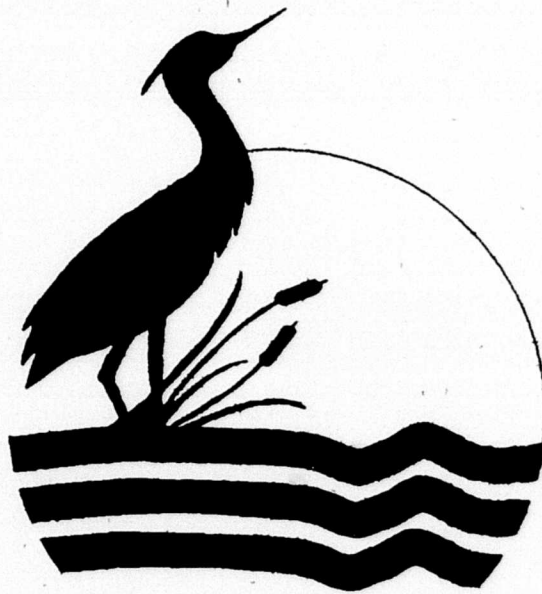


35471

SEWER EXTENSION PROGRAM MASTER PLAN



City of Portland
Bureau of Environmental Services



*Crane & Merseth
Engineering/Surveying*

September 1995

35471

SEWER EXTENSION PROGRAM MASTER PLAN

City of Portland
Bureau of Environmental Services



RENEWAL DATE:
DEC. 31, 1996



Crane & Merseith
Engineering/Surveying

September 1995

ACKNOWLEDGEMENT

CITY OF PORTLAND

Vera Katz, *Mayor*

Mike Lindberg, *Commissioner of Public Utilities*

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Linda Dartsch, *Chief Engineer*

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Bill Baechler, *Systems Development Program Manager*

M Patty Nelson, *Sewer Extension Program Manager*

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Gordon Merseth, *Crane & Merseth Engineering*

BUREAU OF ENVIRONMENTAL SERVICES
SEWER EXTENSION PROGRAM MASTER PLAN

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SECTION 1 - INTRODUCTION

SEWER EXTENSION PROGRAM DESCRIPTION

The Sewer Extension Program was approved by the city council in July, 1993 in response to the increasing cost of providing sanitary sewer service to developed residential neighborhoods. The primary objective of this program is to make sanitary sewers available to residential areas which were developed prior to 1993, use onsite septic systems, and which are not able to construct new onsite systems within the Oregon Department of Environmental Quality (DEQ) regulations due to locations or land constraints. It is not the intent of this program to construct sanitary sewers in undeveloped areas or where on-site septic systems can be replaced to meet current DEQ regulations for new systems. A copy of the "Resume to council has been provided for reference at the end of this section.

This program seeks to construct infrastructure to allow existing residences to obtain sanitary sewer service when needed and thus prevent creation of public health hazards. Undeveloped properties located in the project areas may be provided with sanitary sewer service if, in the process of providing sanitary sewers to developed properties, the vacant properties are abutted by the new sewerlines. It is not the intent of the Sewer Extension Master Plan to provide sanitary sewers directly to undeveloped properties for the purposes of aiding development.

Historically, sanitary sewers could be constructed through a Local Improvement District (LID) process or through issuance of a public works permit. In each case, the benefitting properties would pay for the actual cost of the improvements at the time of construction or shortly after (as would be the case with formation of an LID). The Sewer Extension Program will allow construction of infrastructure for existing residences when a documented need for such facilities is established. This will help prevent the occurrence of a public health hazards. In the case of LID

formation, those properties which needed or desired sanitary sewers sometimes had difficulty gathering neighbor support for formation of an LID. In many cases, this resulted in property owners with marginal or failing on-site systems investing in facilities which may potentially fail again.

The projects identified, documented and constructed under the terms of the Sewer Extension Program will be done as capital improvement projects and the cost of the improvements reimbursed to the city, in part, by the property owner as each benefitting property applies for connection to the system. The sanitary sewers constructed in this program will provide a service connection to each legal lot. Where topography allows, gravity service will be provided and use of pumping stations avoided.

To date, the city does not have a mandatory connection policy for sanitary sewer connections, outside the Mid-County Sewer Area. The benefitting properties therefore, do not need to pay for the improvements until the time of connection. The cost of connection is based on the capital charges adopted by the council for the year the property owner decides to pay for the connection. If a property owner decides to pay for the connection prior to actually making the connection, pre-payments to the city can be made. Costs of connection, payment policies and payment arrangements should be coordinated through the BES Customer Service Group.

The Sewer Extension Master Plan is scheduled to be implemented over a 10-year period, with completion scheduled for 2005.

MASTER PLAN OBJECTIVE

The Sewer Extension Master Plan will be utilized to implement the Sewer Extension Program by providing a summary of known, unsewered residential areas. This plan has been developed to provide a summary of each area including a preliminary design, cost estimate, on-site septic system information and property ownership. Projects are also identified by priority for implementation.

It is the intent of this document to provide a means to budget and schedule the implementation of these projects and to serve as a planning tool for various city staff and utilities by answering questions posed by interested citizens. It will also allow coordination of these projects with projects initiated by other city bureaus. These areas vary in size from a single residential lot to areas as large as several city blocks. These unsewered residential areas have homes served by onsite septic systems and may contain vacant parcels of land that is available for infill development.

In time, through use of the guidance provided in this Master Plan, all developed residential lots in the city will be served by publically-owned sewers.

MASTER PLAN SUMMARY

There are 74 projects identified in this initial Sewer Extension Master Plan. This number will change as projects from the priority list are constructed and as new project areas are identified and added to the priority list. The initial 74 projects will provide service to 1407 residences, add 110,135 feet of sanitary sewers to the city's inventory and is estimated to cost \$12,724,000 at current construction rates.

The following figure, Figure 1, provides a key to the unsewered areas covered in this study. Table 1 is a summary of specific projects identified in the Master Plan, the quartersections where each is found, the priority of each project and the cost per residence of each project.

PRELIMINARY DESIGN METHODOLOGY

Preliminary designs have been developed for each area based on design standards established in the City of Portland, *Sewer Design Manual*. Wherever possible, the project areas were served using existing sanitary sewers through gravity service. Provision of gravity sewer service was not possible in all cases. In ten of the project areas, preliminary designs using small pumping systems have been established.

To aid the sanitary sewer system designer, preliminary design information has been gathered for this report. Information includes the boundary of the area to be served, proposed pipeline routes for both gravity and pressure lines, project descriptions, information about on-site septic systems when available, a listing of property owners in the project area, and quantities take-off and accompanying cost estimate for each project. This information is detailed for each project area and is found in Section 4 of this Master Plan report.

Routes of Service and Undeveloped Properties

Preliminary designs were developed to provide sanitary sewer service extensions to developed, unsewered residential areas. These system extensions are not intended to serve undeveloped property where it would otherwise be the responsibility of the property owner. In some project areas, vacant properties are intermixed with developed properties along a street where developed properties still use on-site systems. In these cases service lines will be made available to the

undeveloped properties

Where undeveloped properties exist beyond the end of a sewer extension, the extension has been located and sized to allow future inclusion of the vacant properties without actually extending the sewer system to the undeveloped properties. Sewer extensions required for the undeveloped properties will be completed as the properties develop and these extensions will be paid for by the developer.

Sanitary Sewer Service Branches and Laterals

Since the Sewer Extension Program is funded through a capital improvement program, only one sanitary sewer service branch line will be provided for a parcel. The number of parcels to be served by a sewer extension will be made at the time of design and this number will be based on the county assessor's records of land partitions in existence at that time.

In the event that a property owner wants more than one branch line at that time, they will be required to coordinate this change with BES staff and make arrangements for installation of the additional line(s) with a private contractor. On a case-by-case basis, additional branch lines may be added by the city following approval by the Program Manager and BES Customer Service and advance payment for the added branch line made by the property owner.

Additions to the Sewer Extension Master Plan

As additional unsewered residential areas are identified by city staff, they will be added to the Master Plan. For each new area, staff will determine the size, specific needs, and public health impacts of the project area. Once added to the project list, a preliminary sewer layout will be

completed and property owners identified. A cost estimate will be prepared and a priority guide completed. With a priority established for the new project area, the CIP listing of projects will be updated and projects funded in turn according to their priority.

Methods for setting priorities for each area, estimating construction and project costs and presenting the preliminary design information on each project are included in Section 3 of this report.

TABLE 1 -1
Priority by Quartersection

35471

Quarter Section	Area Identification Number	Area Description	Priority	Estimated Project Cost
1716	101	N W Mountain View Rd\ Drury Ln	54	81228
1717	101	N W Mountain view Rd\ Drury Ln	54	81228
1922	122	N Todd Ave	42	59278
1922	123	N Charleston\ Swenson to Banks	21	84635
2020	121	N Edison\ West of Reno	4	59156
2022	43	N E Allegheny Ave\ N Olympia to Fessenden St	56	36798
2023	2	N Powers St\ Midway to Macrum Ave	8	96265
2023	4	N Nashton St\ Midway to Gilbert Ave	50	86750
2023	5	N Minerva Ave\ Seneca to Smith Ct	41	150118
2023	43	N E Allegheny Ave\ N Olympia to Fessenden St	56	36798
2024	1	N Swift St\ Oregonian to Macrum Ave	9	27400
2024	3	N Sedro St\ Fairhaven St to Columbia Way	20	29448
2024	6	N Fessenden St\ corner With N Macrum Ave	10	149458
2024	7	N Exeter Ave \ Cecelia to Fessenden St	13	66873
2024	127	N Gilbert, Minerva, Macrum, Seneca	na	na
2025	6	N Fessenden St\ corner With N Macrum Ave	10	149458
2025	9	N McKenna, Berkeley, Clarendon Ave\	17	322043
2025	8	N Hodge Ave\ Hudson to N Of Ceceliat st	15	524063
2028	16	N Decatur St\ Mohawk to Tyler Ave	na	na
2119	120	N W Whitword Court\	49	801260
2120	120	N W Whitword Court\	49	801260
2122	17	N Amhurst St\ Burr to Ida Ave	14	106888
2122	124	N Charleston & Richmond	5	39773
2122	125	N Leonard\ Polk to Tyler	2	62836
2122	126	N Central\ Polk to Mohawk	1	23941
2124	10	N Geneva Ave\ Newark to Fessenden St	na	na
2124	11	N Girard St\ Hodge to Haven Ave	38	43850
2124	127	N Gilbert, Minerva, Macrum, Seneca	na	na
2125	9	N McKenna, Berkeley, Clarendon Ave\	17	322043
2125	13	N Newman Ave\ Houghton St to Willis Blvd	19	118697
2125	14	N Dana Ave, Wayland Ave\ Willis to Houghton	39	441362
2126	15	N Tyndall Ave\ Hunt St to Columbia Blvd	na	na
2127	128	N Tyndall	3	29541
2127	130	N Endicott\ Houghton to Willis	27	199323
2219	120	N W Whitword Court\	49	801260
2220	120	N W Whitword Court\	49	801260
2222	17	N Amhurst St\ Burr to Ida Ave	14	106888
2223	18	N Dwight Ave\ Lombard to Stafford St	7	70682
2225	12	N Courtenay Ave\ Houghton to Hunt St	40	77085
2225	19	N Terry St\ Holman to Emerald Ave	11	130121

TABLE 1 -1
Priority by Quartersection

Quarter Section	Area Identification Number	Area Description	Priority	Estimated Project Cost
2226	129	N Hurst\ Russet to Smith	47	92478
2227	20	N Arlington Pl\ Burrage to Delaware Ave	18	70758
2227	21	N Terry St\ Interstate Ave to I-5	12	93339
2227	131	N Russet\ Gravenstein to Wabash	51	63531
2229	22	N Kilpatrick St\ Missouri to Mississippi Ave	na	na
2321	102	N W St Helens Rd w/ No 103	23	973255
2332	23	N E Holland St\ 13th to 15th Ave	24	59487
2333	24	N E Holland St\ 33rd Dr to 33rd Ave	26	49325
2336	25	N E Bryant St\ East of 63rd Ave	44	331059
2337	25	N E Bryant St\ East of 63rd Ave	44	331059
2337	26	N E 66th Ave\ North of Columbia Blvd	36	229784
2421	102	N W St Helens Rd w/ No 103	23	973255
2422	102	N W St Helens Rd w/ No 103	23	973255
2422	103	N W Saltzman Rd w/ No 102	23	973255
2437	26	N E 66th Ave\ North of Columbia Blvd	38	229784
2527	132	N Emerson Dr \ Emerson Ct to south	59	63531
2628	27	N Overlook Tr\ Mason to Failing St	55	53007
2936	28	N E 59th Ave\ Wasco to Hassalo St	6	47322
3125	104	S W Fairview Circus\ East of Fairview Blvd	68	11130
3227	105	S W 16th Ave\ Hawthorne Terr to Elizabeth St	29	24121
3323	142	S W 50th\ Hewitt to south	70	137463
3324	142	S W 50th\ Hewitt to south	70	137463
3326	107	S W Fairmount Blvd\ Intersection of Talbot Rd	na	na
3326	108	S W Fairmount Blvd\ South of Talbot Rd	na	na
3328	106	S W BroadwayDr\ North from Marquam St	53	140618
3336	44	S E 58th Ave\ Clinton to Woodward St	61	27537
3337	29	S E Windson Ct\ 70th to 71st Ave	62	28988
3337	30	S E Taggart\ 70th to 71st Ave	na	na
3337	31	S E 68th Ct\ Kelly to Brooklyn St	63	29689
3337	32	S E Franklin St\ 69th to 70th Ave	60	30747
3427	109	S W Fairmount Blvd\ Corner with Marquam Hill	na	na
3427	141	S W Fairmont & S W Marquam	45	127908
3428	139	S W Bancroft & S W 6th	66	138741
3429	140	S W Lowell & Condor Ave	25	64596
3437	33	S E Boise St\ 67th to 70th Ave	na	na
3525	110	S W Hamilton St\ sw Corner of 45th Ave	43	23071
3528	111	S W Menefee Dr/ Ne from Northwood Ave	52	63941
3536	34	S E Steele St\ 54th to 63rd Ave	16	1119319
3537	34	S E Steele St\ 54th to 63rd Ave	16	1119319
3636	133	S E 57th\ Duke to Tolman	48	66377
3637	35	S E Knight St\ 67th to 69th Ave	22	105473

