WASHINGTON SUBURBAN SANITARY COMMISSION

WATER and SEWER

AUTHORIZATION PROCESS

MANUAL

APRIL 8, 1996

WATER & SEWER REPORTS SECTION
14501 Sweitzer Lane
Laurel, Maryland 20707

AUTHORITY CLAUSE

The General Counsel certifies that the statutory authority for the adoption of this manual is Article 29, Sections 9-101, 1-102, 1-202, 3-101, 3-102, 3-103, 3-104, 3-105, 3-106, 4-101, 4-107, 4-110, 5-101, 5-102, 5-103, 5-104, 5-106, 5-107, 6-101, 6-102, 6-103, 6-104, 6-109, 6-113, 7-101, 7-102, 7-103, 7-104, 7-105, 7-106, 7-107, 8-101 & 8-102 of the Annotated Code of Maryland.

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CHAPTER 1

INTRODUCTION

A. Organizational Outline

The Washington Suburban Sanitary Commission (WSSC) is a bi-county agency which was established in 1918 by an act of the Maryland General Assembly. It is chartered to plan, design, construct, and operate water and sanitary sewer services for nearly all of Montgomery and Prince George's Counties, encompassing a 1,000 square mile area. Excluded are Rockville and Poolesville in Montgomery County, Marlboro Meadows and parts of Bowie in Prince George's County. Since inception, the WSSC's service population has grown from 30,000 people in 1918 to 1.4 million people. It now ranks as the 7th largest water and wastewater utility in the nation.

Each year the WSSC systematically meets the water and wastewater needs of a growing population. On average, approximately 275 new projects are authorized yearly; at any given time roughly 100 projects are in various stages of design or construction. The WSSC competitively bids those projects that it constructs. Applicants have the option of designing and constructing the facilities necessary to service their property. In either case, WSSC reviews the design and inspects the construction for each project. Large and small projects alike account yearly for 60 miles of new water main and 50 miles of new sewer main to accommodate 6,200 new customer hook-ups.

B. Construction Funding

The Commission funds its projects under two basic construction funding programs - Water Supply Bonds and Sewage Disposal Bonds, and General Construction Bonds. There are several other minor sources of funding.

1. Water Supply Bonds and Sewage Disposal Bonds

These are used to finance major facilities such as treatment plants, pumping stations, storage facilities, water supply mains 16 inches in diameter and larger, and sewer mains 15 inches and larger. Generally, these projects are included in the Commission's Capital Improvements Program (CIP). These bonds are repaid primarily from customer water and sewer bills.

2. General Construction Bonds

These are used to finance the construction of water mains 15 inches and smaller and sewer mains 14 inches and smaller. These bonds are repaid by Front Foot Benefit Charges levied on properties abutted by the mains.

3. Other

There are several other sources of funding which the Commission uses to fund its projects.

a. Federal and State Grants to fund portions of major wastewater facilities.

b. Sub-District Fees - Special fees charged to new development in designated areas to offset the increased cost associated with unusual conditions of providing service to the area. These are currently six areas that have Sub-District fees. These are as follows:

Piney Branch
Mill Branch
Green Branch
Olney (James Creek)
Clopper Road
Mattawoman / Timothy Branch

Appendix A includes a list of sub-district fees and maps identifying the areas affected.

c. System Development Charge - This is a charge to new customers to pay for the major facilities in the Commission's Capital Improvements Program which are needed to accommodate growth. In the event a property lies in a sub-district, the Sub-District Charge, or the System Development Charge, whichever is greater is required.

d. Deficit Payment - A payment required of an applicant for water and/or sewer service which will make it economically feasible for the Commission to provide the requested service. The method of calculating deficit payments is described in detail in Chapter 3.

C. Water Distribution System Synopsis

All finished (treated) water leaving the Potomac Water Treatment Plant (WTP) must be pumped. Depending on destination, water leaving the Patuxent plant is either pumped or it flows by gravity. In Prince George's County all is by gravity flow; in Montgomery County

all is pumped. From a system standpoint, 55 water-storage facilities and a network of 4,800 miles of main handle a volume in excess of 170 million gallons per day.

Because of variable ground elevations, the WSSC's water system is divided into pressure zones which are hydraulically separated. The WSSC water system ranges from a low elevation of 10 feet above sea level in Prince George's County to a high of 845 feet in Montgomery County. To provide adequate pressure to such a range in elevation, each pressure zone is isolated from adjacent zones by division valves. Each pressure zone has a source(s) of supply (treatment plants, pumping stations or valves) and a transmission system to convey water from the source to the points of use. Water pressures are raised by pumping stations or reduced by pressure reducing valves between pressure zones.

D. Wastewater System Synopsis

The WSSC's wastewater facilities can be divided into two functional types: wastewater treatment and wastewater collection. WSSC operates five wastewater treatment plants and has a combined capability to treat an average daily flow of over 75 million gallons. WSSC is also entitled to treat up to 153.3 MGD at the Blue Plains Regional Plant (expanding to 169.6 MGD) and 3 MGD at the Mattawoman Plant as a result of regional agreements and payment of appropriate capital and operating expenses.

The WSSC wastewater system consists of both gravity and pressure sewer systems. There is over 4,700 miles of sewer pipe and over 40 wastewater pumping stations. Gravity sewers within the network range in size from 6 to 102 inches in diameter. Small diameter, low pressure sewers range from 1 1/4 to 4 inches, and require each property to be served by a Grinder Pump Unit. Each drainage basin is associated with a major stream or river, with each stream having one or more trunk sewers traveling along its course. Wastewater pumping stations convey wastewater through force mains between basins. Wastewater pumping stations may consist of several pumps capable of pumping over 300 MGD through a 108-inch force main (e.g. Anacostia) or limited to a single pump with a small pumping capacity (e.g. Muirkirk).

E. Types of Water and Sewer Service

Depending on the location of property, an applicant may require one or several forms of WSSC service. This depends on the location of the property in relation to existing water or sewer facilities. The following definitions pertain to the different types of WSSC service and each type of service is also shown in the following sketch.

1. Extension

An extension of WSSC's water or sewer mains from the existing end of the system to the property requesting

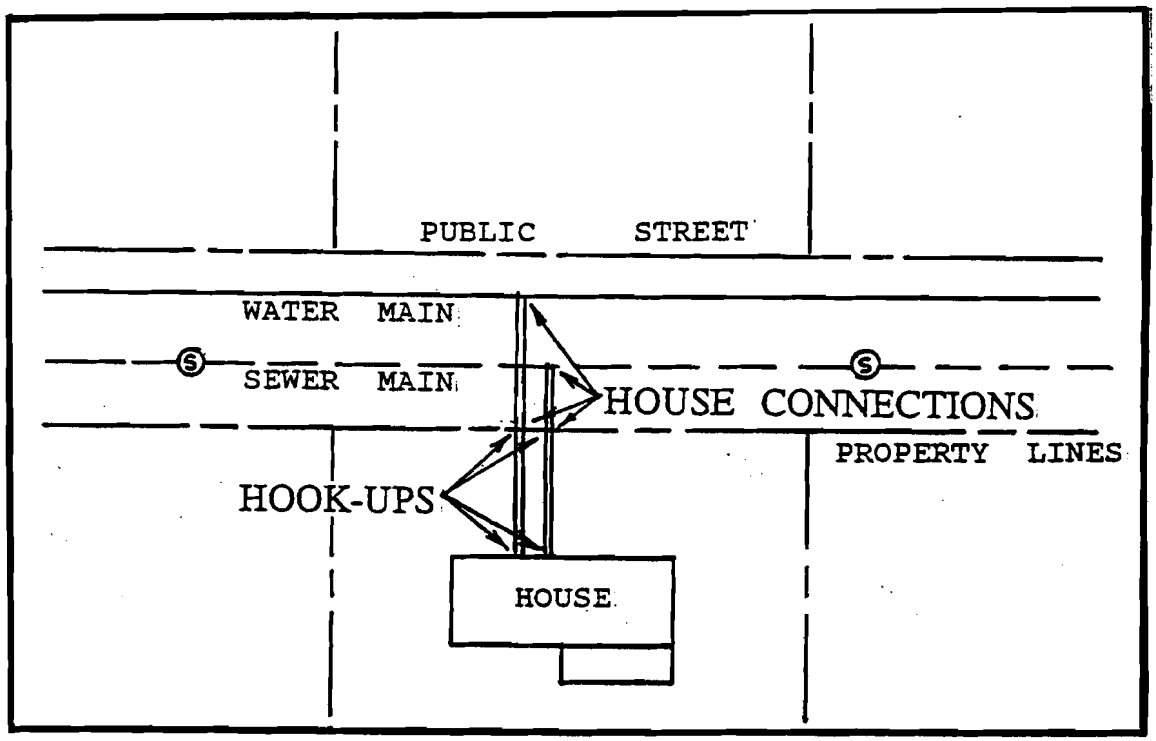
service.

2. Connection

A connection, also called a house connection, is the service line from the WSSC main to the property line.

3. Hook-up

A hook-up is the joining of the on-site water or sewer line to the connection at the property line.



F. Fees and Charges

Depending on the type of service required and the scope of the development, an applicant for service will be responsible for various fees and charges. These range from a Report Review Fee which is required with any Extension Application, to the monthly or quarterly water/sewer bill to pay for water and/or sewer usage. While they are described in various sections in this manual, Appendix J contains several documents showing the possible fees and charges.

G. WSSC Service-Time Staging

The location of existing water or sewer mains in relation to the property requesting service will dictate WSSC's processing action. The flow chart shown in Appendix B outlines the major steps for connection or extension service requests. A connection to an

existing line takes about three months--assuming other agency criteria has been satisfied. Design and construction of a mainline extension ranges from 6 to 8 months for a short extension (if not slowed by special permits and rights-of-way) to four or more years if Capital Improvement Program projects are involved. If a CIP project is required for service, the applicant must consider this time constraint in their scheduling activities. The typical start-to-finish time for providing service to a subdivision is between 16 to 20 months. This time is from the county's approval of the preliminary plan to the completion of construction of the water and sewer mains. This time frame assumes no major delays due to off-site right-of-ways and outside agency permits and that the developer and his engineer properly plan their other site work.

H. WSSC Service Requirements

Prior to requesting service from the WSSC, other regulatory requirements must be met. These include:

1. Service Area

The WSSC is prohibited, by law, from constructing mains to an area not planned for public water and sewer service. Service area categorization (designated by special maps) is the responsibility of the Department of Environmental Protection in Montgomery County, and the Department of Environmental Resources in Prince George's County. Unless a property is situated in the appropriate service area, the WSSC cannot accept a request for water and/or sewer service. The property must be in Service Area 1 through 3. Preceded by a "W" for water and "S" for sewer, the numbers below correspond to County and State established service area categories:

Montgomery County

1 = Mains exist or are under construction.
2 = Mains are in final planning stages.
3 = Service is planned within 2 years.
4 = Service is planned within 3 to 6 years.
5 = Service is planned within 7 to 10 years.
6 = No planned service

Prince George's County

3 = Service may be provided.
4C = Conditional approval for category 3
4 = Service is planned for the near term.
5 = Service is planned in the future.
6 = No planned service

2. Allocation Policies

Montgomery County's sewer allocation policy enables any

applicant to apply directly to WSSC for service in those areas already established as Service Areas 1, 2, and 3. The same is true in Prince George's County for Service Area 3, except for projects undertaken by a public entity. These projects must obtain a Public Use Allocation from the Prince George's County Department of Environmental Resources prior to applying for service from the WSSC.

3. Preliminary Plan

If a Preliminary Plan has been accepted for processing by the Development Review Committee of the Maryland-National Capital Park & Planning Commission, WSSC will concurrently accept service extension applications. The preliminary plan, however, must be approved prior to the WSSC's approval of the authorization.

4. Utility Line Concerns and Constraints

Site planning concerns worthy of note are:

a. Other utilities cannot accomplish their site-supportive work until WSSC construction is finished. Early coordination with other utilities is encouraged.

b. A developer of a site is responsible for gratis dedication of any easements or rights-of-ways necessary on their property for the installation of public water/sewer mains. This includes those rights-of-ways necessary to provide future WSSC service to others.

I. Staged Construction

Larger projects, especially those requiring off-site rights-of-way or CIP facility construction, lend themselves to staging of construction in parts. For example, a water or sewer extension involving extensive off-site construction might best be staged so that site work can be done while awaiting the off-site construction. Also, staged construction staggers financial outlays--such as deficit payments (explained in Chapter 3). Finally, staging should correlate the availability of water and sewer mains to realistic marketing projections. Limited capacity of existing water and sewer systems may also necessitate staging the development.

CHAPTER 2

WATER AND SEWER SERVICE DEVELOPMENT

A. Applications For Service Extension

If it is necessary to extend the Commission's existing water and/or sewer system to provide service, an Extension Application must be submitted to the Water and Sewer Reports Section. This application is processed as an Engineering Feasibility Report, which details engineering and economic conditions which must be met before service would be provided. Following approval, the report becomes an Authorization. For private citizens and non-profit organizations, the WSSC (Water and Sewer Reports) staff will prepare the report. However, all other applicants must engage an engineer to prepare the report. A sample report is shown in Appendix C.

B. Engineering Report Processing

As detailed in Chapter 1, there are a number of regulatory requirements which must be met before service can be requested from the WSSC. Once accepted for processing, the engineering report is internally coordinated and reviewed by WSSC offices before being submitted for approval. The scope of the project determines the approving authority in accordance with the Commission's Delegation Of Authority (See Appendix D). To expedite the service process, the WSSC Water and Sewer Design Section will accept private design plans for review purposes in advance of authorization approval, but withholds sign-off on plans until a project is authorized. An applicant who proceeds in this fashion does so at their own risk and expense.

C. Authorization Implications and Limitations

After approval, notification is made known to the applicant in the form of an Authorization letter. This letter specifies the terms and conditions the applicant must meet, as shown in Appendix E. Other special conditions in the report are also made known in the letter.

After a project has been authorized, the authorization remains valid for the life of the preliminary plan, or indefinitely if the plat is recorded. **AN AUTHORIZATION, HOWEVER, IS NOT A CONTRACT FOR SERVICE.** The Commission reserves the right to modify, delete, alter, or add conditions to the authorization. This reservation remains until the property to be served is actually connected to the WSSC's system.

If subsequent changes are made which have an impact on the authorization, the applicant is required to file a request for an

authorization amendment. The request must be submitted to the Water and Sewer Reports Section along with the Authorization Revision fee. Major revisions may require a new report fee submittal.

D. Transfer of Authorization

A water/sewer authorization is granted to a specific applicant for a specific property. If there is a change of ownership of the property that is the subject of an authorization, the authorization must be transferred to the new owner. This is accomplished by submitting an Authorization Amendment form to the Water and Sewer Reports Section along with the Transfer of Authorization fee. The form must have the signatures of the present and proposed authorization holders, or a copy of property ownership must be provided. Once approved, the new authorization holder will be obligated to fulfill those conditions previously set forth by the Commission. It is important to keep authorization ownership current, since any refund of a deficit payment due to recosting is payable to the applicant of record at the time of recosting.

If a portion of an authorization is transferred before WSSC construction is completed, the transferred portion will be converted into a new authorization. Each authorization will then be costed and conditions adjusted accordingly, based on circumstances current at the time of transfer.

E. Conceptual Water and Sewer Guidelines

1. Water System Fundamentals

The following factors apply to mains 12-inches in diameter and less.

- The water main is to be located within street rights-of-way whenever possible.
- The water main should be located within the pavement of proposed streets.
- The water main should be located outside the pavement and within the street right-of-way of existing streets.
- The water main alignment should avoid the removal of trees and landscaped areas within existing streets.
- The alignment should allow construction without the need for closure of existing streets.
- The alignment should avoid high traffic volume roads, if possible.

- The alignment should provide for future extensions without the need to cut the pavement of proposed road improvements.

- When the water main must be outside of a street right-of-way, steep slopes, wetlands, tree save areas, parklands, and other sensitive areas should be avoided.

- When outside of a street right-of-way, the alignment should follow property lines.

2. Sewer System Fundamentals

The following factors apply to gravity sewers. Grinder pump systems are addressed later in this section. If service will require a pumping station and force main, the applicant's engineer should consult with the WSSC.

- Normal sewer is 8 to 10 feet deep. Sewers over 10 feet deep are considered extra depth and require additional working space and/or right-of-way.

- Sewers over 15 feet deep require substantially more construction space and/or right-of-way. Space requirements increase with increasing depth and ground slope. Sewers over 20 feet deep create major problems in both construction and maintenance and will not be allowed unless absolutely necessary.

- Placing the sewers in the streets is preferable to placement in the rear of lots.

- Sewers are to be located to minimize disruption to environmental features. By necessity, outfall sewers are located along drainage courses, where streams, wetlands, tree-save areas, parks and open space areas are likely to be located. The number of stream crossings are to be kept to a minimum and are to be perpendicular to the stream. Wetlands are to be avoided as much as possible. Normally, the ground rises relatively sharply just beyond the floodplain. These slopes are to be avoided.

- Sewers along streams must be designed to be able to serve both sides of the stream. Therefore, the sewer cannot be placed too far from the stream or too far up the slope. A 25 foot minimum buffer between the stream bank and cleared construction area is to be provided.

3. Water Loops

A loop is a water main constructed to provide a link between two existing or new water mains. Water loops serve two primary purposes in the distribution system. They provide a second feed to an area to prevent outages resulting from a water main break, and they prevent dead ends in the system. Such dead ends can degrade water quality if there is insufficient demand at the end of the line to keep the water from becoming stagnant and losing its chlorine residual. Water loops which are not included in the applicant's costs are funded by general bonds since they are a system improvement.

When WSSC staff review requests for service extensions, they look to see if a loop is needed based upon the following criteria:

SITUATION	CRITERIA
Future water quality problem avoidance	5 feet of main per new unit or 300 feet of main, whichever is greater.
Known water quality problems	10 feet of main per unit, or 650 feet of main, whichever is greater.
A 2nd feed for outage avoidance (redundancy)	10 feet of main per unit but only if 50 or more units involved.

If a loop connects two water mains entirely within an applicant's project, or extends outside the applicant's project to solely benefit the project, the loop is shown on the engineering report sketch as a solid line and its cost is included in the applicant's overall project cost analysis. If the loop is required to serve both the applicant's and external properties, then the cost will be apportioned to the applicant's project and the general bond fund (WSSC) in proportion to the number of internal and external protected units respectively. If a loop extends outside the applicant's project for the sole purpose of improving the local water system, it is not included in the applicant's cost analysis and is funded by the general bond fund.

4. Grinder Pump/Low Pressure Sewerage Systems

Under this system, each residence is served by an

individual Grinder Pump assembly typically installed in a buried tank on the resident's property, which pumps the sewerage through a small diameter pipe to a main in the street. The property owner is responsible for providing maintenance of the on-site system. The WSSC maintains the main in the street and the connection to the property line of the property served.

Grinder pump/low pressure sewerage systems are permitted only when all of the following criteria are satisfied:

a. The extension of gravity service to the property is inconsistent with adopted master land use plans, the County's 10-Year Water and Sewer Plan, or otherwise considered infeasible by the WSSC.

b. The proposed use is for residential property only.

c. The proposed use will not, in the judgement of the WSSC, result in odor or corrosion problems, due to the formation of hydrogen sulfide.

5. Rights-of-Way

Right-of-way acquisition for water and sewer lines outside of an applicant's property is the responsibility of the WSSC. Negotiation for such rights-of-way is sometimes a major obstacle to timely construction. All rights-of-way through an applicant's property, including those required for future mains, must be provided gratis to the WSSC as a condition of the authorization. Required right-of-way widths for various pipe sizes and conditions are contained in the WSSC Water and Sewer Design Manual.

F. Unit Cost Factors

Unit prices (cost per foot) for use in Engineering Feasibility Reports are prepared annually by the WSSC's Accounting Division. The cost of extensions include the construction of the water and/or sewer lines, direct WSSC supervisory and material costs, design cost including the review of the consultant or owner prepared plans, right-of-way acquisition, and indirect costs. The basis for each year's prices are the previous year's actual construction cost by pipe size as adjusted for inflation or other variables. The pipe costs do not include special requirements such as tunneling, extra depth sewer, etc. When these special requirements are encountered, the extra costs associated with them are included in the project's costing.

After the unit price is determined, a projected assessment rate is computed based on costs, expected interest rates, and the ratio of

expected construction footage to assessment footage. Typically, about 1 1/2 feet of assessment can be expected for each foot of water or sewer mains constructed. This factor is analyzed yearly as a part of the assessment rate setting calculations. Ideally, 2 feet of assessment per foot of main could be attained since property on both sides of a street would be assessed. However, corners, intersections, and unassessable parcels, reduce the actual assessment amount.

Deficit payments, as further explained in Chapter 3, are required when necessary based on the average unit costs and projected assessments. Each project will experience a cost either higher or lower than the projected average. The variation from average is due to site conditions, season, competition, and other factors. Actual assessment rates are, by law, applied uniformly throughout the Sanitary District and are not established project by project.

A table of recent Unit Cost Factors is shown in Appendix F.

G. Front Foot Benefit Assessment

A cost that owners incur for water and sewer main lines abutting their property is referred to as a Front Foot Benefit Assessment. An assessment is levied upon all properties abutting main lines built in a street, road, lane, alley or right-of-way. This charge is levied for the purpose of repaying funds borrowed for water and sewer main construction. This assessment is payable with County property tax bills. Unless paid off earlier, the annual charge will appear on tax bills for the life of the bonds sold to fund construction -- currently 23 years. Rates for every year are different, because they are calculated to recover the construction and bond interest costs incurred for the water and sewer mains constructed during the year.

1. Assessment Methodology

While specific details on benefit assessments can be found in WSSC's Assessment Manual, typical property assessment methods are based on the following:

a. Residential Lot: Square or rectangular shaped lots are assessed for actual frontage at the Subdivision rate. Irregularly shaped lots and cul-de-sac lots, are assessed based on the front footage of normally shaped neighborhood properties.

b. Multi-Units: Townhouse units are assessed for 50 feet per unit (despite actual frontage) at the Subdivision rate. Apartments are assessed at 20 feet per unit at the first business rate.

c. Parcels: Parcels of land in an improved or unimproved state, but not recorded as a

subdivision lot, are assessed at the three tiered Small Acreage rates, with footage based on abutment.

d. Business: Businesses are assessed for all frontages at Business rates. Properties used for a single endeavor are assessed at the three tiered Business rates. Properties with two or more businesses are assessed for all frontages at the first Business rate.

The reader should be advised that if there are any conflicts between this manual and the Assessments Manual, the Assessment Manual's interpretation shall prevail.

H. Additional Costs

Applicants usually only bear the cost for those facilities which are required to serve their project. As an example, if a larger diameter pipe is necessary to serve potential growth in an area of which the applicant's project is only a part, the applicant only pays for what they need in terms of an "equivalent-line" size. If the larger line size needed to serve other properties is program size, the additional cost of the larger line will be included in the applicant's deficit #2. A deficit #2 payment is required if there is insufficient SDC revenue or bond funding to cover the cost of the CIP project.

1. Items Included in Overall Cost Analysis

Unusual construction conditions result in additional costs, because they are not included in the derivation of the unit cost factors. Typical cases include:

a. Extra Depth Sewer - Sewer main excavations greater than 10 feet.

b. Pressure Reducing Valve - When a pressure reducing valve is constructed as part of a water main extension.

c. Storm Drain Precede - Storm drain segments constructed in advance of water and sewer mains add to WSSC's contract cost. This construction must be approved by the Water and Sewer Design Section, and is included in the overall cost analysis only if identified and approved prior to project re-costing (see Chapter 3). Otherwise, it will be a cost entirely borne by the applicant.

d. Tunnel (Bore and Jack) Construction - When necessary to tunnel under a roadway, railroad, etc., the following cost apportioning applies:

100% - When tunnel is exclusively required for applicant's property and the project is considered a "large development" (more than 30 SFDU's or equivalent commercial flow).

50% - If project is a "large development" but tunnel will serve any other property, 50 percent shares between applicant and WSSC.

50% - If project is a "small development" (30 SFDU or less or equivalent commercial flow) and tunnel is exclusively for applicant.

