texas Licensed Engineer's Seal on it. This report may require occasional updates if the project planning lasts over 2 years. When required, the DIR must be submitted before the preliminary plat has been filed so that DWU and the Water Waste Water Coordinator can have adequate time to review it and plan accordingly.

3.6 DESIGN AND UTILITY COORDINATION

Water, wastewater, storm drain, and other utility locations shall be included in the plan view of the design. Profile views of these utilities shall be included in the water and wastewater design profiles whenever they parallel the proposed water and wastewater main. One approved set of paving and drainage plans shall be forwarded to Water / Wastewater Section by the Developer. If Dallas Water Utilities does not have a Private Development Contract working on that specific area, the Water / Wastewater Section will review the plans to insure no conflicts exist prior to issuing a paving release. It is the responsibility of the Developer to resolve any conflicts and coordinate with all applicable departments within the City of Dallas.

Other projects reviewed by Sustainable Development and Construction (SDC) Department may be initiated by the Developer to meet Building Inspection permit requirements or Industrial Waste Control requirements. The procedures involved in obtaining Dallas Water Utilities Department approval are similar for all types of developments and are described in the following sections of this manual.

The Sustainable Development and Construction (SDC) personnel will utilize DWU WebGIS database to understand existing DWU projects in the area surrounding the Development project. Contact will be made with the DWU Relocations Section Manager in DWU Engineering Services for assistance on private projects that may impact interagency (TXDOT, DART, Dallas County, Public Works) projects. The Developer may be required to request Ancillary Processes (Refer to Section 7) before the design plans are approved.

Utility Coordination must include reviewing existing DWU and Public Works projects in the area to avoid any potential issues in the field during construction.

3.7 DESIGN AND UTILITY COORDINATION OUTSIDE OR BORDERING DALLAS

3.7.1 Dallas Extra Territorial Jurisdiction (ETJ)

The Dallas ETJ is defined as the area five miles outside of the Dallas Corporate Limits as clarified in §42.021 of the Texas Local Government Code. Where the proposed utility is in the Dallas ETJ, and not part of any existing utility purveyor, Dallas reserves the right to review and approve plans for these areas. When requested, the Sustainable Development and Construction (SDC) Department will review plans for an ETJ Development Project per *DWU Standards and City of Dallas Standards* as stated in Sections 3.2, 3.3, and 3.4 of this manual.

3.7.2 Outside Utility Providers

Within the City of Dallas there are customers that connect to a non-DWU owned utility system. DWU has multiple water connections to other utility purveyors for water through emergency interconnections. Portions of the Dallas wastewater system flow to Garland and Trinity River Authority (TRA) on the East and West sides of town. These specific areas of the City may require special attention and correspondence with DWU Wholesale Services. When a project is designed in these areas, it is preferred that the Sustainable Development and Construction (SDC) Department's personnel contact the Manager of DWU Wholesale services to ensure existing agreements are in place and valid for the

proposed design. The Developer must be aware of the additional design issues and time constraints related to projects in these areas. Review of the plans, street cuts, “Points of entry” (POE), and other features of the design may need to be approved by the adjacent utility provider before any plans are released by the Sustainable Development and Construction (SDC) Department.

3.7.3 Developments Near Lake Ray Hubbard

The City of Dallas owns property around lakes and creeks that are used to supply water to DWU for treatment and eventually consumption. When the City was acquiring this property, it was referred to as a “Take Area” boundary. Coordination of proposed projects that impact City of Dallas property or “Take Areas” require the Developer to meet with DWU Engineering Services, the DWU Reservoir Manager, and Public Works Survey. These meetings are to clarify the extent of the project and the affect it might have on the property. These types of projects will also entail understanding the existing inter-local agreements with these cities as well as any Lake Master Plans or studies. The Developer is encouraged to set up a meeting with DWU Engineering Services four-months prior to construction.

The following documents are required of the Developer:

- Field Notes for requested easements
 - Must be approved prior to construction.
 - See Section 6.5.
- 30%-60% utility design plans.
 - showing location of pipeline or other infrastructure in the Take Area.
- Project Timeline.

Other documents and funds will be required by Real Estate Services as easements are being processed. When a project requires storm water pipe to outfall to a Lake, DWU Engineering Services will review the need for storm water pollutant removal system(s) to be installed to prevent polluted water from harming the Lake. Aerial Easements are required where bridges or other structures cross over the lake requiring the information shown in Section 6.1.6 of this Manual.

3.8 ENVIRONMENTAL ISSUES ON PROJECT SITES

All public water or wastewater utilities proposed for construction in known contaminated soil zones must be coordinated with Sustainable Development and Construction (SDC) Water / Wastewater Section. The *Dallas Water Utilities Standard Protocol for Soil and Groundwater Management on Construction Sites Manual, Latest Edition*, should be used as the general guideline for designing and placing water and / or wastewater lines in environmentally compromised zones. DWU reserves the right to review all Phase 1, Phase 2, and other environmental research for project sites. Additionally, all utilities placed in abandoned landfills will require special coordination and extensive analysis by the Developer, DWU Engineering Services, the Sustainable Development and Construction (SDC) Department, and, possibly DWU Environmental Consultant(s). **The burden of proof for assessing the safety of the water or wastewater lines designed to serve a development is the responsibility of the Developer.** Closure and compliance with TCEQ rules and regulations does not imply that the City of Dallas utilities can be installed without additional requirements including possible removal of contaminated soils in the path of the water utility pipeline or the installation of special manholes, embedments, or other appurtenances designed to insure the safety of the public.

4.0 PRIVATE DESIGN AND CONSTRUCTION CONTRACTS

4.1 PLAT REVIEW, APPROVAL, AND RELEASE PROCEDURES

There are generally two types of plats that relate to Future DWU Water or Wastewater Utilities:

- Plats that require Private Contracts for Public Water or Wastewater Utilities.
- Plats that do not require Private Contracts for Utilities (Dud Plats).

Chapter 49-60 of the Dallas City Code set the provisions of water and wastewater extensions by Developers. No extension is allowed without a Plat unless a parcel/lot has already been platted, the plat has been released for filing by the Director and given approval by the City Planning Commission, or the plat has been filed for record in the plat records of the county. The following section provides the general guidelines for the Sustainable Development and Construction (SDC) Personnel with regard to plat review, approval, and release. The plat review process is clearly explained in the *City of Dallas Platting Guidelines for Submission and Processing, latest Edition*.

4.2 GENERAL PROCEDURAL REQUIREMENTS - PRELIMINARY PLAT

For land to be platted, the Sustainable Development and Construction Department (SDC) must release the final plat. Before releasing the final plat, DWU must ensure that the provisions of Chapter 49 and related policies are met. The following section reviews the requirements to acquire the release of a plat through the Water / Wastewater Section of Sustainable Development and Construction (SDC). Chart 4A depicts the general project review process with regard to public water and/or wastewater assets.

A preliminary site plan showing the location and size of all mains and appurtenances necessary to serve the proposed development shall be presented to the Sustainable Development and Construction - Water and Wastewater Coordinator for comments prior to the submittal of preliminary plans (City of Dallas Chapter 49-60 (c) & (d)). Major design changes and project delays can be avoided by the preparation and submittal of the preliminary site plan. Site plans shall include information concerning the project that may influence water or wastewater design concepts. The following information shall be included in the **Site Plan**:

1. The location and size of all existing water and wastewater facilities, including valves and fire hydrants, within 200' of the proposed development boundary as defined on the Plat map. This includes pipe materials, sizes, and appurtenances.
2. The location and size of all proposed water and wastewater facilities, including valves and fire hydrants necessary to serve the proposed development.
3. The locations of dedications or public easements, proposed or existing, which are necessary for the laying of all mains and appurtenances.
4. All layouts and designs for proposed mains and appurtenances, whether preliminary or final, must be strictly in accordance with the *Water and Wastewater Design Manual*, current edition. The Director may refuse to release any plat for approval by the City Plan Commission where the criteria of this manual are not met.
5. "As-built" locations of the existing mains, which may be obtained from DWU Utility Automation and Integration (UAI) or the DWU Vault.

6. Existing and proposed contour lines, streets, alleys, sidewalks, driveways, property lines, parking areas, traffic islands, building location, landscaping and neighboring developments should be shown.
7. High-density developments and multifamily complexes should be clearly labeled with the number of units for each building.
8. Finished floor elevations and estimated service demands, including fire protection requirements, should be labeled.

Once all of the necessary information has been determined and presented on the Site Plan, an appointment may be scheduled with the Sustainable Development and Construction Water / Wastewater Coordinator to discuss the project.

Section 3.5 provides the criteria as to when a Development Impact Report is required.

When water and/or wastewater mains are to be constructed, they shall extend the entire length of the property to be platted or developed regardless of the location of the water and/or wastewater services. This will ensure the neighboring properties can extend these mains when required. The only exception will be if surrounding property cannot be served by the extension of these mains, then the mains can end after the services. This will be determined by the Sustainable Development and Construction Water / Wastewater Coordinator.

The Engineer must coordinate the locations of proposed water and wastewater facilities with other utility companies using Form 12.16: Standard Utility Location Letters. Letters shall be sent to these companies and be submitted to Sustainable Development with the Preliminary Engineering Plans.

At the time the Developer is prepared to submit preliminary engineering utility plans for review by Sustainable Development and Construction, the Application Form 11.29: Permit To Discharge To The Sanitary Sewer shall be completed and submitted with two (2) sets of the design plans and one print of the plat, if applicable. The application forms are available from the Sustainable Development and Construction Water / Wastewater Section. The required review fees, per Form 11.5: Customer Fee Table, should also be submitted at this time. The Design Review fee will entitle the Engineer to two reviews; should additional reviews be necessary, the fees will be due each time the plans are re-submitted. Provided there are no additional City comments on the third design submittal, there will be no charge for the third review. Final water and wastewater design tracings must be signed and sealed by the Engineer when submitted.

Each submittal will be reviewed and returned to the Developer with suggestions and comments regarding conformity to departmental design and drafting standards. If any changes are made to the plans other than those noted on the check prints, the Developer should identify the changes at the time they are resubmitted. All check prints must be returned with the new designs. If the Coordinator has not heard or received correspondence from the Developer for a period of one year, the project will be terminated. The Fire Protection Coordination Certificate (Form 11.37) as provided by the Fire Department shall be included with the reviewed plans (see Section 7.2 for more information). The Developer shall present the proposed water main designs to Building Inspection and the Fire Department for approval regarding fire protection requirements. The completed certificate shall be returned to the Sustainable Development and Construction Water / Wastewater Section with the design plans for review. Design fees are included in Form 11.5: Customer Fee Table.

Fire protection for subdivisions and new developments is an integral part of the design plans for water services. It is important and required that the Developer coordinate water design plans with Building Inspection and the Fire Department. Building Inspection coordination and review shall be accomplished prior to the second submittal with the Water & Wastewater Section of Sustainable Development. Contact Building Inspection, Room 105, 320 E. Jefferson Blvd., Telephone (214) 948-4480. The Developer is required to submit Architectural and Engineering plans to Building Inspection for review on any project that is to be permitted.

4.3 PLAT APPROVAL

For land to be platted, all applicable departments must release the plat to be recorded. Applicable departments are those affected by the plat and the proposed future city owned infrastructure. In most cases this means, Public Works and Dallas Water Utilities. Before releasing the plat, each respective department must insure the requirements for development, as outlined in city codes, are met. For the DWU Department, these requirements are outlined in City Code Chapter 49 and 51A. The Coordinator will review and sign as the final approval authority for DWU.

Most projects reviewed by Sustainable Development are initiated after a Developer files a preliminary plat. The Sustainable Development and Construction Water / Wastewater Section will respond to the preliminary plat in the following fashion:

1. **“OK TO FILE FINAL PLAT FOR RECORD WITHOUT FURTHER CLEARANCE FROM THIS OFFICE.”**
 - A) This reply indicates that existing water and wastewater facilities are available to the property and that fire hydrant spacing appears to be adequate. This does not necessarily mean the mains will be of adequate size and capacity to serve the proposed development or that there is adequate fire protection. It is the responsibility of the applicant Developer to conform to the Fire Codes for fire hydrant protection.