TABLE 1 -1
Priority by Quartersection

35471

Quarter Section	Area Identification Number	Area Description	Priority	Estimated Project Cost
3637	36	S E Tolman St\ 67th to 70th Ave	32	455583
3637	133	S E 57th\ Duke to Tolman	48	66377
3646	41	S E 159th Ave\ East of Foster Rd	57	123894
3739	134	S E Clatsop, I-205, Portland Tract	35	984022
3740	134	S E Clatsop, I-205, Portland Tract	35	984022
3741	136	S E 106th, 110th,110th Dr	67	173451
3742	137	S E Flavel, Dearborn, 122nd, Claybourne	33	786463
3744	137	S E Flavel, Dearborn, 122nd, Claybourne	33	786463
3743	39	S E Knapp St\ 122nd to 127th Ave	69	451769
3743	40	S E 122nd Ave\ Claybourne St to Brookside Dr	na	na
3743	137	S E Flavel, Dearborn, 122nd, Claybourne	33	786463
3747	138	S E Barbara Welch	na	na
3824	112	S W Freeman St\ S Corner of 46th Ave	na	na
3833	37	S E Harney St\ 26th Pl to 33rd Ave	34	237040
3833	42	S E Sherrett St\ 29th to 33rd Ave	na	na
3834	37	S E Harney St\ 26th Pl to 33rd Ave	34	237040
3834	38	S E Tenuno St\ Westo of 37th Ave	28	93329
3834	42	S E Sherrett St\ 29th to 33rd Ave	na	na
3838	134	S E Clatsop, I-205, Portland Tract	35	984022
3839	134	S E Clatsop, I-205, Portland Tract	35	984022
3840	135	S E Mt Scott Blvd	37	116295
3841	135	S E Mt Scott Blvd	37	116295
3843	137	S E Flavel, Dearborn, 122nd, Claybourne	33	786463
3846	138	S E Barbara Welch	na	na
3924	113	S W 46th Ave\ Taylors Ferry Rd to Elizabeth St	31	20008
3926	114	S W Lancaster Rd\ South 25th Ave	58	337875
4025	115	S W 42nd Ave\ Dickinson to Galeburn St	65	82698
4025	116	S W Coronado St\ Intersection with 37th Ave	30	62533
4028	143	S W 4th\ Boones Ferry Rd to south	46	314983
4227	117	S W Claral Ln\ N of Boones Ferry	64	250015

na = Project removed from initial list, not under consideration for sewer service

TABLE 1 - 2
Projects by Priority

35471

Priority	Project Area	Project Cost
1	126	23941
2	125	62836
3	128	29541
4	121	59156
5	124	39773
6	28	47322
7	18	70682
8	2	96265
9	1	27400
10	6	149458
11	19	130121
12	21	93339
13	7	66873
14	17	106888
15	8	524063
16	34	1119319
17	9	322043
18	20	70758
19	13	118697
20	3	29448
21	123	84635
22	35	105473
23	103	973255
24	23	59487
25	140	64596
26	24	49325
27	130	199323
28	38	93329
29	105	24121
30	116	62533
31	113	20008
32	36	455583
33	137	786463
34	37	237040
35	134	1329185
36	26	229784
37	135	133743
38	11	43850
39	14	441362
40	12	77085
41	5	150118
42	122	59278
43	110	23071
44	25	331059
45	141	127907

TABLE 1 - 2
Projects by Priority

Priority	Project Area	Project Cost
46	143	314983
47	129	92478
48	133	66377
49	120	801260
50	4	86750
51	131	63531
52	111	63941
53	106	140618
54	101	81228
55	27	53007
56	43	36798
57	41	123894
58	114	337875
59	132	63531
60	32	30747
61	44	27537
62	29	28988
63	31	29689
64	117	250015
65	115	82698
66	139	138741
67	136	173451
68	104	11130
69	39	451769
70	142	137463

BUREAU OF ENVIRONMENTAL SERVICES
"Resume" on Council Calendar/Agenda Items

35471
Lan V

Resume No. _____
Submitter's Name. Linda Dartsch Phone 823-2033 Group Mid County
Date of preferred Council hearing. July 14, 1993

During Council Session Submitter will:

_____ Not Attend _____ Be in Attendance Give a Presentation
This Item: _____ Can be delayed _____ week(s), if necessary.
_____ Should be filed this week.
 Must be filed this week.

BACKUP CONTACT PERSON. Name: Dave Gooley Phone: 823-7131
TITLE OF CALENDAR/AGENDA ITEM

Accept report on local sewer financing from the Bureau of Environmental Services (Report, previous agenda item 132)

Background

On February 10, 1993, the Bureau of Environmental Services presented a report to Council that discussed issues regarding the use of the Local Improvement District (LID) process for financing the construction of local sewer improvements outside of Mid-County, and suggested several alternatives for further evaluation. This report to Council was in response to the SE Rex Drive LID, in which property owners want sewers, but feel they cannot afford them

The attached report summarizes issues regarding LID's and describes options the Bureau has chosen to address those issues. Those options are expand the Minor Extension Program and, as part of the study regarding financial assistance for low-income ratepayers, incorporate consideration of a Bureau-funded Safety Net program for low-income homeowners outside of Mid-County

Issues

Demand may exceed funding, which could result in pressure to expand funding. Areas with a higher number of failing cesspools and a higher percentage of lower income property owners will have highest priority

Potential Problems

None anticipated at hearing

Reason for Recommending Passage/Adoption

The two options will facilitate completion of the local sewer system in residential areas at little cost to the ratepayers



CITY OF PORTLAND ENVIRONMENTAL SERVICES



Mid County Sewer Project, 325 N E 122nd, PO Box 16887, Portland, OR 97216-0887
(503) 823-4114, FAX (503) 823-4039

REPORT TO COUNCIL

July 6, 1993

TO THE COMMISSIONER:

Transmitted herewith is a report on local sewer financing. On February 10, 1993, the Bureau of Environmental Services presented a report to Council that discussed issues regarding the use of the Local Improvement District (LID) process for financing the construction of local sewer improvements outside of Mid-County, and suggested several alternatives for further evaluation.

This report summarizes the results of that evaluation. The Bureau intends to pursue two options to address property owner concerns regarding LID's. The first option, which will begin implementation this fiscal year, is expansion of the Minor Extension Program. By constructing new sewers through the Capital Improvement Program, property owners can defer payment of their assessments until they need to connect to the system.

The second option will be to include consideration of a loan deferral program for low-income property owners in the study on providing rate-relief to low-income ratepayers to be conducted by Environmental Services and the Water Bureau.

Mary T. Nolan
Director

TO THE COUNCIL,

The Commissioner of Public Utilities concurs with the above report, and

RECOMMENDS

That the report be accepted by the Council.

Respectfully submitted,

MIKE LINDBERG
Commissioner
Office of Public Utilities



CITY OF PORTLAND ENVIRONMENTAL SERVICES

35471



Mid County Sewer Project, 325 N E 122nd, PO Box 16887, Portland, OR 97216-0887
(503) 823-4114, FAX (503) 823-4039

July 6, 1993

FINANCING AND ASSESSING LOCAL SEWER IMPROVEMENTS

On February 10, 1993, the Bureau of Environmental Services presented a report to Council that discussed issues regarding the use of the Local Improvement District (LID) process for financing the construction of local sewer improvements outside of Mid-County, and suggested several alternatives for further evaluation.

The following report summarizes those issues and describes options the Bureau has chosen to address those issues.

PROBLEM STATEMENT

The City uses the local improvement district (LID) process to authorize, finance, construct and assess the costs of local sewer improvements. Typically, the Council forms an LID at the request of a majority of affected property owners, based on property size. The Council assesses affected property owners for the true and actual cost of the improvement, immediately following construction.

The LID process has been used for more than 100 years in Portland, most other Oregon municipalities, and thousands of cities around the country as the preferred means of financing and constructing the vast majority of existing local sewer improvements. However, in recent years, residential property owners in low income neighborhoods have registered a number of concerns about the financial impact of the LID process for constructing sanitary sewers.

The following concerns are most commonly raised by residential property owners:

- A successful L.I.D process forces the wishes of the owners of a majority of the affected properties on the owners of the minority. The minority owners have no option but to pay the resulting assessment.

Conversely, property owners who want or need sewer service cannot always convince a majority of their neighbors to create an LID in order to finance improvements. These property owners may be left with a failing on-site system, which can be expensive to maintain, and if not maintainable, can result in the property being unfit for human habitation.

The City assesses all property for sewer costs when the improvement is constructed rather than when the property connects to the sewer system. Many property owners, particularly owners of vacant land, may not intend to connect to the sewer improvement for many months or years after construction, and thus are forced to pay for a service they do not currently need.

Based on these concerns, the Bureau identified four objectives

- Build local sewers as economically as possible.
- Provide sewer service more predictably for residential properties that need or want sewers.
- Limit financial impact of sewer construction on residential property owners
- Limit financial impact of assistance on Bureau and ratepayers

EXISTING CONDITIONS

Outside of the Mid-County Sewer Project area, the Bureau has identified 65 pockets of residential neighborhoods that do not have local sewers. These pockets, which represent about 1% of the system, contain approximately 2,280 single family residential properties: 1,940 with homes, 340 vacant.

It is estimated that it would cost between \$10,000,000 and \$15,000,000 to complete the local sewer system in these areas. As a comparison, the cost to construct the local sewer system in Mid-County is estimated to be around \$200,000,000.

RECOMMENDATIONS

The Bureau reviewed a number of alternatives, including funding sources, financing methods, and direct financial assistance to property owners through subsidies, loans, and deferrals. Based on that review, the Bureau intends to take the following steps:

Expand the Minor Extension Program to accelerate construction of sewers in the remaining unsewered residential areas.

As part of the study by Environmental Services and Water regarding financial assistance for low-income ratepayers, incorporate consideration of a City-funded Safety Net program for low-income homeowners outside of Mid-County (which is already supported by a State-funded Safety Net program).

City Council Report
Local Sewer Financing
July 6, 1993
page 3

Minor Extension Program Expansion

Currently, minor extensions are installed to provide service to properties with failing cesspools, and are limited to 300 feet in length. This program was developed because the Oregon Department of Environmental Quality will not allow issuance of cesspool permits if there is sewer service available within 300 feet of the property. Connection is not mandatory until there is cesspool failure, and payment is made at the CIP rate when connection is made.

One of the major complaints regarding L I D 's is that the property owners must pay upon completion of the sewer, even if they do not connect right away. Expanding the Minor Extension Program addresses this concern. Property owners are not required to pay for the service until they need the service. Other benefits of using the CIP rate rather than actual cost are a leveling of assessments across projects, and property owners have much more certainty regarding what the cost of the sewer will be to them.

Another significant advantage of expanding the existing program is that rather than completing the sewer system through a combination of L I D 's and 300-foot increments, which can be costly and take many years, the sewer system will be completed in residential areas in a more logical, cost-effective manner. Extensions will continue to be built primarily to address failing cesspools, but the project boundaries will be reviewed for expansion to be more technically logical, and in accordance with available funding. Sewers may also be constructed in other pockets as funding allows.

Long-term, there is little or no cost to the ratepayers. The CIP rate will adjust to current costs so the Bureau will eventually fully recover costs whenever the property owner does pay.

Approximately \$450,000 is budgeted annually to build minor extensions and to provide assistance to L I D 's. If these funds, plus an additional \$500,000 were budgeted each year, the sewer system could be completed in existing developed residential areas in 10 to 15 years.

The Bureau intends to expand the Minor Extension Program this fiscal year through internal adjustments to its CIP. There is at least one L I D currently under development that would fall within the parameters of this expansion. Upon acceptance of this report by the City Council, discussions will begin with that neighborhood to determine if they would prefer to continue their L I D, or discontinue it and instead have their sewer constructed with this new program. Future funding levels will be determined through the annual Capital Improvement Program process.

The Bureau will also coordinate local sewer construction in low income areas with the Bureau of Housing and Community Development. Construction of sewers, in combination with other infrastructure improvements, will support other neighborhood revitalization efforts. Providing sewer service to vacant parcels will also encourage development of those parcels, further supporting the city's comprehensive plan and land use goals.

City Safety Net Program

The State currently funds a Senior Citizen Deferral Program for lower income seniors; this program is available citywide. The State also funds a Safety Net Program for state-mandated sewer projects (in Portland's case, Mid-County). This low-interest loan-deferral program serves low-income owner-occupants of single family homes. Participants borrow funds for their assessment and connection fee at 5% simple interest, payments on the loan are deferred until the property is redeveloped or changes hands.

The Bureau could offer a similar safety net program for homeowners outside of the Mid-County project area. This issue will be examined in concert with the issue of providing utility assistance to low-income ratepayers.

A key issue is program cost. This program would presumably apply to all income-eligible property owners who connect to an existing sewer, as well as those connecting to new ones. Costs need to be developed as part of the study, based on Mid-County's record of 5% of eligible properties signing up for the Safety Net program, the Bureau would likely not carry more than \$500,000 worth of loans at any one time.