25% - If project is a "small development" and tunnel will serve any other property.

This cost will be applied to an "equivalent tunnel size" consistent with the "equivalent line size" methodology which equates pipe payment responsibility to an applicant's site development requirements.

2. Costs Borne by Applicant

Existing WSSC facilities sometimes pose problems for new development sites. When a subdivision site layout cannot be modified to avoid WSSC facilities, a cost surcharge is imposed. The surcharge is always payable by an applicant regardless of the deficit or surplus situation. Typical surcharges include:

a. Abandonments - Abandonments of previously constructed Commission facilities.

b. Relocations - Relocation of previously constructed Commission facilities that do not provide direct service for the new development is considered a surcharge. If the relocated facilities provide direct service their cost will be included in the cost calculations for deficit/surplus determination.

c. Replacement/Relief Mains - Replacement or relief mains required strictly due to the applicant's development scheme are considered a surcharge. All other replacement/relief main costs would be borne by the WSSC.

d. Assessment Payoff - Existing assessments must be

paid off on properties for which multi-unit residential development is proposed, as well as properties, or portions thereof, whose assessments will be suspended due to designation as common ground, outlot, or other exempt status.

I. Construction By Applicant

The 1993 legislation which authorized the WSSC to impose the System Development Charge also allowed for developers and others to construct the water and sewer facilities needed for their development, at their expense, subject to WSSC approval. Upon completion of construction the facilities are turned over to the WSSC for service and maintenance. To do this, the applicant must execute a Memorandum of Understanding (MOU) with the WSSC which covers the design and construction of the facilities in accordance with SOP PD-93-06. Under this agreement the applicant must pay all costs incurred by the WSSC for the construction. This would include plan review, supervision and inspection, and other costs incurred by the Commission. If the facilities to be constructed are in the Capital Improvements Program, the applicant will receive credits toward their Systems Development Charge for the eligible cost incurred by the applicant for the design and construction of the facilities in accordance with SOP CUS 94-03.

If the applicant constructs the house connections along with the mains, they will not be required to pay house connection fees. The applicant is still required to file connection applications. Where the development is served directly by mains constructed by an applicant, the development would not be subject to a front foot benefit assessment since there is no expense to the WSSC to provide service.

J. Dry Water and Sewer Systems

In accordance with the Montgomery County and Prince George's County Ten-Year Plans, all subdivisions which are to be initially developed on interim individual systems shall also construct the community systems. This includes the connections from the lateral main to the property lines and hookups between the property line to the immediate vicinity of the structure; however, the structure shall not connect to the system.

The applicant would be required to construct, at their own expense, the "dry" system in accordance with plans and specifications approved by WSSC, and must pay all costs incurred by the Commission relating to the project. The system would be turned over to the Commission upon completion of construction. Properties abutted by the "dry" system would not be subject to a front foot benefit assessment.

CHAPTER 3

ENGINEERING FEASIBILITY REPORTS

A. Overview

An Engineering Feasibility Report determines the water and sewer mains and facilities which must be constructed to provide the requested service. It also estimates the costs of those mains and the assessment yield which will be generated by their construction, and lists the conditions which the applicant must comply with in order for service to be provided. A sample report is shown in Appendix C.

B. Report Preparation

The first step in the preparation of the report is to review WSSC records to determine the nearest existing water and/or sewer mains to serve the development. The route decided upon would be based on sound engineering practice. A review of WSSC records should also be made to determine if any authorized projects are in the area. In designing the proposed extensions, the best information currently available should be used, such as established street grades, preliminary grading plans, and any prior planning information available. M-NCP&PC 200-foot topography sheets are useful for off-site design in undeveloped areas. The design of the proposed extensions in the report is a preliminary design and need not show all details except where it directly relates to the cost of the extensions, or to address a specific point mentioned in the report. Examples would be the cost of a pressure reducing valve or mains to be abandoned. Main sizing is not required for the initial layout of the proposed mains. The mains will be sized by the Commission's Water Resources Planning Section as part of the report review process.

1. Report Sketch

An integral part of a report is the sketch. The project is to be shown on a sketch at 1" = 200' scale. The base for the sketch shall be a black line print of the Property Assessment Section 200-foot sheets, which show existing water and sewer mains on the same sheet. If the sketch requires more than one 200-foot sheet, the sheets must be attached together. Off-site extensions may be shown on a separate sketch with reduced scale. The sketch shall show all the information identified in the Sketch Color Coding Section of this chapter and include a legend depicting the color code. Relevant field observations should also be

shown. A sample sketch is shown in the report in Appendix C.

2. Sketch Color Coding

The sketch shall be color coded as follows:

a.	Applicant's property and/or parcel	Outlined in yellow
b.	Existing water and sewer mains from which proposed extensions will be made, with sizes	Black
c.	Proposed water extensions and line sizes	Blue
d.	Water loops	Dashed blue
e.	Proposed sewer extensions, manholes, sizes, and flow direction arrows	Red
f.	Proposed pressure sewer extensions and sizes	Red
g.	Capital Improvements Program Project Numbers	Black
h.	Dependent authorizations with authorization number and date of authorization	Black
i.	Existing houses or buildings	Black squares
j.	Proposed buildings	Outlined in red
k.	Boundaries of government, park, and Board of Education Property	Outlined in green
l.	Property to be assessed immediately	Orange for water; brown for sewer; with the assessable footage legibly noted in black on each lot and/or parcel
m.	For property which will have assessment suspended	Assessable footage legibly noted in black on each lot and/or parcel
n.	Underline main streets	Red
o.	Existing paving and private on-site systems	Green
p.	If the proposed development is to be divided into parts for construction, the parts should be clearly labeled and delineated using various colors of preference	
q.	Show the WSSC 200' number(s) in the lower right hand corner	Black

r.	Show north arrow and bar graph showing scale	Black
s.	Canvassing of owners of existing buildings	Buildings where owners desire service are to be circled in red and those not desiring service circled in green. A building without a circle would indicate no reply by the owner. (This step is performed by WSSC staff)
t.	Rights-of-way and permits required	Black

3. Environmental Inventory

In order to properly review and assess possible environmental impacts and determine what environmental permits will be required, the following information as shown on the preliminary plan of subdivision must be provided if it is applicable to the site to be developed:

* Topography — Show all steep slopes (>15%).

* Forested Areas — Show all woodlands classified by DNR regulations as "Forests" (A Forest Stand Delineation and Natural Resources Inventory will be subsequently needed if a Forest Conservation Approval is required).

* Wetlands — Show delineation of tidal and non-tidal wetlands and their buffers as defined by MDE regulations.

* Waterways — Show waterways that appear on USGS quadrant maps and their floodplain limits, and indicate the drainage area at the points of any stream crossings.

* Critical — Identify any "Critical Habitats" or "Natural Heritage Areas" as defined by DNR.

* Critical Areas — Show the limits of any Chesapeake Bay Critical Areas and their buffers (Prince George's County only).

* Cultural Sites — Identify any historic or archaeological sites as defined by M-

NCP&PC or MD Historic Trust.

* Rural/Rustic Rds. Show any Rural/Rustic roads as identified by Montgomery DOT.

* SPA'S Show any Special Protection Areas as designated by M-NCP&PC.

* Park Lands Show any M-NCP&PC, State, or Federal parkland to be impacted.

4. Extension Cost Sheet

After a route and size has been chosen for the extension(s), a cost analysis is then prepared on the standard forms. Cost tabulations are based on the most current UNIT COST FACTORS (Appendix F). Any Equivalent Line Sizing must be shown on the cost sheet to properly account for the applicant's needs. Any additional costs, as explained in Chapter 2, must also be included on the cost sheet. The annual cost and yield are tabulated by part and for the total project showing surpluses or deficits. Where applicable, the costs shall be separated by funding source: General Construction, Water Bonds, Sewer Bonds or construction by applicant.

An explanation of the terms printed along the top of the Extension Cost Sheet follows.

* The "COST" is the product of multiplying the segment "LENGTH" by the "UNIT COST PER FOOT" of the pipe diameter selected.

* The "INTEREST COST" is the product of multiplying the "COST" by the appropriate bond "INTEREST COST FACTOR".

* "INTEREST COST" and "COST" are added; this sum is then divided by the appropriate number of "Bond Years" to derive the "ANNUAL COST".

* The "TOTAL YIELD" is the sum of the various classifications of front footages to be assessed multiplied by the appropriate assessment rates.

* The difference between the "TOTAL YIELD" and the "ANNUAL COST" produces the "ANNUAL SURPLUS or (DEFICIT)".

5. Field Review

Field review for a proposed project should be done after the water and/or sewer route alignment is tentatively established. Important field reviewer's observations and notations might include: the location of existing buildings, storm drains, tree areas, existing paving, deep basements, as well as any other information which might have economic, engineering, or environmental implications to the extension.

6. Property Owner Notification

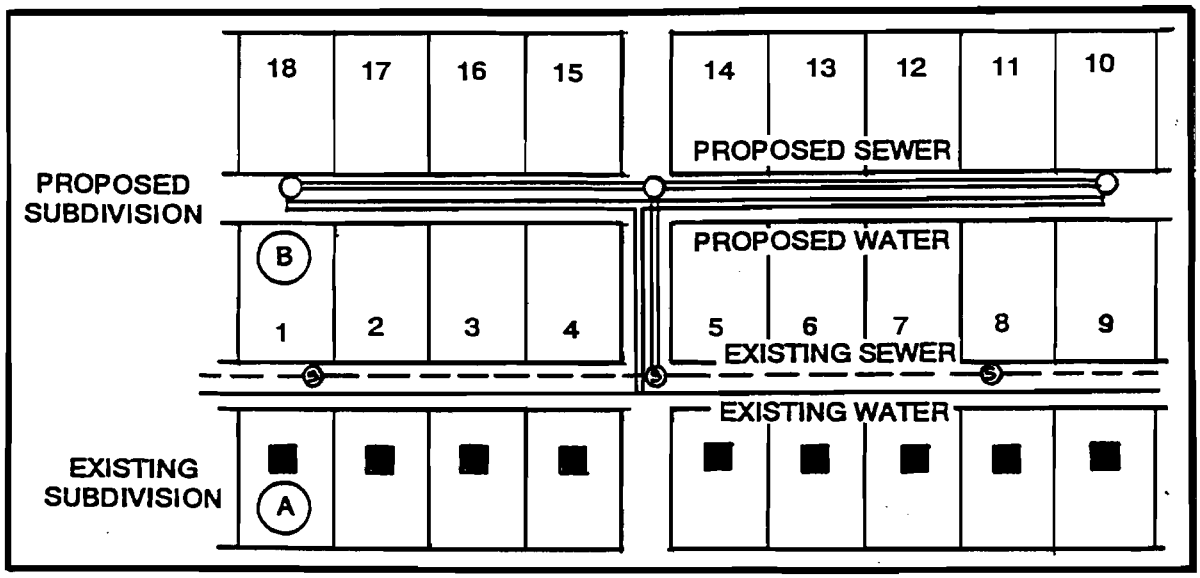
If the extensions proposed in a report will cause property owners other than the applicant to be assessed, those owners are sent a letter by WSSC staff which informs them of the pending construction and the financial implications. For properties which have existing buildings on them, a post card questionnaire is also included to ascertain whether the owners desire service or not. The results of this canvassing are summarized in the report and noted on the report sketch. Should any property owner submit a written objection to the proposed extension, the project must be referred to the full Commission for decision at one of its regularly scheduled meetings.

C. Deficit Payment Calculations

If the ANNUAL YIELD equals or exceeds the ANNUAL COST, the project has a SURPLUS. If costs exceed the yield, then the project has a DEFICIT. A surplus in any of the project's parts offsets a deficit in another part. If a project has an overall deficit, a Deficit Payment will be required of the applicant as a condition of the authorization. Explanations and examples of deficit calculations follow.

1. Interior Deficits

An Interior Deficit applies only to the cost/yield comparison for water/sewer mains within a new subdivision. An interior deficit is "capitalized" i.e., the Annual Deficit is divided by the appropriate Capital Recovery Factor to determine the required Deficit Payment. Capitalization converts the annual deficit into an equivalent present value amount which is payable prior to construction. This payment brings an authorization into a break-even situation. Appendix G shows an example of this break-even situation.



* Lots 1-9 to be assessed based on the rate associated with the existing mains.

* Lots 10-18 assessable from new construction.

* Resultant deficit is capitalized since new mains are within perimeter of new subdivision.

Pipe Size & Kind	Length	Unit cost per foot	Cost	Interest Cost 0.953	Annual Cost 23	Assessment Frontage and Yield									Annual Surplus (Deficit)
						Subd. Ent. Front	Business 1st 200'	Business 2nd 100'	Business Over 300'	Small Acreage 1st 150'	Small Acreage 2nd 150'	Small Acreage Over 300'	Total Yield Water	Total Yield Sewer	
8"W	1,100	49	$53,900	$51,367	$4,577										
WATER						$2.79									
TOTAL	1,100		$53,900	$51,367	$4,577	900							$2,511		($2,066)
8"S	1,100	94	$103,400	$98,540	$8,780										
SEWER						$5.39									
TOTAL	1,100		$103,400	$98,540	$8,780	900								$4,851	($3,929)
W/S															
TOTAL	2,200		$157,300	$149,907	$13,357								$2,511	$4,851	($5,995)

DEFICIT CALCULATION

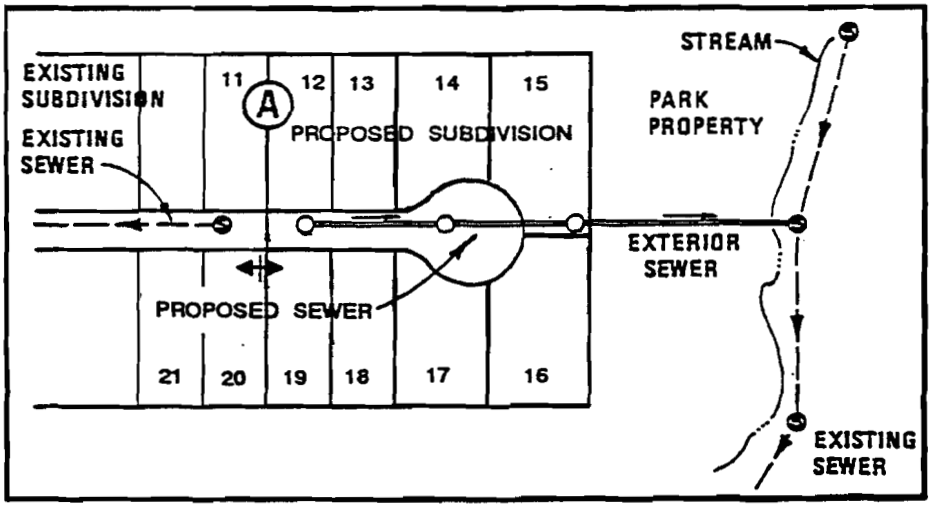
$5,995 DIVIDED BY 0.0849 = $70,612

APPLICANT PAYS $70,610

2. Exterior Deficits

An Exterior Deficit applies to the cost/yield comparison for water/sewer construction which is outside the boundaries of a new subdivision or property being served. Exterior deficits occur when the extension traverses or abuts non-assessable property, existing development, or potential development.

a. Non-assessable Property: If the exterior mains abut or traverse non-assessable property with no development potential, there is no yield to offset the cost. The resultant deficit in such cases is capitalized and included in overall project deficit calculations.



* Exterior outfall sewer through park property which is non-assessable with no development potential.

* Resultant deficit is capitalized.

Pipe Size & Kind	Length	Unit cost per foot	Cost	Interest Cost 0.953	Annual Cost 23	Assessment Frontage and Yield: Subd. Ent. Front	Business 1st 200'	Business 2nd 100'	Business Over 300'	Small Acreage 1st 150'	Small Acreage 2nd 150'	Small Acreage Over 300'	Total Yield Water	Total Yield Sewer	Annual Surplus (Deficit)
8"S	500	94	$47.000	$44,791	$3,991										
SEWER						$5.39									
TOTAL	500		$47.000	$44.791	$3,991	680								$3.665	($326)

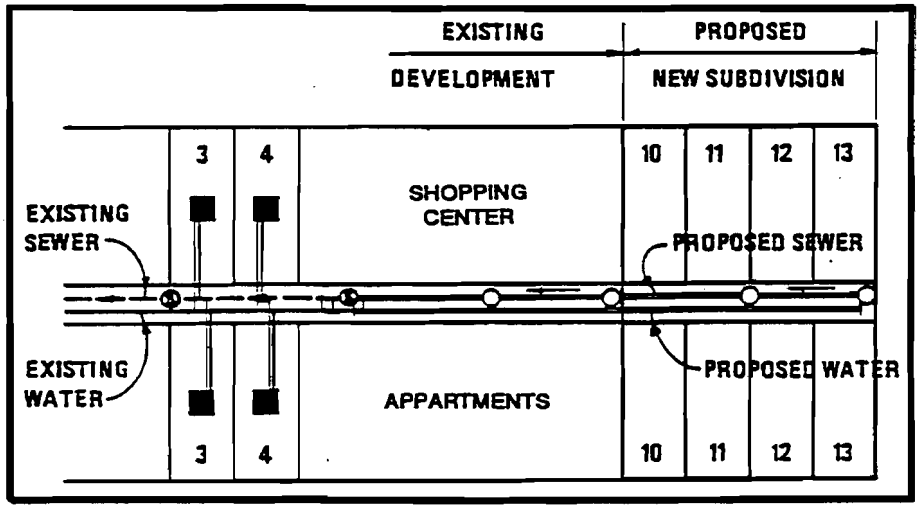
DEFICIT CALCULATION

$326 DIVIDED BY 0.0849 = $3,840

APPLICANT PAYS $3,840

b. Existing Development:

(1) Served by water and sewer - If the extension abuts or traverses existing development already served and assessed, any deficit will be capitalized since there is no future additional yield potential.



* Exterior sewer abuts existing Shopping Center and Apartments already assessed with no future additional assessment.

* Resultant deficit is capitalized.

Pipe Size & Kind	Length	Unit cost per foot	Cost	Interest Cost 0.953	Annual Cost 23	Assessment Frontage and Yield									Annual Surplus (Deficit)
						Subd. Ent. Front	Business 1st 200'	Business 2nd 100'	Business Over 300'	Small Acreage 1st 150'	Small Acreage 2nd 150'	Small Acreage Over 300'	Total Yield Water	Total Yield Sewer	
8"W	530	49	$25,970	$24,749	$2,205										
WATER						$2.79									
TOTAL	530		$25,970	$24,749	$2,205	540							$1,507		($698)
8"S	550	94	$51,700	$49,270	$4,390										
SEWER						$5.39									
TOTAL	550		$51,700	$49,270	$4,390	540								$2,911	($1,479)
W/S															
TOTAL	1,080		$77,670	$74,019	$6,595								$1,507	$2,911	($2,177)

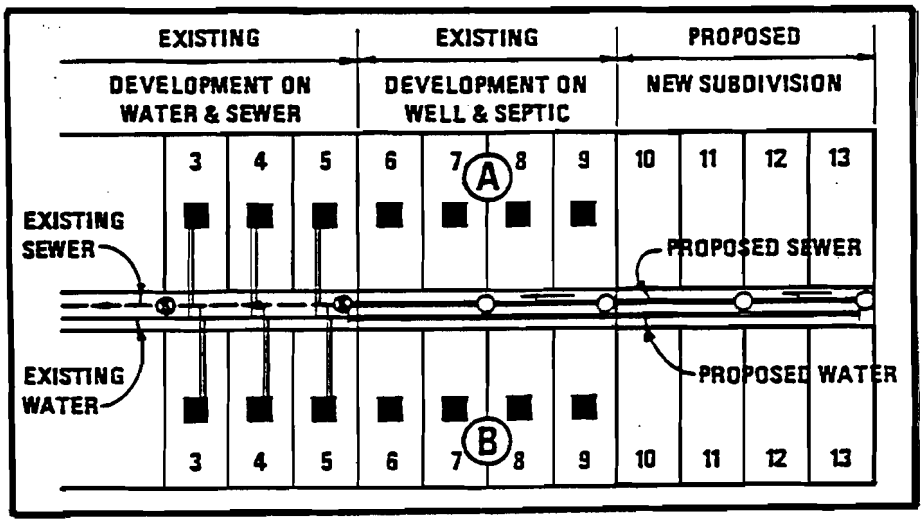
DEFICIT CALCULATION

$2,177 DIVIDED BY 0.0849 = $25,642

APPLICANT PAYS $25,640

(2) Served by well and septic - If the extension abuts or traverses existing houses on well and/or septic, the property will not be assessed until the property connects to the extension. No assessment returns are included in the cost

analysis; however, a credit for future assessment is included in the Deficit Payment calculation. The credit is calculated by capitalizing the total future assessment, and multiplying this by the appropriate Present Worth Factor (See Unit Cost Factors in Appendix F). This credit is then subtracted from the calculated Deficit Payment.



* Exterior water and sewer abut existing houses on well and septic in Service Area W-3 and S-3 which will not be assessed until connected.

* Resultant deficit is capitalized and reduced by present value of future assessment returns.

Pipe Size & Kind	Length	Unit cost per foot	Cost	Interest Cost 0.953	Annual Cost 23	Assessment Frontage and Yield: Subd. Ent. Front	Business 1st 200'	Business 2nd 100'	Business Over 300'	Small Acreage 1st 150'	Small Acreage 2nd 150'	Small Acreage Over 300'	Total Yield Water	Total Yield Sewer	Annual Surplus (Deficit)
8"W	530	49	$25,970	$24,749	$2,205										
WATER						$2.79									
TOTAL	530		$25,970	$24,749	$2,205	560							$1,562		($643)
8"S	550	94	$51,700	$49,270	$4,390										
SEWER						$5.39									
TOTAL	550		$51,700	$49,270	$4,390	560								$3,018	($1,372)
W/S															
TOTAL	1,080		$77,670	$74,019	$6,595								$1,562	$3,018	($2,015)

DEFICIT CALCULATION

$2,015 DIVIDED BY 0.0849 = $23,734

CREDIT W&S-3

WATER 560' X $2.79 = $1,562

SEWER 560' X $5.39 = $3,018

$1,562 + 3,018 = $4,580 DIVIDED BY 0.0849 X .730 = $39,381

$39,381 > $23,734

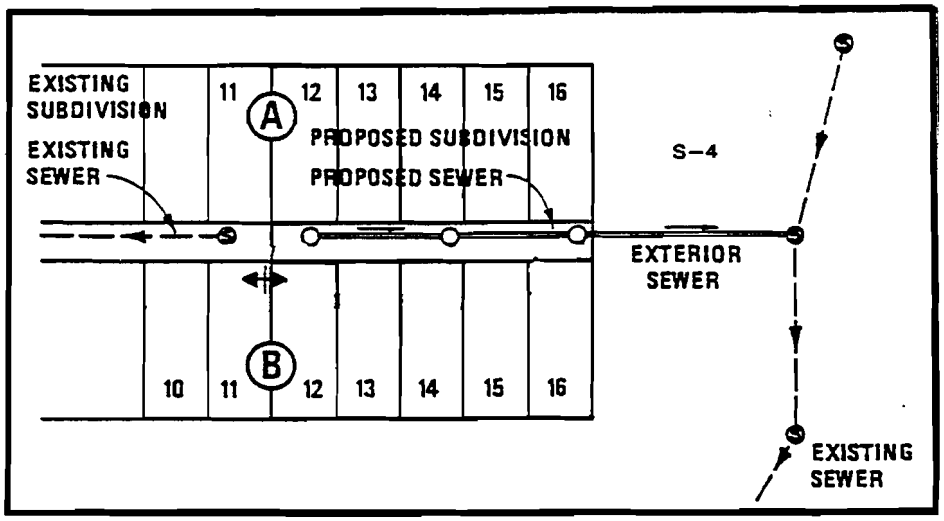
NO DEFICIT PAYMENT REQUIRED

c. Potential Development: Property which may be subdivided at some future date will generate or increase future assessment returns. Until that happens, however, an applicant is required to pay the deficit for the time until the potential development occurs. It is necessary to estimate the number of years the applicant must pay the deficit. This is done using the Deficit Multiple Table below. The multiple to use is determined by the service area of the property abutted or traversed by the proposed extension.