2. **“DO NOT RELEASE FINAL PLAT FOR FILING FOR RECORD UNTIL CLEARED BY THIS OFFICE.”**
 - A) This reply usually requires the Developer to provide a site plan or other information as requested on the plat comment sheet for the proposed development to Sustainable Development and Construction (SDC) Department to determine if construction of water and/or wastewater facilities will be required.

3. **“DEVELOPER SHALL FURNISH PLANS FOR WATER AND WASTEWATER. DEVELOPER SHALL FURNISH A CONTRACT FOR WATER AND WASTEWATER.”**
 - A) This typically requires at least one of the following:
 - i. Water and/or wastewater designs need to be prepared and sealed by a State of Texas Licensed Professional Engineer.
 - ii. Dedicated easements or other rights-of-ways approvals are required to construct the proposed facilities.
 - iii. Private development contracts must be approved by the City of Dallas for the construction of the proposed public facilities.
 - iv. A Trench Safety plan must be created.

Easements to be dedicated by plat will not be accepted by Sustainable Development and Construction (SDC) until the recorded final plat has been received. (Section 6.0) However, the Developer may wish to submit an Early Start Letter (Form 11.13: Early Start Construction Request) with the Private Development Contract to the Contract Administrator in order to begin Construction. The Early Start Letter may be obtained from the Sustainable Development and Construction Contract Administrator as part of the contract package. Be advised that the water and/or wastewater mains constructed as a part of a Development will not be accepted by Pipeline Inspection and paving releases will not be issued until the recorded final plat and a payment affidavit(s) have been received. The Early Start Letter applies only to those easements to be dedicated by plat. Any other right-of-way approvals or easements, such as those issued by Separate Instrument must be executed prior to the release of the plans for construction. The Early Start Letter does not allow the contractor to initiate work on the project before the construction plans are signed by the Sustainable Development and Construction Engineering Department Manager.

The owner/developer may apply for an Early Building Permit Release through the Subdivision Administrator in the Sustainable Development and Construction Planning Department (Room # 115) prior to the completion of the platting process. Sustainable Development and Construction (SDC) Department may approve the release of the permits subject to the following conditions:

- Water and/or wastewater design plans have been submitted, reviewed and Approved and the Developer is aware of all design and construction obligations.
- No additional off-site easements or right-of-way approvals are needed in order to accomplish construction obligations.
- A Private Development Contract has been submitted.

If a request for early release of the building permit has been denied by the Sustainable Development and Construction (SDC) Department, and the above requirements are subsequently fulfilled, the Early Release request may be resubmitted by the Developer (Section 4.5.2)

Dallas Water Utilities reserves the right to recommend withdrawal of the Early Building Permit if there is indication the construction and design will not be completed.

4.4 PLAT RELEASE PROCESS

When all necessary easements, private contracts, and completed water and/or wastewater plans have been approved by Dallas Water Utilities, a written release to the SCD Planning Department will be forwarded to the Sustainable Development and Construction Water / Wastewater Section. This action will allow the final plat to be filed subject to release of other City Departments. After the final plat has been recorded at the County, the Subdivision Administrator will forward one copy to the Water / Wastewater Section of Sustainable Development and Construction Department (SDC). The recorded plat will then be checked against the Engineer's water and wastewater plans. The Engineer will be notified of any required corrections to the plans. Dallas Water Utilities Pipeline Inspection will not issue a final acceptance to either a water, wastewater, or water and wastewater contract or any paving releases until the recorded plat has been received and accepted by the Sustainable Development and Construction (SDC) Department, Water / Wastewater Section.

The water and wastewater design plans will be processed for construction when plans have been received and all of the applicable items listed below have been accepted:

- Right-of-way approvals, easements, flood releases or covenants have been executed and forwarded to Sustainable Development and Construction (SDC) Department for posting on the plans.
- The recorded final plat or Early Start Letter has been forwarded to the Sustainable Development and Construction (SDC) Department.
- The Sustainable Development and Construction (SDC) Water / Wastewater Section has been notified that valid contracts and trench safety plans have been accepted.
- Letters of utility coordination have been received from the Developer.

Once the approved plans are ready to be processed, approximately eight working days are required before the utility contractor can begin construction. The following steps are required of the Developer for the project to move forward to construction:

- All easements and proposed future rights-of-ways is shown on the design plans.
- The early start letter, if applicable, is accepted.
- Sustainable Development and Construction Engineering Department Manager signs the plans.
- Prints are provided by the Developer's selected print-shop to the Sustainable Development and Construction Water / Wastewater Section.
- The Contract Administrator then:
 - Prepares description sheets and items eligible for reimbursement.
 - Distributes plans for construction. (18 sets)
 - Provides the owner a written notice to proceed with construction. (Form 12.15: Notice to Proceed)
- Contractor Notifies DWU Inspection of the start of the project by requesting an inspector. (Form 11.20: Request for Inspector)

ALL PRINTS WILL BE FURNISHED BY DEVELOPER

The breakdown of plan distribution for the prints is listed below:

SETS	DESIGNATED FOR
3	Pipeline Inspection Division – DWU
3	Contractor
2	Utility Automation and Integration (Mapping) DWU
4	Water Distribution – DWU
1	Wastewater Collection – Operations Support
1	Meter Repair and Inspection
1	Test / Chlorination – DWU
1	Fire Department
1	Wastewater Collection Technical Services
1	Sustainable Development Department
18	TOTAL

After the release of the plans for construction, the contractor shall notify Pipeline Inspection for the assignment of an inspector for the project using Form 11.20: Request for Inspector. Two working days are required. (See Section 4.7.2 for more details on this process)

All construction staking is the responsibility of the developer. The Surveyor must turn in cut sheets, Form 11.25: Standard Construction Staking Sheet. The standards for constructions staking are shown in 105.4.2.COD of the *City of Dallas NCTCOG Addendum, Latest Edition*.

Construction shall be in accordance with the accepted plans and the *North Central Texas Council of Governments – Standard Specifications for Public Works Construction (current edition), Dallas Water Utilities Addendum to the Standard Specifications and Dallas Water Utilities Standard Drawings, Latest Edition, Details and Appurtenances for Water and Wastewater Construction Methods, Latest Edition*. The owner shall not reduce any contract item without the approval of the Contract Administrator. Estimated payments to the Developer and fees due to the City of Dallas are calculated from the accepted plans. Written notification is sent to the Developer by the Contract Administrator listing these fees. Net fees due to the City of Dallas shall be paid to Dallas Water Utilities at the Sustainable Development and Construction Contract Administrator's office prior to the connection of any services.

The following procedures apply to any revision of the plans after initial release of the plans for construction:

1. The original mylars are "checked-out" from Dallas Water Utilities Vault or new mylars are submitted showing the revisions.
2. The necessary revisions are noted on the plans with a new approval note and stamped and signed by a licensed Engineer.
3. The original plans may then be submitted to the Sustainable Development and Construction (SDC) Department with one set of prints marked to show all changes from initially accepted designs. A fee is required for each design revision required after construction has begun. These fees are located on
4. Any modifications to proposed easements or other right-of-way approvals will be initiated during the plan review by Sustainable Development and Construction (SDC) Department, but the plans will not be accepted by the Sustainable Development and Construction (SDC) Department Water / Wastewater Coordinator until acquisition by the City's Real Estate Division.
5. The revision will be accepted by the Sustainable Development and Construction (SDC) Department Water / Wastewater Coordinator and the tracings will then be sent to the Developer's printer for 18 bound sets.
6. The Contract Administrator releases the revision to construction and distributes the plans per the plan distribution table in Section 4.4.
7. No work described on the revision will be authorized until DWU Mapping Section and DWU Pipeline Inspection receive the accepted revised plans.

In accordance with Section 6 of the Private Development Contract (Form 11.14: Standard Private Contract), the Developer will furnish an affidavit (notarized statement) to the City of Dallas that the Developer has made final payment(s) to the Contractor(s).

After acceptance of all water and wastewater construction, Pipeline Inspection will issue a summary report to the Sustainable Development and Construction Contract Administrator on refundable mains only, listing all bid items eligible for refunds and quantities of these items that were used during construction. The estimated payments to the Developer will then be calculated based on the report of the bid items eligible for refund. The new water and/or wastewater mains will not be accepted by the City unless the final plat (if applicable) has been recorded and accepted by Sustainable Development and Construction (SDC) Department's Water / Wastewater Section.

Water and Wastewater Private Development Review Process

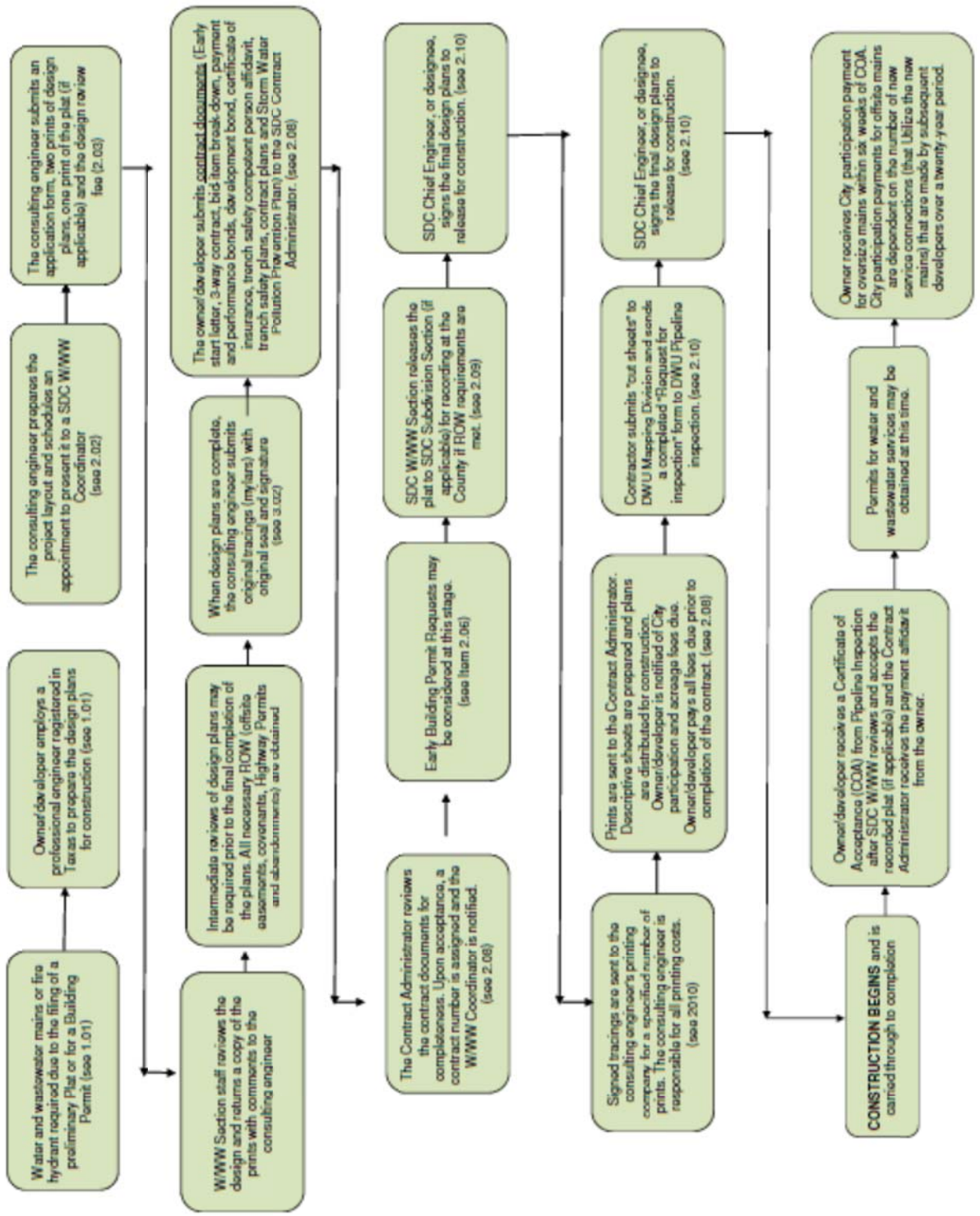


CHART 4A

4.5 RELEASES

The process of releasing plats and permits is a function of the Sustainable Development and Construction (SDC) Department's Water / Wastewater Coordinator. The following describes the general practices of the Coordinator as they work within the existing City of Dallas protocols for plat or building permit releases.