OTHER ALTERNATIVES

Some property owners within pending LID's have suggested that the City expand the Mid-County Sewer Project Financial Assistance Program citywide. Such financial subsidies should not be provided for several reasons:

Providing a large subsidy to property owners outside of Mid-County has no basis. There is no legal, environmental, nor public health mandate to build local sewers outside of the Mid-County area.

Financial assistance should not be provided because it rewards property owners who have failed to build their portion of the sewer system. Outside of Mid-County, all other properties currently served by sewers paid the full cost at time of construction.

If assistance were provided, there would be pressure to provide it retroactively. It would be a costly and time-consuming task for the Bureau and the Auditor's Office to determine who should get paid and how much. The only benefit would be a windfall to some property owners, while putting more pressure on sewer rates.

City Council Report
Local Sewer Financing
July 6, 1993
page 5

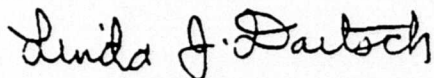
If the full Mid-County Financial Assistance Program were expanded citywide, then along with financial assistance, properties should be required to connect to new or existing sewers within one year, and to begin paying for the sewer upon connection. Mandatory connection (and therefore payment) exacerbates rather than addresses property owner concerns with L.I.D.'s: property owners would have to pay when the sewer is built, and since they would also have to connect, they would have to pay not only the line and branch charge, but the connection fee and private plumbing costs as well. This approach would require more people to pay more money sooner, the opposite of what they have asked for.

The prepayment program is a costly, staff-intensive effort. This program should not be expanded without good justification.

SUMMARY

Approximately 1% of the developed residential areas in Portland do not have local sewer service. By expanding the Minor Extension Program in developed residential areas, while maintaining the L.I.D. process for all areas, the Bureau of Environmental Services can ensure completion of the local sewer system in developed residential areas. In addition, the Bureau will examine a local Safety Net program to determine if assistance can and should be provided to lower income property owners to help them pay for the construction of local sewers.

Respectfully submitted,



Linda J Dartsch
Bureau of Environmental Services

DATE _____

CESSPOOL/SEPTIC TANK VIABILITY REPORT

PROPERTY ADDRESS _____

PROPERTY OWNER _____ DAY PHONE _____

REQUEST: DEFERRAL UNTIL _____ OR CESSPOOL FAILURE

EMERGENCY CONNECTION _____

EVALUATION FOR SEWER EXTENSION ELIGIBILITY

Description of Complaint: _____

SEWER INFORMATION (Location of nearest, date of future construction, etc.):

A site inspection made on _____ indicated that there are NO visible signs of problems with the disposal system

A site inspection made on _____ indicated that there are problems with the disposal system, as follows _____

However, no permit for the repair or replacement of this system is required at this time

A site inspection made on _____ indicated that code violations exist with the subsurface disposal system. The problem is sufficient to be classified as an **EMERGENCY**. A permit for the repair or replacement of this system can be issued

A site inspection made on _____ indicated that code violations exist with the subsurface disposal system. The problem is sufficient to be classified as an **EMERGENCY**. A permit for the repair or replacement of this system cannot be issued due to _____

COMMENTS _____

SIGNED _____ TITLE _____ DATE _____

RETURN TO _____
BLDG _____

SECTION 2 - PROJECT PRIORITIZATION

GENERAL COMMENTS ON PRIORITIZATION

The Bureau of Environmental Services has determined that a number of residential areas within the city limits have no direct access to publicly owned sanitary sewers. This situation will be remedied through design and construction of sanitary sewers that bring public sewers within reach of all properties in the city.

In order that design and construction of these sewer systems precede in a logical and efficient manner, objective criteria are established to allow each unsewered residential area to be rated in comparison to all other unsewered residential areas. From these criteria, a priority for each area is established. This section of the report presents the selection of criteria, development of a priority system and concludes with the weighted score for each area and the priority established for each project.

PRIORITY CRITERIA

Several criteria have been identified and used in preparation of the priority list for this study. These criteria relate directly to the effect that existing septic systems have on public health, cost, and implementation issues. Records research and field observation of individual project areas provided most of the information regarding the application of these criteria. Documentation of both research and field observations are included in the study support documents.

Discrete values were selected for each criteria in all project areas. These values should be re-

examined before a project is placed on the CIP list. In some cases, site conditions may have changed between the time this report was prepared and the time each project is implemented.

For example, construction in residential streets is best done when several utility projects such as street reconstruction and installation of new water mains can be done as a single project.

Priorities for the sewer projects listed in this plan may change when it becomes evident that another city bureau is planning improvements in the same area and right-of-way. A change of priority that accounts for the impacts of other projects will allow minimal disruption when both projects can be constructed simultaneously.

A second example pertains to the on-going Combined Sewer Overflow (CSO) project. If the sewer system downstream of the area to be served is a part of the combined sewer system, it may be counterproductive to construct the new sanitary sewer before the downstream CSO control facilities are in place. It is logical to place a lower priority on a project that adds sanitary sewers to an existing CSO outfall. If however, the CSO control facilities downstream of the project come on-line before the local area project is constructed or the area to be sewered is not upstream of a portion of the CSO system, then the new residential sanitary sewer project should move higher on the priority list.

SEWERING CRITERIA

Criteria that most objectively reflect the immediate need for public sewers can generally be divided into three areas, (1) impacts on public health, (2) cost effectiveness and, (3) technical feasibility. In order that one project area can be weighed against all others, a proportional weight for each of these criteria must be set to reflect the relative importance of each of each criteria.

Public Health

Threats to public health through degradation of ground water and creation of unsanitary surface conditions, especially in densely developed urban areas create the most immediate concern for citizens and city officials. In some areas, direct evidence of public health issues may exist in the public record. Notification of septic system failures and unsanitary conditions caused by these failures may be placed in the public record through phone calls or written complaints to either the city or county offices. In addition, plumbing records indicating the dates and frequency of septic system installation and replacement are also available for review and analysis.

Initial searches of the public record were directed toward those areas where staff could document the need for public sewers. The same records used to document construction of septic systems will contain record of connection of a home to the public sewer system. These records were searched to find the dates of septic system installation and document evidence of connection (or continued non-connection) to the public sewer system.

A search of city and county files was also conducted to find any record of complaints or problems having been reported by homeowners or residents of the areas slated for sewer development. In a similar fashion, interviews with Bureau of Buildings staff and BES staff and a check of their records indicating complaints registered by homeowners helps to identify properties where suspected or actual failure of the septic system could indicate potential public health problems.

Existence of even one record of a failed septic system that led to potential public contact with untreated sewage is sufficient to warrant consideration as a public health problem. Similarly, records showing multiple septic system replacements in an area may indicate that problems once existed in the area and may again occur. However, when many septic

system replacements in a single project area have been done within the past 10 - 15 years, the systems in that area may have a reasonable remaining service life. These newer septic systems should indicate a lower priority for the area allowing funds for new sewers in an area where older septic systems are prevalent.

In a less direct, but no less important impact, use of septic systems and cesspools influence public health through possible groundwater contamination and is also a concern for city officials. In the review of city and county records evidence of septic system failure leading to groundwater contamination was also researched. "Failure" is typically characterized by evidence of surfacing sewage or a breakthrough of sewage into shallow wells in the vicinity.

According to Oregon State regulations, if a residence with a failing septic system is located within 300 feet of a public sewer, the Bureau of Buildings cannot issue an onsite repair permit. When this occurs, the public sewer must be extended to provide sewer service to the property. If documented septic system failure occurs within the boundaries of one of the projects listed in this report, the project should be reevaluated and a new priority number established. This will likely cause the project to move near the top of the priority list. Depending on the severity of the circumstance immediate action on the part of the city to remove the threat to public health may be required.

Project Implementation

One aspect of establishing a project priority is the relative ease with which a project may be implemented. In most of the projects identified in this study, public right-of-way is available, the area has already been developed and the project design and construction should proceed without interruption. In some cases however, a project may require

special permits to cross a specific right-of-way, encroach on a "P" or "C" zone or undergo some special review and public consensus before it is approved and constructed. These special requirements may dictate that a project's timing be modified to accommodate these added requirements thereby leading to a different score in this category and the resulting possibility of a lower priority assignment.

Other examples of implementation issues that may be encountered on a project include, special highway or railroad crossings, stream or public waterway crossings, or acquisition of easements on private property before design and construction can proceed.

Another example of implementation criteria impacts is the finding that the planned sanitary sewer construction coincides with other public improvements planned for the same right-of-way. This finding may cause the sewer project priority to change, thereby bringing it into alignment with the other public project. Only a severe adverse public health situation would cause the sewer project to be accelerated and constructed before the other improvements in the right-of-way were ready for construction.

The project rating system is driven by the "score" that a particular project receives as determined by the Priority Rating sheet found at the end of each project area description (See Section 5 of this report). During the time when the CIP process is underway, this form should be reviewed and any projects proposed for implementation by either the Bureau of Environmental Services, the Bureau of Transportation, the Water Bureau or the Maintenance Bureau noted. A coordinated system of project cross-referencing should identify those projects that may be logically constructed together.

Project Costs

A priority criteria reflecting project costs is an objective measure of the relative value of an individual project. In order to reflect this value, the total project cost for each individual area was estimated and documented. This cost was then divided by both the number of properties benefited by construction of the sanitary sewer system. This allows comparison of project-by-project costs based on the cost per property served in the project area.

In addition to the relative project costs, total cost was included as a factor in prioritization. Since all projects will eventually be placed on the bureau's Capital Improvement Program list, the potential for implementation of any individual project is also impacted by the CIP process and feasibility of some of the Sewer Extension Master Plan projects may depend on the importance of other projects on the list.

A weighted value of priority points was assigned based on the ratio of the cost per property for the area in question to the area with the lowest per property cost for all areas considered. The total number of properties to be served is predicated on full buildout of all vacant lots as currently zoned.

All criteria values for the projects identified in this report were established at the time of the report preparation. Any criteria value may change over time as additional information becomes available about the septic system conditions in the project areas or as other public projects are scheduled for implementation in the same area. In addition, new environmental issues may develop on some projects and these may cause revisiting the criteria and modifying the priority assigned to the project.

WEIGHTING CRITERIA

The bureau has no standard method of assigning a weight to these three criteria nor has a system been proposed or used on similar projects. With a stated intent to construct these projects in an order that best serves the community, protection of public health is the highest priority and this category is assigned a value of fifty (50) percent of the total priority value.

Implementation (the ease with which an individual project is brought to completion) is a small but important factor in prioritization. It makes little sense to hold back other sewerage projects if the next project on the list proves difficult to implement. Re-evaluation of a project's priority may become necessary if special permission or approval to build the project, even if it appears to have overall public health and cost effectiveness value causes undue delay of other sewer projects. The implementation criteria is assigned a value of thirty (30) percent of the priority total.

Finally, in order that the public funds be spent most effectively, the cost of each project was determined by dividing the total estimated project cost by the number of properties and single family homes in the project area. This will direct the project funds in a fashion that selects the projects for early construction based on the lowest cost per property. This criteria is assigned a value of twenty (20) percent of the total priority value.

Priority Rating Table

The following questions were used to evaluate individual unsewered residential areas and provide a method of establishing scores of priority points for each area. Points assigned to each area reflect the degree to which high priority is established, a higher score indicates a higher priority and therefore a project that should be completed earlier.

The following lists of questions are examples of the types of questions that are intended to be asked when addressing the issues found on the Priority Rating table. The table is intended to minimize subjective judgement and arrive at a number that most accurately reflects the severity of the problems in the area or the degree of difficulty presented by construction in the area.

Public Health

- 1 Does the area have a record of failed septic systems?
- 2 What percent of septic tanks have been replaced?
- 3 Are there any other documented issues of public health problems in the area?
- 4 Is the unsewered area located in a CSO impact area?

Implementation

- 1 Is the project area within a designated E-zone?
- 2 Can the project be aligned with another city public works project in the area?
- 3 Have the city's notification and public involvement policies begun?
- 4 Will the project require special crossing permits or undergo scrutiny that will unusually delay its completion?

Costs

- 1 What is the project cost/household or residence?
- 2 How does this cost compare with similar project costs averaged over the entire city?

When the table of values for a particular area is completed, each subarea will have a subtotal number that indicated the severity of the problem in the area. Each of the three subtopic areas are not equal in weight however. In order to reflect the importance of each area, weights have been assigned to each topic with one half (50 percent) of the total score assigned to protection of

public health, 30 percent to the relative ease of implementation for the project and 20 percent based on the project cost per benefitting residence

In order that these three areas reflect the appropriate weight, the subtotal of each area is multiplied by the appropriate WEIGHTING factor (50, 30 and 20 percent) and the sum of these divided by 100 to provide the weighted priority number for the area. This number is then compared with the other area numbers to arrive at a priority for the project.

The formula for this calculation is

$$\text{Total Score} = \frac{(\text{PH} \times 50) + (\text{Imp} \times 30) + (\text{Cost} \times 20)}{100}$$

The following two tables show the results of the scoring process using the individual assessments for each of the project areas. Table 3-1 shows the individual and weighted scores for each of the project areas and Table 3-2 shows the resulting priority listing of the projects for the Sewer Extension Master Plan program.

In a number of cases, the weighted priority scores showed a tie between two or more projects. When this occurred, the tie was broken by assigning the highest priority to the project that had the lowest unit cost. This will help assure that project funds will be spent in a manner that provides the highest number of sewer homes for the lowest cost.