DEFICIT MULTIPLE TABLE

Service Area	Deficit Multiple
W&S 1-4	5 Years
W&S 5-6	10 Years

(1) Right-of-way - When the extension traverses undeveloped privately owned property through a WSSC acquired right-of-way, the extension is not considered to abut the undeveloped property. Hence, the property is not assessed along the route of the extension. However, if the property could develop in the future and generate assessment, the deficit due to the extension would be multiplied by the appropriate Deficit Multiple, as explained above.

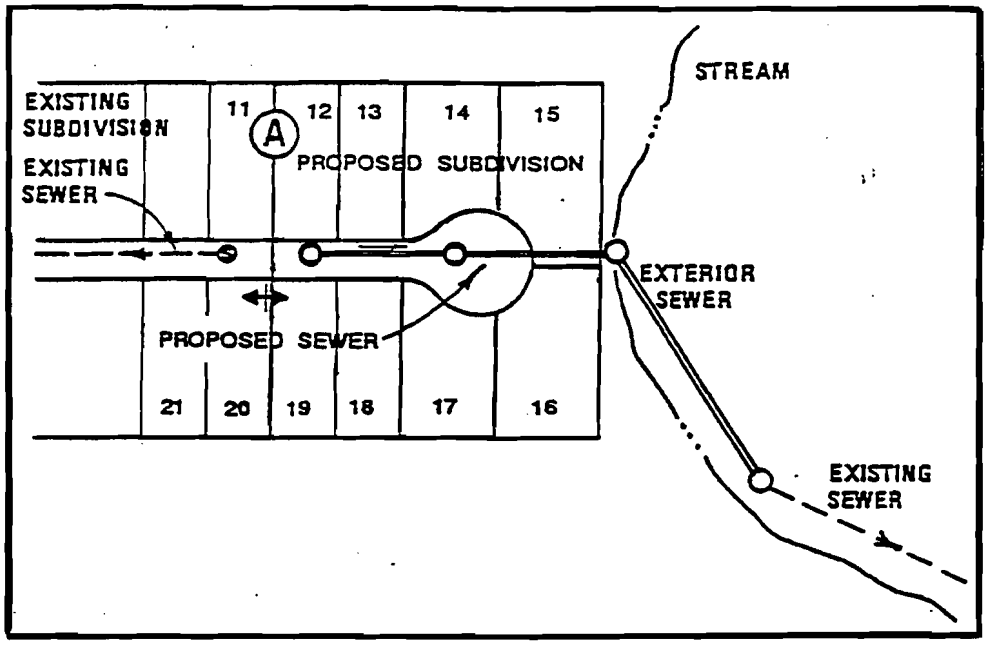


* Exterior sewer traverses undeveloped property with potential for future development.

* Resultant deficit is multiplied by Deficit Multiple.

Pipe Size & Kind	Length	Unit cost per foot	Cost	Interest Cost 0.953	Annual Cost 23	Assessment Frontage and Yield									Annual Surplus (Deficit)
						Subd. Ent. Front	Business 1st 200'	Business 2nd 100'	Business Over 300'	Small Acreage 1st 150'	Small Acreage 2nd 150'	Small Acreage Over 300'	Total Yield Water	Total Yield Sewer	
8"S	520	94	$48,880	$46,583	$4,151										
SEWER						$5.39									
TOTAL	520		$48,880	$46,583	$4,151	650								$3,504	($648)
				DEFICIT CALCULATION											
				$648 X 5YRS. = $3,240											
				APPLICANT PAYS $3,240											

(2) Stream Valley - When sewers are constructed in stream valleys and flood plains, it is unlikely that assessment will ever be directly generated to pay for these sewers. Any deficit due to this construction would be capitalized.



* Exterior sewer in stream valley unlikely to generate assessment.

* Resultant deficit is capitalized.

Pipe Size & Kind	Length	Unit cost per foot	Cost	Interest Cost 0.953	Annual Cost 23	Assessment Frontage and Yield									Annual Surplus (Deficit)
						Subd. Ent. Front	Business 1st 200'	Business 2nd 100'	Business Over 300'	Small Acreage 1st 150'	Small Acreage 2nd 150'	Small Acreage Over 300'	Total Yield Water	Total Yield Sewer	
8"S	550	94	$51,700	$49,270	$4,390										
SEWER						$5.39									
TOTAL	550		$51,700	$49,270	$4,390	680								$3,665	($725)

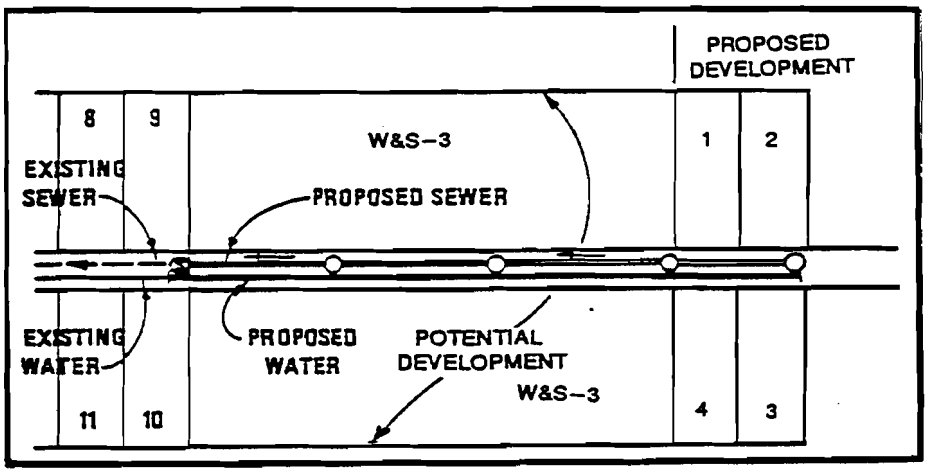
DEFICIT CALCULATION

$725 DIVIDED BY 0.0849 = $8,539

APPLICANT PAYS $8,530

(3) Roadway - Where segments of extensions are constructed in a dedicated roadway and abut small acreage property with development potential, the property is assessed at the three tiered Small Acreage rates. When the property is developed, it is reclassified and increased to the first assessment rate. The applicant must pay the difference between the present and future assessments, referred to as an assessment pickup. This is calculated by multiplying the

2nd and 3rd rate lengths by the first rate, subtracting the present assessment, and multiplying the resultant difference by the Deficit Multiple.



* Exterior water and sewer abut undeveloped property with potential for development.

* Property is assessed at three tiered small acreage rate which will increase to first rate when developed.

* Difference in the two assessments (assessment pickup) is multiplied by Deficit Multiple to determine deficit payment.

* In this example since the assessment pickup is greater than the total project deficit, the total project deficit is used in the deficit calculation.

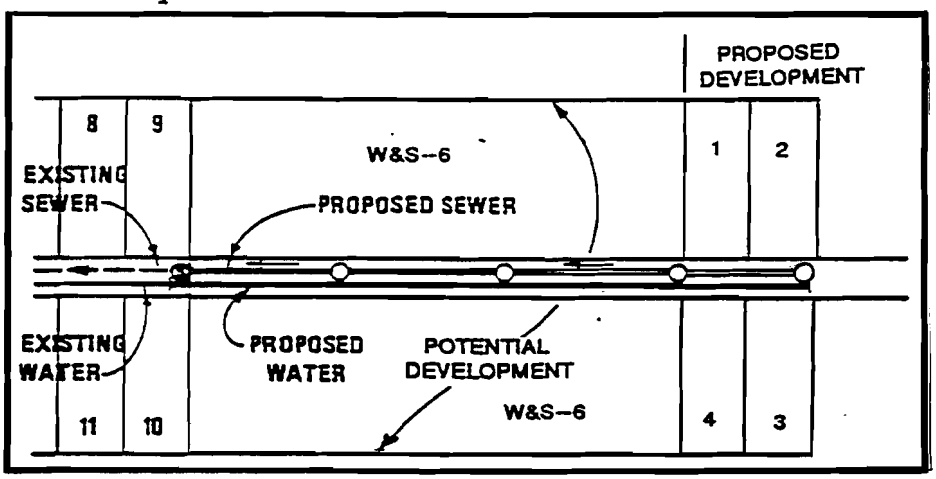
Pipe Size & Kind	Length	Unit cost per foot	Cost	Interest Cost 0.953	Annual Cost 23	Assessment Frontage and Yield									Annual Surplus (Deficit)
						Subd. Ent. Front	Business 1st 200'	Business 2nd 100'	Business Over 300'	Small Acreage 1st 150'	Small Acreage 2nd 150'	Small Acreage Over 300'	Total Yield Water	Total Yield Sewer	
8"W	650	49	$31,850	$30,353	$2,704										
WATER						$2.79				$2.79	$2.09	$1.40			
TOTAL	650		$31,850	$30,353	$2,704	280				300	300	180	$2,497		($207)
8"S	650	94	$61,100	$58,228	$5,188										
SEWER						$5.39				$5.39	$4.04	$2.70			
TOTAL	650		$61,100	$58,228	$5,188	280				300	300	180		$4,824	($364)
W/S															
TOTAL	1,300		$92,950	$88,581	$7,892								$2,497	$4,824	($571)

DEFICIT CALCULATION

ASSESSMENT PICKUP
WATER 300' + 180' = 480' X $2.79 = $1,339 - 879 = $460
SEWER 300' + 180' = 480' X $5.39 = $2,587 - 1,698 = $889
$460 + 889 = $1,349

$571 X 5YRS. = $2,855
APPLICANT PAYS $2,850

d. Service Area 5 and 6 - Abutted properties in Service Area 5 or 6 in the Counties' Ten-Year Plans are not assessable. This is similar to existing houses served by well and septic. No assessment returns are included in the cost analysis in the report for these properties, but a credit for the future assessment is included in the Deficit Payment calculation. The credit is calculated by capitalizing the total future assessment, and multiplying this by the appropriate present worth factor. This credit is then subtracted from the calculated Deficit Payment.



* Exterior water and sewer abut property in Service Area 6 which will not be assessed unless connected.

* Resultant deficit is capitalized and reduced by present value of future assessment returns.

Pipe Size & Kind	Length	Unit cost per foot	Cost	Interest Cost 0.953	Annual Cost 23	Assessment Frontage and Yield: Subd. Ent. Front	Business 1st 200'	Business 2nd 100'	Business Over 300'	Small Acreage 1st 150'	Small Acreage 2nd 150'	Small Acreage Over 300'	Total Yield Water	Total Yield Sewer	Annual Surplus (Deficit)
8"W	650	49	$31,850	$30,353	$2,704										
WATER						$2.79									
TOTAL	650		$31,850	$30,353	$2,704	280							$781		($1,923)
8"S	650	94	$61,100	$58,228	$5,188										
SEWER						$5.39									
TOTAL	650		$61,100	$58,228	$5,188	280								$1,509	($3,679)
W/S															
TOTAL	1,300		$92,950	$88,581	$7,892								$781	$1,509	($5,602)

DEFICIT CALCULATION

$5,602 DIVIDED BY 0.0849 = $65,984

CREDIT W&S--6
WATER 780' X $2.79 = $2,176
SEWER 780' X $5.39 = $4,204
$2,176 + 4,204 = $6,380 DIVIDED BY 0.0849 = $75,147 X .533 = $40,053

$65,984 – 40,053 = $25,931
APPLICANT PAYS $25,930

3. Interior-Exterior Deficits

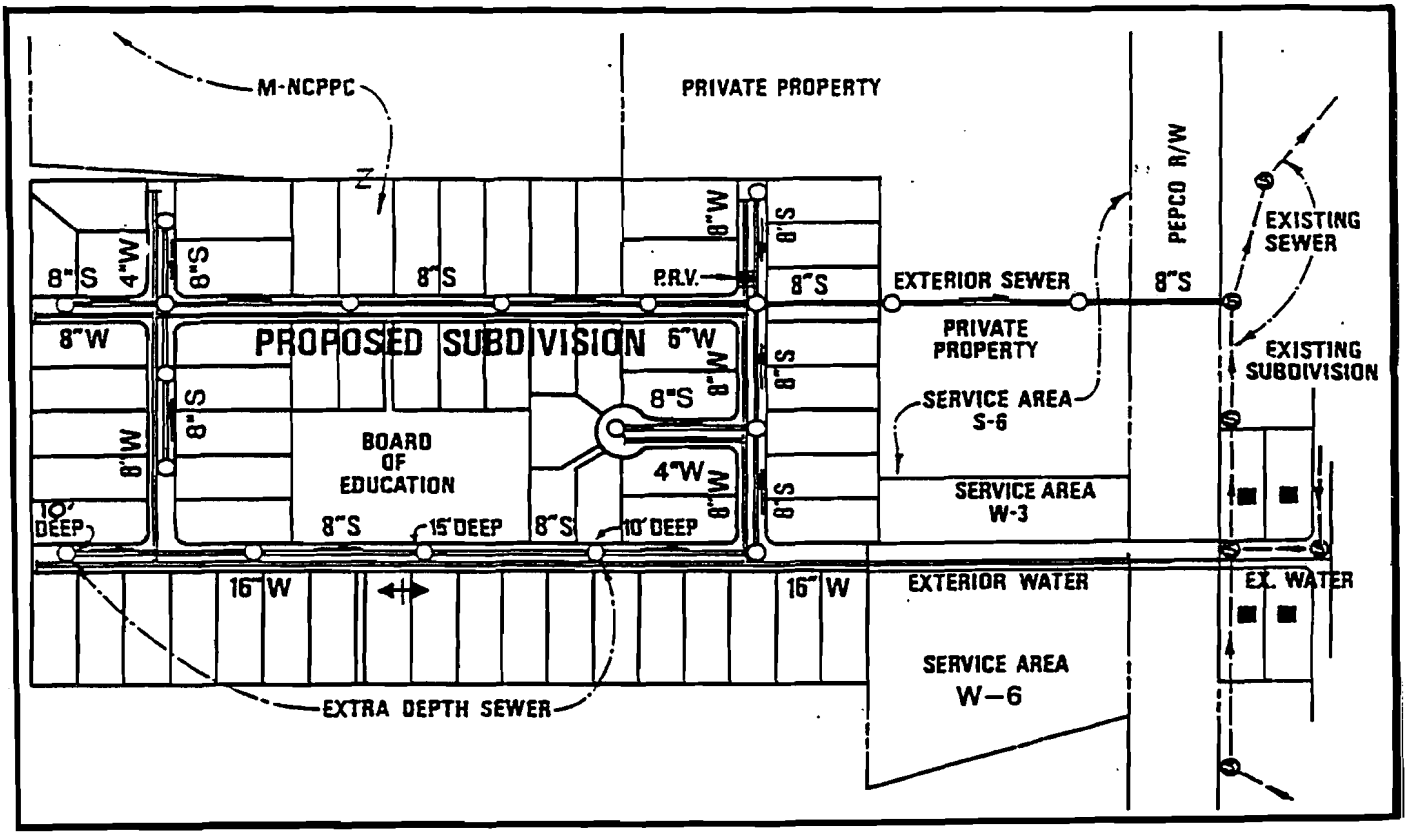
Extensions which are partly within the boundaries of a subdivision and partly external, are computed under a three-step procedure.

a. The overall annual surplus or deficit for the entire water and/or sewer project is determined. If an overall surplus exists, no further steps are needed.

b. Determine if the deficit is attributable to the project's interior, exterior, or both. This is accomplished by computing the exterior annual surplus or deficit. If the exterior annual deficit is less than the overall project annual deficit, both an exterior and an interior deficit exist. If the exterior annual deficit exceeds the overall project annual deficit, an interior surplus exists.

c. Interior deficits are capitalized while exterior deficits require deficit multiple factoring, future assessment credits, and/or capitalizing calculations.

In any Deficit Payment calculation, a surplus in one component may be used to offset a deficit in any other component.



* Exterior water abuts undeveloped property in Service Area W-3 and W-6 creates annual deficit of $1,482. Property in W-3 assessed at three tiered rate; property in W-6 not assessed. Apply Deficit Multiple to assessment pickup for W-3 property; since pickup ($591) does not cover annual deficit ($1,482) remainder is capitalized. Credit is given for future assessment for W-6 property.

* Exterior sewer traverses Pepco R/W with no development potential creates annual deficit of $958, which is capitalized.

* Exterior sewer traverses undeveloped property in Service Area S-6 creates annual deficit of $4,789. Apply Deficit Multiple.

* Total project annual deficit is $22,841. Exterior deficits (above) total $7,229. The interior deficit is therefore $15,612 ($22,841 - 7,229 = $15,612) which is capitalized.

Pipe Size & Kind	Length	Unit cost per foot	Cost	Interest Cost 0.953	Annual Cost 23	Assessment Frontage and Yield									Annual Surplus (Deficit)
						Subd. Ent. Front	Business 1st 200'	Business 2nd 100'	Business Over 300'	Small Acreage 1st 150'	Small Acreage 2nd 150'	Small Acreage Over 300'	Total Yield Water	Total Yield Sewer	
4"W	650	49	$31,850	$30,353	$2,704										
6"W	1,500	49	$73,500	$70,046	$6,241										
8"W	2,120	49	$103,880	$98,998	$8,821										
8(16)"W	2,800	49	$137,200	$130,752	$11,650										
PRV			$13,500	$12,866	$1,146										
WATER						$2.79				$2.79	$2.09	$1.40			
TOTAL	7,070		$359,930	$343,015	$30,562	7,410				150	150	350	$21,896		($8,666)
8"S	6,700	94	$629,800	$600,199	$53,478										
D/S			$7,500	$7,148	$637										
SEWER						$5.39									
TOTAL	6,700		$637,300	$607,347	$54,115	7,410								$39,940	($14,175)
W/S															
TOTAL	13,770		$997,230	$950,362	$84,677								$21,896	$39,940	($22,841)
EXTERIOR DEFICIT															
	WATER									$2.79	$2.09	$1.40			
8(16)"W	650	49	$31,850	$30,353	$2,704					150	150	350	$1,222		($1,482)
	SEWER														
			PEPCO R/W												
8"S	120	94	$11,280	$10,750	$958										($958)
			POTENTIAL DEVELOPMENT S-6												
8"S	600	94	$56,400	$53,749	$4,789										($4,789)
TOTAL EXTERIOR DEFICIT															($7,229)
INTERIOR DEFICIT															($15,612)

DEFICIT CALCULATION

EXTERIOR WATER ($1,482)

ASSESSMENT PICKUP W-3
150' + 350' = 500' X $2.79 = $1,395 - 314 - 490 = $591
$591 X 5YRS. = $2,955 (1)

CAPITALIZE REMAINDER
$1,482 - 591 = $891 DIVIDED BY 0.0849 = $10,494 (2)

EXTERIOR SEWER ($5,747)

PEPCO R/W
$958 DIVIDED BY 0.0849 = $11,284 (3)

POTENTIAL DEVELOPMENT S-6
$4,789 X 10YRS. = $47,890 (4)

INTERIOR DEFICIT
$15,612 DIVIDED BY 0.0849 = $183,887 (5)

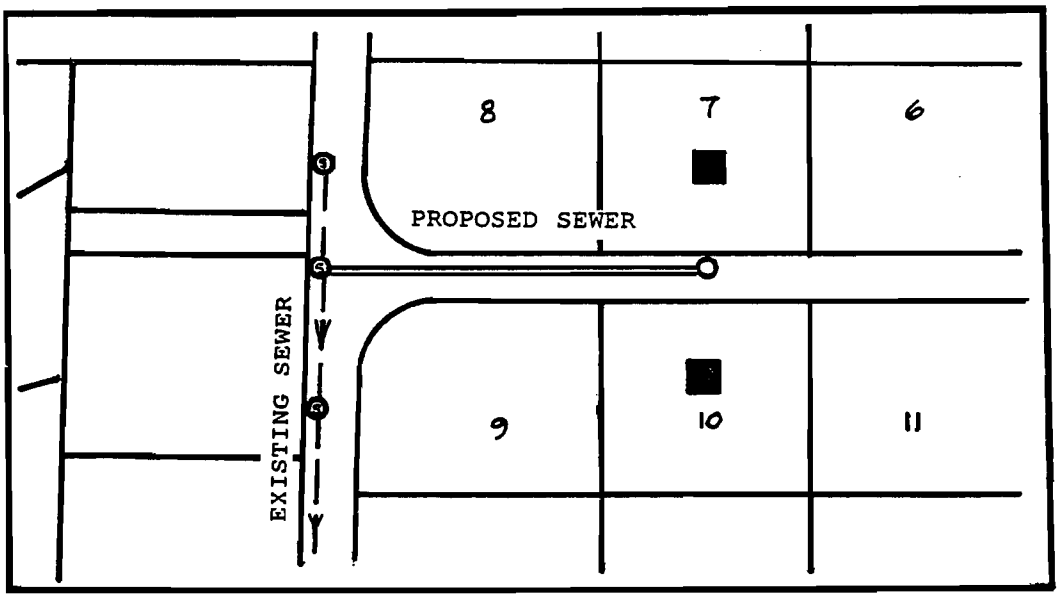
(1) - (5) = $256,509

CREDIT
EXTERIOR WATER W-6
680' X 2.79 = $1,897 DIVIDED BY 0.0849 = $22,344
$22,344 X .533 = $11,909

$256,509 - 11,909 = $244,600
APPLICANT PAYS $244,600

4. Health Hazard Subsidy

WSSC provides a deficit subsidy for property owners with certified residential health hazards. For any owner occupied, single family residential applicant with a Health Department certified failing well or septic system, a $15,000 subsidy of the cost of the extension is allowed for every property which could be served by the proposed extension. The subsidy is reduced by the assessment returns from those properties. The subsidy is funded by Water and Sewer Bonds.



* Owner of Lot 7 has certified failing septic system and is the applicant for service. Proposed extension could also serve Lot 10.

* Required extension creates annual deficit of $2,007.

* $30,000 cost subsidy (2 properties X $15,000) reduced by assessment returns produces annual subsidy of $729.

* Deficit payment of $7,600 is based on capitalized reduced annual deficit ($2,007 - 729 = $1,278), and credit given for future assessment of abutted property not assessed at this time.

Pipe Size & Kind	Length	Unit cost per foot	Cost	Interest Cost 0.953	Annual Cost 23	Assessment Frontage and Yield									Annual Surplus (Deficit)
						Subd. Ent. Front	Business 1st 200'	Business 2nd 100'	Business Over 300'	Small Acreage 1st 150'	Small Acreage 2nd 150'	Small Acreage Over 300'	Total Yield Water	Total Yield Sewer	
8"S	400	94	$37,600	$35,833	$3,193										
SEWER						$5.39									
TOTAL	400		$37,600	$35,833	$3,193	220								$1,186	($2,007)
				HEALTH HAZARD DEFICIT PAYMENT WAIVER CALCULATION											
						$5.39									
2 PROPERTIES			$30,000	$28,590	$2,547	220								$1,186	($1,361)
						PRESENT WORTH OF FUTURE RETURNS				220' X $5.39 = $1,186 X 0.533 =					$632
															($729)

DEFICIT PAYMENT WAIVER UPSET LIMIT = $729
$2,007 > $729

DEFICIT WITHOUT FUTURE RETURNS:
$2,007 – 729 = $1,278 DIVIDED BY 0.0849 = $15,053

PRESENT WORTH OF FUTURE RETURNS: S–6 (10 YRS)
220' X $5.39 = $1,186 DIVIDED BY 0.0849 = $13,969
$13,969 X 0.533 = $7,445

$15,053 – 7,445 = $7,608
APPLICANT PAYS $7,600

INTERFUND FROM SEWER BONDS
$729 DIVIDED BY 0.0849 = $8,587

5. Miscellaneous Cases

a. Applicant's Property Not Assessable - If the property to be served by a proposed extension is not assessable (due to being assessed previously, governmental ownership, etc.), and no other assessment will be generated by the extension, the construction of the proposed extensions will be done by the WSSC at the applicant's expense. Prior to bid advertisement, the applicant will be required to pay a deposit to cover construction, engineering, overhead and other contingencies. After construction is completed, any difference between actual cost and the deposit will be reconciled.