4.5.1 Plan Release

Water and Wastewater Utility Design Plans are released when they have met the provisions of Section 4.4 of this manual and all applicable DWU design standards. Sustainable Development and Construction approves the release of the majority of DWU related Engineering Plans. When DWU Engineering Services is involved, a memo is issued to the Sustainable Development and Construction Coordinator stating that plans have been approved by DWU. (See Form 12.11: Approved Plans Memo (From DWU))

4.5.2 Early Building Permit Release Process

The following is the general process for release of an early building permit application by the Water / Wastewater Section.

1. Coordinator receives request for Early Building Permit Release.
2. Coordinator pulls corresponding plat from Oak Cliff Municipal Center plat files.
3. Coordinator determines plat status.
 - A. Final Plat has been released for recording.
 1. Research for finished floor elevations and release Early Building Permit.
 - B. Final Plat has not been released.
 1. P Contract Not needed.
 - Plat issues need to be resolved before Early Building Permit can be released.
 - Finish floor elevations need to be resolved.
 2. P Contract needed.
 - A second review of engineering plans must be submitted.
 - Major issues from review need to be resolved.
 - Finished floor elevation must be provided.
 - No backflow release is needed.
 - No off-site easements are needed.
 - No permit approvals are needed.
 - Relocation shall begin on mains which are under proposed structures.
 - No capacity issues exist.
 - P-Contract has been submitted.
4. Mark "**Release**" or "**Do Not Release**" on Early Building Permit Release Form.
5. Record Response on Plat and on Early Building Permit Log.
6. Return Early Building Permit Release to Planning Division, Subdivision Section (Room #115).

4.5.3 Plat Release (No Private Contract)-Type A

A Private (P) Contract is not necessary for all plats. Services can be installed “by permit”. A P-Contract is typically not required when the following provisions apply to the property being platted:

- Standard water/wastewater mains, which are of adequate capacity and condition for service, are available for connection to each lot.
- No main extensions or fire hydrants are needed with the development.
- No paving on the adjacent street, alley, or offsite is required where current DWU mains exist.

The following verification and release process is followed where the provisions above apply:

1. A letter requesting confirmation from owner of service installation by contractor is sent to the Owner, Developer, or Surveyor by the Coordinator.
2. The Developer sends a letter to the Coordinator confirming that services will be installed by a bonded contractor.
3. Where multiple flag lots are platted, a site layout showing location of proposed services, curbs, driveways is required to determine the best location for water meters and wastewater laterals.
4. Preliminary Plat is released for final plat.
5. A copy of the preliminary plat and letter from Developer to construct services by permit is sent to the Permit Supervisor by the Coordinator.

In Cases where a Private Contract is required, the Developer must follow the provisions of Section 4.6 below.

4.5.4 Plat Release (No Private Contract)-Type B

A Second Situation where a plat can be released without private contract is when there is a:

1. Paving only project.
2. Drainage only project.
3. Paving and drainage only project.

These projects come to the Sustainable Development and Construction Water / Wastewater Section out of the Paving / Drainage Section of the Sustainable Development and Construction Engineering Division. The following verification and release process is followed on paving-drainage only type projects:

1. The Paving / Drainage Section submits plans to the Sustainable Development and Construction Water / Wastewater Section.
2. Plans are reviewed by the Coordinator for Conflicts with future projects or existing utilities.
3. Correspondence is sent to the Developer noting the review.
 - i. A copy is sent to the Paving / Drainage Program Manager.

In Cases where a Private Contract is required the Developer must work with the Contract Administrator to follow the provisions of Section 4.6 below.

Note: Before completion of DWU utility design plans, the project is typically referred to by its City Plan Number, (such as S978-300). This is also known as the plat or “re-plat” number. This number is assigned by the Subdivision Coordinator.

4.6 PRIVATE UTILITY CONTRACT PROCESS AND PROCEDURES

Upon completion and City approval of the design plans, the Developer may enter into a development contract with a utility contractor or a contract in which the Developer is designated as the utility contractor. This contract is often referred to as a P Contract. The P Contract number is assigned by DWU Capital Services Program and must be placed on all design drawings. Only a licensed and bonded contractor can construct utilities that will be accepted by the City of Dallas.

The following documents are required by the Contract Administrator from the Contractor, Engineer, or Developer before the private contract can be released for construction:

1. Early Start Construction Request (Form 11.13: Early Start Construction Request) - one signed original.
2. Private Development Contract (Form 11.14: Standard Private Contract) - one signed original.
3. Bid Breakdown (Form 11.28: Standard Bid Breakdown) showing quantity, unit price and subtotal for water and wastewater separately. This must include trench safety and erosion control under both water and wastewater.
4. Completed Performance Bond (Form 11.15: Standard Performance Bond) - Must be signed and have Power of Attorney. Bond must be the same date as the contract or reference the date of the contract
5. Completed Payment Bond (Form 11.17: Standard Payment Bond) - Must be signed and have Power of Attorney. Bond must be the same date as the contract or reference the date of the contract.
6. Development Bond (Form 11.16: Standard Development Bond) - Must be signed and have Power of Attorney; **OR**
7. Unconditional and Irrevocable Letter of credit **OR**
8. Completed Waiver Letter for Development Bond (Form 11.11: Waiver Letter For Development Bond)
9. Certificate of Insurance (Form 11.23) - Must be signed by the contractor. Must meet the minimum requirements, have “City of Dallas as additional insured and waiver of subrogation for City” on each of the liabilities, and include endorsement CD 2503. Must also list project name.
10. Trench Safety Affidavit (Form 11.24: Trench Safety Affidavit) - By party signing as contract, Notarized
11. Engineered Trench Safety Design Plan—if the project has an excavation over 20 feet deep.
12. Copy of the Storm Water Pollution Prevention Plan (SWPPP)—if disturbing more than one acre

Standard Dallas Water Utilities Contracts, Performance Bond, Payment Bond, and Development Bond documents are shown in the forms section of this manual. One set of construction plans, the executed contract document, bonds, and seven copies of the Trench Safety Plan shall be submitted to the Contract Administrator as stated

Trench safety plans shall follow procedures outlined in U.S. Department of Labor Occupational Safety and Health Administration (O.S.H.A.) Standard 29, Code of Federal Regulations, Part 1926 and 107.19.3.3.COD of the City of Dallas NCTCOG Addendum. See Form 11.24: Trench Safety Affidavit

The Private Contract (P-Contract) will be reviewed by the Contract Administrator prior to acceptance by the City. The developer may avoid unnecessary delays by checking the documents to insure that:

1. Original (“Wet”) signatures are on all document signature pages.
2. Current mailing addresses and zip codes are furnished and up-to-date.
3. Performance and Payment Bond amounts are equal to or greater than the contract amount.
4. Bonds are dated the date of the contract.
5. The original signature of the attorney-in-fact and the surety seal are on all bond documents.
6. The Resident Agent of the surety is in Dallas County, Texas.

When the private contract has been accepted by the Contract Administrator, a contract number will be assigned and noted on the documents. Sustainable Development and Construction Water / Wastewater Section will be notified that a valid contract and Trench Safety plan exist. At this point in the procedure, a commitment has been made by the Developer and the contractor to the City of Dallas for the construction of water or wastewater mains to serve the development, and bonds have been established as a guarantee for the construction. Any notifications or releases by Sustainable Development and Construction (SDC) Department to other City departments are based on this commitment with the understanding that construction, in accordance with the specifications, will be completed within a reasonable time frame.

4.7 STAKING, INSPECTION, AND ACCEPTANCE

4.7.1 Construction Staking

All projects must be staked per the provisions of 105.4.2.COD of the NCTCOG Addendum. Form 11.25: Standard Construction Staking Sheet is a typical construction-staking sheet for use by the Contractor.

4.7.2 Construction Inspection and Acceptance

After the release of the plans for construction, the contractor shall notify Pipeline Inspection for the assignment of an inspector for the project. Construction inspection of Private contracts with future DWU Assets are inspected out of the Capital Operations Division of Dallas Water Utilities. The inspection staff is part of the DWU Pipeline Program located at 2121 Main Street, Suite 300, Dallas Texas 75201. When the Developer’s Contractor is ready, they will contact DWU via fax at 214-670-3018 to request an inspector and notify DWU when and where work will begin. (Form 11.20: Request for Inspector) Three working days of notice are required prior to start date.

Construction inspection after the usual 8 AM - 5 PM business hours will require special permission from the Public Works Director for a noise variance request. When the contractor wants to work on a Saturday, a request in writing, by email, or fax shall be submitted no later than the Thursday before the weekend. If the inspector works after 5:00 pm on weekdays, they will note this in the construction log and bill the Contractor for the overtime on a monthly report. Typically, the contractor can work until 10:00 PM with no issues. After 10:00 PM, the noise ordinance requires approval from the Public Works Director.

Construction Inspection follows the provisions and standards of Dallas Water Utilities. A “stop work” order can be issued by the Construction Inspector, through the Authority of the DWU Director, when work is being performed unsafely or due to sub-standard construction. The DWU Inspector must provide a final Certificate of Acceptance (COA) to the Contract Administrator prior to initiating the DWU internal construction close out process for the Private Contract.

Dallas Water Utilities Pipeline Inspection will not issue a final COA to either a water and/or wastewater contract or any paving releases until the recorded plat has been received and accepted by Water / Wastewater Section of Sustainable Development and Construction (SDC) Department **The Private Contract (P-Contract) cannot be closed by the Contract Administrator without the COA.**

4.8 DESIGN REVIEW AND INSPECTION FEES

Design review fees are shown in the Customer Menu located in Form 11.5: Customer Fee Table. There are generally no inspection fees unless inspector overtime or non-standard hours are requested by the Contractor or Developer.

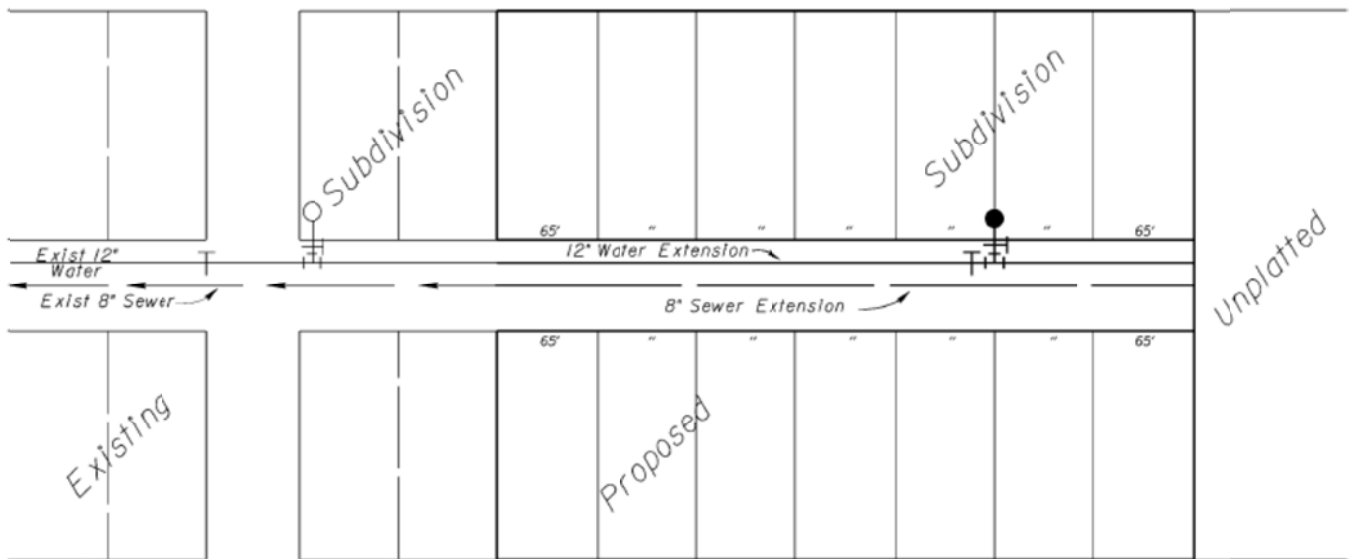
5.0 DWU PARTICIPATION POLICIES AND PROCEDURES

DWU does not design or construct utility lines or assets for specific pieces of undeveloped land. DWU does plan for the regional growth of the system to ensure long-term sustainability of its water and wastewater systems. In cases where it is beneficial to both Dallas Water Utilities and its existing citizens, DWU can choose to participate in a development project. The limits of participation in a private construction contract are defined as up to 30% by Section 212.072 of the Texas Local Government Code. Chapter 49 Section 62 of the Dallas City Code also discusses DWU Participation in Private contracts (P-Contracts). The following sections will clarify where DWU may participate in a project.