TABLE 2 - 1
Project Priority Weighting

35471

PRIORITIZATION CRITERIA				
Project Area	Public Health	Implementation	Project Cost	Weighted Total Score
1	10	17	8	11 70
2	10	17	8	11 70
3	9	17	5	10 60
4	0	17	5	6 10
5	0	17	8	6 70
6	17	9	2	11 60
7	9	17	8	11 20
8	9	17	8	11 20
9	9	17	5	10 60
10	0	0	0	0 00
11	0	17	8	6 70
12	0	17	8	6 70
13	9	17	5	10 60
14	0	17	8	6 70
15	na	na	na	
16	na	na	na	
17	9	17	8	11 20
18	12	17	8	12 70
19	9	17	8	11 20
20	9	17	5	10 60
21	9	17	8	11 20
22	0	17	8	6 70
23	11	9	8	9 80
24	9	9	8	8 80
25	7	9	2	6 60
26	5	9	8	6 80
27	0	17	2	5 50
28	19	9	8	13 80
29	0	9	5	3 70
30	na	na	na	
31	0	9	5	3 70
32	0	9	8	4 30
33	na	na	na	
34	13	9	8	10 80
35	12	9	8	10 30
36	7	9	8	7 80
37	10	4	5	7 20
38	12	4	5	8 20
39	0	4	2	1 60
40	na	na	na	
10	9	2		5 10
na	na	na	na	
43	0	17	2	5 50
44	0	9	5	3 70
101	5	9	2	5 60

TABLE 2 - 1
Project Priority Weighting

102		0		0		0	0 00
103		14		9		2	10 10
104		0		8		2	2 80
105		10		9		2	8 10
106		5		9		2	5 60
107		10		9		8	9 30
108		0		9		8	4 30
109	na		na		na		
110		6		9		5	6 70
111		4		9		5	5 70
112	na		na		na		
113		10		9		2	8 10
114		5		4		5	4 70
115		0		9		2	3 10
116		10		9		2	8 10
117		0		9		2	3 10
120		9		4		2	6 10
121		17		17		5	14 60
122		0		17		8	6 70
123		10		17		2	10 50
124		17		17		2	14 00
125		17		17		5	14 60
126		17		17		5	14 60
127	na		na		na		
128		17		17		5	14 60
129		0		17		5	6 10
130		5		17		5	8 60
131		0		17		5	6 10
132		0		9		8	4 30
133		0		17		5	6 10
134		10		4		5	7 20
135		10		4		5	7 20
136		0		4		8	2 80
137		10		4		8	7 80
138	na		na		na		
139		0		9		2	3 10
140		10		9		8	9 30
141		10		1		5	6 30
142		0		1		5	1 30
143		5		9		5	6 20

NA = Area removed from initial set of projects under consideration

SECTION 3 - PROJECT COST ESTIMATING

INTRODUCTION

Cost estimates for each of the unsewered residential area projects have been prepared. These estimates are intended to be of budget level accuracy, falling within a range of from 70 percent to 150 percent of the actual project cost. Each project cost estimate is based on the construction cost assumed for each project to which is added a fixed percentage for administration, engineering design, legal and contingencies.

BASIS FOR COST ESTIMATING

A review of the tabulations of recent construction bids taken by the Bureau of Environmental Services provided an average of unit costs for typical bid items. These bid costs were compared with other project bids for similar projects in the Portland metropolitan area and adjustments made where necessary. Unit costs used as a basis for estimates in this project were based on an Engineering News Record - Construction Cost Index (ENR-CCI) of 5896 as computed for the month of August, 1995, and applicable to the Pacific Northwest.

The construction cost estimates provided in this report have been increased by forty percent to allow for construction-related costs such as design, administration, inspection and project documentation and contingencies. It is assumed that the indirect construction costs will be a relatively consistent percentage of the construction cost and therefore have little impact on the overall prioritization of the projects.

Project costs computed for this Master Plan are presented as budgetary guides only. At the time each project is assigned a schedule for inclusion in the CIP, the total project cost should be

reevaluated and inflated to reflect the actual timing of project design and construction

Basis for Unit Costs

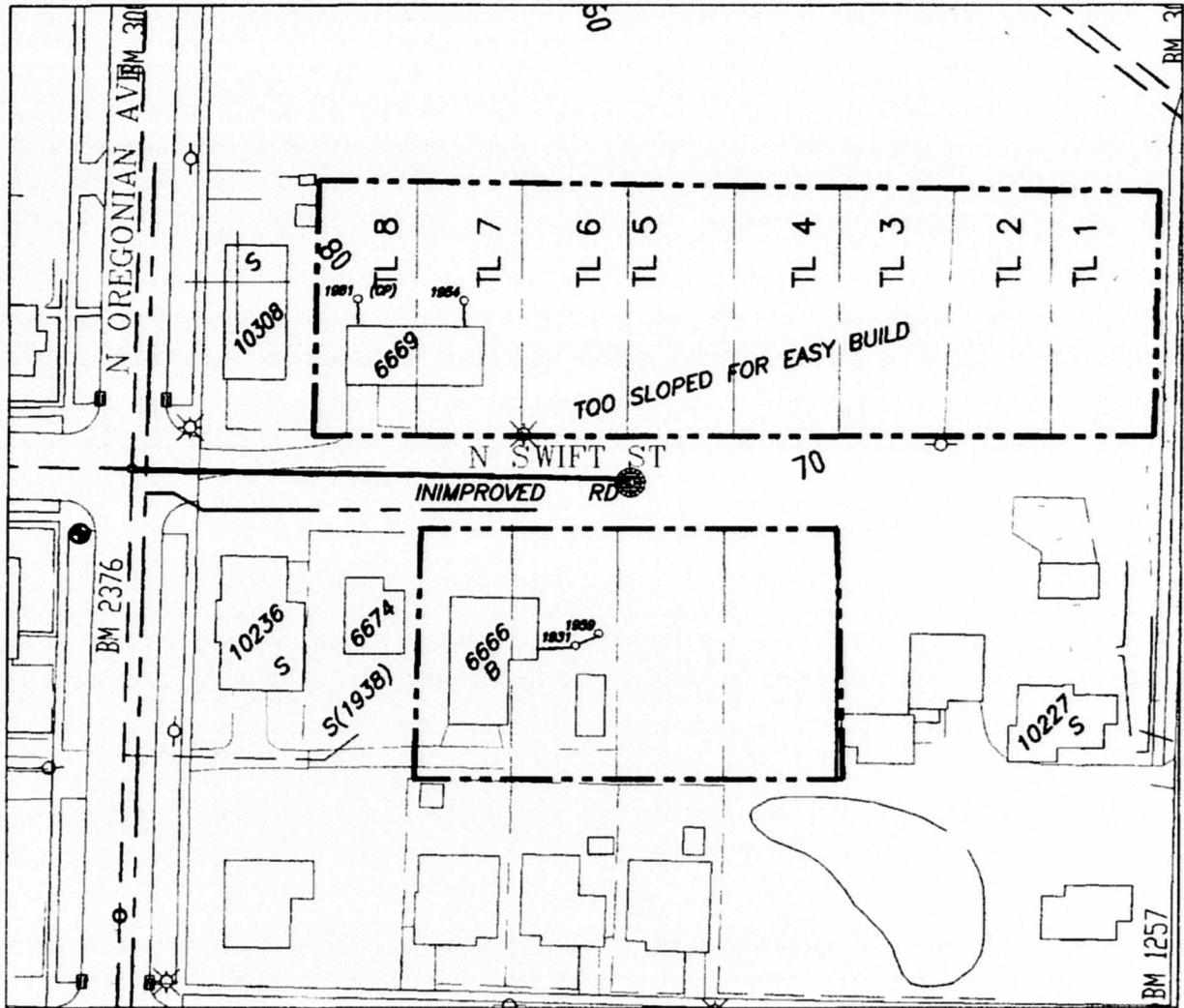
Based on a standard BES bid tab evaluation, the following bid items and their average unit costs were used to estimate the construction costs of a typical unsewered residential area project. Bid items used are

<u>ITEM</u>	<u>UNIT COST</u>
1 6" ASTM C-14, CL 3, CSP	\$ 22/LF
2 8" ASTM C-14, CL 3, CSP	25/LF
3 8" x 6" Tee, ASTM C-14, CL 3	100/Each
4 48" STD Precast MH, 0' - 8' Deep	1800/Each
5 48" STD Precast MH, Over 8'	200/FT
6 Common Trench Exc & Native Bkfl	15/CY
7 CSP Pipe Bedding	25/CY
8 Imported Granular Backfill	10/CY
9 AC Pavement Replacement, 2" Thick	20/SY
10 Rock Surfacing	20/CY
11 Curb Replacement	20/LF
12 Sidewalk Replacement	50/SF
13 Sump Replacement	10,000/Each
14 Inlet Reconstruction	500/Each
15 Pump Station (< 10 homes)	12,000/Each
16 Pump Station (> 10 homes)	20,000/Each

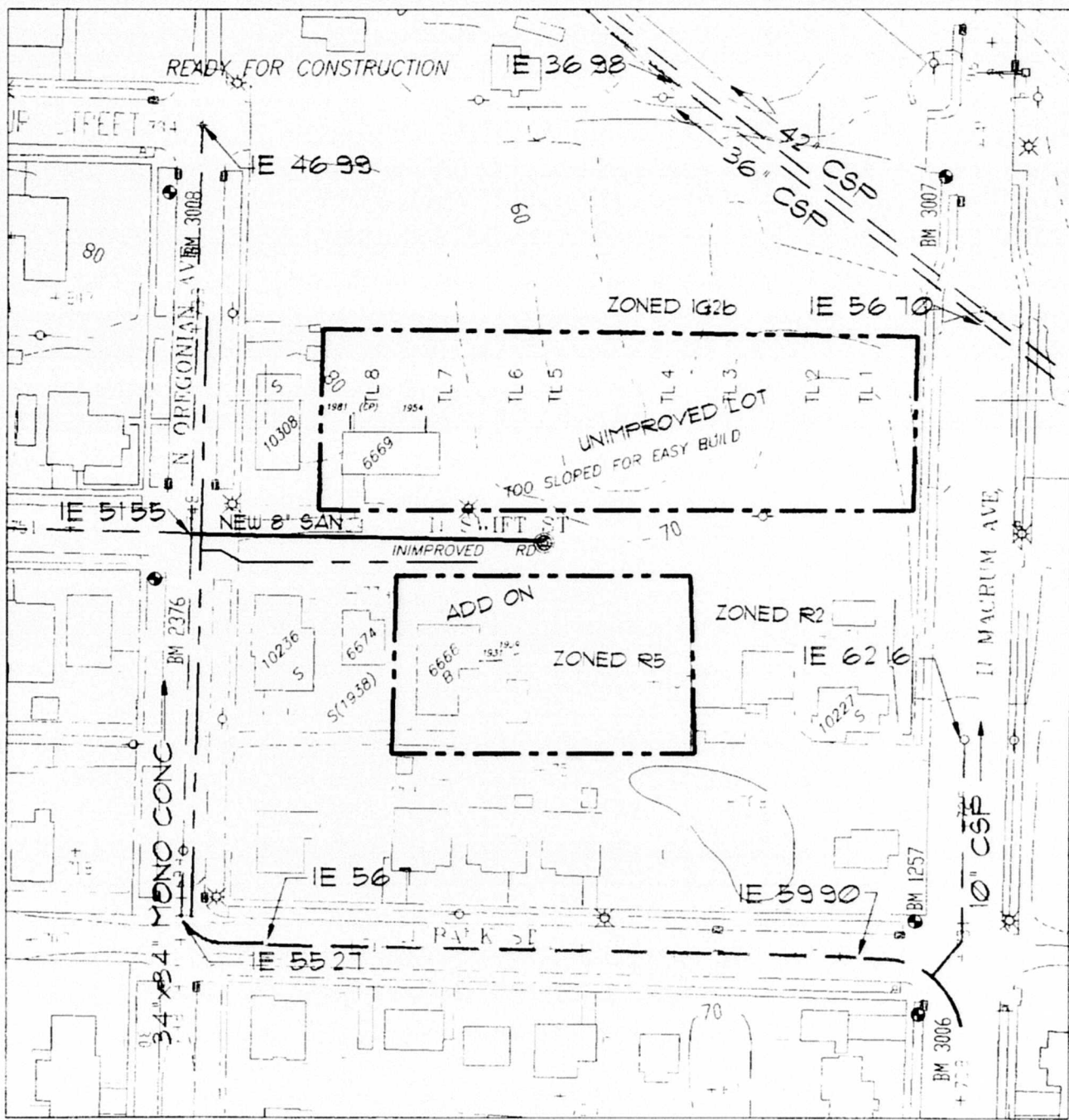
Some projects have special conditions that influence the overall project construction cost. Special conditions include, a closely restricted right-of-way, overhanging trees requiring special construction techniques, unusually steep terrain, or protected environmental zones in the work site.

In any single project not all of the cost categories will be used, and in some, additional categories may be necessary. For example, several projects required installation of a small pumping station and force main. It is important to note that costs of right-of-way acquisition is not included in the total project costs. An estimate for these costs must be added at the time the project is placed on the CIP listing.

Projects identified in this study vary in size from a single property to several hundreds of properties. In reality, a small project will carry a proportionally larger contingency than a large project. This differentiation has not been made in this study but should be incorporated by the designer at the time a preliminary cost estimate is prepared during the early stages of design.



NEIGHBORHOOD ST. JOHNS
 QUARTER SECTION: 2024
 LOCATION: N. OREGONIAN TO MACRUM AVE
 N. SWIFT ST.
 CONTRIBUTES TO CSO? NO



LEGEND

- NEW SANITARY LINE
- EXISTING SANITARY LINE
- EXISTING STORM LINE
- EXISTING WATER LINE
- BOUNDARY LINE
- FENCE LINE
- LOT LINES
- EXISTING MANHOLE
- NEW MANHOLE

B - BASEMENT
S - SEWER CONNECTED



SCALE 1"=100'

AREA 1

**BUREAU OF ENVIRONMENTAL SERVICES
SEWER EXTENSION MASTER PLAN
PROJECT NO. 5308**

AREA NO 1

NEIGHBORHOOD St Johns

LOCATION N Oregonian @ Swift

QUARTER SECTION 2024

Project Description:

This project will provide sanitary sewer service to 3 and possibly 4 parcels located on N Swift east of N Oregonian Avenue. This project is located in the St Johns neighborhood. The line will begin with a connection to the existing sewer system at N Oregonian and will extend 135 feet on N Swift Street to its terminus. Along the route, service connections will be extended to 2 existing homes. Completion of this project will allow removal of 2 existing septic systems.