D. Recosting of Projects

A number of conditions can, and do, influence the financial status of an authorization. From the time service is authorized until a project is bid, surplus or deficit calculations may fluctuate. Such changes include: how long a builder/developer waits to proceed with construction; inflation; tie-ins to other jobs; change of service areas to be traversed; preliminary plan revisions; differing lengths

of pipe based on final design; and changes in benefit assessments. These variables require recosting of any project prior to bid, when water/sewer plans are completed. Recostings are based on record plat data for the determination of frontages used in assessment yields, and precise pipe footage from the final engineering plans. The circumstances mentioned above are also examined, and recosting is done on the current Unit Cost Factors as follows:

1. Single Authorization (No Parts)

Those authorizations not involving construction in parts will be recosted on the basis of record plats and final plans, using cost factors in effect at that time. Deficits would require payment before bids.

2. Multi-part Authorization

The same process stated for single authorizations is also used for multi-part authorizations, except that re-costing is done on a part by part basis, depending on when the applicant meets the conditions for each part. The first part(s) ready for bid is recosted on final plans and record plats, with remaining parts still based on preliminary data from the report. As each succeeding part is readied for bid, the recosting process is repeated. If parts previously recosted have not gone to bid, they will be updated to then current costs.

* A multi-part authorization with a cumulative surplus can proceed to construction without a Deficit Payment. The same is true for those jobs which show an overall surplus.

* A Deficit Payment is not required until a job shows both a cumulative and an overall deficit. When that occurs, the applicant will be required to pay either the overall deficit, or the cumulative deficit of all recosted parts, whichever is less. As succeeding parts are recosted, deficit payments will be recomputed. Increased deficits will require a supplemental payment while decreased deficits will result in a refund. Any refund of a Deficit Payment due to recosting will be paid to the applicant of record at the time of recosting.

The following are examples of multi-part authorization recostings:

Example A - Overall Surplus

The overall job is in a surplus. Parts I & II can proceed to construction with no deficit payment. As Parts III & IV are recosted and readied for bid, a deficit payment would be required. The final

recost for Part V results in a refund.

	1ST RECOST		2ND RECOST		3RD RECOST		4TH RECOST		FINAL RECOST	
PART	Annual +/-	Cumulative Total	Annual +/-	Cumulative Total	Annual +/-	Cumulative Total	Annual +/-	Cumulative Total	Annual +/-	Cumulative Total
I	-5,290(R)	-5,290	-5,290		-5,290		-5,290		-5,290	
II	-6,370	-11,660	-6,290(R)	-11,580	-6.290		-6,290		-6,290	
III	+4,890	-6,770	+4,960	-6,620	+4,500(R)	-7,080	+4,500		+4,500	
IV	+5,100	-1,670	+5,220	-1,400	+4,960	-2,120	+4,320(R)	-2,760	+4,320	
V	+2,200	+530	+2,290	+890	+2,010	- 110	+1,740	-1,020	+1,830(R)	-930
OVERALL TOTAL	+530		+890		-110		-1,020		-930	
DEFICIT PAYMENT	NONE		NONE		$880 (Base -$110)		$4,080 (Base -$1,020)		$3,720 (Base -$930)	
PAID							$ 880		$4,080	
PAYMENT REQUIRED	NONE		NONE		$880		$3,200		-$360 (Refund)	

(R) Recosting Based on Final Plans

Example B - Overall Deficit with Cumulative Surplus

Part I is in surplus and can proceed to construction without a deficit payment. Part II's $1,700 deficit is offset by the Part I surplus so it too can proceed without deficit payment. Part III recosting requires a deficit payment. Part IV recosting produces a $23,830 refund based on the cumulative deficit, and Part V ultimately requires a payment of $26,940.

	1ST RECOST		2ND RECOST		3RD RECOST		4TH RECOST		FINAL RECOST	
PART	Annual +/-	Cumulative Total	Annual +/-	Cumulative Total	Annual +/-	Cumulative Total	Annual +/-	Cumulative Total	Annual +/-	Cumulative Total
I	+1,893(R)	+1,893	+1,893		+1,893		+1,893		-1,893	
II	-4,527	-2,634	-1,700(R)	+193	-1,700		-1,700		-1,700	
III	-10,114	-12,748	-9,120	-8,927	-9,500(R)	-9,307	-9,500		-9,500	
IV	+3,673	-9,075	+5,000	-3,927	+4,200	-5,107	+4,000(R)	-5,307	+4,000	
V	-2,931	-12,006	-2,000	-5,927	-2,500	-7,607	-2,700	-8,007	-2,600(R)	-7,907
OVERALL TOTAL	-12,006		-5,927		-7,607		-8,007		-7,907	
DEFICIT PAYMENT	$124,410 (Base -$12,006)		$61,410 (Base -$5,927)		$78,820 (Base -$7,607)		$54,990 (Base -$5,307)		$81,930 (Base -$7,907)	
PAID							$78,820		$54,990	
PAYMENT REQUIRED	NONE		NONE		$78,820		-$23,830 (Refund)		$26,940	

(R) Recosting Based on Final Plans

Example C - Deficit

Applicant would pay $665,550 prior to job proceeding to bid for Part I. As parts are recosted based on final plans, deficit payments are reconciled - Part II and Part III refund, Part IV additional deficit payment.

	1ST RECOST		2ND RECOST		3RD RECOST		FINAL RECOST	
PART	Annual +/-	Cumulative Total	Annual +/-	Cumulative Total	Annual +/-	Cumulative Total	Annual +/-	Cumulative Total
I	-104,273(R)	-104,273	-104,273		-104,273		-104,273	
II	+31,734	-72,539	+33,550(R)	-70,723	+33,550		+33,550	
III	+24,081	-48,458	+25,180	-45,543	+23,190(R)	-47,533	+23,190	
IV	-2,658	-51,116	-2,600	-48,143	-2,710	-50,243	-2,710(R)	-50,243
OVERALL TOTAL	-51,116		-48,143		-50,243		-50,243	
DEFICIT PAYMENT	$665,550 (Base -$51,116)		$634,740 (Base -$48,143)		$628,430 (Base -$47,533)		$656,510 (Base -$50,243)	
PAID			$665,550		$634,740		$628,430	
PAYMENT REQUIRED	$665,550		-$30,810 (Refund)		-$6,310 (Refund)		$28,080	

(R) Recosting Based on Final Plans

E. Merging of Authorizations

Occasionally, an applicant may desire to consolidate water/sewer facility requirements, and accommodate an enlarged subdivision development. Such requests will be approved if:

1. The applicant initially provides plans and documentation of ownership or contract purchase rights for land in the same general location, and the request for enlarged development is integral and contiguous to the subdivision. Such documentation would include a complete legal description of the entire parcel or parcels, an exhibit delineating the parcels by tax map and a tabulation of the total development scheme and associated sewage flows. If more than one-third of the overall development, based on sewage flows, is under construction or has been constructed, merging will not be allowed.

2. If an applicant has acquired additional lands not owned at the time of the original application for service, and such acquisition was to satisfy other governmental requirements, merging will be accommodated if mains have not been built (or not under construction) to serve one-third of the originally authorized project in terms of sewage

flows.

If merging requests do not meet these criteria, the additional request for service will be processed as a new authorization.

F. Consultant Prepared Reports

1. First Submission

A completed application (WSSC Form 401-10) is submitted to the Water and Sewer Reports Section accompanied by a check for the report review fees. This application must be signed by the applicant and include four colored sketches (five if a grinder pump/pressure sewer system) and two copies of the preliminary plan or plat. Other supporting data would include a Hydraulic Information Sheet for commercial projects, plan and profile for deep sewer, and computations for grinder pump/pressure sewer systems. **Incomplete or erroneous submissions will be returned to the engineer representing the applicant.**

When WSSC reviews are completed, the engineer will be called to pickup the first submission, including two sketches and any special notes or instructions. Sketches will now show the sizes of the proposed mains and other pertinent project comments.

2. Second Submission

This submission should reflect the comments made on the first submission and include cost sheet(s) and two 1" - 200' colored sketches with legends. A third sketch is required when the 200' sketch is larger than 11" x 17". The 200' sketch must then be reduced to 8-1/2" x 11" which reflects the prescribed color schemes. After receipt of the second submission, the Water and Sewer Reports Section will --

* circulate the sketch and the cost sheets to the Property Assessments Section to confirm assessment methodology and to determine any assessment pay-off.

* canvass affected property owners and issue preassessment letters as appropriate.

* finalize the Engineering Report for authorization by either Staff or the Commission depending on the number of units to be authorized.

CHAPTER 4

CONNECTIONS AND ON-SITE SYSTEMS

A. Unimproved Area Residential Connections

When new mainline projects are built, lateral service connection pipes are simultaneously built for each lot or house of a new subdivision as well as to each property along the route of the pipeline. In the latter case, connections are built as long as connection application forms are submitted by property owners and the property is in the right service area. As a condition of an authorization, builders and developers must file a connection application form for all recorded lots or buildings of their project. A copy of the connection application form is included at the end of this chapter.

B. Improved Area Connections

When a mainline abuts property, an authorization is not required, and service can be provided in a more timely manner. Connection service still requires: being in the correct service area category; a recorded plat; design and approval of on-site plans; and line size adequacy.

C. Residential Connection Fee Payment

Connection fees for <u>residential</u> properties must be paid in full at the time of application for connections. A payment plan to defer or amortize the connection charge over a period of years as part of the annual tax bill is available only for connections to serve <u>owner occupied</u> dwellings with Health Department <u>certified</u> failed well or septic systems.

D. Commercial Connection Fee Payment

All non-residential connection charges, including those for apartment buildings, must be paid at the time of application. This is true whether the connection is built concurrent with mainline work, or built separately when mains already exist to serve the property.

* A non-residential complex composed of two or more buildings on a single tract of land may be served by a single connection. A single connection can be approved if the owner enters into a legal agreement (covenant) with WSSC. The agreement compels the owner to bear the future expense to retrofit individual service connections prior to the sale or subdivision

of any portion of the multi-building complex. Such an agreement is recorded with the land records.

E. On-Site Systems

Connection service for certain types of development entail special on-site construction requirements.

1. Grinder Pump Service

Grinder pump installation and future maintenance is the responsibility of the homeowner. Grinder pump installations must be done by a WSSC registered master plumber under the authority of a plumbing permit. Electrical work must be performed by a qualified electrician under a county electrical permit.

2. Large On-Site Piping Schemes

On-site plans must be submitted for review and approval if one or more of the following conditions exist:

* water lines greater than 2-inches in diameter;
* sewer lines greater than 4-inches in diameter;
* sewer lines will require manholes; or
* water/sewer systems have special conditions (e.g. force mains, fire sprinklers, fire hydrants, pretreatment of waste).

3. Industrial Discharge Permits

WSSC imposes pre-treatment requirements on certain businesses/processes. Examples include:

* Industrial	* Surgical	* Slaughterhouse
* Manufacturing	* Mortuary	* Hospital
* Food Processing	* Commercial	* Therapeutic
* Mercantile	* Dental	* Undertaking
* Medical	* Laboratory	* Power Plants

F. On-Site Plans & Permits

Unless waived (by the Code Enforcement Section), on-sites associated with new or enlarged buildings require special on-site construction permit. On-site plan design must be certified by a Registered Professional Engineer licensed in the State of Maryland. Such plans

must be submitted to the Service Applications and Records Section for review in advance of construction. Once on-site fee payment is made, and three prints of the plans with engineer's seal affixed are submitted, a project number is assigned. Both plans and design must conform to WSSC rules and regulations. In advance of construction, the permittee/on-site contractor must submit: (1) application and payment of connection fees; (2) a complete list of materials to be installed; and (3) the name of the engineer who will certify construction conformity to WSSC policies and the approved plans. Plumbing hookup inspections are not issued until the on-site system has been accepted by the Construction Bureau.

G. Fire Sprinkler/Surveillance Systems

Residential and commercial fire sprinkler system installations must be constructed in accordance with WSSC Plumbing and County Fire Marshall standards. Fire hydrant or sprinkler system flow can be either: (1) "surveillance detector monitoring" installed directly on each fire hydrant lead or sprinkler system or; (2) by installing an alarm-signaling device on a looped fire line inside the structure. A surveillance company must be engaged to remotely monitor unmetered fire systems, with the agreement between the owner and the surveillance company filed with the WSSC (Service Applications and Records Section).

H. Meters & Meter Setting

1. Small Meters

To avoid freezing or vandalism, a meter is normally installed inside a heated building. WSSC crews install meters smaller than 1-1/2 inches while the plumber installs all necessary meter hardware. Each small meter must be wired for a remote reading device. These devices must be located in an unobstructed position for accessibility.

2. Large Meters

Larger inside meters are installed by registered plumbers. If a meter cannot be installed inside a building in ample space, an above-ground structure must be built to WSSC specifications at the applicant's expense. Only in extraordinary circumstances are outside, in ground meter vaults approved.

3. Submeters

Water consumption and sewer usage charges for WSSC customers are based upon the volume of metered water use. Recognizing that some water use does not result in a discharge into the sewerage system (lawns, air conditioning units, gardening, swimming pools, etc.), WSSC has provisions for a submeter. Like the master meter, the

submeter belongs to the WSSC, but it measures only water that does not discharge into the sewerage system. With the submeter arrangement the customer is only charged for sewer usage on the "domestic" portion of the total consumption.

I. WSSC Acquisition of On-Site Systems

The owner(s) of a private on-site water and/or sewer system may request that the WSSC acquire all or parts of the system, and assume responsibility for future operation and maintenance of the system. If WSSC agrees to the acquisition request, the applicant is required to evaluate the system, complete all necessary system upgrades, and reimburse WSSC for its costs to review the applicant's evaluation and upgrade of the system. For on-site residential systems, WSSC will, if requested by the owner, evaluate and upgrade the system. Such applicants are required to pay for WSSC's system evaluation and upgrade costs over a number of years by agreeing to an annual property assessment. WSSC will consider acquisition of all or part of an on-site system if all of the following apply:

* The system has been in service more than five years.

* The building(s) or property served is or will be under separate ownership as specified by the WSSD "Plumbing and Gas Fitting Regulations".

* Sewer line sizes are 6-inches or greater in diameter and water lines are 4-inch diameter or greater.

* Water conservation will be achieved by separate metering.

* Customer health and welfare are an issue.

To begin the process, a written request for WSSC takeover must be submitted to the Water/Sewer Reports Section which outlines why the WSSC should assume maintenance responsibility. The request must be accompanied by: record plat; site plans showing the existing facilities and structures served; vicinity maps; and plans which highlight the specific segments proposed for WSSC takeover. Details and requirements of the process are contained in WSSC Standard Procedure #PD 94-03 -- WSSC ACQUISITION OF ON-SITE WATER/SEWER SYSTEMS.

Proc. ID # _____ **WASHINGTON SUBURBAN SANITARY COMMISSION**

14501 Sweitzer Lane • Laurel, Maryland 20707 • (301) 206-4003

SERVICE CONNECTION/PLUMBING AND GASFITTING APPLICATION

APPLICANT: READ AND COMPLETE INFORMATION IN RED.

NOTE: ALL PROPERTY ABUTTED OR SERVED BY WSSC FACILITIES IS SUBJECT TO BENEFIT ASSESSMENT.

Owner's Signature _____ Owner's Name (printed) _____

Address _____ City _____

State _____ Zip _____ Day time Telephone ( ) _____

DIST.	PROPERTY TAX ID NO.	COUNTY	LOT NO.	BLOCK	PARCEL
		PG M			
SUBDIVISION				TOWN	
BUILDING ADDRESS (House No., Street assigned by MNCP&PC)					ZIP
TYPE OF STRUCTURE(Store, Dwelling, etc.)		SPECIFIC USE			

DEFERRED PAYMENT OPTION (FOR QUALIFIABLE RESIDENTIAL PROPERTY ONLY)

☐ I elect the DEFERRED PAYMENT PLAN for the connection charges as attested by my signature below. I understand the charge will be at the rate in effect at the time the connection(s) is built and that the deferred amount including interest is a benefit charge assessed against the property. The deferred amount will be billed with County Property Taxes in annual installments along with other WSSC benefit assessment charges(s), if any.

Owner's Signature _____

I have been engaged to complete this work by the owner.

_____

Signature of Master Plumber/Gasfitter WSSC REG. NO.

OFFICE USE ONLY

Plan Approved

By _____

Date _____

Base # _____

200' Sheet _____

Page _____

Grid _____

Property Type _____

OFFICE USE ONLY

WATER ☐ ***SHARED WHC***

☐ Avail. ☐ Auth. Report No. _____

Class: ☐ I ☐ U

☐ Pressure Reducing Valve Required

☐ Booster Pump Required

☐ Outside Meter

☐ Private Water Supply System

☐ Special WHC Liber _____ Folio _____

☐ Existing WHC Size _____ Meter _____

SEWER ☐ ***SHARED SHC***

☐ Avail. ☐ Auth. Report No. _____

Class: ☐ I ☐ U

☐ Private Sewage Disposal System

☐ Special SHC Liber _____ Folio _____

☐ Existing SHC Size _____

☐ Grinder Pump _____

☐ New Installation

☐ Additional Fixtures

☐ Relocating Fixtures

☐ Covenant Liber _____ Folio _____

☐ Onsite System _____

FLOW ALLOCATION

☐ Service Category _____

☐ Drainage Basin _____

☐ Old Mini Basin _____

☐ New Mini Basin _____

☐ Total GPD _____ Approved _____

402-1 (Rev. 11/91)

Standard/Flat Fee *Y* *N*

WATER CONN. _____ (Size) _____ (Meter) ☐ R/W _____

HOOKUP INSPECTION FEE _____

SEWER CONN. _____ (Size) ☐ R/W _____

HOOKUP INSPECTION FEE _____

DISC. & ABAND. _____ (Water) _____ (Sewer) _____

PLUMBING INSPECTION FEES _____

Well Hookup Inspection Fee _____

Septic Hookup Inspection Fee _____

SUB-DISTRICT _____

Water _____ Sewer _____ Total Fee: _____

PROCESSING FEE _____

THIS APPLICATION SHALL BE ACCOMPANIED BY A PLAN, IN DUPLICATE, SHOWING LOT AND HOUSE NUMBER(S), POSITION OF BUILDING ON LOT(S), AND LOCATION OF PROPOSED WATER AND SEWER CONNECTIONS, TOGETHER WITH LAYOUT OF ENTIRE PLUMBING SYSTEM. THE PLAN SHALL SHOW METHOD OF DRAINAGE AND POSITION OF CONNECTION PIPES FOR ALL CELLAR, GARAGE AND AREAWAY DRAINS.

STATEMENT OF PLUMBING WORK ON PROPERTY

WATER PIPE ON PROPERTY _____ Size

SEWER PIPE ON PROPERTY _____ Size

		Basement	1	2	3	4	5	6	7	8	9	10	11	12	13	OFFICE USE ONLY	EXISTING FIXTURES
UI	Water Closet FT																
UH	Water Closet FV																
01	Bath Tubs																
20	Lavatories																
UR	Shower Baths																
21	Kitchen Sinks																
	Dishwasher																
96	Washer/Standpipe																
47	Wash Trays																
	W-Htr																
9X	Hose Bibb																
4T	Soak Tub																
08	Whirlpool																
99	TOTAL PER FLOOR																
																Total Proposed Fixtures	TOT.EX.FIX

PERMIT TRANSFERS ONLY

I have been engaged by the owner to complete the work shown hereon

(Signature of Master Plumber/Gasfitter) (WSSC Reg. #)

Tr/as & for (Company Name) Date _____

REMARKS:

_____

_____

_____

_____

_____

CHAPTER 5

POST-AUTHORIZATION STAGING

A. Project Design

Progression from authorization to construction of a project is not automatic! The applicant must contact the WSSC and make arrangements for design. The Water and Sewer Design Section handles extensions, and the Project Management Section handles facilities. A "pre-design meeting" will be held at which time design and review needs and requirements are discussed and a schedule can be established. Appendix H lists some of the tasks and time frames involved in scheduling. The design can be performed by either WSSC or the applicant, and the construction can be performed by either WSSC or the applicant in accordance with the authorization. Construction by the applicant requires entering into a Memorandum of Understanding (MOU) with the Commission. A brief explanation of these options follows. For a more detailed explanation, contact the design section noted above.

B. Applicant Designed Plans

For most development work, the applicant engages a consulting engineer to prepare the design. Prior to the initiation of design, the applicant is to submit to WSSC the name of the firm that will perform the design. Upon completion and approval, the plans become the property of the WSSC.

C. WSSC Designed Plans

Prior to the initiation of design by WSSC, the applicant must enter into an Engineering Agreement. Conditions that must be satisfied may include but not be limited to the staking of property lines and street locations, the provision of approved street grades, certification of the actual grading, an approved Soil Conservation District sediment control plan, and approved storm drainage and stormwater management plans. By entering into an Engineering Agreement, the applicant may defer grading of streets, payment of house connection fees, and the Deficit Payment until after the design is completed. To do this the applicant makes an engineering deposit to cover the estimated cost of plan preparation, and agrees to pay all actual WSSC costs for plan preparation should the applicant not proceed with the project. If the project does proceed, the engineering deposit is refunded to the applicant.

D. Projects Built by WSSC

After design of the project, the WSSC will obtain the necessary construction permits (refer to Appendix I for permit requirements). Once all the conditions of authorization are satisfied, the WSSC bids the project for construction. During construction, WSSC will inspect the work of the contractor to ensure adherence to WSSC's standards and specifications. Upon completion of the construction, the system will be released for service.

E. Projects Built by the Applicant Under a Memorandum of Understanding

After design of the project, the applicant must obtain the necessary construction permits and engage a contractor for construction. When the conditions of authorization are met, and the Memorandum of Understanding is executed, the WSSC will provide inspection to ensure adherence to WSSC's standards and specifications. Completion of construction, rights-of-way on the applicant's property, an account settlement, and a maintenance bond are some of the items that must be provided prior to the release of the system for service. The MOU will list all project requirements.

F. Plumbing Inspections

All on-site work requires plumbing inspection. Except for meter setting by WSSC Maintenance Crews, plumbing inspections can usually be scheduled a day after a phone request is made. Once a meter is set, a final plumbing inspection can then be arranged. The final plumbing inspection satisfies a prime criterion for a County Use and Occupancy Permit.

G. Water/Sewer Billing

After occupancy, residential customer and smaller commercial users will be billed quarterly for water and sewer usage based on metered water consumption. Heavy users are billed on a monthly basis. The WSSC has a conservation-oriented sliding rate billing system for water consumption and sewer usage. The rates paid per 1,000 gallons of usage depends on the Average Daily Consumption (ADC) during each billing period.

APPENDIX A

SUB-DISTRICT FEES

CALENDAR YEAR	PINEY BRANCH	MILL BRANCH	GREEN BRANCH	OLNEY	CLOPPER ROAD	MATTAWOMAN TIMOTHY BRANCH	
	SEWER					SEWER	WATER
1995	$1,200	$2,460	$2,480	$2,240	$1,705	$1,015	$240
1996	$1,260	$2,550	$2,560	$2,330	$1,760	$1,055	$250
1997	$1,320	$2,635	$2,635	$2,415	$1,805	$1,095	$255
1998	$1,370	$2,715	$2,700	$2,495	$1,850	$1,130	$265
1999	$1,420	$2,785	$2,765	$2,570	$1,890	$1,165	$275
2000	$1,465	$2,850	$2,820	$2,640	$1,930	$1,195	$280
2001	$1,510	$2,910	$2,865	$2,700	$1,960	$1,220	$285
2002	$1,545	$2,960	$2,910	$2,755	$1,990	$1,245	$295
2003	$1,580	$3,005	$2,950	$2,805	$2,015	$1,270	$300
2004	$1,610	$3,045	$2,980	$2,845	$2,035	$1,285	$305
2005	$1,635	$3,075	$3,000	$2,885	$2,050	$1,305	$305
2006	$1,660	$3,100	$3,020	$2,915	$2,060	$1,320	$310
2007	$1,680	$3,120	$3,035	$2,940	$2,070	$1,330	$315
2008	$1,695	$3,135	$3,040	$2,955	$2,075	$1,335	$315

The sub-district fee provided herein shall be paid to the Commission at the time of filing application for plumbing permit hook-up.