5.1 ON-SITE EXTENSION

When an on-site extension for water or wastewater main benefits only the project being developed, and no other customers associated with the surrounding area will directly benefit from this line, DWU participation will not be provided. When a pipeline is over sized to accommodate existing or future offsite flows, participation can be provided per Chapter 49-62(a).

Below is a basic graphical depiction of what an “ON-SITE EXTENSION” means

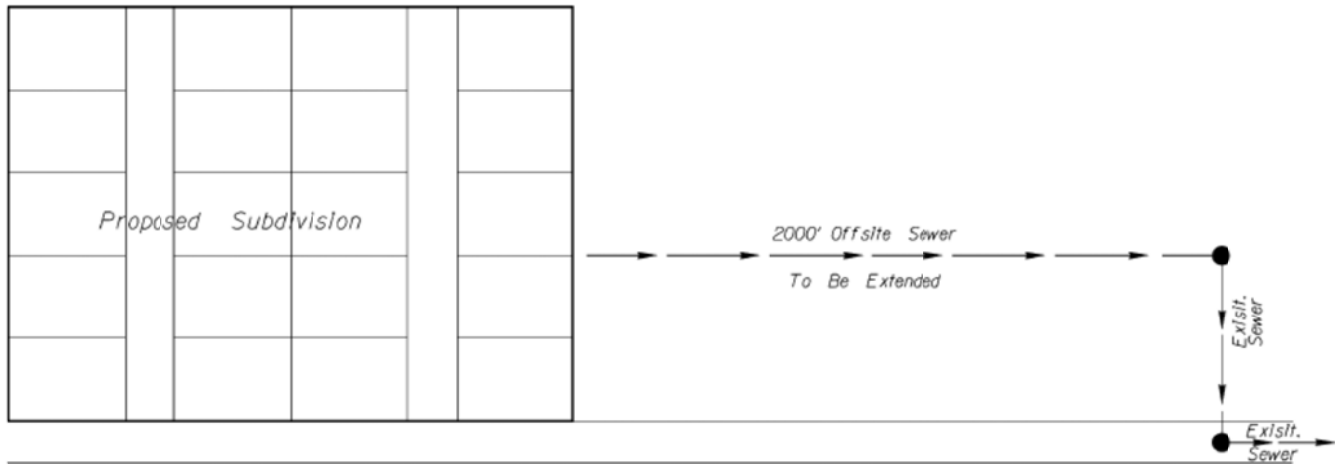


Per the figure above, the sewer and water extensions could be required by the DWU to be oversized to serve the future off site property which is labeled “un-platted”. When the un-platted portion is part of the Developers future development, over-sizing would not be required by the DWU, and would not be eligible for City participation.

5.2 OFF-SITE EXTENSION

Offsite extensions are water or wastewater mains that reach outside the platted property’s boundary. When off-site extensions benefit parties other than the developer or owner of the platted property, DWU can participate in the offsite extension. The Coordinator will work with the Developer once plans have been submitted to clarify how much participation will likely be refunded upon construction and acceptance of pipes or appurtenances.

Below is a basic graphical depiction of a basic “OFF SITE EXTENSION”:



5.3 EVALUATED COST TABLE AND OVERSIZING

The Evaluated cost table as shown in Chapter 49-18.11 is used:

- To compare the unit prices in the construction contract as submitted by the developer, the unit prices in the evaluated cost tables per Section 49-18.11, and the value of 30% of the total contract price per Local Texas Government Code Section 212.072. Eligible participation by the City of Dallas will be based on the smallest of the three calculated values.
- The evaluated cost tables are used to estimate the increase in cost by DWU as needed to oversize water or wastewater mains for future development needs.
 - For instance, when a development necessitates an 8” main to service the property and DWU requires a 12” pipe for future development, a reimbursement for the additional cost can be calculated using the evaluated cost table.
 - Note: This does not apply where a 12” line is the minimum required based on the criteria in the design manual.

The DWU Finance Section works with the Sustainable Development and Construction (SDC) Department’s Water / Wastewater Section to regularly update the Evaluated Cost Table by City Ordinance.

5.4 ESTIMATING PARTICIPATION

The City will participate in the cost of any **oversize** main the developer is required to construct, by purchasing the excess capacity in the main at the oversize cost of the main. Oversize cost will be based on the evaluated cost tables of Chapter 49-18.11.

The developer must construct all new **on-site** extensions necessary to serve the development adequately, subject to applicable City payments for participation in oversize costs only.

The City will participate in the cost of **off-site** extensions by purchasing the extension, after completion and acceptance by the City, for the evaluated oversize cost of the extension. Per Chapter 49-18.15,

the City will make payment for purchase of the off-site extension based upon new connections to the extension, at the rate of \$160 per connection for homes and \$75 per apartment unit. If the off-site extension passes through a fully developed area then the full amount of City participation will be paid upon acceptance of the extension.

No City payment shall exceed 30 percent of the total private development contract price.

City payments will be calculated by using either the unit prices in the construction contract submitted by the developer, or the unit prices in the evaluated cost tables, whichever is less.

The Evaluated Cost Tables do not include all items that may be reimbursed. Items like junction structures, lift stations, pump stations, and other specialty items can be included at the sole discretion of the City. The non-listed items are used in the 30% valuation of the total contract price, but are not included in both of the “unit price” methods as listed in Section 5.1 of this manual.

5.5 PROGRAMMED EXTENSIONS

It is common to find a program extension or DWU Capital Project that is near or within a Development Project. In cases where this occurs, it is recommended that that Coordinator meet with DWU Engineering Services to discuss how the project can be planned to meet the interests of both parties. There are cases where DWU may dictate the size, location, or other aspects of the pipeline design based on the needs of operations in the area in question.

DWU typically does not construct projects to meet the schedules and needs of developers.

5.6 REIMBURSEMENT AND SCHEDULE

Where DWU does participate in a Private Contract (P-Contract), a “Reimbursement” is typically expected by the Developer for a portion of the Contractor’s costs. After a project is complete and a certificate of acceptance has been issued by the DWU inspector on the project, the Contract Administrator can begin to process the paperwork for reimbursement. It takes a minimum of 6 weeks after final documentation is submitted before a developer will be reimbursed. Reimbursement follows the provisions of Chapter 49-62(i) and 49-62(j). Reimbursements are processed through DWU Finance and the City Comptroller’s Office. The Customer must have a standard City Vendor number to receive reimbursement.

Due to the provisions allowed in Chapter 49, reimbursement to Developers does not involve Council Action. All questions related to reimbursement shall be directed to the Contract Administrator.

5.7 SPECIAL ASSESSMENTS

The DWU Revenue & Business Systems Division manages special assessments. There is an extensive petition process associated with Special Assessments. Subchapter D of Chapter 402 in the Texas Local Development Code allows for Special Assessments. For water or wastewater in Dallas, a special assessment is allowed where:

1. A property is more than 100 feet from the nearest serviceable main.
2. Property is zoned residential and at least 50% platted.
3. The extension to service the property is a maximum of 500 feet.

Two general rules for the petition are:

1. Developers are not allowed to sign petitions.
2. Owners of improved and unimproved properties may sign petitions.

A successful petition must contain at least one of the following two criteria:

1. Signatures of owners of improved property containing a combined frontage equal to at least 17% of the total assessable frontage under consideration.
2. Signatures of individual owners of improved or unimproved property so that their combined frontage equals at least 50% of the total assessable frontage under consideration.
 - If owners of unimproved property sign the petitions, and the percentage of signatures of owners of improved property was less than 17% of the total assessable frontage, then before construction of the main can begin, owners of unimproved property must secure all building permits and pay all fees. Owners of both improved property and unimproved property must secure permits and pay all fees.
 - Fees paid for both improved and unimproved properties must total 17% of the total assessable frontage under consideration

Construction time schedules will be based on availability of funds and right of way.

The petition process is generally as described below:

1. A petition is mailed or delivered to requestor(s).
2. The initiating petitioner provides signatures of other petitioners, addresses of properties, mailing addresses of petitioners, lot and block number of the properties to the City of Dallas.
3. Petition is evaluated and successful petitions must meet the criteria listed above.
4. An assessment questionnaire is mailed to benefited property owner of the pending assessment project. The questionnaire includes cost and payment methods if the project is approved by City Council.
5. First Council Action: To obtain Council authorization for the Special Assessment.
6. Public Hearing for approval of construction.
7. Second Council Action: Public Hearing, Council action authorizes assessment of properties, approval of liens, generates contract(s) for construction, and an ordinance of assessment.
8. Construction Authorization: Water Design Division Pipeline Program notified to proceed with construction of water and/or wastewater main extension.

Special Assessment Fees, at the rate specified in Chapter 49, must be paid in full. A second option is for a contract to be executed and Mechanic's lien filled before water and or wastewater permits are issued. The current rate is \$6.00 per front foot.

6.0 DWU ROW AND EASEMENT REQUIREMENTS

It is required that utilities dedicated to DWU be either placed in easements, in property dedicated in “fee simple”, or in the public ROW. Developers must be cognizant of this requirement when planning a development. The Developer must research all existing easements through Dallas County and the Deed Records of Dallas County. Easements may be dedicated to DWU through a plat or by separate instrument.

6.1 NEW EASEMENT AND ROW REQUIREMENTS

Easements dedicated to Dallas Water Utilities must allow adequate space and clearance so that utility lines and appurtenances may be maintained by DWU. The Developer for a project must use the guidelines shown in Section 1.8.3 of the *DWU Water and Wastewater Procedures and Design Manual, Latest Edition*. These guidelines discuss both minimum vertical and horizontal clearances for DWU utilities. Requested variances to these clearances must be approved through DWU Engineering Services on a case-by-case basis. Easements may be dedicated in two ways: by plat or by separate instrument. On-site easements are often dedicated by Plat and off site easements are often dedicated by separate instrument(s).

6.1.1 Easement By Plat

An easement in a platted development is typically dedicated within the plat. The easement must be a water or wastewater easement and dedicated for use by the City of Dallas. Generic language is shown on Form 11.6: Private Owner Dedication, for a plat with water and/or wastewater easements.

6.1.2 Easement By Separate Instrument

In some cases it is necessary or preferable to dedicate easements by separate instrument. This means the easement is approved before the plat is approved and utility construction is approved to begin. In these cases, the Developer must set up a meeting with Real Estate services and the Sustainable Development and Construction Water / Wastewater Section to review the specific needs of this easement. The process to dedicate by separate instrument is managed by the Real Estate Services section of Sustainable Design and Construction (SDC) Department. Once approved, it takes 6-12 weeks to take a separate instrument easement through the City Attorney’s Office for approval and recordation by Dallas County Records.

6.1.3 Private Plumbers Easements

A private plumber’s easement is a strip of private property designated for running private plumbers lines from one lot through another lot. These are not allowed by Dallas Water Utilities. Private utility easements can affect DWU assets. For example, fiber optic cable easements sometimes cross DWU lines.

6.1.4 Term Easements

Term easements (or easements for permanent infrastructure) that have an expiration date are not acceptable to DWU due to the historic issues these cause to DWU Customers and Operations. Term easements are typically requested by state institutions (such as State Hospitals, University of Texas System, etc). It is important for the Coordinator and Developer to note that an easement that expires forces DWU Customers into unnecessary risk of losing service due to legal-property issues. Typically, the associated agency will have to review this issue with their attorneys and might require meeting with

the City Attorney's Office. Term easements are not to be confused with Temporary Construction easements where land is needed just for the construction period.