N Swift Street is an unimproved street with 5 added lots north of the right-of-way. These lots are located in a wooded, steep area with gravity sewer service available only to a line north of the area parallel to Columbia Boulevard. In order that these lots can be served, a line would have to be extended in an easement along the north lot line of these lots and should be provided at such time that these lots develop.

The following figures and tables present detailed information about this project.

Priority Ranking:

Review of the existing septic system conditions and the age of the existing systems place this project as the number 9 priority. The residences in this project area appear to have been constructed between 1930 and 1954. The septic systems have both been replaced once since the initial installation. Each system lasted about 30 years before replacement occurred.

Project Cost:

Construction of this project will cost about \$ 27,400. This includes provision of service lines to the edge of the property of each home. In all, 2 homes and 2 vacant parcels will receive sewage service connections to the public system.

On average this project will cost \$ 6854 per residence. This compares to a city-wide average of \$ 9769 per residence for all similar projects.

**CRANE MERSETH
ENGINEERING/SURVEYING
UN SEWERED AREAS**

AREA	PARCEL	OWNER FIRST NAME	LAST NAME	SITE	ADDRESS	CITY	ZIP
1	R22740 1570	Glendon C & Mildred E	Bothwell	6669	N Swift St	Portland	97203
1	R22740 1450	Charles J & Mickie	Thew	6666	N Swift St	Portland	97203

AREA 1

35471

ITEMS OF WORK & MAT'LS	QUANTITY	UNIT PRICE	TOTAL AMOUNT
8" ASTM C-14, CL 3 CSP	240 LF	\$ 25 00 LF	\$ 6,000 00
6" ASTM C-14, CL 3 CSP	100 LF	\$ 22 00 LF	\$ 2,200 00
6"X8" TEE, ASTM C-14, CL 3	4 EA	\$ 100 00 EA	\$ 400 00
48" STD PRECAST MH	1 EA	\$ 1,800 00 EA	\$ 1,800 00
48" STD PRECAST MH, OVER 8'	0 LF	\$ 200 00 LF	\$ -
8" CONNECTION TO EXISTING MH	1 EA	\$ 600 00	\$ 600 00
8" CONNECTION TO EXISTING PIPE	0 EA	\$ 400 00 EA	\$ -
COMMON TRENCH EXC & NATIVE BACKFILL	278 CY	\$ 15 00 CY	\$ 4,172 22
CSP PIPE BEDDING CLASS "C"	83 CY	\$ 25 00 CY	\$ 2,086 11
IMP GRANULAR BACKFILL	195 CY	\$ 10 00 CY	\$ 1,947 04
AC PAVEMENT REPLACEMENT 2" THICK	0 SY	\$ 20 00 SY	\$ -
ROCK SURFACING	19 CY	\$ 20 00 CY	\$ 377 78
CONCRETE CURB REPLACEMENT	0 LF	\$ 20 00 LF	\$ -
SIDEWALK REPLACEMENT	0 SF	\$ 50 00 SF	\$ -
SUMP REPLACEMENT	0 EA	\$ 10,000 00 EA	\$ -
RECONSTRUCT EXIST INLET	0 EA	\$ 500 00 EA	\$ -
TOTAL CONSTRUCTION COST			\$ 19,583 15
TOTAL PROJECT COST			\$ 27,416 41
EXISTING HOMES SERVED	2 EA		
VACANT LOTS SERVED	2 EA		
TOTAL SERVICES	4 EA		
TOTAL COST PER SERVICE			\$ 6,854 10

COST ESTIMATES

PRIORITY RATING

Sewer Extension Master Plan

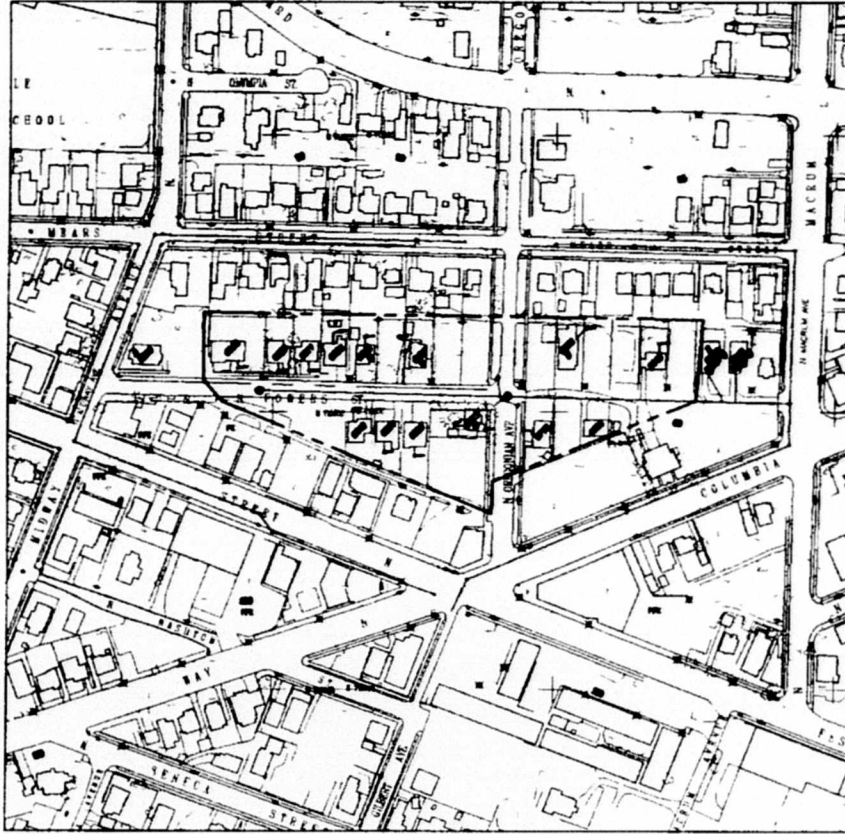
Priority Criteria and Scoring

Project Area Number

1

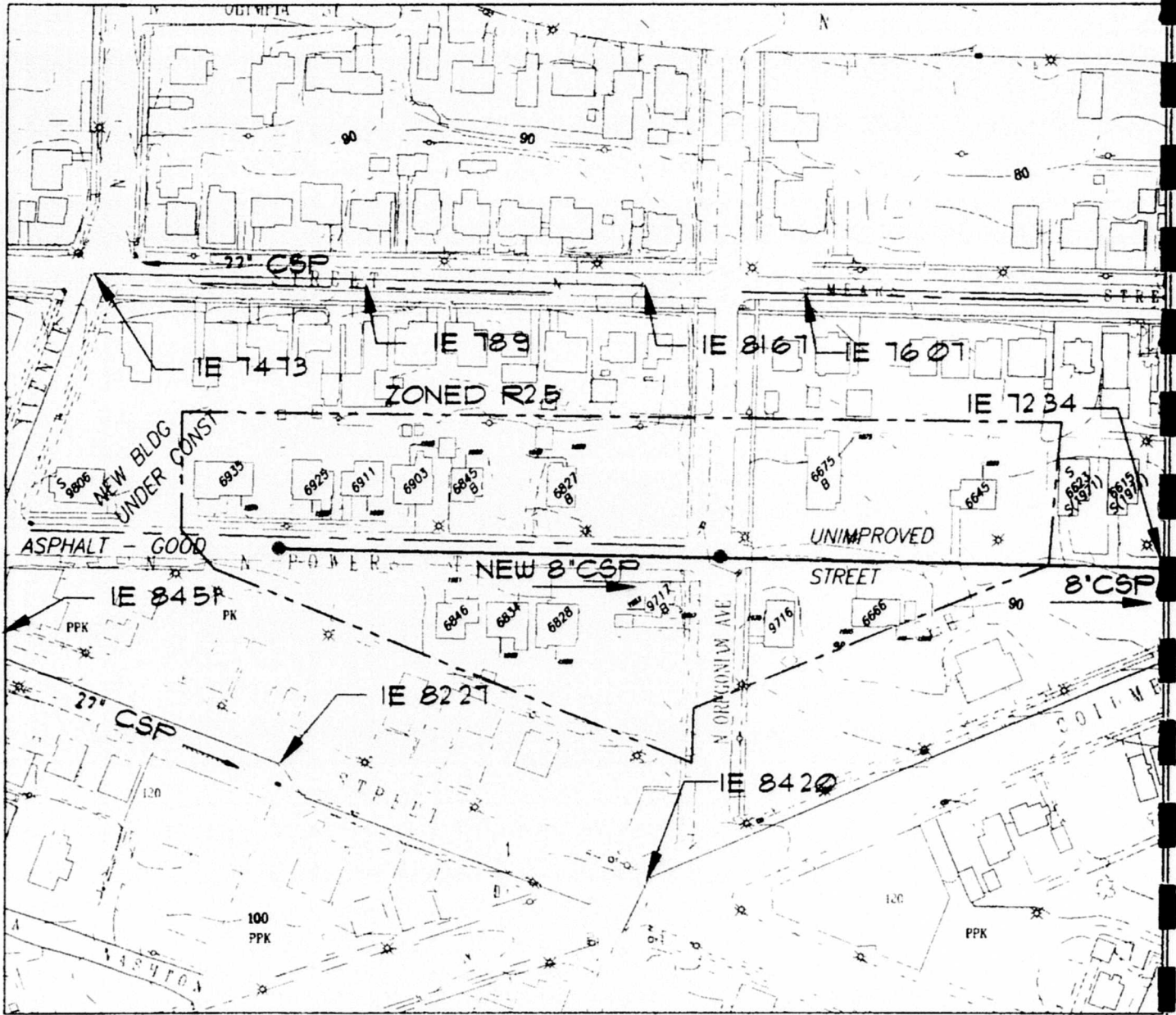
CRITERIA	GUIDELINES	SCORE
I Public Health		
1 Does the area have any record of septic system failure or public health problems?	0 = None 10 = Many, well documented 5 = No Record	6
2 How many septic systems have been replaced? None 25 Percent 50 Percent > 50 percent No records exist	0 points 4 points 7 points 9 points 5 points	4
II Implementation		
1 Is the project in a CSO impact area?	Yes <input checked="" type="checkbox"/> No	
2 If yes, will the CSO project occur Before year 2000? Year 2000 - 2010? After 2010? Not in a CSO project area	9 points 5 points 2 points 1 point	9
3 Are there any other city projects planned in the same area * within 3 years? 5 years? 10 years? None planned	8 points 6 points 3 points 0 points	0
4 Will the project impact any environmental zones during construction?	yes - 3 points no 8 points	8
III Project Costs		
1 Is the average cost per residence < 80 % of city average? > 80 % < 120 % of city average > 120 % of city average	8 points 5 points 2 points	8

* Annual CIP review should include survey of other bureaus for area projects

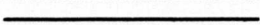


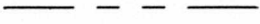







NEIGHBORHOOD
QUARTER SECTION:
LOCATION:
CONTRIBUTES TO CSO?

ST. JOHNS
2024
N MIDWAY AVE
N. POWER ST.
NO



LEGEND

- NEW SANITARY LINE 
- EXISTING SANITARY LINE 
- EXISTING STORM LINE 
- EXISTING WATER LINE 
- BOUNDARY LINE 
- FENCE LINE 
- LOT LINES 
- EXISTING MANHOLE 
- NEW MANHOLE 

B - BASEMENT
S - SEWER CONNECTED



SCALE 1"=150'

AREA 2

**BUREAU OF ENVIRONMENTAL SERVICES
SEWER EXTENSION MASTER PLAN
PROJECT NO. 5308**

AREA NO 2

NEIGHBORHOOD St Johns

LOCATION N Powers at N Oregonian

QUARTER SECTION 2024

Project Description:

This project will provide sanitary sewer service to 14 homes in the St Johns neighborhood. The line will begin with a connection to the existing sewer system on N Macrum and will extend west for 900 feet on N Powers Street. Along the route, service connections will be extended to 18 parcels of residential land. Completion of this project will allow removal of 14 existing septic systems.

The following figures and tables present detailed information about this project.

Priority Ranking:

Review of the existing septic system conditions and the age of the existing systems place this project as the number 8 priority. The residences in this project area appear to have been constructed in the 1930's and 40's. No records of septic tank installation or replacement were found.

Project Cost:

Construction of this project will cost about \$ 96,265. This includes provision of service lines to the edge of the property of each home. In all, 14 homes will receive sewage service connections to the public system.

On average this project will cost \$ 6017 per connection. This compares to a city-wide average of \$ 9769 per connection for all similar projects.