A. FULL CHARGE

1. Each new dwelling unit, or each new trailer or mobile home on a single lot(s).

2. All other structures not otherwise excluded from Full Charge herein, including commercial and industrial structures.

B. 2/3 CHARGE

1. Each new individual trailer or mobile home situate in a trailer park or camp.

C. 1/2 CHARGE

1. All educational institutions (including parochial or church owned, private kindergarten and nurseries, and public schools)

2. Churches, eleemosynary associates and hospitals

3. Individual hotel and motel units

4. Recreational facilities operated by the Board of Education, the Park and Planning Commission and the Montgomery County Department of Recreation for no financial gain

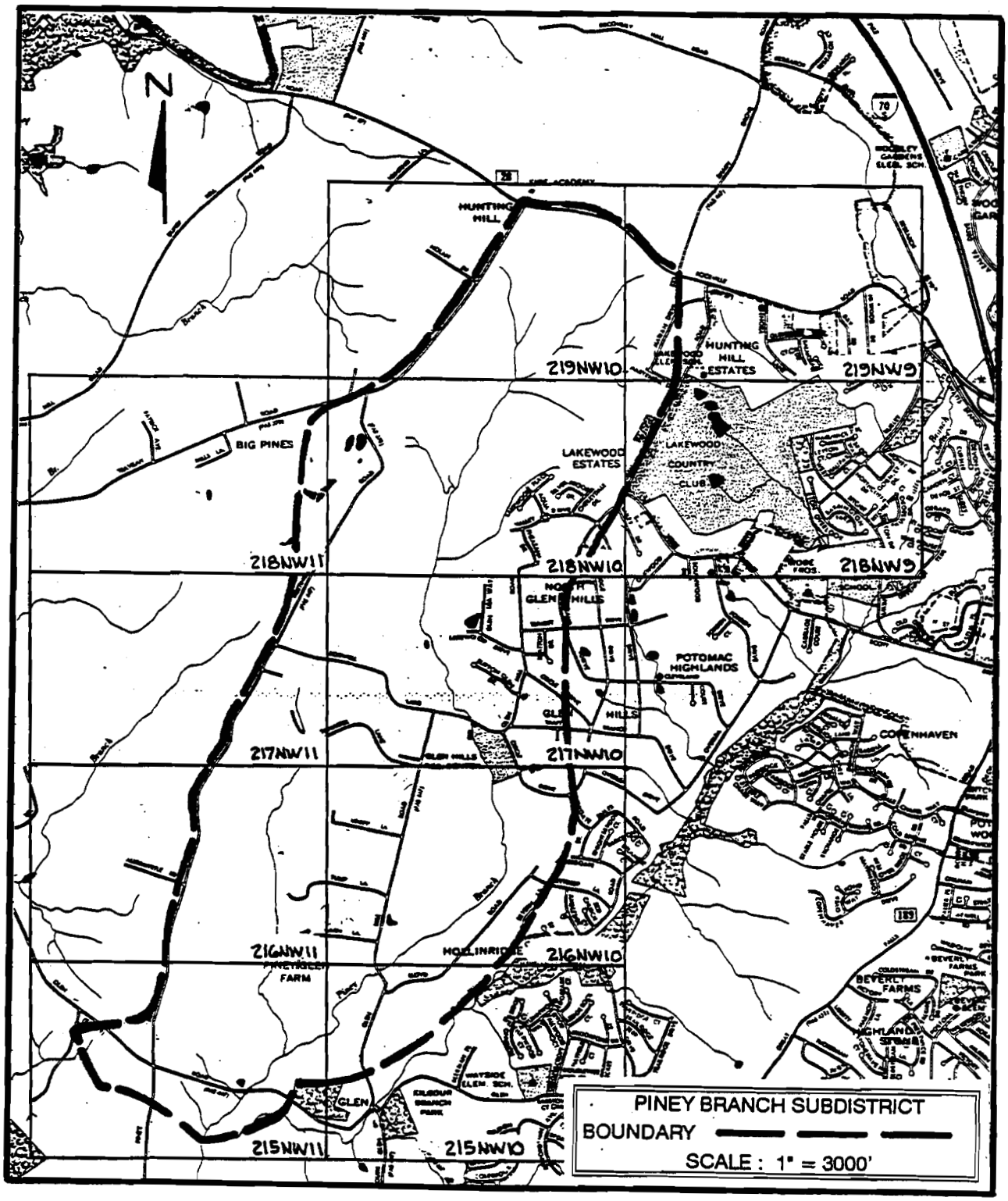
5. Government operated public service buildings (e.g. fire departments, public health service or mental health service, libraries and detention centers)*

D. 1/3 CHARGE

1. Existing dwelling units not now sewered.

2. Dormitory Rooms

*** ONLY COUNTY GOVERNMENT IN MILL BRANCH SUB-DISTRICT.**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HUNTING HILL
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219NW9
BIG PINES
LAKEWOOD ESTATES
LAKEWOOD COUNTRY CLUB
218NW11
218NW10
218NW9
GLEN HILLS
POTOMAC HIGHLANDS
217NW11
217NW10
COPENHAVEN
216NW11
PINEYBROOK FARM
HOLLINRIDGE
216NW10
BEVERLY FARMS
GLEN
215NW11
215NW10
PINEY BRANCH SUBDISTRICT
BOUNDARY
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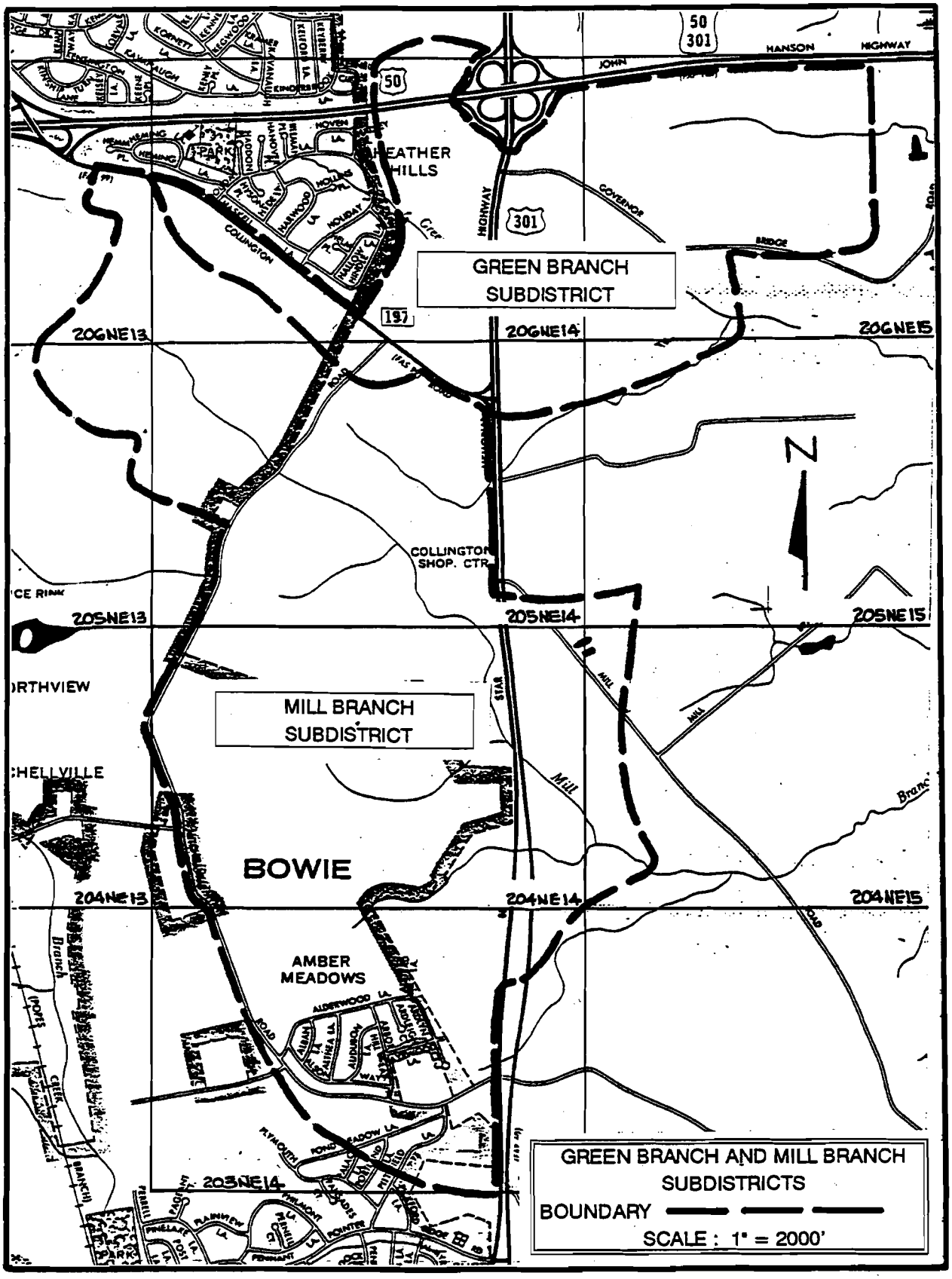
GREEN BRANCH
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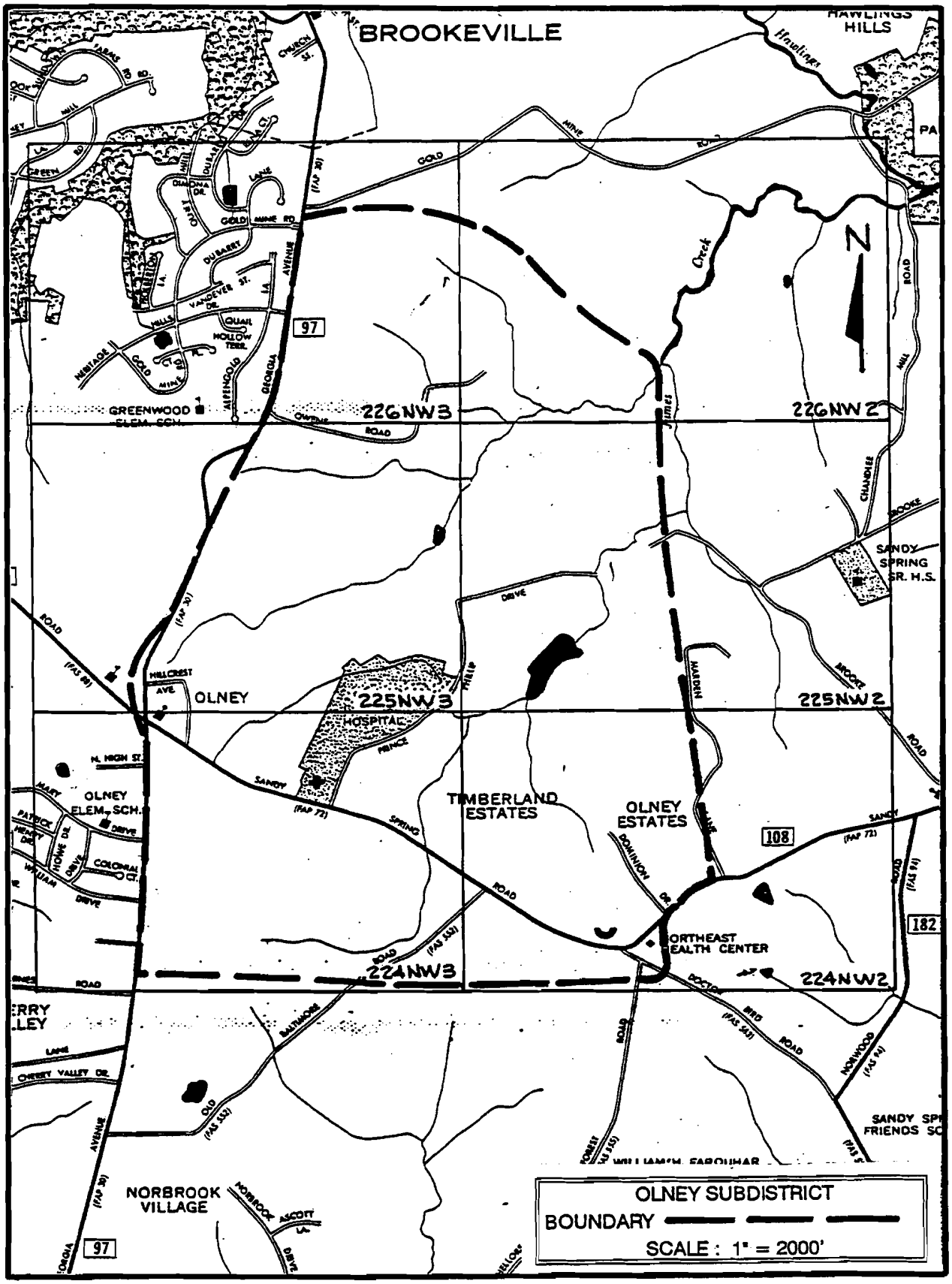
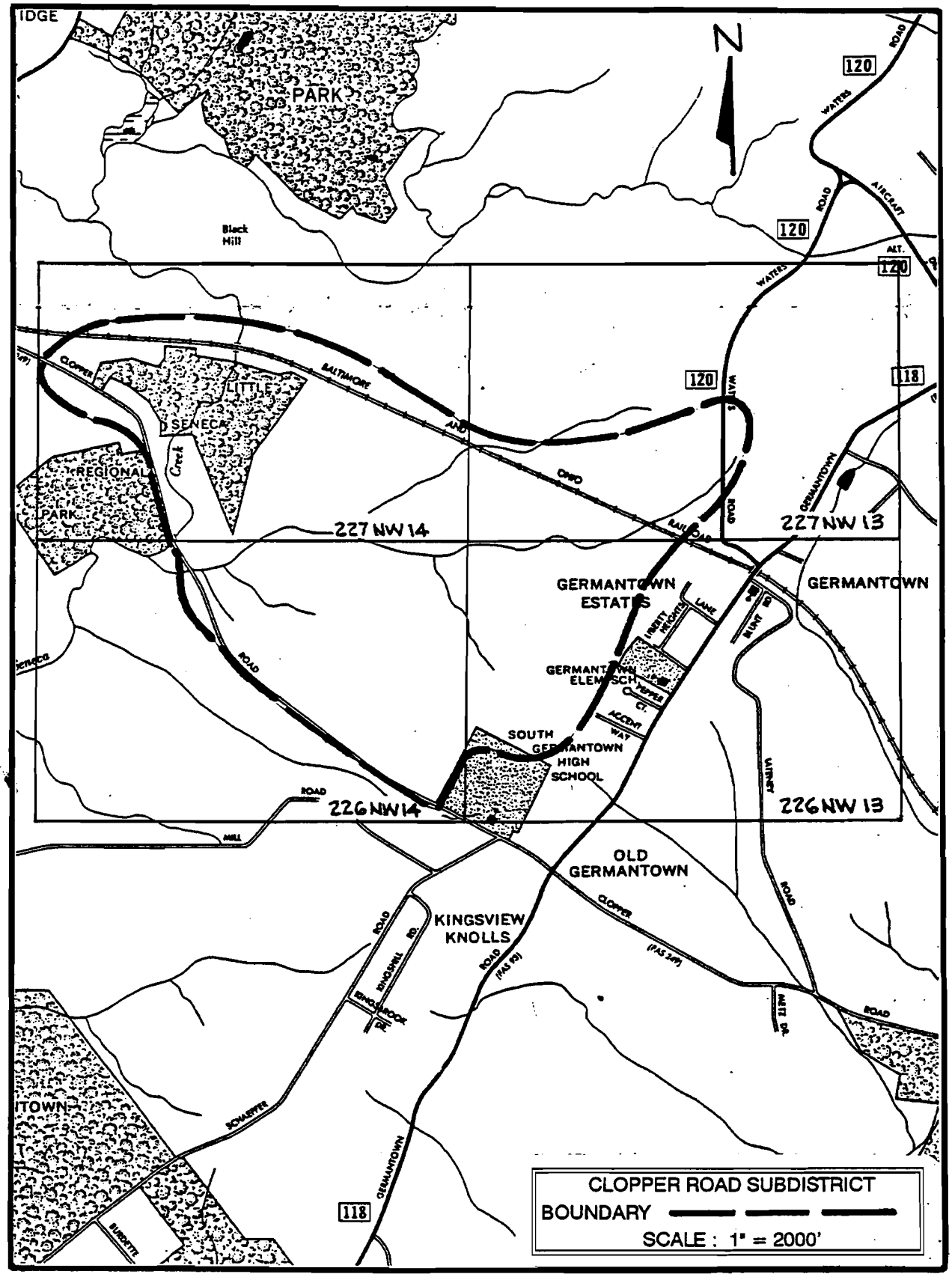
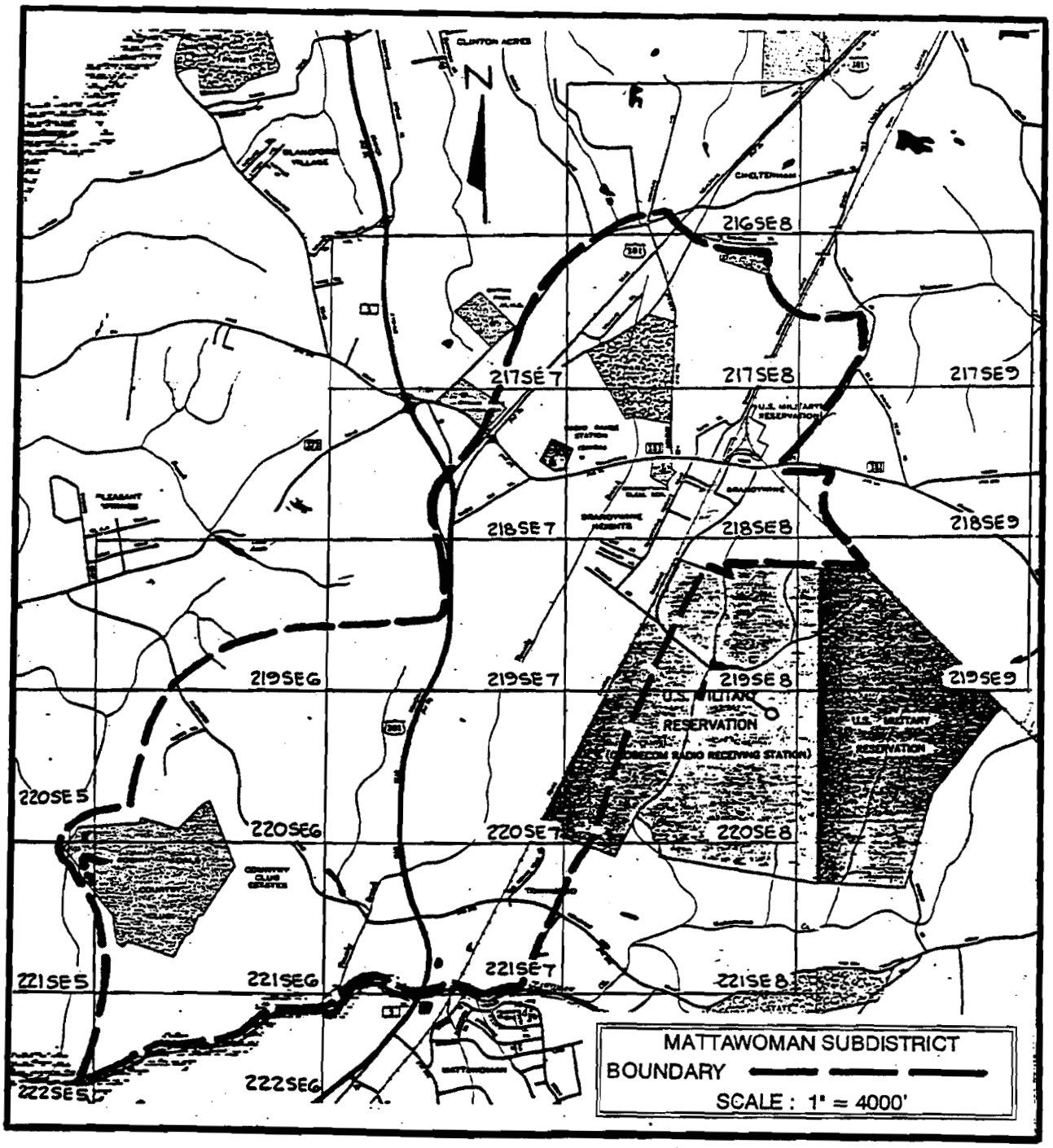
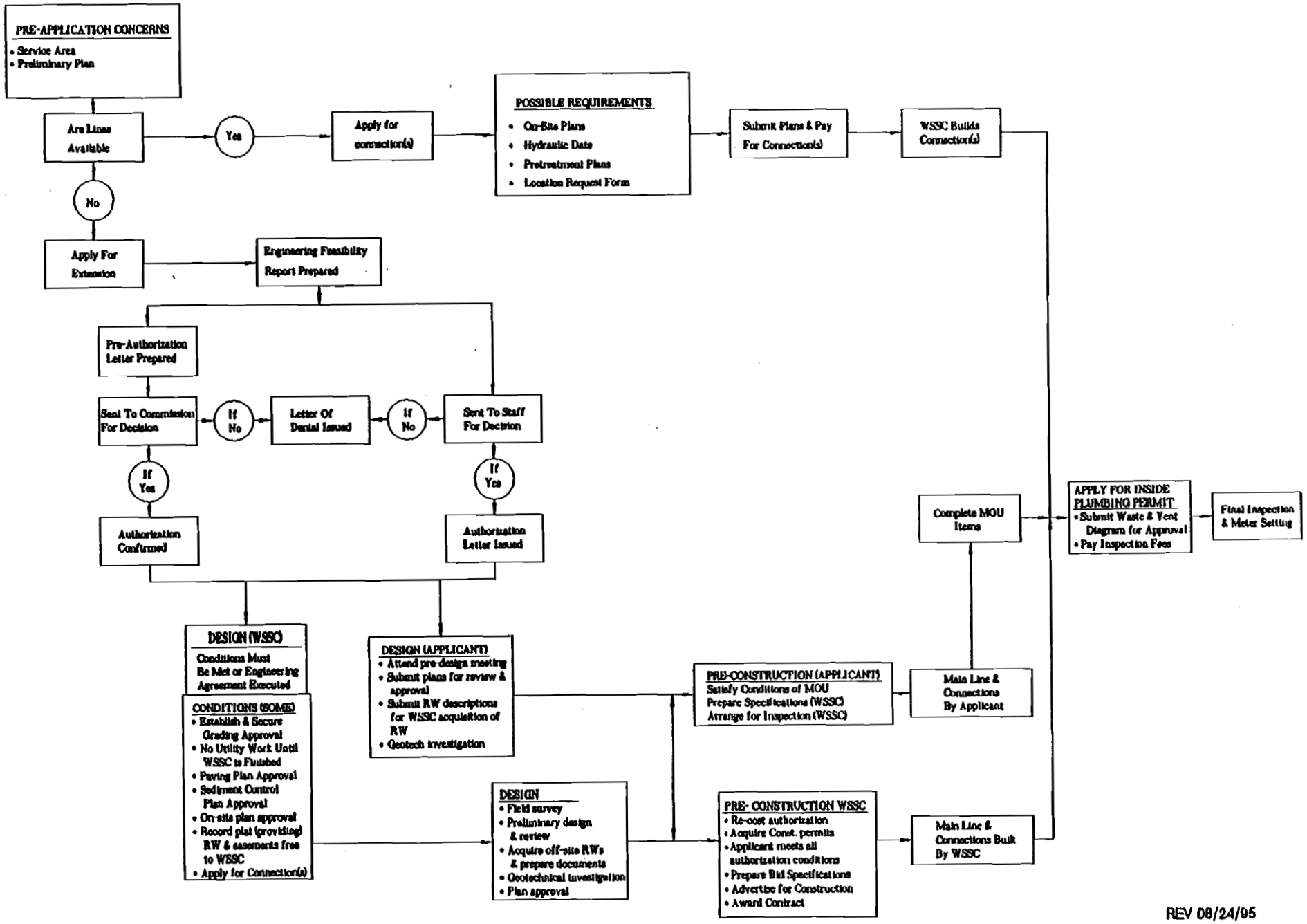
BOWIE
COLLINGTON
SHOP. CTR.
AMBER
MEADOWS
HEATHER
HILLS
HANSON
HIGHWAY
JOHN
GOVERNOR
BRIDGE
MILL
STAR
ROAD
50
301
197
N
GREEN BRANCH AND MILL BRANCH
SUBDISTRICTS
BOUNDARY
SCALE : 1" = 2000'