6.1.5 Easements And Vertical Clearance

Easements must take into account the future needs of DWU Operations to access a line. The general requirement is 25' vertical clearance as stated in Section 1.8.4 of the *Dallas Water Utilities Water and Wastewater Procedures and Design Manual*. When these criteria cannot be met, the Developer must acquire a variance from DWU Engineering Services.

6.1.6 Proposed Easement Crossing Existing DWU Owned Land

DWU owns land in various areas where DWU assets exist or future assets are proposed. These assets can be a plant, pump station, pipe, or a lake. Many of these assets exist in Dallas County but it is common to see assets in other counties. When a project proposed by a Developer (or outside Governmental Agency) needs to cross existing DWU owned property, the Developer shall acquire an easement across that property. Coordination with DWU Engineering Services is required to obtain the easement.

The Engineer must provide to DWU Engineering Services:

- Design Plans.
- Field Notes for Public Works Department Review.
 - The Public Works Department will write a memo to Engineering Services approving the field notes.
- Estimated Construction Start Date.

Once Field Notes are approved, three copies of final field notes, signed and sealed by a Texas Registered Surveyor are required from the Developer. DWU Engineering Services will process the field notes before working with Real Estate Services. DWU will review the proposed utility crossing for code compliance, and if needed, provide comments. After comments have been incorporated into the Engineers plans, DWU Engineering Services will write a letter accepting engineering plans for crossing the land (see Appendix Form 12.23: Easement Encroachment Letter). A \$2500 appraisal fee will be assessed of the Developer for a third party appraisal for the proposed easement. Other Fees associated with the Appraisal and land acquisition are processed through the Real Estate Services Division. The entire process of getting approval of an easement across DWU owned land takes approximately 3 months. Right of Entry Requests will be reviewed on a case-by-case basis by DWU Engineering Services after payments have been received.

Unauthorized crossings are the jurisdiction of Code Compliance and the City Attorney's office. Any crossings without an easement will cause immediate notification to these parties.

6.1.7 Easement Encroachment Across an Existing DWU Easement

Occasionally a project must cross land and acquire a encroachment where DWU currently owns an existing easement. DWU Engineering Services will review these requests from the Developer and provide an encroachment letter to the Developer. They will respond with a formal memo to accept the request with specific design and construction provisions. Form 12.23: Easement Encroachment Letter is a typical example of an Encroachment Permit.

Unauthorized encroachments are the jurisdiction of Code Compliance and the City Attorney's office. Any crossings without an easement will cause immediate notification to these parties.

6.1.8 Property Reservations

When a publically dedicated pipeline is designed and constructed with the intention of crossing existing City of Dallas property and specifically located in the Parks Department jurisdiction, a Reservation is requested by the Engineer of the appropriate department for rights to access this land using Form 12.19: Reservation Request. This basically provides Dallas Water Utilities future access to the property and fore-warning if something is to cross the pipeline in the future.

Proposed water or wastewater pipe that is designed within the City of Dallas Parks Property is of particular importance. Newly proposed non-park use of parkland is subject to review and a public hearing process as governed by Chapter 26 of the Texas Parks and Wildlife Code. Pipe designed in these areas require special coordination of the Engineer and Coordinator with the Park and Recreation Department. This typically requires a public notification period as well as information on why this is the best route to take the pipe. Additionally the Park and Recreation Department will take the issue to the Parks Board. The Engineer will also have to prove that the route through the parks land is the only reasonable route possible. The Developer and Coordinator shall approach DWU four months prior to construction to begin this discussion.

6.2 SHARED ACCESS

Shared access is defined in Chapter 51A-4.411 of the Dallas City Code. Shared access is a common access easement allowing shared space within a development to be used for various other utilities including storm, fiber optic, gas lines, and other utilities. This right is granted by Chapter 51A-4.411 (13). Where shared access is requested, the following provisions apply to the design:

- Minimum width of shared access area is sixteen (16) feet unless it is used for a fire lane, then the minimum width is 20 feet. DWU will reserve an exclusive 12 foot wide water and wastewater easement centered and overlaying the shared access area.
- NO gates or physical limiting provisions are allowed.
- Water and wastewater lines must be placed nine feet horizontally apart from each other, or meet the exceptions provided in 30 TAC S290.44.e
- Other utilities will be placed on either side of the exclusive water /wastewater easement. No other utilities are allowed in the exclusive 12 foot water /wastewater easement.
- No fire hydrants are allowed in the shared access areas.
- Water mains shall be 6 inches in diameter and wastewater mains shall be a minimum of 8 inches in diameter in the shared access areas. Water meters and wastewater lateral cleanouts shall be located outside of the exclusive 12 foot water and wastewater easement. The engineering plans for the shared access development shall show the location of the meters and lateral cleanouts.
- Water and wastewater mains inside shared access areas cannot be used to serve adjacent properties beyond the proposed shared access development.
- Wastewater mains shall not be at a depth greater than 10ft in the 12ft water/wastewater easement. Depths greater than 10ft shall require a wider water/wastewater easement as per DWU design guidelines.
- The minimum vertical clearance over shared access areas containing water and/or wastewater mains shall be 18 feet.
- All other provisions of the DWU Water and Wastewater Procedures and Policy Manual apply to the design and construction of the water/wastewater utilities.

6.3 ROW ABANDONMENT

Right of Way abandonment can be requested by a citizen to expand their property boundaries. It is the duty of the Coordinator to review the Right of Way Abandonment requests made through Real Estate Services to ensure that DWU assets will not be negatively impacted by the right of way abandonment. The typical processes the Coordinator shall follow for ROW Abandonment is:

1. Real Estate Services (RES) receives a customer request via through email or memo for ROW abandonment.
2. RES conveys the request to the Coordinator.
3. The Coordinator reviews the request and confirms the existence of:
 - a. DWU Easements.
 - b. DWU Water Mains and associated appurtenances.
 - c. DWU Wastewater mains and associated appurtenances.
4. The Coordinator provides Real Estate Services a response to existing assets and directions on how to proceed with the abandonment.
 - a. This can come in the form of a recommendation for "Exhibit B" (Form 12.2: "Exhibit B" Abandonment Provisions).

More guidance on the overall ROW abandonment process is available at:

http://www.dallascityhall.com/development_services/real_estate_abandonments.html

6.4 EASEMENT ABANDONMENT

When a property is re-platted or redeveloped, issues can arise with existing utility easements. The Developer must coordinate with Real Estate Services on the proper abandonment of existing utility easements. The Coordinator must review the abandonment plans to ensure existing DWU customers will not be cut off from service by the abandonment of existing easement(s) and eventual removal of existing utility line(s). The typical process for the Coordinator to follow is such:

1. A memo is sent to Real Estate Services along with marked plans showing the proposed easement abandonments.
2. The Engineer provides a letter stating the application has been made for abandonment and a copy of the abandonment request is provided to the Coordinator.
3. Before plans are released for construction, the Coordinator confirms the status of the abandonment with Real Estate Services.

TIME FRAME: It takes 4 to 6 months to review, process, and approve an easement for abandonment.

COSTS: There is a \$5400 fee associated with an easement abandonment and additional costs based on the appraised value.

6.5 FIELD NOTE REVIEW AND APPROVAL PROCESS

Before accepting easements, field notes must be approved by Public Works Survey or the Sustainable Development and Construction Surveyor. This coordination will be accomplished through Email or inter-office mail. The general provisions for field notes are located in the *DWU Water and Wastewater Procedures and Design Manual, Latest Edition*, Appendix D. It takes 5 to 10 business days to have field notes reviewed by the City of Dallas.

TIME FRAME: 2 to 4 weeks to review and approve final field notes.

COSTS: There are no fees associated with field note review and approval by Sustainable Development and Construction Survey.

7.0 ANCILLARY PROCEDURES AND OTHER SERVICES

It is common for Engineers, Developers, and City Departments to request information from DWU in order to successfully design and construct projects. Additionally, some procedures are ancillary to the approval of design plans. This section briefly describes each request and the expected time frames.

7.1 FIRE FLOW TEST

The Developer can request DWU perform a fire flow test through the Coordinator. The request is reviewed and then sent through the DWU Distribution Division to have the test performed. A fire flow test will provide the Developer with the static, pitot, and residual pressures for the area for one point in time. The fee for this is shown in Form 11.5: Customer Fee Table of the appendix. The following are the general steps of the fire flow test:

1. Developer provides Sustainable Development and Construction with a map and the request for a fire flow test.
2. The Coordinator and Developer select a fire hydrant to be tested.
3. A Map is sent to DWU Distribution Division with the formal request. (Form 12.4: Fire Hydrant Test Request)
4. Test results are sent to the Coordinator from the DWU Distribution Division.
5. Based on the test and recommendations from DWU Distribution, the Developer may be asked by the Coordinator to generate a hydraulic analysis of the existing and proposed water system.

In some cases, a fire flow test is required in conjunction with an availability letter as described in Section 7.5. The fee for a fire flow test is shown on standard Form 11.5: Customer Fee Table.

7.2 FIRE PROTECTION CERTIFICATION

During Building Permit review, if the Coordinator sees a situation that does not meet the “400’ spacing rule”, the Coordinator will give the applicant the option of providing a signed fire protection certificate, or a letter from the Fire Department accepting the proximity of the nearest fire hydrant. Fire hydrant placement for subdivisions within new developments is an integral part of the design for water systems and services. It is important and required that the Developer coordinate design reviews of the water design plans with Building Inspection and the Dallas Fire Department.

The Fire Protection Certification requirement is on the plan review checklist for private development water and wastewater engineering. Fire protection coordination and review shall be completed prior to the second review submittal of plans to Sustainable Development and Construction (SDC) Department, Water / Wastewater Section. The Developer shall contact Building Inspection at 320 E. Jefferson, Room 105, Dallas, Texas 75203, 214-948-4480. In many cases, Building Inspection may refer the Customer to the Dallas Fire Department for the coordination. Architectural site plans, Certificates, and Checklists are needed when approaching Building Inspection or the Fire Department. When these items are not provided on the first review, the Coordinator will specifically ask for them and will not release plans for construction without them.

The Fire Department Engineer makes the ultimate determination whether the proposed building is adequately protected by the nearest fire hydrant.

The following process is followed when the project being designed requires a Fire Certification:

1. The Fire Certificate is sent to the Engineer along with first review of plans. In certain cases a Preliminary Plat may require a Fire Certificate before it is released.
2. The Engineer meets with the fire plan reviewer in Building Inspection (OCMC, Room 105) and obtains a signature if fire protection is deemed adequate.
3. Special cases sometimes require the Coordinator and the Engineer to coordinate fire protection with the Dallas Fire Department.

TIME FRAME: It typically takes 4-5 days to review and approve

COSTS: There are no fees associated with the fire certification process.

7.3 FIRE HYDRANT DESIGN

Occasionally, a fire hydrant is needed to serve a property in order to provide it, and the surrounding community, with adequate fire protection. The fire hydrant design may come at the request of the Developer's insurance company. There are two general ways a fire hydrant can be designed and constructed:

1. The Developer hires an Engineer who draws plans and then enters into a Private Contract (P-Contract) to construct fire hydrants. This is the typical process.
2. Under certain circumstances, although there will likely be fees involved, the Developer can request a fire hydrant design and construction be performed by DWU.

7.3.1 Fire Hydrant - Private Design and Private Construction

Typically, a homeowner or Developer will engage the services of an Engineer to design and affix a professional engineer's seal to a fire hydrant design. This involves about 2-3 reviews by Water / Wastewater. After design has been approved, the homeowner or Developer will enter into a Private Contract (P-Contract).

TIME FRAME: It typically takes 8 business days per review for the Dallas Water Utilities – Engineering Services Section to review and approve a fire hydrant design.

7.3.2 Fire Hydrant - DWU Designed and Constructed

In order for DWU to carry out the design and construction of a new fire hydrant the requestor must meet the following criteria:

- The property owner must reside in the residence or the business must be an individually owned Business.
- The requestor must hold the warranty deed to the property and the property must be in his/her name.
- The meter to the requestor's property must be less than 1" in size.