**CRANE MERSETH
ENGINEERING/SURVEYING
UN SEWERED AREAS**

AREA	PARCEL	OWNER FIRST NAME	LAST NAME	SITE	ADDRESS	CITY	ZIP
2	R22740 0520	Tracy L	Stoneburg	9716	N Oregonian Ave	Portland	97203
2	R22741 1440	Beverly E	Scott	9717	N Oregonian Ave	Portland	97203
2	R22740 0610	Ada O	Jackson	6645	N Powers St	Portland	97203
2	R22740 0530	Donald W & Juanita L	Taylor	6666	N Powers St	Portland	97203
2	R22740 0640	Crystal N	Schuster	6675	N Powers St	Portland	97203
2	R22741 1250	Willa J	Larsen	6827	N Powers St	Portland	97203
2	R22741 1400	Harold C	Esler	6828	N Powers St	Portland	97203
2	R22741 1380	Grace	Gray	6834	N Powers St	Portland	97203
2	R22741 1210	Kenneth A	Pereira	6845	N Powers St	Portland	97203
2	R22741 1360	Charles W & Cheryl A	Banker	6846	N Powers St	Portland	97203
2	R22741 1190	Duane B & Lucille V	Irwin	6903	N Powers St	Portland	97203
2	R22741 1170	Harvey L	Martzall	6911	N Powers St	Portland	97203
2	R22741 1150	Everett W & Valera	Jack	6925	N Powers St	Portland	97203
2	R22741 1110	Lizzie B	Jackson	6935	N Powers St	Portland	97203

AREA 2

35471

ITEMS OF WORK & MAT'LS	QUANTITY	UNIT PRICE	TOTAL AMOUNT
8" ASTM C-14, CL 3 CSP	830 LF	\$ 25 00 LF	\$ 20,750 00
4" ASTM C-14, CL 3 CSP	320 LF	\$ 22 00 LF	\$ 7,040 00
6"X8" TEE, ASTM C-14, CL 3	16 EA	\$ 100 00 EA	\$ 1,600 00
48" STD PRECAST MH	2 EA	\$ 1,800 00 EA	\$ 3,600 00
48" STD PRECAST MH, OVER 8'	0 LF	\$ 200 00 LF	\$ -
8" CONNECTION TO EXISTING MH	0 EA	\$ 600 00 EA	\$ -
8" CONNECTION TO EXISTING PIPE	1 EA	\$ 400 00 EA	\$ 400 00
COMMON TRENCH EXC & NATIVE BACKFILL	945 CY	\$ 15 00 CY	\$ 14,177 78
CSP PIPE BEDDING CLASS "C"	284 CY	\$ 25 00 CY	\$ 7,088 89
IMP GRANULAR BACKFILL	662 CY	\$ 10 00 CY	\$ 6,616 30
AC PAVEMENT REPLACEMENT 2" THICK	224 SY	\$ 20 00 SY	\$ 4,488 89
ROCK SURFACING	24 CY	\$ 20 00 CY	\$ 488 89
CONCRETE CURB REPLACEMENT	33 LF	\$ 20 00 LF	\$ 660 00
SIDEWALK REPLACEMENT	27 SF	\$ 50 00 SF	\$ 1,350 00
SUMP REPLACEMENT	0 EA	\$ 10,000 00 EA	\$ -
RECONSTRUCT EXIST INLET	1 EA	\$ 500 00 EA	\$ 500 00
TOTAL CONSTRUCTION COST			\$ 68,760 74
TOTAL PROJECT COST			\$ 96,265 04
EXISTING HOMES SERVED	14 EA		
VACANT LOTS SERVED	2 EA		
TOTAL SERVICES	16 EA		
TOTAL COST PER SERVICE			\$ 6,016 56

COST ESTIMATES

PRIORITY RATING

Sewer Extension Master Plan

Priority Criteria and Scoring

Project Area Number

2

CRITERIA	GUIDELINES	SCORE
I Public Health		
1 Does the area have any record of septic system failure or public health problems?	0 = None 10 = Many, well documented 5 = No Record	6
2 How many septic systems have been replaced? None 25 Percent 50 Percent > 50 percent No records exist	0 points 4 points 7 points 9 points 5 points	4
II Implementation		
1 Is the project in a CSO impact area?	Yes <input checked="" type="checkbox"/> No	
2 If yes, will the CSO project occur Before year 2000? Year 2000 - 2010? After 2010? Not in a CSO project area	9 points 5 points 2 points 1 point	9
3 Are there any other city projects planned in the same area * within 3 years? 5 years? 10 years? None planned	8 points 6 points 3 points 0 points	0
4 Will the project impact any environmental zones during construction?	yes - 3 points no - 8 points	8
III Project Costs		
1 Is the average cost per residence < 80 % of city average? > 80 % < 120 % of city average > 120 % of city average	8 points 5 points 2 points	8

* Annual CIP review should include survey of other bureaus for area projects



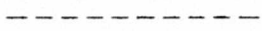
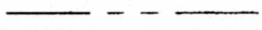







NEIGHBORHOOD	ST. JOHNS
QUARTER SECTION	2023
LOCATION	N. FAIRHAVEN ST TO COLUMBIA WAY N. SEDRO ST.
CONTRIBUTES TO CSO?	NO

READY FOR CONSTRUCTION



LEGEND

- NEW SANITARY LINE 
- EXISTING SANITARY LINE 
- EXISTING STORM LINE 
- EXISTING WATER LINE 
- BOUNDARY LINE 
- FENCE LINE 
- LOT LINES 
- EXISTING MANHOLE 
- NEW MANHOLE 

B - BASEMENT
S - SEWER CONNECTED



SCALE 1"=50'
AREA 3

**BUREAU OF ENVIRONMENTAL SERVICES
SEWER EXTENSION MASTER PLAN
PROJECT NO. 5308**

AREA NO 3

NEIGHBORHOOD St Johns

LOCATION N Sedro east of Fairhaven

QUARTER SECTION 2023

Project Description:

This project will provide sanitary sewer service to 3 homes in the St Johns neighborhood. The line will extend to the east along N Sedro St with a connection to the existing sewer system at N Fairhaven and will extend 180 feet along N Sedro Street to its terminus. Along the route, service connections will be extended to 3 homes. Completion of this project will allow removal of 3 existing septic systems.

The following figures and tables present detailed information about this project.

Priority Ranking:

Review of the existing septic system conditions and the age of the existing systems place this project as the 20th priority. The residences in this project area were constructed in the 1950's and some of the septic system installed at that time are still in service. Records indicate that 2 of the 3 homes have had new septic systems installed following the original installation with the latest of these installations occurring in 1988.

Project Cost:

Construction of this project will cost about \$ 29,500. This includes provision of service lines to the edge of the property of each home. In all, 3 homes will receive sewage service connections to the public system.

On average this project will cost \$ 9816 per connection. This compares to a city-wide average of \$ 9769 per connection for all similar projects.

**CRANE MERSETH
ENGINEERING/SURVEYING
UN SEWERED AREAS**

AREA	PARCEL	OWNER FIRST NAME	LAST NAME	SITE	ADDRESS	CITY	ZIP
3	R22741 5000	Cornelia	Caskey	7109	N Sedro St	Portland	97203
3	R22741 5020	Paul A & Karen D	Liebig	7117	N Sedro St	Portland	97203
3	R22741 5040	Wayne A	Beach	7129	N Sedro St	Portland	97203

ITEMS OF WORK & MAT'LS	QUANTITY	UNIT PRICE	TOTAL AMOUNT
8" ASTM C-14, CL 3 CSP	198 LF	\$ 25 00 LF	\$ 4,950 00
6" ASTM C-14, CL 3 CSP	90 LF	\$ 22 00 LF	\$ 1,980 00
6"X8" TEE, ASTM C-14, CL 3	3 EA	\$ 100 00 EA	\$ 300 00
48" STD PRECAST MH	2 EA	\$ 1,800 00 EA	\$ 3,600 00
48" STD PRECAST MH, OVER 8'	0 LF	\$ 200 00 LF	\$ -
8" CONNECTION TO EXISTING MH	0 EA	\$ 600 00 EA	\$ -
8" CONNECTION TO EXISTING PIPE	0 EA	\$ 400 00 EA	\$ -
COMMON TRENCH EXC & NATIVE BACKFILL	234 CY	\$ 15 00 CY	\$ 3,515 00
CSP PIPE BEDDING CLASS "C"	70 CY	\$ 25 00 CY	\$ 1,757 50
IMP GRANULAR BACKFILL	164 CY	\$ 10 00 CY	\$ 1,640 33
AC PAVEMENT REPLACEMENT 2" THICK	0 SY	\$ 20 00 SY	\$ -
ROCK SURFACING	88 CY	\$ 20 00 CY	\$ 1,761 67
CONCRETE CURB REPLACEMENT	9 LF	\$ 20 00 LF	\$ 180 00
SIDEWALK REPLACEMENT	27 SF	\$ 50 00 SF	\$ 1,350 00
SUMP REPLACEMENT	0 EA	\$ 10,000 00 EA	\$ -
RECONSTRUCT EXIST INLET	0 EA	\$ 500 00 EA	\$ -
TOTAL CONSTRUCTION COST			\$ 21,034 50
TOTAL PROJECT COST			\$ 29,448 30
EXISTING HOMES SERVED	3 EA		
VACANT LOTS SERVED	0 EA		
TOTAL SERVICES	3 EA		
TOTAL COST PER SERVICE			\$ 9,816 10

PRIORITY RATING

Sewer Extension Master Plan

Priority Criteria and Scoring

Project Area Number

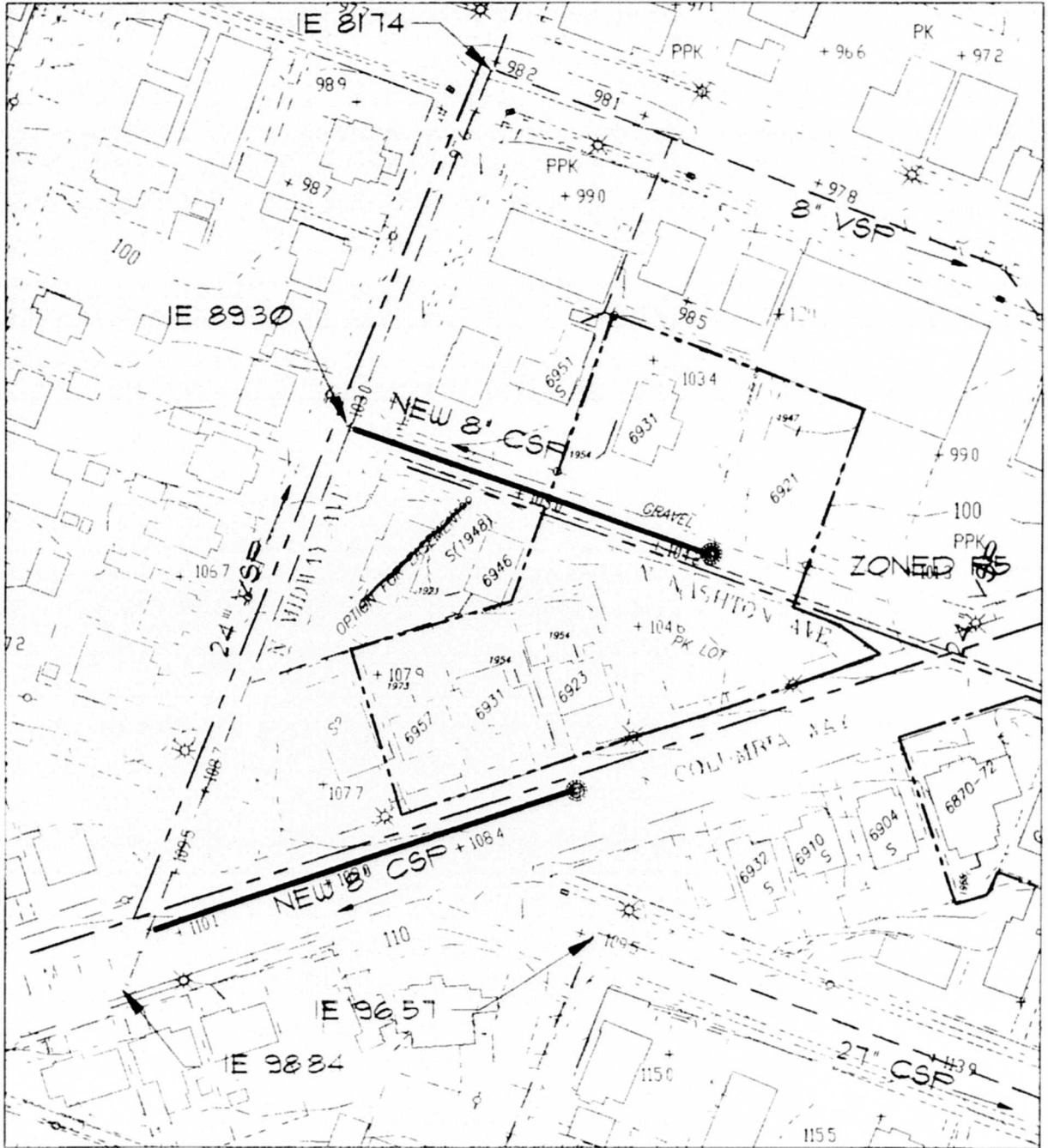
3

CRITERIA	GUIDELINES	SCORE
I Public Health		
1 Does the area have any record of septic system failure or public health problems?	0 = None 10 = Many, well documented 5 = No Record	5
2 How many septic systems have been replaced? None 25 Percent 50 Percent > 50 percent No records exist	0 points 4 points 7 points 9 points 5 points	4
II Implementation		
1 Is the project in a CSO impact area?	Yes <input checked="" type="checkbox"/> No	
2 If yes, will the CSO project occur Before year 2000? Year 2000 - 2010? After 2010? Not in a CSO project area	9 points 5 points 2 points 1 point	9
3 Are there any other city projects planned in the same area * within 3 years? 5 years? 10 years? None planned	8 points 6 points 3 points 0 points	0
4 Will the project impact any environmental zones during construction?	yes - 3 points no - 8 points	8
III Project Costs		
1 Is the average cost per residence < 80 % of city average? > 80 % < 120 % of city average > 120 % of city average	8 points 5 points 2 points	5