BROOKEVILLE
HAWLINGS HILLS
Hawlings
PA
GOLD MINE RD
97
226NW3
226NW2
GREENWOOD ELEM. SCH.
ROAD
Creek
N
SANDY SPRING SR. H.S.
OLNEY
225NW3
225NW2
HOSPITAL
TIMBERLAND ESTATES
OLNEY ESTATES
OLNEY ELEM. SCH.
108
182
NORTHEAST HEALTH CENTER
224NW3
224NW2
NORBROOK VILLAGE
SANDY SPRING FRIENDS SC
OLNEY SUBDISTRICT
BOUNDARY
SCALE : 1" = 2000'


IDGE
PARK
Black Hill
N
120
WATERS ROAD
AIRCRAFT
ALT.
120
120
118
LITTLE SENECA
Creek
CLOPPER
BALTIMORE AND OHIO RAILROAD
REGIONAL PARK
227 NW 14
227 NW 13
GERMANTOWN ESTATES
GERMANTOWN
ROAD
SOUTH GERMANTOWN HIGH SCHOOL
226 NW 14
226 NW 13
OLD GERMANTOWN
KINGSVIEW KNOLLS
CLOPPER ROAD (MD 28)
ROAD
118
GERMANTOWN
CLOPPER ROAD SUBDISTRICT
BOUNDARY
SCALE : 1" = 2000'


N
216SE8
217SE7
217SE8
217SE9
218SE7
218SE8
218SE9
219SE6
219SE7
219SE8
219SE9
220SE5
220SE6
220SE7
220SE8
221SE5
221SE6
221SE7
221SE8
222SE5
222SE6
U.S. MILITARY RESERVATION
(GLOMECOM RADIO RECEIVING STATION)
MATTAWOMAN SUBDISTRICT
BOUNDARY
SCALE : 1" = 4000'

WATER AND SEWER SERVICE STAGING



REV 08/24/95

APPENDIX C

WASHINGTON SUBURBAN SANITARY COMMISSION
14501 Sweitzer Lane
Laurel, Maryland 20707

EXTENSION AUTHORIZATION

DATE RECEIVED : 5-20-95
LOG NUMBER : P04262
COUNTY [ ] MC [X] PG
SERVICE CATEGORY W- 3 S- 3
ELECTION DISTRICT # 13
200-FOOT # 202-3SE8-9

REPORT NUMBER : 96-1455L

[X] AW [X] BL [X] AS [X] CT [ ]
[X] Water connection
[X] Sewer connection
[ ] Health Hazard Date
[ ] Fire Protection
[X] Grinder Pump System
[X] Offsite R/W Required
[ ]

APPLICANT		ENGINEER / AGENT (if applicable)	
James T. Getz Associates		Johnson, Fitzpatrick and Lyn, Inc.	
IN CARE OF		IN CARE OF	
Mr. Raymond L. Shea		Mr. Michael T. Alton	
ADDRESS (Number & Street) :		ADDRESS (Number & Street) :	
1630 Alfonso Drive		9665 Leeside Avenue, Suite 250	
CITY, STATE & ZIP CODE :	PHONE : (301)	CITY, STATE & ZIP CODE :	PHONE : (410)
Mt. Pleasant, MD 20762	340-6712	Woodhaven, MD 20150	825-6110

DEVELOPMENT LOCATION : Belview Highway - Wilber Oaks Subdivision
DEED : [ ] YES
PREL. PLAN : 4-94172 1-25-95
RECORD PLAT :

TYPE OF DEVELOPMENT

RESIDENTIAL UNITS	Proposed #	Existing #
[X] HOUSES	19	
[X] TOWNHOUSES	96	
[ ] APARTMENTS		

BUSINESS / OTHER USAGE : 6 Commercial Buildings

WATER SYSTEM

ZONE GROUP	PRESSURE ZONE (HG)	STORAGE STATUS	SUPPLY STATUS
Prince George's High	317A	Adequate	Adequate

SEWER SYSTEM

BASIN	MINI BASIN	WWTP	TRUNK SEWER SYSTEM
Western Branch	14-113	Western Branch	
STATUS	FLOW (GPD)	AVAILABLE CAPACITY (AVG)	LIMITING AVAILABLE CAPACITY (SAFE)
Adequate	28,380	3.57 MGD 11-94	

PROJECT COST

	Construction Impact FOOTAGE	Construction Impact COST	Annual Financial Impact DEBT SERVICE	Annual Financial Impact ASSESSMENT YIELD
GENERAL WATER	3,190	$ 160,610	$ 13,638	$ 17,685
GENERAL SEWER	3,910	$ 485,695	$ 41,189	$ 35,264
WATER BONDS		$ 53,320	$ 4,254	$
SEWER BONDS		$ 16,520	$ 1,316	$
TOTALS	7,100	$ 715,530	$ 60,397	$ 52,949

DEFICIT PAYMENT

CIP REQUIRED

CIP PROJECT # S-41.05 FOR FY'97-'02 STATUS: [X] LOCAL SERVICE

DEPENDENT PROJECT(S)

AUTHORIZATION # 95-7163L STATUS: Plans are signed.

APPROVAL REQUIRED

TRANSMITTED TO :
[X] COMMISSION
[ ] GENERAL MANAGER
[ ] CHIEF OPERATING OFFICER
[ ] BUREAU OF PLANNING AND DESIGN DIRECTOR
[ ] PLANNING & ENGINEERING DIVISION MANAGER

ACTION :
[ ] APPROVE [ ] DISAPPROVE DATE :

R:\FORMS\ORIGINAL\401-1A.WK3 (REV. 4-1-95)

REPORT NO. 96-1455L

REVIEWED BY: E.J.H.

CONDITIONS OF AUTHORIZATION

1. [X] Must establish and record grades
2. [X] Submit 6-foot cellar elevations
3. [X] Submit finished WSSC path or R/W grades
4. [X] Set property pipes/submit coordinate values
5. [ ] Submit grading plans Re: existing facilities
6. [X] Submit storm drainage study/plan
7. [X] Submit sediment control plan
8. [X] Submit paving information
9. [ ] Submit compatibility plan for existing water main
10. [X] WSSC's construction must precede other utility work
11. [X] Forego paving pending WSSC work
12. [X] Provide free R/W to WSSC
    [X] For future facilities
13. [ ] Convey land to MNCP&PC
14. [X] Must record subdivision plat
15. [X] Pay service (house) connections and applicable fees and charges
16. [X] Grade streets, paths and R/W as planned
17. [ ] Pay abandonment/relocation costs
18. [ ] Pay deficit
19. [ ] Assessment payoff required:
    Estimated at $
20. [X] Submit on-site plan
21. [ ] Pay costs due to future property development
22. [ ] Install ejector pumps
23. [X] Install grinder pumps
24. [ ] Install booster pumps
25. [X] Install pressure reducing valves
26. [X] Property will be assessed
27. [X] Pay System Development Charge (SDC) fee

COMMENTS / ADDITIONAL CONDITIONS

The proposed water and sewer extensions have been divided into 4 parts as requested by the applicant:

PART	# UNITS	SEWAGE FLOW GPD	DEPENDENCY
1	19 SF	5,700	-
2	70 TH	16,100	1 & 95-7163L
3	6 COMM. BLDGS.	600	-
4	26 TH	5,980	2 & 3

A 315-foot loop, as indicated in dashed blue on the sketch, is also planned; it will provide a second feed for "system" outage avoidance for 22 existing units.

There will be 2 tunnels required to cross underneath Belview Highway. The cost of the tunnels ($108,000) has been included in the cost computations. Since the northern tunnel is exclusively required for applicant's property, 100 percent of the cost is included in the applicant's cost (deficit) calculations and other tunnel will serve other properties, 50 percent of the cost is included in the applicant's cost (deficit) calculations.

Due to the topography/grade of the street, it will be necessary to construct 470 feet of extra depth sewer, ranging from 10 to 14.5 feet. The cost of the extra depth sewer, $4,940, is included in the cost computations for this project.

Inasmuch as the existing water and sewer mains abut 4 lots, a benefit return was not included in the cost calculations. These lots will be assessed at rates that prevailed at the time of existing line construction.

The proposed water and sewer extensions could also serve 3 existing houses. Of these, 1 property owner desires service, 1 property owner does not desire service and the remaining 1 did not reply to our survey. All property owners affected by benefit assessment levy for the proposed mains have been notified of their financial impact and the Commission's scheduling for this project.

As relates to Condition 12, the applicant will be required to provide a gratis right-of-way, as shown on the sketch, for future facilities.

WASHINGTON SUBURBAN SANITARY COMMISSION
EXTENSION COST SHEET

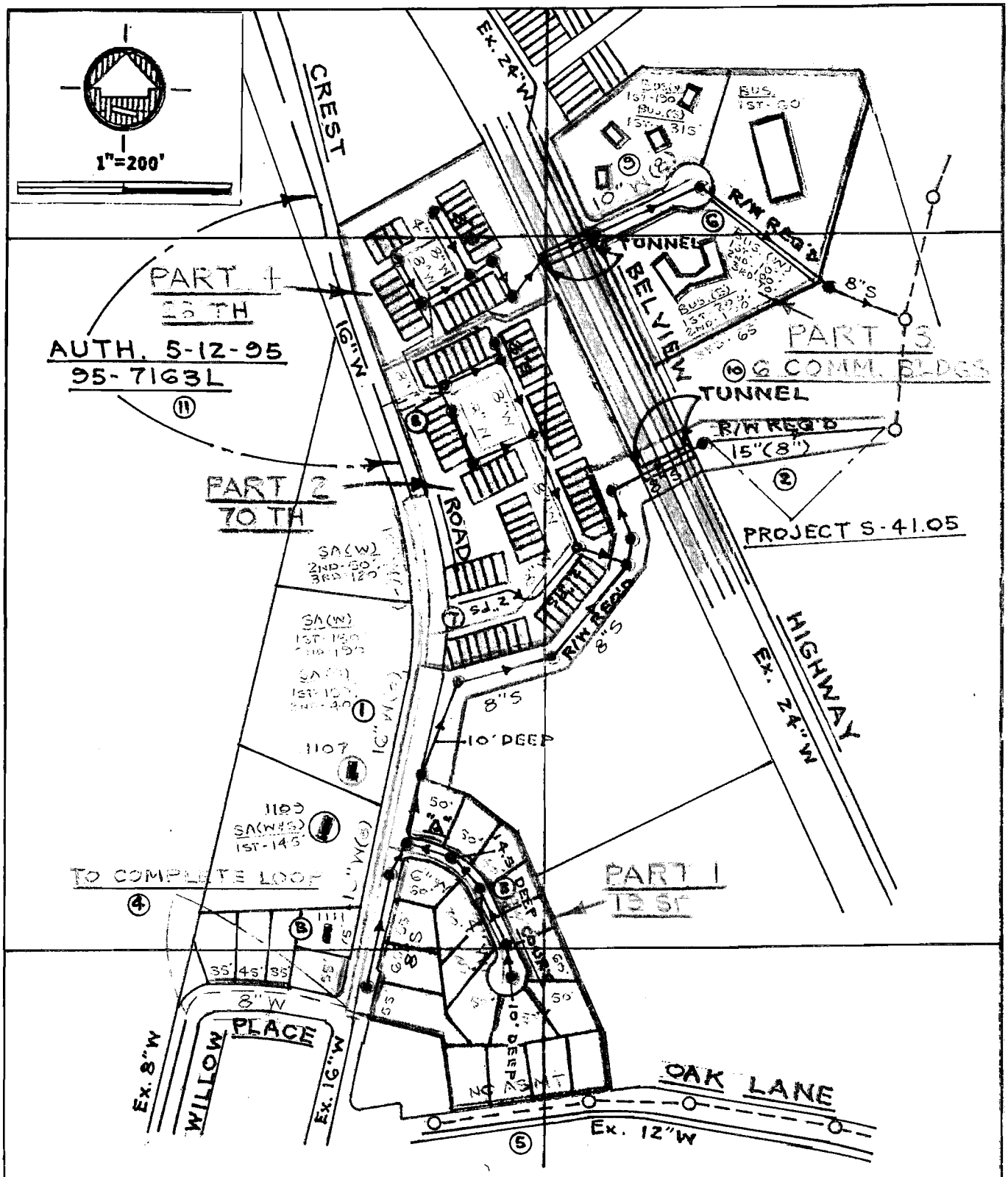
Prepared By: E. HARRIS	To Serve: 19SF, 96TH & 6 COMM.	Job No.: 96-1455L
Verified By: E. WATKINS	Location/Development: BELVIEW HWY., WILBER OAKS SUBD.	Date: 7-18-95

Pipe Size & Kind	Length	Unit cost per foot	Cost	Interest Cost 0.953	Annual Cost 23	Assessment Frontage and Yield: Subd. Ent. Front	Business 1st 200'	Business 2nd 100'	Business Over 300'	Small Acreage 1st 150'	Small Acreage 2nd 150'	Small Acreage Over 300'	Total Yield Water	Total Yield Sewer	Annual Surplus (Deficit)
				PART	1			TO SERVE:		19 SF				-	
4"W	150	49	$7,350	$7,005	$624										
6"W	175	49	$8,575	$8,172	$728										
8(16)"W	580	49	$28,420	$27,084	$2,413										
WATER						$2.79									
TOTAL	905		$44,345	$42,261	$3,765	845							$2,358		($1,407)
8"S	1,490	94	$140,060	$133,477	$11,893										
8(15)"S	295	94	$27,730	$26,427	$2,355										
D/S			$4,940	$4,708	$419										
	48" TUNNEL 50%														
	90	300	$27,000	$25,731	$2,293										
SEWER						$5.39									
TOTAL	1,785		$199,730	$190,343	$16,960	845								$4,555	($12,405)
W/S															
TOTAL	2,690		$244,075	$232,604	$20,725								$2,358	$4,555	($13,812)
				PART	2			TO SERVE:		70 TH					
8"W	1,025	49	$50,225	$47,864	$4,265										
8(16)"W	280	49	$13,720	$13,075	$1,165										
WATER						$2.79					$2.09	$1.40			
TOTAL	1,305		$63,945	$60,939	$5,430	3,500					50	120	$10,038		$4,608
PS	230	114	$26,220	$24,988	$2,226										
8"S	725	94	$68,150	$64,947	$5,787										
SEWER						$5.39									
TOTAL	955		$94,370	$89,935	$8,013	3,500								$18,865	$10,852
W/S															
TOTAL	2,260		$158,315	$150,874	$13,443								$10,038	$18,865	$15,460
				PART	3			TO SERVE:		6 COMM.					
8(10)"W	215	49	$10,535	$10,040	$895										
WATER							$3.71	$2.79	$1.40						
TOTAL	215		$10,535	$10,040	$895		260	100	70				$1,342		$447
8"S	590	94	$55,460	$52,853	$4,709										
SEWER							$7.17	$5.39	$2.70						
TOTAL	590		$55,460	$52,853	$4,709		575	100	65					$4,837	$128
W/S															
TOTAL	805		$65,995	$62,893	$5,604								$1,342	$4,837	$575
				PART	4			TO SERVE:		26 TH					
4"W	50	49	$2,450	$2,335	$208										
8"W	400	49	$19,600	$18,679	$1,664										
WATER						$2.79									
TOTAL	450		$22,050	$21,014	$1,872	1,300							$3,627		$1,755
8"S	580	94	$54,520	$51,958	$4,629										
	48" TUNNEL 100%														
	90	600	$54,000	$51,462	$4,585										
SEWER						$5.39									
TOTAL	580		$108,520	$103,420	$9,214	1,300								$7,007	($2,207)

WASHINGTON SUBURBAN SANITARY COMMISSION
EXTENSION COST SHEET

Prepared By: E. HARRIS	To Serve: 19SF, 96TH & 6 COMM.	Job No.: 96-1455L
Verified By: E. WATKINS	Location/Development: BELVIEW HWY., WILBER OAKS SUBD.	Date: 7-18-95

Pipe Size & Kind	Length	Unit cost per foot	Cost	Interest Cost 0.953	Annual Cost 23	Assessment Frontage and Yield: Subd. Ent. Front	Business 1st 200'	Business 2nd 100'	Business Over 300'	Small Acreage 1st 150'	Small Acreage 2nd 150'	Small Acreage Over 300'	Total Yield Water	Total Yield Sewer	Annual Surplus (Deficit)
W/S															
TOTAL	1,030		$130,570	$124,434	$11,086								$3,627	$7,007	($452)
				PARTS 1 – 4											
W/S															
TOTAL	6,785		$598,955	$570,805	$50,858								$17,364	$35,264	$1,771
	EQUIVALENT														
10(8)"W	215	20	$4,300	$4,098	$365										($365)
	48" TUNNEL 50%														
	90	300	$27,000	$25,731	$2,293										($2,293)
	WATER BONDS			0.531	19										
16(8)"W	860	62	$53,320	$28,313	$4,296										($4,296)
	SEWER BONDS			0.530	19										
15(8)"S	295	56	$16,520	$8,756	$1,330										($1,330)
TOTAL															
W/S															
BONDS	1,155		$69,840	$37,069	$5,626										($5,626)
	WATER LOOP														
8"W	315	49	$15,435	$14,710	$1,311										
WATER						$2.79									
TOTAL	315		$15,435	$14,710	$1,311	115							$321		($990)
GRAND															
W/S															
TOTAL	7,100		$715,530	$652,413	$60,453								$17,685	$35,264	($7,503)



1. Water Bonds (16")
2. Sewer Bonds (15")
3. Extra depth sewer
4. Complete Loop
5. Existing mains serving 4 proposed lots - no new FFBA
6. Tunnel cost to be charged to applicant
7. Grinder Pump/Pressure Pipe System
8. Reserve Gratis R/W
9. Equivalent line size costing
10. Tunnel cost shared by WSSC (serves others)
11. Project depends on tie-in authorization

202-3SE8-9

WASHINGTON SUBURBAN SANITARY COMMISSION
WATER AND SEWER REPORTS SECTION
14501 SWEITZER LANE, LAUREL, MD 20707
(301) 206-8650

WSSC DATE RECEIVED: 5-20-95

LOG # P04262

200-FT. # 202-35E8-9

FEE(S) $ 2,298.00

EXTENSION APPLICATION

TO BE COMPLETED BY APPLICANT (MUST BE PRINTED OR TYPED)

Various fees are linked to various types of service. You are entitled to information on all such costs. Developers must hire an engineer to prepare an Engineering Feasibility Report for profit-oriented development. Applicants should review the reminders on the reverse side of this form to insure that supporting documentation and appropriate fee payment accompanies their application. Also see ENVIRONMENTAL IMPACT below.

PROPERTY IDENTIFICATION (LOT, BLOCK, PARCEL, SUBDIVISION, ETC.)
Belview Highway
Wilber Oaks Subdivision

COUNTY: [X] PG [ ] M

PRELIMINARY PLAN APPROVAL
DATE: 1-25-95 NO. 4-94172

RECORD PLAT
DATE: NO.

APPLICANT'S MAILING ADDRESS
James T. Getz Associates
APPLICANT
Mr. Raymond L. Shea
IN CARE OF
1630 Alfonso Drive
NUMBER AND STREET
Mt. Pleasant, MD 20762 (301) 340-6712
CITY, STATE, ZIP PHONE

ENGINEER'S / AGENT'S MAILING ADDRESS (if applicable)
Johnson, Fitzpatrick and Lyn, Inc.
NAME
Mr. Michael T. Alton
IN CARE OF
9665 Leeside Avenue, Suite 250
NUMBER AND STREET
Woodhaven, MD 20150 (410) 825-6110
CITY, STATE, ZIP PHONE

SERVICE REQUIRED

[X] WATER [X] SEWER [ ] OTHER (specify) _____

TYPE OF DEVELOPMENT

RESIDENTIAL USAGE	PROPOSED	# UNITS	EXISTING
[X] HOUSE(S)	19		
[X] TOWNHOUSES	96		
[ ] APARTMENTS			

BUSINESS / OTHER USAGE (office bldg., hospital, motel, etc.)
DESCRIBE PROJECT:
6 Commercial Buildings

EXISTING BUILDING?	SQ. FOOTAGE (est.)	SPRINKLER (est)
[ ] Yes [ ] No		GPM

IS WELL FAILING? [ ] Yes [ ] No

IS SEPTIC SYSTEM FAILING? [ ] Yes [ ] No

DEVELOPERS / BUILDERS

WILL YOU BE HIRING A CONSULTANT TO PREPARE WATER AND / OR SEWER PLANS? [X] Yes [ ] No

ENVIRONMENT IMPACT: WILL THE ALIGNMENT OF THE PROPOSED WATER AND / OR SEWER LINE(S) HAVE AN IMPACT ON:

TREES ALONG MUNICIPAL OR COUNTY ROADS?	[ ] Yes	[X] No
STATE, COUNTY OR MNCP&PC PARKLANDS?	[ ] Yes	[X] No
ON-SITE / OFF-SITE WOODLANDS OR FORESTED AREAS?	[ ] Yes	[X] No
STREAM VALLEYS?	[X] Yes	[ ] No
WETLAND AREAS?	[X] Yes	[ ] No

IF "YES" IS ANSWER FOR ANY OF THE QUESTIONS, EXPLAIN EACH SITUATION IN THE "REMARKS SECTION" BELOW OR ON A SEPARATE SHEET ACCOMPANYING THIS APPLICATION FORM IF MORE SPACE IS NEEDED FOR CLARITY.

REMARKS: Proposed outfall sewers will traverse stream valley/wetland area.

APPLICANT'S SIGNATURE	DATE	ENGINEER / AGENT'S SIGNATURE	DATE
	5-15-95	M. T. Alton	5-14-95

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DEVELOPERS / CONSULTING ENGINEERS

To hasten your request please review the checklist below to ensure that your request for service is properly and promptly handled. Be mindful that building permits cannot be obtained unless WSSC authorization is granted. Insufficient information will cause delays. Inferior submissions will result in repeat submissions and conceivably an additional fee.

If a preliminary plan has been processed by the Subdivision Review Committee, but awaiting formal M-NCP&PC approval, WSSC will concurrently accept extension service requests and privately prepared engineering reports. However, an additional processing fee might be incurred if significant changes are made to the yet-to-be approved preliminary. In any case, an approved preliminary plan or record plat must be submitted prior to Commission authorization of the extension project.

ENGINEERING REPORT FEES

(Effective July 1, 1995)

Existing house(s)	$ 75.00	Existing or proposed instiution(s) (Churches, private schools, hospitals, etc.)	$500.00
Proposed house(s) / townhouses			
First unit	$250.00	Existing or proposed Government project(s)	$500.00
Each additional unit	12.00		
		Authorization revision(s) (Use "Authorization Amendment" form)	$500.00
Proposed apartments			
First unit	$300.00		
Each additional unit	4.75	Transfer of Authorization (Use "Authorization Amendment" form)	$300.00
Existing or proposed commercial / industrial			
First acre (minimum charge)	$500.00		
Each additional acre	90.00		

CHECKLIST

Is water and / or sewer system area correct (1, 2, or 3)? County approval attached?

Is a Public Use Allocation needed (P. G. Co.)? Attached?

Is hydraulic information for the commercial / industrial development available? Form completed and attached?

ENGINEERING REPORT SUBMISSION REQUIREMENTS

A completed EXTENSION APPLICATION Form.

A check covering the Engineering Report fee.

2 copies of preliminary plan or record plat (and site plan).

4 completed 200' color-coded sketches (If construction in parts is desired, identify part sequence preferred on sketches.