The Customer must request this service through Building Inspection. DWU Engineering Services will design this fire hydrant installation and the DWU Pipeline Program will construct the Fire Hydrant. This process to design and construct the fire hydrant takes approximately six months.

There are no fees associated with the design or construction of the fire hydrant in this process.

TIME FRAME: It typically takes 6 months for DWU to design and construct the fire hydrant. If the customer can't wait 6 months they should follow the process in Section 7.3.1. of this manual.

COSTS: There are no design fees associated with the DWU Fire Hydrant design-construction process.

7.4 WASTEWATER FLOW CHECK

The Engineer can request through the Coordinator a DWU Seven Day Wastewater Flow Check. The request is processed through DWU Wastewater Collection. The results of this request will provide a general understanding of the pipe flow (gpm) over a seven day period. The fee for this is shown in Form 11.5: Customer Fee Table of the Appendix. In some cases, a wastewater flow check is required in conjunction with an availability letter as described in Section 7.5 of this manual. The following are the general steps of the fire flow test:

1. The Developer provides the Coordinator a copy of a map and a written request highlighting the manhole in which flow monitoring equipment will be placed.
2. The Coordinator makes a request of WW Collection. (Form 12.17: Wastewater Collection Request for Services)
 - a. The request can typically be placed 5 business days after it was requested.
3. WW Collection confirms accessibility and placement of the flow meter.
4. WW Collection provides flow check data back to the Coordinator.
5. Coordinator provides flow check data to the Developer.

TIME FRAME: It typically takes 4 to 5 weeks to review, approve, install, and receive back a Wastewater Flow Check.

COSTS: There is an \$800 fee associated with a wastewater flow check.

7.5 AVAILABILITY LETTERS

Availability Letters are occasionally needed by lending institutions prior to approving development loans. In some cases they are requested by federal or state agencies when government funds are used on the project. The most common requested availability letter provides the size and location of water and wastewater mains that are available for connection and the maximum allowable service connection size. This letter lists only what is available but does not guarantee sufficient capacity of the system to service the proposed project.

The following general steps are required to issue an Availability Letter:

1. Customer fills out Form 11.19: Customer Availability And Will Serve Request and provides the form to the Coordinator.
2. Coordinator Reviews the form and forwards it to DWU Distribution or DWU Collection Division depending on the extent of the request.
3. Coordinator receives information back from DWU Distribution or Collection Division.
4. Coordinator confirms mains that are available for connection.
 - a. Can the main be connected to directly without a main extension and is the main accessible?
 - b. Is the main in street ROW, in an easement inside the property, in an easement, or in an alley adjacent to the property?
5. Coordinator provides response via form 12.7.

TIME FRAME: It typically takes 4 to 5 business days to review and approve an availability letter.
COSTS: There is a \$150 fee associated with the availability letter process.

7.6 WILL-SERVE LETTERS

Developers or Property Owners will occasionally ask the Coordinator or DWU for a “Will Serve” for their property. Will Serve letters are required by DWU – Engineering Services when the water or wastewater flows are over 1000 GPM (1.44 MGD). The Will Serve letter describes the ability of DWU to provide service of a specific volume of water or wastewater to the property as requested. **The burden of proof for assessing functionality and the feasibility of existing water and/or wastewater infrastructure to serve a project is the responsibility of the Developer** per Chapter 49-60.c.1. Hydraulic modeling is the responsibility of the Developer.

Will-Serve letters are common for large developments that can potentially need more water or release more wastewater than the existing system can handle. The information required prior to obtaining a Will Serve Letter includes the following:

1. Obtaining necessary information from City Staff to perform Hydraulic Analysis of the proposed or existing water or wastewater system. This can include Water Flow/Pressure Test(s) (Section 7.1), Wastewater Capacity Analysis (Section 7.4), Water and Wastewater Availability, and Size on Size Request(s).
2. The Developer shall model the water / wastewater system to determine what needed pipe improvements are required to serve the development or to justify the existing improvements are adequate. The submittal of this model and study is required for review and shall be stamped and sealed by a licensed Professional Engineer.

The following general steps are required to process a will serve letter:

1. The Customer provides a written request and the associated fees to the Coordinator using Form 11.19: Customer Availability and Will Serve Request.
 - a. This form has the associated fees for a Water Flow/Pressure Test, Wastewater Capacity Analysis, Water and Wastewater Availability, and for a Size on Size Request.
 - b. The coordinator will coordinate these services after the fees have been paid.
 - c. The results of the tests or research will be forwarded to the Customer to aid in the development of the water / wastewater report.
2. Only after the Developer has provided Engineering Reports and/or Studies which demonstrate the functionality and feasibility of the existing and / or proposed water and wastewater infrastructure, a DWU Engineer will respond to the Customer using Form 12.8: Water/Wastewater Will-Serve Letter.
 - a. Note: DWU reserves the right to deny a Will-Serve Letter request based on the limitations of existing infrastructure and existing demands.

7.7 COVENANT AGREEMENT

7.7.1 OBTAINING A COVENANT

A Covenant Agreement allows a developer to obtain a plat without having to build all of the mains required as part of the development process. When the utilities are eventually built, the owner usually requests the covenant to be released from the deed. (Section 7.7.2. of this manual) Research and documentation on older developments must be done to make sure the required mains were built and accepted by the City of Dallas.

The following procedure explains the steps for obtaining a Covenant Agreement:

1. The Applicant submits the following information to the Sustainable Development and Construction - Water / Wastewater Section at 320. E. Jefferson Room 200, Dallas Texas 75203:
 - A letter from the owner requesting a Covenant Agreement. (Form 11.26)
 - Three copies of Preliminary Plat.
 - A copy of the warranty deed provided by the owner of the property.
 - 3 copies of field notes (metes and bounds) with original signatures and seals.
2. Field Notes are routed to Sustainable Development and Construction Survey Section for approval.
3. After Field Notes are accepted by the Sustainable Development Survey Section, the field notes and warranty deed are sent to Real Estate Services.
4. Real Estate Services prepares the forms and mails them to Applicant for signature.
5. The Owner signs and returns the forms to Real Estate Services.
6. The City Attorney reviews the Covenant Agreement and amends as needed.
7. The Forms are signed by the City Attorney and City Manager.
8. Real Estate Services sends the forms to the County Records Department to be recorded.
9. Recording information and certified copies of the documents are returned to the Applicant for their records.

TIME FRAME: It takes a minimum of 12 weeks to review and approve a Covenant Agreement.

COSTS: There are no fees associated with the Covenant Agreement.

7.7.2 COVENANT RELEASE

A Covenant Agreement allows for a development to obtain a plat without having to build all of the mains required as part of the development process. (Section 7.7.1 of this manual). When the utilities are eventually built, the owner may request the covenant(s) be released from the deed. Research and documentation on older developments must be done to make sure that all of the required mains were built and accepted by the City of Dallas. What follows are the general procedures for release of covenant:

1. The Developer or the Owner send the Coordinator a request for release of covenant. With this request, a copy of the recorded deed for the property is provided.
2. The Coordinator researches maps and records to determine if the covenant can be released. A letter is sent to the owner informing them of the status. (Form 12.14: Covenant Release Letter)
3. A Memo is signed by the Assistant Director and given to the City Attorney's office requesting the Release of Covenant.

4. Coordinator requests all necessary documentation related to covenant release from Real Estate Services.
5. City Attorney and City Council approve the release.
6. Recorded release with volume and page is received and posted on original drawing.
7. Recording information and certified copies of the documents are returned to the Applicant for their records.

TIME FRAME: It typically takes 3 to 4 months to review, write, and issue covenant release.

COSTS: There are no fees assessed by the Sustainable Development and Construction - Water / Wastewater Section for a covenant release.

7.8 FILL PERMIT REVIEW

Fill Permits are requested where the property owner is filling soil on a site. Fill Permits are authorized by Part II of the Dallas Development Code, Section 51A-5.105(h). The Sustainable Development and Construction - Water-Wastewater Section regularly reviews fill permits to ensure the fill will not negatively impact existing water or wastewater services. The following are the general steps in the DWU Fill Permit Review Process:

1. The Sustainable Development and Construction Paving / Drainage Engineer Provides a set of Engineering Plans to the Coordinator with a request for a Fill Permit Review.
2. The Coordinator reviews affects of fill on existing and proposed utilities.
 - a. Fill shall not cut off service to existing or future DWU Customers.
 - b. Transmission mains may require additional review by DWU Engineering, Waste Water Collection, and / or the Distribution Division.
3. Coordinator responds to Sustainable Development and Construction Pavement / Drainage Engineer that:
 - a. Project will require water or wastewater utility relocation or construction.
 - b. Project may have a negative impact on DWU water or wastewater utilities in the future.
 - c. Project has no potential impact on DWU service(s) or customers.

TIME FRAME: It typically takes 1 to 2 weeks for Sustainable Development and Construction - Water / Wastewater to review and approve a fill permit.

COSTS: There are no fees assessed by the Sustainable Development and Construction - Water / Wastewater for a fill permit review.

7.9 SIZE ON SIZE REQUEST

A “size on size” review is when a commercial service request is made for a meter size of 3” or larger or when the size of the service is the same size as the main. This request can come by permit or by Private Contract (P-Contract). The following are the general steps in a “Size on Size” request:

1. Applicant requests, in writing, for a service connection by permit or Private Contract (P Contract). Applicant shall provide the Coordinator with the location, address, and other pertinent information, including pressure (PSI) and the flow demand (GPM) at the meter.
2. A Size on Size Request Form 11.35: Size On Size Request, is sent to Water Distribution Engineer with attached as-built or GIS map.
3. Approval or denial is sent to Coordinator by DWU Distribution Division.
4. Approval or denial is forwarded to Applicant.

DWU Distribution must approve all Size on Size requests and all water service connections 10 inches and larger.

TIME FRAME: It typically takes 1 to 2 weeks to review and approve size on size request.

COSTS: There is a \$150 fee associated with the Size on Size request process

7.10 ZONING REVIEW

Zoning reviews are made upon request of the Coordinator. They are made to review the potential impacts of zoning changes to the water-wastewater systems. The following are the general procedures that should be followed by the Coordinator when a zoning review request is made:

1. Customer or Planning Board requests zoning water / wastewater review from Coordinator.
2. Coordinator reviews existing DWU Distribution and Collection assets on internal GIS system.
3. Coordinator considers the following:
 - a. Availability of water or wastewater service to the area being zoned or re-zoned.
 - b. Estimated capacity of water and wastewater mains.
 - c. Conflicts between zoning requests and the existing Water Distribution and / or Wastewater Collection systems, appurtenances, or easements.
 - d. Fire hydrant coverage as required by 2.12.2 of the *DWU Water and Wastewater Policy and Procedure Manual, Latest Edition*.
4. Coordinator responds to customer via memo.
 - a. Special cases are followed up with written correspondence between Coordinator, City Planner, Developer, and / or Representative Zoning Consultant.

TIME FRAME: It typically takes 4 to 5 business days to review and approve a zoning review request.

COSTS: There are no fees by Water / Wastewater associated with the zoning review process.

7.11 BACKFLOW RELEASE (FLOOD LIABILITY RELEASE)

A Backflow Release or Flood Liability Release is an agreement which relieves the City of liability due to damages to property from backflow of wastewater. Dallas Water Utilities reserves the right to require a Backflow Release for any property subject to wastewater backup due to an inadequate finished floor elevation of the building structure. The Developer shall initiate a Backflow Release through Sustainable Development and Construction Water / Wastewater Section for each lot that has a proposed finished floor elevation less than 1.5 feet above the rim elevation of the lowest nearby unsealed manholes. The following procedure explains the general steps for obtaining a wastewater backflow agreement.