* Annual CIP review should include survey of other bureaus for area projects



NEIGHBORHOOD	ST JOHNS
QUARTER SECTION	2023,2024
LOCATION	N MIDWAY TO GILBERT AVE N NASHTON ST
CONTRIBUTES TO CSO?	NO



LEGEND

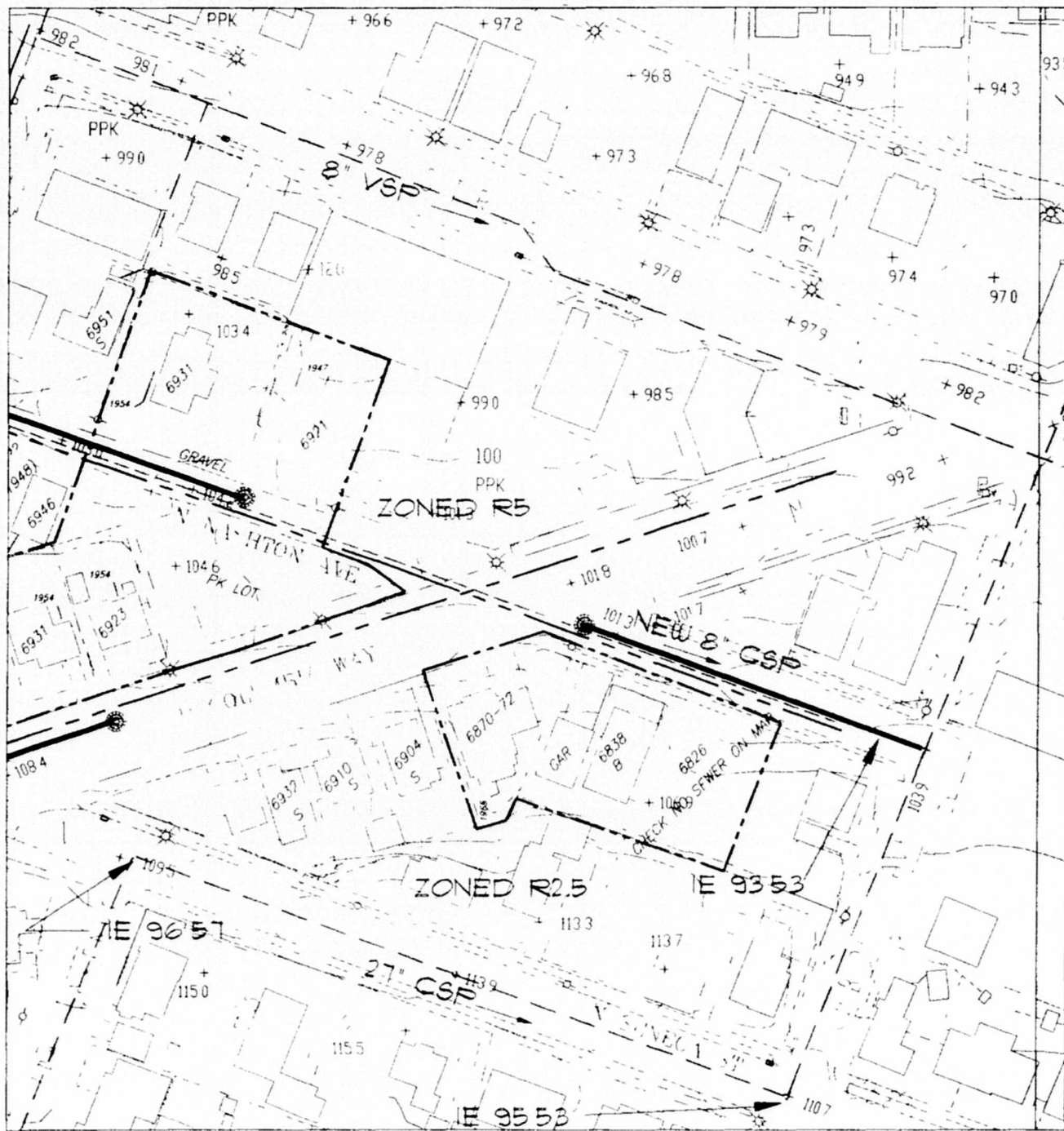
- NEW SANITARY LINE
- EXISTING SANITARY LINE
- EXISTING STORM LINE
- EXISTING WATER LINE
- BOUNDARY LINE
- FENCE LINE
- LOT LINES
- EXISTING MANHOLE
- NEW MANHOLE

B - BASEMENT
S - SEWER CONNECTED



SCALE 1"=100'

AREA 4A



LEGEND

- NEW SANITARY LINE
- EXISTING SANITARY LINE
- EXISTING STORM LINE
- EXISTING WATER LINE
- BOUNDARY LINE
- FENCE LINE
- LOT LINES
- EXISTING MANHOLE
- NEW MANHOLE

B - BASEMENT
S - SEWER CONNECTED



SCALE 1"=100'

AREA 4B

**BUREAU OF ENVIRONMENTAL SERVICES
SEWER EXTENSION MASTER PLAN
PROJECT NO. 5308**

AREA NO 4

NEIGHBORHOOD St Johns

LOCATION. N Nashton east of
Midway and N Columbia
east of Midway

QUARTER SECTION 2023/2024

Project Description:

This project will provide sanitary sewer service to 8 homes and one commercial site in the vicinity of N Columbia Way and N Nashton Avenue. This project is divided into three segments, one extending east from N Midway Avenue about 265 feet, one along N Columbia Way east from N Midway Avenue for 280 feet and a third line west from N Gilbert Avenue on N Nashton Avenue for 245 feet. Each segment will connect to an existing sanitary sewer. Completion of this project will allow removal of 9 existing septic systems.

The following figures and tables present detailed information about this project.

Priority Ranking:

Review of the existing septic system conditions and the age of the existing systems place this project as the 50th priority. The residences in this project area appear to be constructed in the 1950's and some of the septic system installed at that time are still in service. No records of septic system replacement exist in the city data file. The oldest septic tank record (1921) located at 6946 N Nashton Avenue serves a home that appears to have been connected to the public sewer via a service line to N Midway.

Project Cost:

Construction of this project will cost about \$ 86,750. This includes provision of service lines to the edge of the property of each property. In all, 8 homes will receive sewage service connections to the public system.

On average this project will cost \$ 10,844 per residence. This compares to a city-wide average of \$ 9769 per residence for all similar projects.

CRANE MERSETH
ENGINEERING/SURVEYING
UN SEWERED AREAS

35471

AREA	PARCEL	OWNER FIRST NAME	LAST NAME	SITE	ADDRESS	CITY	ZIP
4	R22741 7330	Richard F	Waring	6870	N Columbia Way	Portland	97203
4	R22741 4690	Souk & Meuy	Sichaleun	6923	N Columbia Way	Portland	97203
4	R22741 4710	Kimberly Mane	Hall	6931	N Columbia Way	Portland	97203
4	R22741 4730	Robert F & Beverly	Shepperd	6957	N Columbia Way	Portland	97203
4	R22741 7300	David F & Marian E	Christian	6838	N Nashton St	Portland	97203
4	R22741 4460	Code Investment Co		6921	N Nashton St	Portland	97203
4	R22741 4420	Ole & Rosa L	Berg	6931	N Nashton St	Portland	97203

AREA 4

ITEMS OF WORK & MAT'LS	QUANTITY	UNIT PRICE	TOTAL AMOUNT
8" ASTM C-14, CL 3 CSP	800 LF	\$ 25 00 LF	\$ 20,000 00
6" ASTM C-14, CL 3 CSP	160 LF	\$ 22 00 LF	\$ 3,520 00
6"X8" TEE, ASTM C-14, CL 3	8 EA	\$ 100 00 EA	\$ 800 00
48" STD PRECAST MH	3 EA	\$ 1,800 00 EA	\$ 5,400 00
48" STD PRECAST MH, OVER 8'	0 LF	\$ 200 00 LF	\$ -
8" CONNECTION TO EXISTING MH	2 EA	\$ 600 00 EA	\$ 1,200 00
8" CONNECTION TO EXISTING PIPE	0 EA	\$ 400 00 EA	\$ -
COMMON TRENCH EXC & NATIVE BACKFILL	815 CY	\$ 15 00 CY	\$ 12,222 22
CSP PIPE BEDDING CLASS "C"	244 CY	\$ 25 00 CY	\$ 6,111 11
IMP GRANULAR BACKFILL	570 CY	\$ 10 00 CY	\$ 5,703 70
AC PAVEMENT REPLACEMENT 2" THICK	246 SY	\$ 20 00 SY	\$ 4,920 00
ROCK SURFACING	19 CY	\$ 20 00 CY	\$ 380 00
CONCRETE CURB REPLACEMENT	18 LF	\$ 20 00 LF	\$ 360 00
SIDEWALK REPLACEMENT	27 SF	\$ 50 00 SF	\$ 1,350 00
SUMP REPLACEMENT	0 EA	\$ 10,000 00 EA	\$ -
RECONSTRUCT EXIST INLET	0 EA	\$ 500 00 EA	\$ -
TOTAL CONSTRUCTION COST			\$ 61,967.04
TOTAL PROJECT COST			\$ 86,753.85
EXISTING HOMES SERVED	8 EA		
VACANT LOTS SERVED	0 EA		
TOTAL SERVICES	8 EA		
TOTAL COST PER SERVICE			\$ 10,844.23

COST ESTIMATES

PRIORITY RATING

Sewer Extension Master Plan

Priority Criteria and Scoring

Project Area Number

4

CRITERIA	GUIDELINES	SCORE
I Public Health		
1 Does the area have any record of septic system failure or public health problems?	0 = None 10 = Many, well documented 5 = No Record	0
2 How many septic systems have been replaced? None 25 Percent 50 Percent > 50 percent No records exist	0 points 4 points 7 points 9 points 5 points	5
II Implementation		
1 Is the project in a CSO impact area?	Yes <input checked="" type="checkbox"/> No	
2 If yes, will the CSO project occur Before year 2000? Year 2000 - 2010? After 2010? Not in a CSO project area	9 points 5 points 2 points 1 point	9
3 Are there any other city projects planned in the same area * within 3 years? 5 years? 10 years? None planned	8 points 6 points 3 points 0 points	0
4 Will the project impact any environmental zones during construction?	yes - 3 points no - 8 points	8
III Project Costs		
1 Is the average cost per residence < 80 % of city average? > 80 % < 120 % of city average > 120 % of city average	8 points 5 points 2 points	5

* Annual CIP review should include survey of other bureaus for area projects

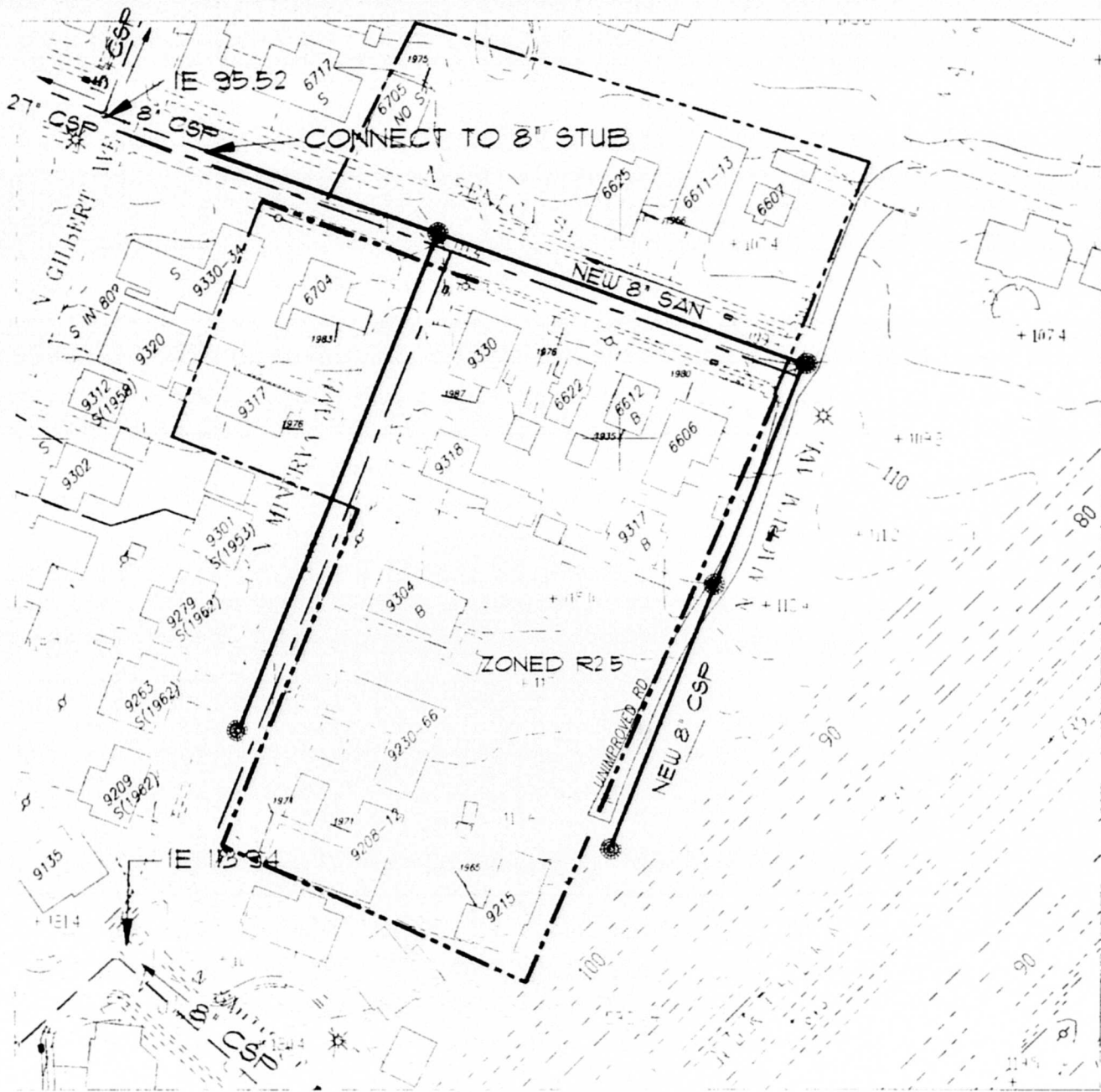


NEIGHBORHOOD
QUARTER SECTION
LOCATION:

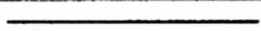

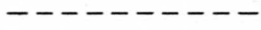






ST JOHNS
2025,2124
N SENECA TO SMITH CT
N MINERVA AVE

CONTRIBUTES TO CSO?