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DELEGATION OF AUTHORITY
WATER AND SEWER AUTHORIZATIONS

DELEGATED BY THE COMMISSION TO THE GENERAL MANAGER	SUB-DELEGATED TO:
A. Agreements, Contracts, and Water/Sewer Authorizations	
10. Approve division of authorizations into parts where proceeding in parts will not affect the financial aspect of the projects.	Water and Sewer Reports Section Head
12. Approve new sewer service connections not exceeding 50,000 gallons per day, provided such approvals are in accordance with other regulations.	Service Applications and Records Section Head
13. Approve recosted authorizations.	Planning and Engineering Division Manager
14. Approve changes to authorizations, previously approved by the Commission, where certain amendments to the original conditions of the authorization are made, but are not of such a nature, in the General Manager's assessment, that Commission approval is warranted.	N/A
15. Approve change in number of house connection payments required because of record plat.	Planning and Engineering Division Manager
16. Approve waiver of certain requirements (not involving contributions, deposits, or MBE programs), such as recording plat, grading street, etc.	Bureau of Planning and Design Director
17. Approve the transfer of an authorization from one person or party to another.	Water and Sewer Reports Section Head

DELEGATED BY THE COMMISSION TO THE GENERAL MANAGER	SUB-DELEGATED TO:
18. Sign Letter of Regret (when service application is denied).	Water and Sewer Reports Section Head
19. Approve extension projects under the following criteria:	
a. For projects not exceeding 100 residential units or small non-residential ventures generating comparable flow demands, consistent with State and County regulations.	Chief Operating Officer for 50 or fewer units; Bureau of Planning and Design Director for 25 or fewer units; Planning and Engineering Division Manager for extensions not greater than 400 feet.
b. Prior to approval of any extension project under Item 19 a., each property owner must be sent a front foot benefit assessment impact letter which allows sufficient time to file an objection to the proposed service; if anyone objects, in writing, the project shall be referred to the Commission.	
20. Approve non-CIP water line extension projects, up to **$200,000** in cost, which will connect existing lines consistent with the WSSC looping criteria.	Chief Operating Officer up to $100,000; Bureau of Planning and Design Director up to $50,000
21. Approve acquisition of privately owned systems, when consistent with Commission procedure.	N/A

WATER & SEWER AUTHORIZATION CONDITIONS

An authorization is granted to a specific applicant for a specific type of development project with the stipulation that an authorization-holder will satisfy certain conditions. An authorization, however, shall not be construed as a contract. An authorization's life-span hinges on a valid preliminary plan (indefinite if plat is recorded). If the type and extent of development subsequently changes, the authorization-holder must file an Amendment Form (#401-8). An authorization may, however, be transferred. An Amendment Form (#401-8) must be submitted which signifies the consent of both parties and a copy of the property ownership transfer is provided. Once finalized, the new authorization-holder must then fulfill or further satisfy any outstanding conditions of the authorization. Until the property to be developed is actually connected to the WSSC's system, the WSSC reserves the right to alter or add conditions to the authorization if in the best interest of the WSSC. Contingencies include policies current at the time of re-submission for revision or recosting such as: engineering factors, moratoria restrictions, financial considerations, and the effect of any legal rule or policy then in effect.

The WSSC's Water & Sewer Design Section (206-8765) will not start design of a project until an authorization-holder has satisfied the conditions, those cited in the authorization letter or as cited below and/or on the reverse side. At personal expense, a private engineer can be engaged (subject to WSSC approval) to prepare plans (these become WSSC property). As another option, WSSC staff design plans for a project can get underway if an "Engineering Agreement" is executed and a deposit is made for the estimated cost of the engineering work. When design drawings are finished and signed, the project (authorization) will be recosted by the Water & Sewer Report Section. Following deficit payment, if any, the drawings will then be readied for construction scheduling. Any expenses incurred by the WSSC resulting from false claims of satisfied conditions must be paid by the authorization-holder.

ITEMIZED AUTHORIZATION CONDITIONS

1. Submit to W/S Design approved street grades (MCDOT; PG Co. DPWT; SHA).

2. The proposed building(s) should be built, and grading accomplished, for service by sewer lines at a depth of 8-10 feet below approved grades. Accordingly, furnish to W/S Design the lowest floor elevation for each structure to be served-which should <u>not</u> be more than 6-feet below the established street grade at the center of the lot.

3. Furnish to W/S Design the proposed finished grade of WSSC's right-of-way.

4. For construction purposes, pipes or stakes must be set which will locate and identify street and property lines. For design purposes, moreover, an engineer or registered land surveyor must submit coordinate values in the WSSC datum on a copy of the plat and accordingly certify same in writing.

5. Furnish WSSC's Relocations and Major Systems Section with proposed grading plans. An impact assessment must be made as to the effect your site grading will have on existing WSSC facilities. The cost of any adjustments or relocations of WSSC facilities, resulting from your grading actions, must be borne by you.

6. Submit to W/S Design a stormwater management (drainage) plan in advance of water/sewer plan design.

7. Furnish to W/S Design an approved Soil Conservation District (SCD) sediment control plan. As an alternative, submit a preliminary plan along with a letter agreeing to pay any additional cost if subsequent changes to the approved plan will later effect the water/sewer design. Site sediment controls must include temporary stabilization as required by State Sediment Control Regulations-devices and temporary stabilization must conform with approved SCD plans or WSSC will not bid your project. Also, you must acquire a "WSSC Utility Erosion and Sediment Control Permit" prior to any on-site clearing, grubbing, and grading for installation of water/sewer pipes or for grading of any areas exclusive to the site not otherwise covered by the approved SCD plan. (For more information call: 301-206-8077.) An authorization-holder is responsible for any additional costs incurred by a WSSC Contractor as a result of sediment control violations or stop work order citations caused by authorization-holder neglect or non-compliance with these conditions.

8. Submit to W/S Design either a letter certifying width, type and extent of development paving to be installed or submit approved paving plans as prepared by a registered engineer. As relates to final site paving, an authorization-holder must schedule an inspection with the WSSC Maintenance Department, after paving, so that WSSC can inspect the state of water/sewer facilities and appurtenances. The WSSC will perform the inspection within 10 working days of the request. Any deficiencies found to be an authorization-holder's responsibility must be corrected and confirmed by a follow-up WSSC inspection(s). Until deficiencies are resolved, a WSSC clearance form will not be issued and the authorization-holder's road construction bond will not be released.

9. Submit a plan to our Relocations & Major Systems Section to verify that your development of the site will not conflict with WSSC's maintenance of the existing main(s).

10. Certify to W/S Design, in writing, that other utility installation work shall not precede WSSC water/sewer construction (i.e. storm drains, gas, electric, telephone, etc.). As required by #7, an authorization-holder is further responsible for stabilization of those streets, paths, or right-of-way disturbed by a WSSC water/sewer contractor. Except for building any pre-approved segments (i.e. storm drains), an authorization-holder will be billed for any other costs incurred by WSSC as a result of violations of this condition, namely construction variations from water/sewer design plans.

11. Certify to W/S Design, in writing, that street or roadway paving, beyond that existing, will not be installed until all WSSC construction work is completed.

12. Any right-of-way across an applicant's property for WSSC water/sewer line placement must be provided at no cost to the WSSC. Any required WSSC right-of-way and/or construction strips traversing property to be dedicated to M-NCP&PC must be transferred to WSSC prior to dedication to M-NCP&PC. Where WSSC lines and accessories will be constructed in other than dedicated public space (i.e. private drives, green spaces, etc.), the recorded plat (#14) must dedicate such areas for construction, reconstruction, operation, and maintenance of WSSC facilities. If this dedication is omitted the cost of preparing and/or reviewing and recording same shall be borne by an applicant.

13. Any land to be ultimately conveyed to M-NCP&PC must be conveyed before WSSC construction will begin.

14. WSSC will not bid a project until the subdivision plat of the property is recorded and a copy is provided to W/S Design. (Also see #12, 13 and 15.)

15. After plat recordation (Item #14), submit Connection Application Forms to WSSC's One-Stop-Shop for each building to be served and settle all fee requirements. (This is a prerequisite for "building permit" release as well as water/sewer construction.) (Also see #20.)

16. Clear, grub, and grade all streets, paths, and right-of-way of the site being developed to 6" above or 12" below the established grade for the full width between property and right-of-way lines within the limits of the property. No clearing, grubbing or grading shall be done off site without prior written permission by WSSC. Prior to WSSC project bidding, your

engineer must provide W/S Design with an "Engineer's Certification for Grading Compliance". (Also see #3, 4, 7, 8 and 10.)

17. The development will necessitate the relocation/abandonment of existing WSSC facilities. Such work will be at the expense of the authorization-holder. Cost estimates will be provided by the WSSC's Relocations and Major Systems Section.

18. When notified by W/S Design that engineering plans are ready for bidding, you must pay any "deficit" payment requirement, relocation/abandonment expenses, prior assessments, etc.

19. The property to be developed has an existing benefit assessment; this project will not be scheduled for construction until the existing assessment balance is paid. (See #26)

20. Submit on-site plans for water lines greater than 2-inches or sewer lines greater than 4-inch (to the One-Stop-Shop). Plans must be prepared by a professional engineer registered in Maryland. Plans must conform to : W/S Design Standards and "A Designer's Guide to Erosion and Sediment Control" (from Environmental Service Unit).

21. Since definite site plans have yet to be developed (as to building locations and the future division of property), fire hydrants and other WSSC accessories will be built in accordance with existing criteria and best available information. If any structural relocations are necessary due to future property development, the expense will be borne by the authorization-holder. (See #17)

22. Because of the building's elevation (in relation to sewer pipe) an ejector pump may be required for the building. The pump must be installed by a registered plumber-at authorization-holder's expense.

23. For properties to be served by a pressure pipe/grinder pump system, the developer/property owner is responsible for all on-site installation (i.e. materials, electrical equipment, the grinder pump unit and plumbing hook-up installation by a registered plumber). Grinder units must be approved by WSSC. Ultimately the property owner will be responsible for all on-site maintenance of grinder pump systems. Builders/developers/owners must <u>disclose this</u> requirement to purchasers <u>at property settlement</u>.

24. Because of low water pressure conditions (less than 30 psi), the on-site plumbing system may require booster pump installation; installation must be by a registered plumber at authorization-holder's expense.

25. Because water pressure will exceed 80 psi, the on-site water system will require pressure reducing valve (PRV) installation by a registered plumber at authorization-holder's expense.

26. Once main lines are in street, a front foot benefit assessment (and any deferred connection costs) will be levied against all property served. The charge(s) will appear on County property tax bills for a set period of time-currently 23 years. (For details contact the Property Assessment Section on 206-8126.)

27. System Development Charge (SDC) payment is required. Make payment to WSSC's one-stop-shop at the time of application for plumbing permit to install fixtures or hookup to the Commission's water and/or sewerage system(s). In the event of an extant sub-district charge, the greater amount between the sub-district charge and the System Development Charge fee shall be due and payable. (For details contact the One-Stop-Shop on 206-4003.)

(Rev. 6/93)

UNIT COST FACTORS

PIPE	'93	'94	'95
WATER			
4 & 6"W	$38	$50	$49
8"W	$38	$50	$49
10"W	$52	$67	$69
12"W	$52	$67	$69
16"W	$92	$90	$111

PIPE	'93	'94	'95
SEWER			
PS	$61	$73	$114
8"S	$70	$88	$94
10"S	$77	$108	$133
12"S	$77	$108	$133
15"S	$106	$118	$150

ASSESSMENT	WATER			SEWER		
SUB	$2.04	$2.51	$2.79	$4.04	$4.74	$5.39
BUS 1ST 200'	$2.71	$3.34	$3.71	$5.37	$6.30	$7.17
BUS 200'-300'	$2.04	$2.51	$2.79	$4.04	$4.74	$5.39
BUS OVER 300'	$1.02	$1.26	$1.40	$2.02	$2.37	$2.70
SA 1ST 150'	$2.04	$2.51	$2.79	$4.04	$4.74	$5.39
SA 2ND 150'	$1.53	$1.88	$2.09	$3.03	$3.56	$4.04
SA OVER 300'	$1.02	$1.26	$1.40	$2.02	$2.37	$2.70

INTEREST COST FACTOR			
GEN. CONST.	0.898	0.726	0.953
WATER BONDS	0.603	0.516	0.531
SEWER BONDS	0.604	0.514	0.530

BOND YEARS			
	23	23	23
	19	19	19
	19	19	19

CAPITAL RECOVERY FACTOR			
GEN. CONST.	0.0825	0.0751	0.0849
WATER BONDS	00.0843	0.0798	0.0806
SEWER BONDS	0.0844	0.0797	0.0805

PRESENT WORTH FACTOR			
5 YRS.			0.730
10 YRS.			0.533

CAPITAL RECOVERY FACTOR

The capital recovery factor is the figure that converts the annual projected deficit (for the next 23 years), to today's dollars. Put another way, the amount calculated by dividing the annual deficit by the capital recovery factor is the cost for which there will be no assessment recovery from property owners affected by the construction. This unrecovered cost is the deficit payment required from the applicant.

EXAMPLE

Assumptions:

1. 100 feet of 6" water main will be built.
2. 125 feet will be assessed at the subdivision rate as a result of this construction.
3. Unit cost factors are those for 1995 (noted by an "*").

Calculations:

A. Cost:

100′ x $49/foot* = **$4,900**

B. Annual debt service (D/S) associated with construction:

Interest portion: $4,900 x 0.953* =	$4,670
Principal portion:	4,900
Total D/S over the life of the bonds:	9,570
Bond life (in years):	÷ 23*
ANNUAL D/S:	**$ 416**

C. Annual assessment recovery:

125′ x $2.79/foot* = **$349 per year**

D. Deficit calculation:

Annual D/S:	$416
Less annual assessment recovery:	(349)
Annual deficit:	67
Capital recovery factor:	÷ .0849*
DEFICIT CONTRIBUTION	**$ 789**

E. Verification of deficit amount:

(If computed properly, that portion of the cost of construction paid by WSSC bonds will equal the assessment recovery.)

Total cost:	$4,900
Less deficit contribution:	(789)
Cost paid with bond proceeds:	4,111
Plus interest: (.953* x 4,111 =)	3,918
Total debt service:	8,029
Bond life:	÷ 23*
ANNUAL DEBT SERVICE:	**$ 349**
ANNUAL ASSESSMENT RECOVERY (from "C" above)	**$ 349**

PROJECT DESIGN & CONSTRUCTION SCHEDULING

The WSSC Water and Sewer Design Section must be notified by an authorization holder, in writing, when all conditions of an authorization have been met. At that time, the project will be scheduled for plan design and subsequent construction. Please keep in mind that roughly 150 projects are underway at the same time. Barring right-of-way acquisition problems, average time for completing various water and sewer design stages approximate the following:

WSSC IN-HOUSE DESIGN

Field Survey	4-8 weeks	
Property Work	1-2 weeks	
Preparation & Approval of Street Grade Establishment (if required)	8-10 weeks	
Preliminary Design & Review	10-12 weeks	
Final Design & Review	4 weeks	
Preparation of Rights-of-Way Documents	2-4 weeks	
Grade Check of Streets and/or Paths	3-4 weeks	
Geotechnical Investigation	6 weeks	
Acquisition of Rights-of-Way	8 weeks	(min.)
Final Review & Coordination of Construction Plans	2 weeks	
Approval of Construction Plans	2 weeks	

CONSULTANT-PRIVATE DESIGN

Preliminary Review	8 weeks	
Soil Investigation if by WSSC (if developer supplies boring data, time can be saved; 2 weeks review period is nonetheless required by WSSC)	6 weeks	
Review of Rights-of-Way Documents	1 week	
Acquisition of Rights-of-Way	8 weeks	(min.)
Final Review	8 weeks	(min.)
Final Corrections	2 weeks	
Approval of Construction Plans	2 weeks	

PRE-CONSTRUCTION ACTIVITIES (FROM APPROVAL OF PLANS)

Application for and Acquisition of Construction Permits From Other Agencies	4-8 weeks	
Preparation of Specifications	2 weeks	
Advertisement for Construction Bids	3 weeks	
Award of Contract	1 week	
Contractor's Submittal of Documents & Contract Execution	1-2 weeks	
Pre-construction Conference (if Required)	1 week	
Contractor's Notice to Proceed	1 week	

CONSTRUCTION STAGE

Contractor's Site Mobilization and Start of Construction	1-2 weeks	
Completion of Construction (each project varies in maximum time)	4 weeks	(min.)

The times are <u>not</u> to be cumulatively added. Each project is programmed separately, taking into account such diverse factors as: total development size, developer's phasing requirements, number and availability of rights-of-way, number of permits required, preparation of plans as a "private job", developer furnishing geotechnical input, and a low bid acceptable to WSSC. Construction activities for projects constructed by the applicant under an MOU are largely under the control of the applicant. However, time must be allotted for the administration of MOU preparation and completion of requirements.

CONSTRUCTION PERMIT REQUIREMENTS

PERMITS	AGENCY	CONSTRUCTION PURPOSE	PROCESSING PERIOD
Water Main Construction	State Dept. of Health and Mental Hygiene	Water mains exceeding 400 feet.	4 weeks
Sewer Main Construction	State Dept. of Health and Mental Hygiene	Sewer mains exceeding 400 feet.	4 weeks
Water Supply/Sewerage Treatment	State Dept. of Health and Mental Hygiene	Water storage tanks, treatment plants, pumping stations,etc.	2-4 months
Public Utility linked to Federal Aid	State Highway Administration / P.G.Co. of Public Works & Transportation	Projects in County or State roads which have or will be improved by Federal funds.	4 weeks
Utility Sediment Control	WSSC Environmental Services Unit (as delegated by state law)	All underground or subsurface construction by utility or developers.	1 week
Wetland License	State Water Resources Admin.	Projects in streams affected by tidal waters and in designated marshes and swamps.	3 months
Waterway Construction	State Water Resources Admin.	Projects in regular flood plains of streams and crossing with area drainage exceeding 400 acres or for recreational and natural trout waters when area drainage exceeds 100 acres.	3 months
Corps of Engineers	Dept. of the Army	Projects within streams where 500' or more linear pipe to be installed or where drainage area exceeds 3200 acres of tidal waters.	Unlimited
State Highway Construction	State Highway Administration	Projects thru State maintained roadways	4 weeks
Montgomery County Roadway	Montgomery County Dept. of Transportation	Projects in County maintained roadways	3-4 weeks
Roadside Tree	MD. Dept. of Natural Resources (Delegated to WSSC)	Projects where the trimming or removal of trees or shrubs within a right-of-way of any public road entail major water, sewer, storm drain, property connection or maintenance work.	1 week
National Capital Planning Commission	NCPC	Work thru park property purchased with Capper-Cramton Act funds.	4-8 weeks
National Park Permit	U.S. National Park Service	Projects thru agency controlled property	1-2 months
Park Property	M-NCP&PC	Projects thru M-NCP&PC property	2-3 months
Railroad	Chessie / AMTRACK / Consolidated Rail Corp.	Projects on or thru railroad property	6-12 months
Agriculture Dept.	U.S. Dept. of Agriculture	Projects thru agency controlled property	3 months

APPENDIX J

WATER AND SEWER REPORT REVIEW FEE

(Effective July 1, 1995)

Existing House	$ 75.00
Proposed Houses/Townhouses	
1st Unit	$250.00
Each Additional Unit	$ 12.00
Proposed Apartments	
1st Unit	$300.00
Each Additional Unit	$ 4.75
Commercial/Industrial	
1st Acre Minimum	$500.00
Each Additional Acre	$ 90.00
Institutional (Churches, Private Schools, Hospitals, etc.)	
Flat Fee	$500.00
Government Projects	$500.00
Authorization Revisions (major revisions requiring near-total report amendment may require new report fee submittal)	$500.00
Transfer of Authorization	$300.00

WASHINGTON SUBURBAN SANITARY COMMISSION

Water and Sewer Reports Section
14501 Sweitzer Lane
Laurel, Maryland 20707
(301) 206-8650

WATER & SEWER SERVICE

COST INFORMATION

1 FRONT FOOT BENEFIT ASSESSMENT 1

In the year following completion of water and/or sewer main construction, PROPERTY IS ASSESSED A FRONT FOOT BENEFIT CHARGE AS REQUIRED BY LAW to repay funds borrowed for construction. The charge appears on the property tax bill for 23 years but it may be paid off in full at any time. The tax bill charge is determined by multiplying property footage by the rate per foot for the appropriate property classification. Irregularly shaped lots are assessed using average footages of neighboring properties. The rates below are estimated at 6.50% bond interest for 1995 construction projects.

			WATER RATE	SEWER RATE
SUBDIVISION (Residential Lot) (Also Townhouse Units at 50 ft. per Unit)			$2.79	$5.39
SMALL ACREAGE & AGRICULTURAL	1st	150ft.	$2.79	$5.39
	next	150ft.	$2.09	$4.04
	over	300ft.	$1.40	$2.70

In areas designated by County Governments as Service Area 5 or 6, the Commission will put the assessment in hiatus (suspension) until such time as County policy will allow service and service is provided by a connection.

In Service Areas 1 through 4, existing houses with satisfactory well and/or septic system will also be granted a suspension in the assessment until such time as the property is served by a connection.

2 CONNECTION CHARGES 2

A connection is a pipe from the water and/or sewer main in the street to the property line. A connection pipe is needed to hook-up the on-site plumbing systems (as explained on the reverse side). A deferred payment plan is available only for Owner Occupied dwellings with a Health Department certification of a failing well and/or septic system. This payment is added to the tax bill.

WATER			SEWER		
	LUMP SUM COST	DEFERRED PAYMENT 23-YEAR ANNUAL CHG. (ESTIMATED)		LUMP SUM COST	DEFERRED PAYMENT 23-YEAR ANNUAL CHG. (ESTIMATED)
1 – inch	$ 900	$ 95	1 1/4" & 1 1/2" Grinder Pump & 4 & 6 inch	$1,300	$137.50
1 1/2 – inch	$1,000	$105			
2 – inch	$1,200	$125			

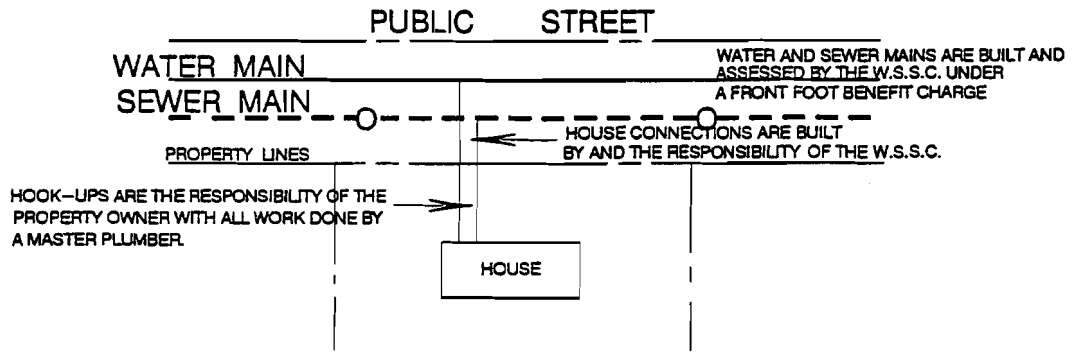
While connection applications are encouraged when mains are built (because rates usually rise yearly), property owners are not required to hook-up unless a well and/or septic health problem exists. Be mindful, too, that some lending institutions compel connection to street mains prior to sale of property. Consider, too, that the availability of a public water line usually results in lower fire insurance rates.

3 SERVICE FROM PROPERTY LINE CONNECTION TO HOUSE 3

Work done to install and hook–up lines from the property line "connection" to a building or home is the responsibility of the property owner. Such work must be done by a registered master plumber and not the WSSC. Installation costs fluctuate, but estimated costs can be obtained from a master plumber.

4 PIPE LAYOUT 4

In the final outcome the layout of water and/or sewer pipes to a property is perhaps best shown by a sketch.



5 WATER–SEWER BILLING 5

When connections are built, and a plumber has completed hook–up work, customers will be billed quarterly for water and sewer usage based on metered water consumption. The WSSC has a conservation–oriented "sliding rate" billing system for water consumption and sewer usage per 1,000 gallons of metered water. The rates paid per 1,000 gallons depends on level of Average Daily Consumption (ADC) during each billing period. While no two bills are the same, the following may serve as a good example.