10. Developer submits the following information to the Sustainable Development and Construction Water / Wastewater Section at 320. E. Jefferson Room 200, Dallas Texas 75203.
 - A letter from the Developer requesting a Backflow Agreement. (See 11.26: Backflow Damage Release Request)
 - Three copies of Plat.
 - A copy of the warranty deed provided by the owner of the property.
 - Set of field notes (metes and bounds) or plat document with original signatures and seals.
11. Field Notes are routed to Sustainable Development and Construction Survey Section for approval.
12. After Field Notes are approved by the Sustainable Development and Construction Survey Section, the field notes and the warranty deed are sent to Real Estate Services.
13. Real Estate Services prepares forms and mails to owner for signature.
14. Owner signs and returns to Real Estate Services.
15. City Attorney reviews general Backflow Agreement Form 12.29: Standard Backflow Agreement) and amends as needed.

16. Forms are signed by the City Attorney and City Manager.
17. Real Estate Services sends to County Records to be recorded.

TIME FRAME: It takes 8 to 16 weeks to review and approve a Backflow Release.

COSTS: There are no fees associated with the backflow release process.

7.12 BACKFLOW PREVENTION

DWU can require backflow prevention devices (Reduced Pressure Zone Device-RPZ) to prevent potential water quality issues between private plumbing and the City of Dallas public water supply. This authority is listed in Chapter 49 Section 29 and clarified in TAC 290.44(h). The Coordinator will work with DWU Distribution to confirm issues between specific customer types and the need for backflow prevention.

TIME FRAME: NA

COSTS: There are no fees directly associated with the Backflow Prevention review process.

7.13 INDUSTRIAL WASTE DISCHARGE

Dallas Water Utilities Pretreatment Analytical Laboratory Division (PALS) operates an EPA approved Industrial Pretreatment Program. This program oversees those provisions of the Clean Water Act and the Dallas City Code, Chapter 49, Section 45-49, which are applicable to Dallas Area industries discharging industrial wastes to the wastewater collection and treatment system. The Developer must meet with the Coordinator and PALS representative in cases where industrial waste is expected to discharge to the wastewater collection system after the designed facility is occupied. This generally applies if the property:

- is subject to categorical pretreatment standards under Title 40, Code of Federal Regulations;
- discharges an average of 25,000 gallons per day or more of process wastewater to the wastewater collection system, noncontact cooling, and boiler blow-down wastewater;
- contributes a process wastestream that makes up five percent or more of the average dry weather hydraulic or organic capacity of the treatment plant of the wastewater system; or
- is designated as a significant industrial user based on the industrial discharge, if the user has a reasonable potential for adversely affecting the wastewater system's operation, or for violating any pretreatment standard or requirement in accordance with Title 40, Code of Federal Regulations.

Industries with BOD/TSS over 250 mg/L that do not meet the above criteria qualify for surcharge billing which require no permit. See the attached application Form 11.29: Permit To Discharge To The Sanitary Sewer.

The PALS division will provide guidance on restaurant grease traps, the need for sampling points, and other rules from Chapter 49 Section 47. Any industry planning to operate and discharge industrial waste to the wastewater system within the City of Dallas should contact the PALS Division to establish construction and permit requirements prior to construction. Failure to do so may result in unnecessary costs and delays in order to revise the discharge and/or pretreatment system to meet city requirements after construction. Any questions regarding the need for a permit or any other provisions of the Pretreatment Program should be directed to:

Pretreatment Analytical Laboratory Program Manager
Dallas Water Utilities
2626 Lombardy Lane: Suite 105
Dallas, Texas 75220
214-670-6749

The Coordinator will work with the Engineer and PALS in cases that involve Industrial Discharge to ensure that the City of Dallas requirements are met prior to release of design plans.

TIME FRAME: It typically takes 4 to 6 weeks to review and approve plans with an industrial discharge point.

COSTS: There are no fees for an industrial discharge review. Sampling points will be required as well as the charges associated with monthly billing of industrial customers.

7.14 SEPTIC TANKS

Occasionally a property cannot be served by a standard gravity wastewater line. In these cases, the Developer must issue a memo or email to the Coordinator requesting a Septic Tank review. The typical process for a septic tank approval is as follows:

1. The Owner notes the need for a septic tank due to lack of sewer service availability (no available sewer within 200' of the platted boundary).
2. The Owner contacts the Coordinator and fills out Form 11.31: Septic Tank Review. With this request they provide:
 - a. A Copy of the Owner's sanctioned registered Sanitarians Report.
3. Coordinator checks GIS, or other resources, to confirm sewer availability is not within 200' feet of the platted boundary.
4. Coordinator writes a memo to the Chief Plumbing Inspector for further review of the Septic Tank Request. (Form 12.9)

7.15 HOMEOWNERS EXTENSION

A Homeowners extension is a minimal cost extension of a water or wastewater main for a homeowner or small business. Minimal cost means that DWU covers the cost of the construction and designs the project internally. The following are the general rules of a homeowner's extension:

1. The existing or proposed meter for the property must be less than or equal to 1".
2. The property must already be platted.
3. The requestor must own the deed of the property.
4. This provision can only be evaluated and exercised by DWU Engineering Services.

The Coordinator must contact DWU Engineering Services where a customer requests a homeowner extension. The typical process for a homeowner's extension goes as follows:

1. Customer requests a home-owners extension through Sustainable Development and Construction Building Inspection Permits Section (Room 118).
2. The Permits Section reviews the warranty deed and verifies using GIS the distance from the proposed service to the existing main.
3. The Permits Section forwards the request to DWU Engineering Services.
4. DWU reviews the request and designs the extension.
 - a. This takes approximately 3-4 months.

5. DWU forwards the design to a Contractor for construction.
 - a. This takes approximately 3-4 months.
6. Contractor constructs the water or wastewater line.
7. Customer pays the inspection fee to the permits section.

TIME FRAME: It typically takes 6 to 8 months to design, review, and approve.

The owner can execute a Private Contract (P-Contract) as mentioned in Section 7.12 of this manual in the event the timeframes are not suitable.

COSTS: There are no fees associated with the Homeowners extension process; Although, the customer will have to pay the lateral connection fees associated with connecting the private lateral to the main and pay the water meter permit fee to obtain water service.

7.16 LANDSCAPE REVIEW

Occasionally a property or median is landscaped by a Developer. These projects can affect DWU utilities. In the case of a new landscape plan the following steps apply:

1. Landscape Plans are sent to the Coordinator by the Applicant.
2. The Coordinator will review the Landscape Plans and determine conflicts between existing or proposed water or wastewater mains and the proposed landscape plans.
3. Landscape Plans are then returned to the Applicant with comments.
4. A memo is sent to the City Arborist indicating the conflicts between the proposed landscaping and the proposed or existing utilities.
5. A revised landscape plan is reviewed and accepted as part of the review process.

TIME FRAME: It typically takes 2 to 3 weeks to review and approve

COSTS: There are no fees associated with landscape review.

7.17 PRIVATE PLUMBING SYSTEMS

Private Plumbing falls under the purview of the Building Inspection Division of Sustainable Development and Construction and Chapter 54 of the Dallas City Code as amended by Ordinance 27111. Chapter 49-30.a-c authorizes the Water Department to require replacement or repair of plumbing that has been found to be substandard if the plumbing can cause a health hazard with regard to contaminated waste potentially infiltrating into the public water system.

A private lift station is sometimes needed due to the topography of the property and the location of existing sewer infrastructure. A lift station on private land is usually intended for the benefit of one property. DWU is not involved in the inspection of these installations. The City does not maintain lift stations which benefit only one property owner. Service Agreements are written into deeds and outlines as to how the lift stations are serviced. Under certain circumstances, when a lift station is proposed to service multiple lots or developments, DWU will inspect and maintain these "public" lift stations. For situations where a private lift station is utilized, a backflow agreement is required if the finished floor elevation is less than 1.5 above the nearest downstream or upstream manhole.

Crossing lot lines with private water or wastewater services is strictly prohibited by Dallas Water Utilities. This has historically caused issues because private customers cut or remove lines used by other customers.

TIME FRAME: NA

COSTS: NA

7.18 LATERAL REUSE

DWU Wastewater Laterals can be re-used by a Developer for a property site given the following conditions:

1. The site is one acre or smaller.
2. The lateral is of sufficient quality for future maintenance.
 - a. The owner will be responsible for hiring a firm to televise the lateral and furnish a copy to DWU. DWU personnel must be present during the inspection of the lateral for approval.
3. Lateral size is regulated by the Plumbing Code.
4. The minimum lateral size is 6 inch diameter.
5. Existing laterals 4" diameter and smaller can not be reused.
6. The lateral must be made of DWU approved materials. (Refer to Table 3.6.3: Wastewater Pipe Materials in the *Water and Wastewater Procedures and Design Manual*)

To reuse a wastewater lateral, the Developer or Homeowner must file for a permit in the 'One-Stop-Shop' permits office of 320. E. Jefferson, Oak Cliff Municipal Center (Room 118).

TIME FRAME: It typically takes 3 to 4 weeks for DWU and Sustainable Development and Construction Water / Wastewater Section to review and approve lateral reuse

COSTS: There are no fees associated with the lateral re-use review process.

7.19 JOINT (J) CONTRACTS

Joint (J) Contracts are contracts where the City, or City-Participating body, is designing and planning to construct new water or wastewater facilities. These are commonly executed out of the Parks Department, Trinity Watershed Department, and the Public Works Facilities Section. Occasionally, a governmental organization such as the Love Field Modernization Program will process a J contract. J contracts are not eligible for DWU participation unless otherwise noted by DWU management from separate agreements or Memorandums of Understanding (MOU's). Joint Contracts (J-Contracts) might be constructed by a private contractor or be done through the public contract procurement process depending on who is leading the project.

Joint Contracts (J contracts) may require coordination between the Water / Wastewater Section of Sustainable Development and Construction and DWU Engineering Services. It is encouraged that City Departments meet with DWU Engineering Services and Sustainable Development and Construction Water / Wastewater Section prior to project planning and construction of a project to understand what document(s) and processes may be required. The Developer is required to meet with the Building Permits Section before construction of any vertical structure.

DWU itself plats, designs, and construction projects in the City of Dallas limits. The Coordinator shall work with DWU to assist in understanding the permitting and platting processes to ensure a successful project.

7.20 311 SERVICES FOR DEVELOPERS

Through the "311" system, DWU Provides services that might be beneficial to a Developer or Customer. These include, but are not limited to:

- Utility line locations.

- Note: DWU water, wastewater, or non-potable water lines are not part of the State Wide One-Call Program.
- Although response times may be longer, it takes a minimum of 48 hours for DWU to locate a line.
- Water quality issues.
- Water meter shut off.
- Billing issues associated with a property.
- Septic tank waste disposal information.

TIME FRAME: Depends on service requested

COSTS: There are no fees associated with 311 services listed above

8.0 SPECIAL DISTRICTS

Special Districts are usually created to achieve specific economic or strategic goals for Developers or Land Owners. Creating a special district may take years of working with City or State leaders and can be a complex legal-administrative process. A special district may encompass all or just a portion of a development area. The standards, rules, and manuals of the Dallas Water Utilities apply to all Special Districts within the DWU Service area.

8.1 MUNICIPAL UTILITY DISTRICT (MUD)

Dallas Water Utilities holds the State Granted Certificate of Convenience and Necessity (CCN) for the majority of City of Dallas. There is the potential that a Municipal Utility District can be created by the Developer within the City of Dallas limits. MUDs have no current precedent inside the City of Dallas corporate limits. Developers wishing to create a MUD will have to discuss this with the Dallas City Attorney office during the planning phase of the project.

8.2 MUNICIPAL MANAGEMENT DISTRICTS (MMD)

More common than the MUD is the Municipal Management District, or MMD. This is a governmental body associated with the City of Dallas having a charter as approved by the Texas State Legislature. An MMD has the ability to tax customers to raise funds to pay for certain infrastructure improvements. Water and Wastewater Assets designed and constructed in an MMD must follow the provisions of this manual and the appropriate references. MMDs are special districts that are self governed, but are approved by the City of Dallas. Through their fundraising powers, they can provide infrastructure and other services within the district according to a district-approved service plan. MMDs can be created, (Chapter 375 Local Government Code), through the Texas Commission on Environmental Quality (TCEQ) or by the State Legislature. The MMD does not replace existing city services, but provides supplemental services. MMDs can be dissolved by the City Council, property owner petition, or by a vote of the board. The exact powers of the MMD are determined by the Dallas City Council on a case-by-case basis. As of 2012, there are two MMDs in Dallas: Cypress Waters MMD and the North Oak Cliff MMD.