22,500 gallons of water used in 90 days = 250 gallons per day (ADC)
22.5 x $2.59 per 1,000 gallons = $ 58.28 for water
22.5 x $3.85 per 1,000 gallons = $ 86.63 for sewer
Total Water and Sewer = $144.91

If property connects to sewer and remains on a well, a flat rate "sewer usage" charge is billed quarterly at $60.00.

6 SYSTEM DEVELOPMENT CHARGE (SDC) 6

The System Development Charge fee is to help finance the capital costs of expanding and augmenting water and sewerage systems to accommodate service to subscribers in the Washington Suburban Sanitary District. It shall be paid to the Commission at the time of application for plumbing permit to install fixtures or hookup to the Commission's water and/or sewerage system(s). For FY '96, the base fee for a water supply fixture unit value of 1 is $70.00 and a drainage fixture unit value of 1 is $90.00. For an example, a house with the following fixtures would pay a fee of $3,296.

2 BATHROOMS (BATHTUB, LAVATORY, & WATER CLOSET)	$1,650
1 HALF BATH (LAVATORY & WATER CLOSET)	$ 471
1 KITCHEN GROUP	$ 471
1 LAUNDRY GROUP	$ 284
2 HOSE BIBBS	$ 420
TOTAL	$3,296

R:\FORMS\ORIGINAL\401–6A.WKS (REV. 7–1–95)

WASHINGTON SUBURBAN SANITARY COMMISSION

Service Applications & Records Section • Lobby Level
14501 Sweitzer Lane • Laurel, Maryland 20707
301-206-4003 (Out-of-Area 1-800-634-8400)

Residential Fees & Charges Effective July 1, 1995

RESIDENTIAL SERVICE CONNECTIONS

– WATER –

1 inch	$ 900.00	($ 950.00)*
1½ inch	1,000.00	(1,050.00)*
2 inch	1,200.00	(1,250.00)*
1 inch built by Plumber in a Right-of-Way	400.00	
1½ inch built by Plumber in a Right-of-Way	450.00	
2 inch built by Plumber in a Right-of-Way	500.00	

– SEWER –

1¼ & 1½ inch Pressure Sewer	$1,300.00	($1,375.00)*
4 & 6 inch	1,300.00	(1,375.00)*
1¼ & 1½ inch Pressure Sewer built by Plumber in a Right-of-Way	525.00	
4 & 6 inch built by Plumber in a Right-of-Way	525.00	

* **DEFERRED PAYMENT RESIDENTIAL CONNECTION CHARGES.** *The Deferred Payment Plan is available only to OWNER OCCUPIED single family residential units with County Health Department certified failed well and/or septic systems.*

RESIDENTIAL GENERAL PERMIT & SERVICE FEES

– RESIDENTIAL INSPECTION FEES –

New Single Family Detached Dwelling - per unit	$ 280.00
New Attached Dwelling (excludes apartments) - per unit	265.00
Water Hook-up	40.00
Well Hook-up	40.00
Sub-meter Hook-up	20.00
Sewer Hook-up	40.00
Septic Hook-up	40.00
First Plumbing Fixture	40.00
Each Additional Fixture	6.00
Minimum Long Form Permit Charge (Inspection Fees)	75.00

– OTHER RESIDENTIAL CHARGES –

System Development Charges (S.D.C.) per combined (water supply & drainage) fixture unit value	$ 160.00
Meter Only/Replacement Installation Charge (1-inch & smaller)	105.00
Sub-meter Installation Charge (1-inch & smaller)	135.00
Long Form Permit Transfer	50.00
Long Form Permit Time Extension/Re-processing Charge	25.00
Pre-paid Post Card Permits	20.00
Dishonored Check Fee	15.00
Connection Abandonments	@ Estimated Cost

– FRONT FOOT BENEFIT ASSESSMENT –

In the year following completion of water and/or sewer main construction, **property is assessed a FRONT FOOT BENEFIT CHARGE (FFBC), as required by law,** to repay funds borrowed to finance construction. FFBC appears on the property tax bill for a pre-determined number of years, depending on bond issue (presently 23 years), but may be paid off in full at any time. FFBC is determined by multiplying property frontage by the rate per foot for the appropriate classification – rates change yearly. Irregularly shaped lots are assessed using average footage of neighboring properties. In areas designated by County Governments as Service Area 5 or 6, WSSC places the assessment in hiatus (suspends) until such time as County policy will allow service. In Service Areas 1 through 4, existing houses with satisfactory well and/or septic systems will be granted an exemption from the assessment until the property owner requests service from WSSC's water main or sewer line. **Upon connecting (hook-up) to the WSSC's water and/or sewer systems, any and all property not previously assessed becomes immediately subject to FFBC.**

(See Reverse Side)

Non-Residential Fees & Charges Effective July 1, 1995

NON-RESIDENTIAL SERVICE CONNECTIONS

– WATER –

	IMPROVED AREA		UNIMPROVED AREA	
	INSIDE METER	OUTSIDE METER	INSIDE METER	OUTSIDE METER
1 inch	$ 900.00	$ 900.00	$ 900.00	$ 900.00
1-1/2 inch	1,000.00	1,000.00	1,000.00	1,000.00
2 inch	6,775.00	15,550.00	1,200.00	10,425.00
4 inch	13,125.00	22,450.00	2,925.00	14,900.00
6 inch	15,200.00	26,200.00	5,000.00	16,500.00
8 inch	16,200.00	30,750.00	5,700.00	20,150.00
10 inch	17,200.00	34,700.00	6,300.00	22,525.00
Larger Connections @ Estimated Cost				
1 inch built by Plumber in a Right-of-Way			400.00	
1-1/2 inch built by Plumber in a Right-of-Way			450.00	
2 inch and Larger built by Plumber in a Right-of-Way	@ 1/2 Unimproved Standard Connection Rate			

– SEWER –

1-1/4 & 1-1/2 inch Pressure Sewer	$ 1,300.00	$ 1,300.00
4 & 6 inch	1,300.00	1,300.00
8 inch into existing Manhole	11,200.00	2,500.00
8 inch with new Manhole	18,200.00	6,875.00
1-1/4 & 1-1/2 inch Pressure Sewer built by Plumber in a Right-of-Way		525.00
4 & 6 inch built by Plumber in a Right-of-Way		525.00
8 inch and Larger		@ Estimated Cost

NON-RESIDENTIAL GENERAL PERMIT & SERVICE FEES

– NON-RESIDENTIAL INSPECTION FEES –

Water Hook-up	$ 50.00
Well Hook-up	50.00
Sub-meter Hook-up Inspection	20.00
Sewer Hook-up	50.00
Septic Hook-up	50.00
First Plumbing Fixture	50.00
Each Additional Fixture	8.00
Minimum Long Form Permit Charge (Inspection Fees)	100.00

– OTHER NON-RESIDENTIAL CHARGES –

System Development Charges (S.D.C.) per combined (water supply & drainage) fixture unit value	$ 160.00
Meter Only/Replacement Installation Charge (1-inch & smaller)	$ 105.00
Sub-meter Installation Charge (1-inch & smaller)	135.00
Long Form Permit Transfer	50.00
Long Form Permit Time Extension/Re-processing Charge	25.00
Pre-paid Post Card Permits	20.00
On-site Review & Inspection Fee (per linear foot of pipe - $300.00 Plan Minimum)	2.15
Dishonored Check Fee	15.00
Connection Abandonments	@ Estimated Cost

– FRONT FOOT BENEFIT ASSESSMENT –

In the year following completion of water and/or sewer main construction, **property is assessed a FRONT FOOT BENEFIT CHARGE (FFBC), as required by law,** to repay funds borrowed to finance construction. FFBC appears on the property tax bill for a pre-determined number of years, depending on bond issue (presently 23 years), but may be paid off in full at any time. FFBC is determined by multiplying property frontage by the rate per foot for the appropriate classification – rates change yearly. Irregularly shaped lots are assessed using average footage of neighboring properties. In areas designated by County Governments as Service Area 5 or 6, WSSC places the assessment in hiatus (suspends) until such time as County policy will allow service. In Service Areas 1 through 4, existing houses with satisfactory well and/or septic systems will be granted an exemption from the assessment until the property owner requests service from WSSC's water main or sewer line. **Upon connecting (hook-up) to the WSSC's water and/or sewer systems, any and all property not previously assessed becomes immediately subject to FFBC.**

(See Reverse Side)

SYSTEM DEVELOPMENT CHARGE
Residential Fixture Unit Values
Rates Effective July 1, 1995

CODE	FIXTURE TYPE	WATER SUPPLY ASSIGNED VALUE	FY '96 S.D.C. WATER CHARGE	DRAINAGE FIXTURE UNIT VALUE	FY '96 S.D.C. SEWER CHARGE	FY '96 COMBINED S.D.C. CHARGE
XQ	Bathtub (Residential)	3	210	1.6	144	354
15	Bidet	1	70	1.4	126	196
03	Dishwasher (Residential)	1	70	1.6	144	214
73	Fire Sprinkler Connection	0	0	0	0	0
UJ	Floor Drain (in Garage/Shop)	0	0	2.9	261	261
UK	Floor Drain (primed)	0	0	0.5	45	45
UM	Floor Drain (not primed)	0	0	0	0	0
9X	Hose Bibb	3	210	0	0	210
UN	Hot Tub (connected to plumbing)	4	280	2.4	216	496
67	Humidifier	0	0	0	0	0
75	Ice Maker (Residential type)	0	0	0	0	0
04	Instant Hot	0	0	0	0	0
	Kitchen Group	3	210	2.9	261	471
XP	Laundry Group	2	140	1.6	144	284
47	Laundry Tray (without clothes washer)	2	140	1.6	144	284
20	Lavatory (per trap)	1	70	0.9	81	151
UP	Lawn Sprinkler - 3/4" Water Supply	4	280	0	0	280
UO	Lawn Sprinkler - 1" and Larger Water Supply	10	700	0	0	700
6B	Pool Fill	4	280	0	0	280
UQ	Sauna (with water)	0.5	35	0	0	35
UR	Shower Stall	2	140	1.4	126	266
24	Sink (Bar)	1	70	1.4	126	196
21	Sink (Kitchen)	2	140	1.6	144	284
U1	Water Closet (Flush Tank 1.6 gpf)	2	140	2	180	320

DEFINITIONS:

Kitchen Group is a group of fixtures in a Type I Building or within a dwelling unit in a Type II Building consisting of a single or multiple compartment sink, with or without a food waste grinder, plus a dishwasher.

Laundry Group is a group of fixtures in a Type I Building or within a dwelling unit in a Type II Building consisting of an automatic clothes washer standpipe, plus a laundry tray.

SYSTEM DEVELOPMENT CHARGE
Non-Residential Fixture Unit Values
Rates Effective July 1, 1995

CODE	FIXTURE TYPE	WATER SUPPLY FIXTURE UNIT VALUE	FY '96 S.D.C. WATER CHARGE	DRAINAGE FIXTURE UNIT VALUE	FY '96 S.D.C. SEWER CHARGE	FY '96 COMBINED S.D.C. CHARGE
7N	Backwash Surge Tank (2" max. drain)		0	3	270	270
79	Baptistry	10	700	3	270	970
01	Bathtub (Conventional)	10	700	2	180	880
4T	Bathtub (Soak)	10	700	3	270	970
08	Bathtub (Whirlpool)	10	700	3	270	970
UY	Beverage Dispenser (⅜" supply)	2	140		0	140
UZ	Beverage Dispenser (½" supply)	4	280		0	280
7P	BFP - Passive Purge System		0		0	0
7C	BFP-1012 DCAV		0		0	0
7A	BFP-1013 RPZ		0		0	0
7B	BFP-1015 DCVA		0		0	0
7D	BFP-1020 PVB		0		0	0
7E	BFP-1024 DC		0		0	0
1H	BFP-1047 DCDCVA		0		0	0
1I	BFP-1048 DCRPZ		0		0	0
15	Bidet	1	70	2	180	250
7M	Booster Pump		0		0	0
96	Clothes Washer Standpipe/Box	3	210	3	270	480
4V	Cooling Tower (Water Supply ≤1")	10	700		0	700
4U	Cooling Tower (Water Supply	75	5,250		0	5,250
4W	Dental Cuspidor to OSD	.5	35		0	35
4X	Dental Cuspidor w/drain	5.	350	.5	45	395
6C	Dilution (Neutralization) Tank		0		0	0
77	Dip Well	.5	35		0	35
44	Dishwasher (up to 120 gph)	2	140	4	360	500
7F	Disposal (Commercial 2")	4	280	3	270	550
71	Disposal (Commercial 3")	4	280	5	450	730
VG	Drainage Connection Only 1¼"		0	1	90	90
VH	Drainage Connection Only 1½"		0	2	180	180
VI	Drainage Connection Only 2"		0	3	270	270

CODE	FIXTURE TYPE	WATER SUPPLY FIXTURE UNIT VALUE	FY '96 S.D.C. WATER CHARGE	DRAINAGE FIXTURE UNIT VALUE	FY '96 S.D.C. SEWER CHARGE	FY '96 COMBINED S.D.C. CHARGE
VJ	Drainage Connection Only 3"		0	5	450	450
18	Drinking Fountain	.25	18	.5	45	63
68	Ejector Pump		0		0	0
60	Electric Water Heater		0		0	0
1B	Emergency - Eye Wash	.25	18		0	18
1A	Emergency - Shower	.5	35		0	35
7H	Exhaust Hood, Wash down (½")	2	140		0	140
VL	Exhaust Hood, Wash down (¾")	10	700		0	700
FH	Fire Hydrant		0		0	0
73	Fire Sprinkler Connection		0		0	0
7Z	Floor Drain 1¼" (not primed)		0	1	90	90
90	Floor Drain 1½" (not primed)		0	2	180	180
9T	Floor Drain 2" (not primed)		0	3	270	270
9U	Floor Drain 3" (not primed)		0	5	450	450
9V	Floor Drain 4" (not primed)		0	6	540	540
UT	Floor Drain - 1¼" (primed)		0	1	90	90
UU	Floor Drain - 1½" (primed)		0	2	180	180
UV	Floor Drain - 2" (primed)		0	3	270	270
UW	Floor Drain - 3" (primed)		0	5	450	450
UX	Floor Drain - 4" (primed)		0	6	540	540
VC	Floor Drain - 6" (primed)		0	6	540	540
FV	Flush Valve	5	350		0	350
8S	Gas - 2 psi System		0		0	0
88	Gas - Air Conditioner		0		0	0
8F	Gas - Boiler		0		0	0
VM	Gas - Broiler		0		0	0
VN	Gas - Construction Heater		0		0	0
VO	Gas - Conversion Burner		0		0	0
VP	Gas - Cook Top		0		0	0
87	Gas - Dryer		0		0	0
8T	Gas - Fireplace Unit		0		0	0
82	Gas - Fryer		0		0	0
80	Gas - Furnace		0		0	0

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CODE	FIXTURE TYPE	WATER SUPPLY FIXTURE UNIT VALUE	FY '96 S.D.C. WATER CHARGE	DRAINAGE FIXTURE UNIT VALUE	FY '96 S.D.C. SEWER CHARGE	FY '96 COMBINED S.D.C. CHARGE
VQ	Gas - Generator		0		0	0
VR	Gas - Griddle		0		0	0
83	Gas - Grill		0		0	0
8B	Gas - Hot Plate		0		0	0
8R	Gas - Infared Heater		0		0	0
VS	Gas - Kettle		0		0	0
85	Gas - Lab Burner		0		0	0
8Q	Gas - Light		0		0	0
VT	Gas - Logs		0		0	0
8C	Gas - Log Lighter		0		0	0
86	Gas - Meter		0		0	0
8G	Gas - Other		0		0	0
84	Gas - Oven		0		0	0
6A	Gas - Pool Heater		0		0	0
81	Gas - Range		0		0	0
8A	Gas - Rooftop Unit		0		0	0
8P	Gas - Sauna		0		0	0
8V	Gas - Shell Permit		0		0	0
VU	Gas - Steam Table		0		0	0
VV	Gas - Steamer		0		0	0
80	Gas - Submeter		0		0	0
9D	Gas - Test		0		0	0
8N	Gas - Unit Heater		0		0	0
8D	Gas - Water Heater		0		0	0
VW	Gas - Wok (without water)		0		0	0
VX	Gas - Wok (with water)	4	280		0	280
9A	GP - Environmental 1		0		0	0
9Q	GP - ENVI 210S		0		0	0
9R	GP - ENVI 212S		0		0	0
9S	GP - ENVI 214D		0		0	0
9C	GP - HYD SPG200		0		0	0
9H	GP - HYD SPGF300		0		0	0
9J	GP - HYD SPGF500		0		0	0

CODE	FIXTURE TYPE	WATER SUPPLY FIXTURE UNIT VALUE	FY '96 S.D.C. WATER CHARGE	DRAINAGE FIXTURE UNIT VALUE	FY '96 S.D.C. SEWER CHARGE	FY '96 COMBINED S.D.C. CHARGE
9G	GP - HYD SPGH300		0		0	0
9I	GP - HYD SPGH500		0		0	0
9F	GP - HYD SPGL200		0		0	0
9K	GP - HYD SPGW200		0		0	0
9B	GP - MYERS		0		0	0
9M	GP - MYERS WG20		0		0	0
9N	GP - MYERS WG30		0		0	0
9P	GP - MYERS WG50		0		0	0
69	Grease Interceptor		0		0	0
6D	Grease Recovery Device		0		0	0
9X	Hose Bibb (wall hydrant, etc.)	3	210		0	210
OE	Hot Tub (½" supply, 1½" drain)	4	280	2	180	460
OF	Hot Tub (½" supply, 2" drain)	4	280	3	270	550
67	Humidifier	.5	35		0	35
VY	Ice Cream Machine - ⅜" supply	2	140		0	140
VZ	Ice Cream Machine - ½" supply	4	280		0	280
BD	Ice Machine - ⅜" supply	2	140		0	140
BC	Ice Machine - ½" supply	4	280		0	280
BB	Ice Machine - ¾" supply	10	700		0	700
75	Ice Maker (Residential Type)	.25	18		0	18
04	Instant Hot		0		0	0
BG	Irrigation System w/¾" supply	10	700		0	700
BH	Irrigation System w/1" supply	75	5,250		0	5,250
BI	Irrigation System w/1¼" supply	160	11,200		0	11,200
BJ	Irrigation System w/1½" supply	270	18,900		0	18,900
BK	Irrigation System w/2" supply	550	38,500		0	38,500
WA	Laundry Tray (with clothes washer)	6	420	5	450	870
47	Laundry Tray (without clothes washer)	3	210	2	180	390
20	Lavatory - Common	1	70	1	90	160
46	Lavatory - Dental	1	70	1	90	160
WB	Milkshake Machine (⅜" supply)	2	140		0	140
WE	Milkshake Machine (½" supply)	4	280		0	280
MO	Modular Building		0		0	0

CODE	FIXTURE TYPE	WATER SUPPLY FIXTURE UNIT VALUE	FY '96 S.D.C. WATER CHARGE	DRAINAGE FIXTURE UNIT VALUE	FY '96 S.D.C. SEWER CHARGE	FY '96 COMBINED S.D.C. CHARGE
81	Oil - Boiler		0		0	0
8J	Oil - Water Heater		0		0	0
65	Oil/Sand Interceptor		0		0	0
MH	On-Site Manhole		0		0	0
DG	Open Site Drain 1¼"		0	1	90	90
DH	Open Site Drain 1½"		0	2	180	180
50	Open Site Drain 2"		0	3	270	270
51	Open Site Drain 3"		0	5	450	450
52	Open Site Drain 4"		0	6	540	540
92	Peppermint Test		0		0	0
WD	Photo Developer (½" supply)	4	280		0	280
WF	Photo Developer (¾" supply)	10	700		0	700
FC	Pool Fill (½" supply)	4	280		0	280
FD	Pool Fill (¾" supply)	10	700		0	700
FE	Pool Fill (1" supply)	75	5,250		0	5,250
FF	Pool Fill (1¼" supply)	160	11,200		0	11,200
FG	Pool Fill (1½" supply)	270	18,900		0	18,900
FI	Pool Fill (2" supply)	550	38,500		0	38,500
5E	Pre-Treatment Unit		0		0	0
97	Private Meter		0		0	0
8H	Propane Gas - to Gas Conversion		0		0	0
62	Roof Drain		0		0	0
SD	Shell Storm Drain		0		0	0
JH	Shower Stall (1¼" drain)	5	350	1	90	440
JI	Shower Stall (1½" drain)	5	350	2	180	530
JJ	Shower Stall (2" drain)	5	350	3	270	620
WG	Shower, per head, gang/column	5	350		0	350
WH	Shower drain, gang/column (1½")		0	2	180	180
WI	Shower drain, gang/column (2")		0	3	270	270
WJ	Shower drain, gang/column (3")		0	5	450	450
WK	Shower drain, gang/column (4")		0	6	540	540
24	Sink - Bar	2	140	2	180	320
30	Sink - Classroom	2	140	2	180	320

CODE	FIXTURE TYPE	WATER SUPPLY FIXTURE UNIT VALUE	FY '96 S.D.C. WATER CHARGE	DRAINAGE FIXTURE UNIT VALUE	FY '96 S.D.C. SEWER CHARGE	FY '96 COMBINED S.D.C. CHARGE
3A	Sink - Cup	1	70	1	90	160
26	Sink - Clinical (Flush Valve)	5	350	6	540	890
WL	Sink - Compartment (one faucet)	4	280		0	280
WN	Sink - Compartment (two faucets)	8	560		0	560
JM	Sink - Floor (1 ¼" drain)		0	1	90	90
JN	Sink - Floor (1 ½" drain)		0	2	180	180
JO	Sink - Floor (2" drain)		0	3	270	270
JP	Sink - Floor (3" drain)		0	5	450	450
JQ	Sink - Floor (4" drain)		0	6	540	540
4A	Sink - Hand	1	70	1	90	160
21	Sink - Kitchen (Residential type)	2	140	2	180	320
38	Sink - Laboratory	2	140	2	180	320
JS	Sink - Mop or Service (1 ½" trap)	2	140	2	180	320
JT	Sink - Mop or Service (2" trap)	2	140	3	270	410
JU	Sink - Mop or Service (3" trap)	2	140	5	450	590
LU	Sink - Photo (½" supply, 1 ½"" drain)	4	280	2	180	460
37	Sink - Scrub	2	140	2	180	320
41	Sink - Shampoo	2	140	2	180	320
WO	Sink - Wash Fountain	3	210	3	270	480
YO	Spray - Hand Held	4	280		0	280
PM	Steam Generator (⅜" supply)	2	140		0	140
PN	Steam Generator (½" supply)	4	280		0	280
12	Urinal	3	210	4	360	570
UI	Water Closet - Flush Tank (1.6 gpf)	2	140	4	360	500
UH	Water Closet - Flush Valve (1.6 gpf)	5	350	6	540	890
WS	Water Conditioner		0		0	0
WP	Water Cooled Equipment (⅜" supply)	2	140		0	140
WQ	Water Cooled Equipment (½" supply)	4	280		0	280
WT	Water Dispenser	.5	35		0	35
WR	Water Supply Only ⅜"	2	140		0	140
YE	Water Supply Only ½"	4	280		0	280
YD	Water Supply Only ¾"	10	700		0	700
YC	Water Supply Only 1"	75	5,250		0	5,250

CODE	FIXTURE TYPE	WATER SUPPLY FIXTURE UNIT VALUE	FY '96 S.D.C. WATER CHARGE	DRAINAGE FIXTURE UNIT VALUE	FY '96 S.D.C. SEWER CHARGE	FY '96 COMBINED S.D.C. CHARGE
YB	Water Supply Only 1¼"	160	11,200		0	11,200
YA	Water Supply Only 1½"	270	18,900		0	18,900
WZ	Water Supply Only 2"	550	38,500		0	38,500
WY	Water Supply Only 3"	1500	105,000		0	105,000
WX	Water Supply Only 4"	3000	210,000		0	210,000
WW	Whirlpool, Therapeutic (water only)	10	700		0	700
WV	Yogurt Machine (⅜" supply)	2	140		0	140
WU	Yogurt Machine (½" supply)	4	280		0	280