8.3 TAX INCREMENT FINANCE DISTRICTS (TIF)

A Tax Increment Finance District (TIF) is created by the City of Dallas with the assistance of its leaders and the Department of Economic Development. The State of Texas Limits how much of the City of Dallas, or any municipality, can be in a TIF District. There are currently 20 TIF Districts in Dallas. TIF Districts require the same review and participation judgment of other private contract projects. When a private contract exists in a TIF District, and there is participation by DWU, the Contract Administrator must provide the TIF Manager from Economic Development copies of reimbursement related documents. Due to the nature of the TIF district, some TIF contracts may be managed out of another City Department, such as Public Works. In these cases, DWU Relocations Section assists in the management of a TIF project that involves DWU water or wastewater replacements. There is usually one overall TIF agreement and multiple project or phase specific TIF agreements that address each phase of a project.

8.4 PLANNED DEVELOPMENT DISTRICT (PDD)

There are three types of zoning changes: General Zone Change, Planned Development District (PDD), and Specific Use Permit (SUP). The City of Dallas Planning Division is responsible for reviewing and processing zoning, platting, PDDs, and SUPs. Each has a different process and requirements. A PDD

is defined in Chapter 51 of the Dallas City Code. A PDD is typically given a PD (Planned Development) number that is referred to in various land use discussions. A PD is generally a layer placed over a specific piece of land that contains special elements not consistent with any one type of zoning layer. The provisions placed on the PDD can affect how and where a utility line is placed. Once approved, a PDD is defined in the City of Dallas Code through an ordinance. More details on PDDs are available online at: http://dallascityhall.com/development_services/zoning.html

8.5 PUBLIC IMPROVEMENT DISTRICTS (PID)

A Public Improvement District is a special assessment area created at the request of the property owners in the district. They are authorized by Chapter 372 of the Texas Local Government Code. These owners pay a supplemental assessment with their taxes, which the PID uses for services above and beyond existing City services. The assessment allows each PID to have its own work program, which may consist of eligible activities such as marketing the area, providing additional security, landscaping and lighting, street cleaning, and cultural or recreational improvements. There are currently nine PIDs in Dallas.

9.0 AGREEMENT-TYPES AND ISSUES

Agreements related to a development must be provided to the Coordinator in order to appropriately determine the actions to take on a project. It is common for existing or future agreements to impact the service of water or wastewater in a project site.

9.1 DEVELOPMENT AGREEMENT

A Developer can work with the Economic Development Department to write a Development Agreement in advance of the platting and design process. When developed early, this agreement can clarify potential DWU participation in a project. It can also provide specific guidance on other issues needing clarification from the Developer. Development Agreements typically take 5-7 months to process and require multiple meetings with DWU Engineering Services, the City Attorney's office, and require a Development Impact Report. A Development Agreement should be written to reduce risk to both the Developer and the City. A Development Agreement can be processed administratively or through the City Council Agenda depending on the advice of the City Attorney's office.

The Engineer is required to meet with DWU Engineering Services to go over the required deal points of the Development Agreement and discuss any potential engineering, land, or construction issues that might arise. The Development Impact Report is used to clarify the issues involved with the proposed project. Development Agreements require multiple revisions before completion.

9.2 BOUNDARY ADJUSTMENT AGREEMENT

Dallas shares a border with multiple cities including but not limited to: Red Oak, Lancaster, Richardson, Garland, Irving, Farmers Branch, Plano, Wilmer, and Coppell. If an area of the city has been changed or modified through Council Action with a Boundary Adjustment Agreement, it can also change the service boundaries of the DWU customer service map. If the Developer or Coordinator knows that the area being developed was moved to the City of Dallas within the past 20 years it is important that they reveal this information during the development process. Being in a border area of the City may require special coordination with DWU Engineering Services, DWU Wholesale services, and the affected out-lying Municipality

9.3 DWU RECIPROCAL AGREEMENTS, INTERLOCAL AGREEMENTS, AND CONTRACTS

DWU currently has arrangements with most utility providers that border the City of Dallas. In cases where an emergency interconnect is required by DWU the Coordinator and Developer must discuss the arrangement with the DWU Wholesale Services Manager. This will typically involve a meeting between DWU Wholesale Services and the Sustainable Development and Construction Water / Wastewater Section.

DWU has multiple inter-local agreements in place with various parties including:

- Wholesale Treated Water Customers
- Wholesale Untreated Water Customers
- Wholesale Wastewater Customers
- Wholesale Untreated Water Customers-Irrigation Only
- Reciprocal Water and Wastewater Customers
- Dallas County
- Cities that share utilities or boundaries with Dallas
- Trinity River Authority (TRA)

- North Texas Municipal Water District (NTMWD)

Specifically these include: Addison, Carrollton, Cedar Hill, Cockrell Hill, The Colony, Coppell, Denton, DeSoto, Duncanville, Farmers Branch, Flower Mound, Glenn Heights, Grand Prairie, Grapevine, Highland Park, Hutchings, Irving, Lancaster, Lewisville, Mesquite, Ovilla, Red Oak, Richardson, Seagoville, University Park, Wilmer, Dallas County WCID #6, Dallas/Fort Worth International Airport, Ellis County WCID #1, Rocket Water District, and the Upper Trinity Regional Water District.

When a project by a Developer may impact these jurisdictions, the Coordinator shall coordinate the issues with DWU Wholesale Services.

9.4 TIF-Project Specific Agreement

If the Developer has a project in a TIF District and has a Project Specific Agreement through Economic Development, then they shall provide this information to the Coordinator early in the development review process. When a project is in a TIF district, and Public Works has street or storm drain improvements within the project, the Coordinator is encouraged to meet with DWU Engineering Services for design review.

10.0 PERMITS AND APPROVALS

To construct a utility project in Dallas there is typically a need for multiple permits. There are two categories of permits: Permits provided by the City of Dallas and Permits provided by other parties.

10.1 PERMITS PROVIDED BY THE CITY OF DALLAS

Below is a general list of the permits processed by the City of Dallas as they relate to Private Contracts (P Contracts) and Dallas Water Utilities Construction:

10.1.1 Meter Permit

All property that contains water or wastewater services to be owned by DWU must be permitted. Fees associated with permitting are in Form 11.5: Customer Fee Table of this Manual. The Permits Section of Sustainable Development and Construction (SDC) manages requests from customers for connection permits. Permits are sold on a case by case basis. Permits can be sold to the following types of customers:

- Future property with the need for new meters.
- Existing properties with an existing meter box.

Permits are typically sold with the development plat. Properties can also be provided service through permit only. In cases where service comes by permit only, a main is not required to be extended to the property by the Developer. There are two general types of water permits:

- New Residential Water Permits.
- New Commercial Water Permits.

The Developer or Engineer should contact the Building Permits Division of Sustainable Development and Construction (SDC) for questions on permits.

10.1.2 Fire Hydrant Meter Permit

During the construction of a development, the Contractor may need a temporary permit to obtain metered water from a fire hydrant. In this scenario, the Contractor is required to place a \$1,500 deposit with DWU's customer service located at Dallas City Hall (1500 Marilla Street, Dallas Texas 75201). Customer service will create an account, provide the paper work, and provide a location to pick up the meter.

10.1.3 Pavement Cut Permit

The Developer's Contractor must acquire a pavement cut permit to cut existing pavement in the City of Dallas when installing a new water or wastewater utility line. This involves acquiring permission from the Cut Control Division of Public Works Department. The pavement cut and replacement must follow the provisions of the *City of Dallas Pavement Cut Manual, Latest Edition*.

10.1.4 Building Permits

Building permits apply when a party is constructing a building or a facility. There are various types of building permits. These include, but are not limited to: Plumbing Permits, Foundation Permits, Air Condition Permits, Grading Permits, Plumbing Permits, and Electrical Permits. For a complete list of construction work not requiring a permit, see Chapter 52, Section 301(b) of the Dallas City Code (Dallas Building Code).

10.1.5 Fill Permits

Fill Permits are obtained through the COD Flood Plain Coordinator. These permits are required when fill is being placed within a FEMA designated one-hundred year floodplain. Refer to Section 7.8 of the manual for more information on DWU required response to fill permit reviews.

10.1.6 Construction by Lake Ray Hubbard

Construction in the Lake Ray Hubbard “take area” requires additional permitting and approval as directed by the DWU Reservoir Manager and as required in Chapter 32-63 and 32-65. See Section 3.73 of this manual, for more details.

10.2 PERMITS PROVIDED BY OTHER PARTIES

Permits to construct a water or wastewater utility project may require permits from parties outside the City of Dallas. It is the responsibility of the Customer to acquire all necessary permits on a Private Contract (P-Contract). This includes but is not limited to:

- TXDOT Permits (in TXDOT ROW)
 - Note: TXDOT Permits are submitted to TXDOT through the City of Dallas Coordinator using the following link: <https://apps.dot.state.tx.us/apps/UIRPROv2/ucInt/ucLogin.asp>
- North Texas Tollway Authority (NTTA)
- Texas Water Development Permits
- TCEQ Permits
 - Storm Water Pollution Prevention Plan (SWPPP) submittals to TCEQ are required when a proposed project disturbs one acre or more of soil. The requirements are outlined in TDPEs General Permit Number TXR150000 (www.tceq.com). A completed electronic copy of the SWPPP must be submitted to this office prior to the start of construction.
- Army Corps of Engineers Permits (near levees)
- Outside City Pavement Cut Permits (in bordering cities)

It is the responsibility of the Engineer to provide copies of these permits to the Contract Administrator during the project construction to track this for eventual ownership by Dallas Water Utilities. Copies of these permits must be placed in the final project folder.

10.3 OTHER APPROVALS

Occasionally, when constructing a pipeline, a Developer will have to obtain approval to encroach into an existing easement from an outside utility. In these cases, it is necessary for the Developer to acquire an encroachment into the existing easement from that company.

11.0 STANDARD FORMS

The following table containing documents for use by both City of Dallas Staff and the Customer.

FORM NUMBER	NAME
11.1	DEVELOPMENT IMPACT REPORT GUIDELINES
11.2	GENERAL NOTES—RESIDENTIAL
11.3	GENERAL NOTES—COMMERCIAL
11.4	DESIGN CHECKLIST
11.5	CUSTOMER FEE TABLE
11.6	PRIVATE OWNER DEDICATION
11.7	SHARED ACCESS AREA DEDICATION
11.8	FIRE HYDRANT WATER PERMIT
11.9	PRIVATE DEVELOPMENT CONTRACT FOR WATER & WASTEWATER CHECKLIST
11.10	STANDARD BACKFLOW RELEASE AGREEMENT
11.11	WAIVER LETTER FOR DEVELOPMENT BOND
11.12	ENGINEERING FILE SUBMISSION GUIDELINES
11.13	EARLY START CONSTRUCTION REQUEST
11.14	STANDARD PRIVATE CONTRACT
11.15	STANDARD PERFORMANCE BOND
11.16	STANDARD DEVELOPMENT BOND
11.17	STANDARD PAYMENT BOND
11.18	DWU PERMIT APPLICATION
11.19	CUSTOMER AVAILABILITY AND WILL SERVE REQUEST
11.20	REQUEST FOR INSPECTOR
11.21	IRREVOCABLE LETTER OF CREDIT
11.22	UTILITY COORDINATION LETTERS
11.23	CERTIFICATE OF LIABILITY INSURANCE
11.24	TRENCH SAFETY AFFIDAVIT
11.25	STANDARD CONSTRUCTION STAKING SHEET
11.26	BACKFLOW REQUEST
11.27	BLANK
11.28	STANDARD BID BREAKDOWN
11.29	PERMIT TO DISCHARGE TO THE SANITARY SEWER
11.30	BLANK
11.31	CUSTOMER REQUEST FOR SEPTIC TANK
11.32	BLANK
11.33	BLANK

11.34	BLANK
11.35	SIZE ON SIZE REQUEST
11.36	FIRE COORDINATION CERTIFICATE