NO



LEGEND

- NEW SANITARY LINE 
- EXISTING SANITARY LINE 
- EXISTING STORM LINE 
- EXISTING WATER LINE 
- BOUNDARY LINE 
- FENCE LINE 
- LOT LINES 
- EXISTING MANHOLE 
- NEW MANHOLE 

B - BASEMENT
S - SEWER CONNECTED



SCALE 1"=100'

AREA 5

**BUREAU OF ENVIRONMENTAL SERVICES
SEWER EXTENSION MASTER PLAN
PROJECT NO. 5308**

AREA NO 5

NEIGHBORHOOD St Johns

LOCATION. South of N Seneca
and east of N Minerva
Avenue

QUARTER SECTION 2025 & 2124

Project Description:

This project will provide sanitary sewer service to 16 homes and 3 vacant lots. Two new sewerlines will be extended south from the existing sewer on N Seneca Street. One will extend 360 feet south on N Minerva Avenue and the second will extend a similar distance along the unimproved extension of N Macrum Avenue. Along these two routes, service connections will be extended to 16 homes and become available to 3 undeveloped lots.

The following figures and tables present detailed information about this project.

Priority Ranking:

Review of the existing septic system conditions and the age of the existing systems place this project as the number 41 priority. The residences in this project area appear to have been constructed in the 1930's and 1940's. Where records exist, only one septic system is shown to have served that long. Only 8 of the existing 16 homes have records of septic system installation and of those, all but one home show septic system work within the past 25 years. It is reasonable to assume that over 50 percent of the homes have had new septic systems installed following the original installation with the latest of these installations occurring in 1987.

Project Cost:

Construction of this project will cost about \$ 150,100. This includes provision of service lines to the edge of the property of each home. In all, 16 homes will receive sewage service connections to the public system.

On average this project will cost \$ 7505 per residence. This compares to a city-wide average of \$ 9769 per residence for all similar projects.

**CRANE MERSETH
ENGINEERING/SURVEYING
UN SEWERED AREAS**

AREA	PARCEL	OWNER FIRST NAME	LAST NAME	SITE	ADDRESS	CITY	ZIP
5	R85050 1150	Charlie L & Eunice	Hall	9215	N Macrum Ave	Portland	97203
5	R85050 1260	Marvin L & Beulah E	England	9317	N Macrum Ave	Portland	97203
5	R85050 0920	Donna M	Duyke	9317	N Minerva Ave	Portland	97203
5	R85050 1020	Suiko A	Hatfield	9318	N Minerva Ave	Portland	97203
5	R85050 0940	FIRST INT BK		9330	N Minerva Ave	Portland	97203
5	R85050 1120	Ruben R & Ester R	Vila	9208	N Minerva Ave	Portland	97203
5	R85050 1000	Gene D	Hartman	6606	N Seneca St	Portland	97203
5	R85050 0980	John R	Irwin III	6612	N Seneca St	Portland	97203
5	R85050 0960	Dorothy H	Stevens	6622	N Seneca St	Portland	97203
5	R85050 0660	Tony K	Thuong	6704	N Seneca St	Portland	97203
5	R85050 0160	Denis L & Frances D	Robertson	6625	N Seneca St	Portland	97203
5	R85050 0210	Paul L	Gaskins	6611	N Seneca St	Portland	97203
5	R85050 0240	Ann	Latham	6607	N Seneca St	Portland	97203
5	R85050 0540	Laura B	Woodruff	6705	N Seneca St	Portland	97203

ITEMS OF WORK & MAT'LS	QUANTITY	UNIT PRICE	TOTAL AMOUNT
8" ASTM C-14, CL 3 CSP	1150 LF	\$ 25 00 LF	\$ 28,750 00
6" ASTM C-14, CL 3 CSP	500 LF	\$ 22 00 LF	\$ 11,000 00
6"X8" TEE, ASTM C-14, CL 3	20 EA	\$ 100 00 EA	\$ 2,000 00
48" STD PRECAST MH	5 EA	\$ 1,800 00 EA	\$ 9,000 00
48" STD PRECAST MH, OVER 8'	0 LF	\$ 200 00 LF	\$ -
8" CONNECTION TO EXISTING MH	0 EA	\$ 600 00 EA	\$ -
8" CONNECTION TO EXISTING PIPE	1 EA	\$ 400 00 EA	\$ 400 00
COMMON TRENCH EXC & NATIVE BACKFILL	1346 CY	\$ 15 00 CY	\$ 20,194 44
CSP PIPE BEDDING CLASS "C"	404 CY	\$ 25 00 CY	\$ 10,097 22
IMP GRANULAR BACKFILL	942 CY	\$ 10 00 CY	\$ 9,424 07
AC PAVEMENT REPLACEMENT 2" THICK	356 SY	\$ 20 00 SY	\$ 7,125 00
ROCK SURFACING	29 CY	\$ 20 00 CY	\$ 586 11
CONCRETE CURB REPLACEMENT	45 LF	\$ 20 00 LF	\$ 900 00
SIDEWALK REPLACEMENT	135 SF	\$ 50 00 SF	\$ 6,750 00
SUMP REPLACEMENT	0 EA	\$ 10,000 00 EA	\$ -
RECONSTRUCT EXIST INLET	2 EA	\$ 500 00 EA	\$ 1,000 00
TOTAL CONSTRUCTION COST			\$ 107,226.85
TOTAL PROJECT COST			\$ 150,117.59
EXISTING HOMES SERVED	16 EA		
VACANT LOTS SERVED	4 EA		
TOTAL SERVICES	20 EA		
TOTAL COST PER SERVICE			\$ 7,505.88

COST ESTIMATES

PRIORITY RATING

Sewer Extension Master Plan

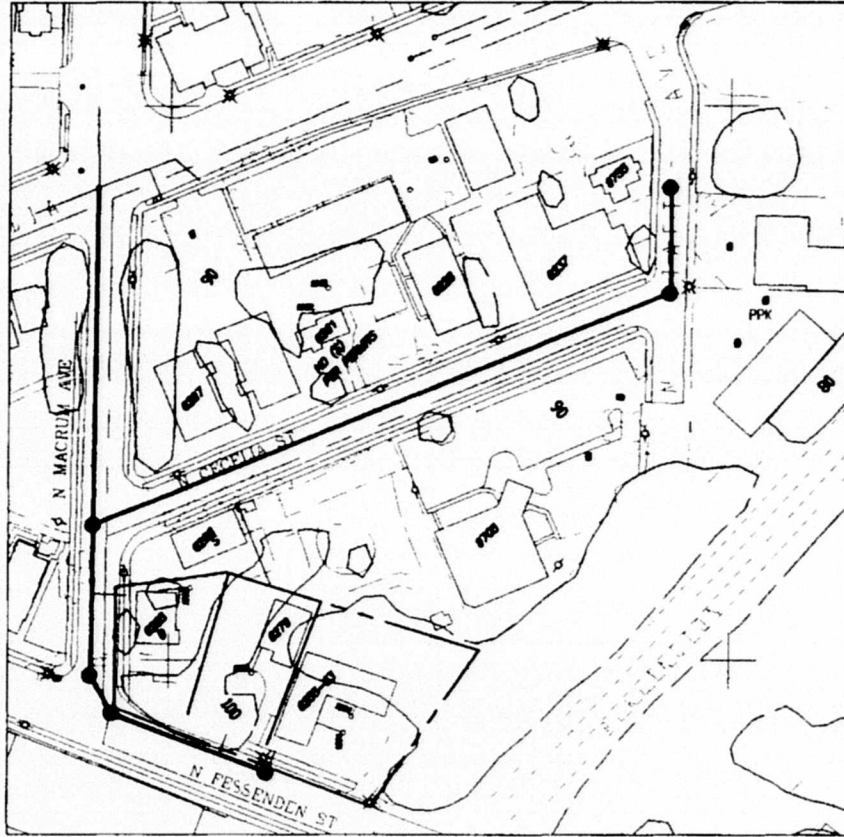
Priority Criteria and Scoring

Project Area Number

5

CRITERIA	GUIDELINES	SCORE
I Public Health		
1 Does the area have any record of septic system failure or public health problems?	0 = None 10 = Many, well documented 5 = No Record	0
2 How many septic systems have been replaced? None 25 Percent 50 Percent >50 percent No records exist	0 points 4 points 7 points 9 points 5 points	0
II Implementation		
1 Is the project in a CSO impact area?	Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>	
2 If yes, will the CSO project occur Before year 2000? Year 2000 - 2010? After 2010? Not in a CSO project area	9 points 5 points 2 points 1 point	9
3 Are there any other city projects planned in the same area * within 3 years? 5 years? 10 years? None planned	8 points 6 points 3 points 0 points	0
4 Will the project impact any environmental zones during construction?	yes - 3 points no - 8 points	8
III Project Costs		
1 Is the average cost per residence < 80 % of city average? > 80 % < 120 % of city average > 120 % of city average	8 points 5 points 2 points	8

* Annual CIP review should include survey of other bureaus for area projects

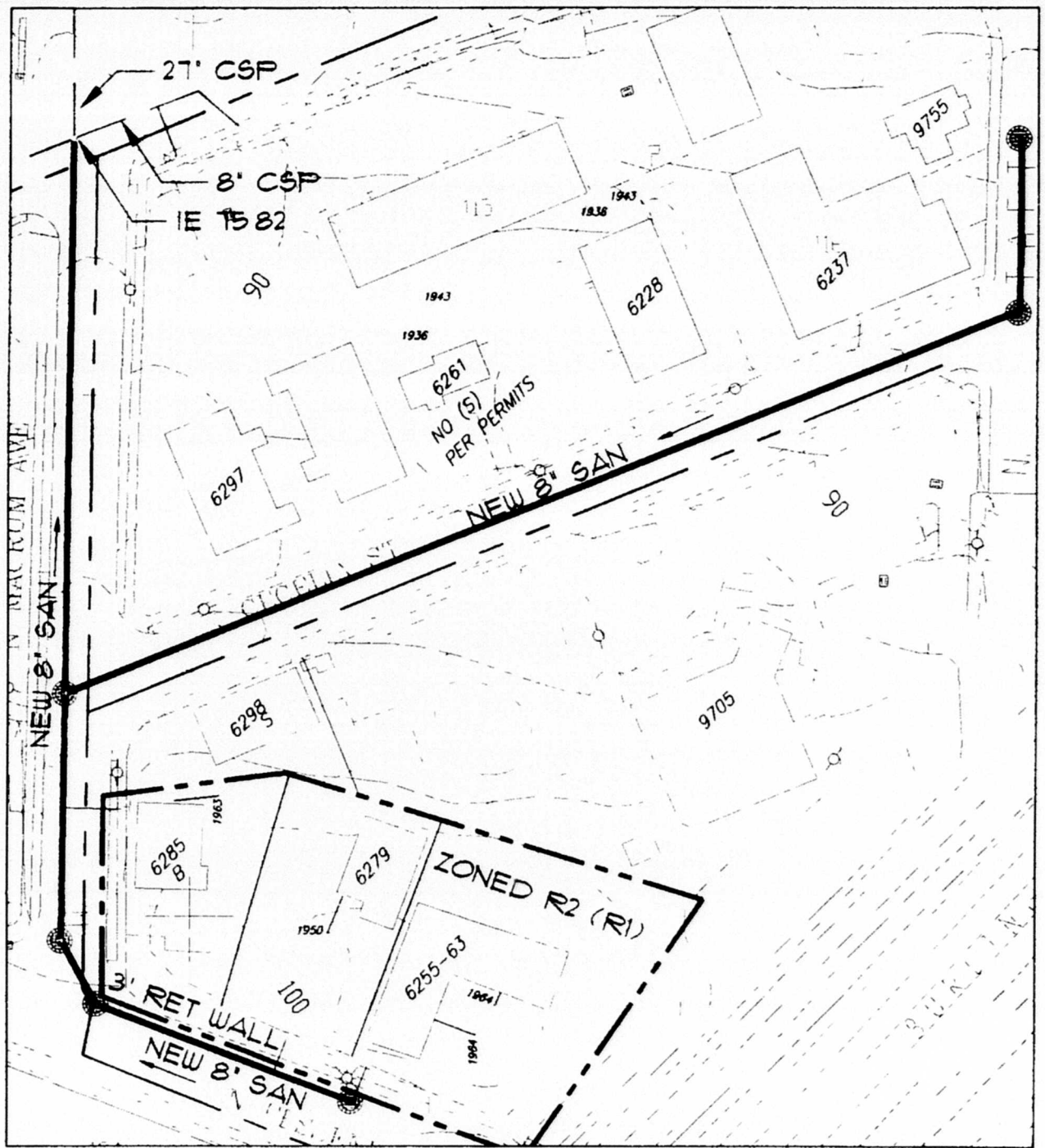


NEIGHBORHOOD
QUARTER SECTION
LOCATION:

ST JOHNS
2024
CORNER N MACRUM AVE
NE FESSENDEN ST

CONTRIBUTES TO CSO?

NO



LEGEND

- NEW SANITARY LINE —————
- EXISTING SANITARY LINE —————
- EXISTING STORM LINE - - - - -
- EXISTING WATER LINE —————
- BOUNDARY LINE - - - - -
- FENCE LINE —————
- LOT LINES - - - - -
- EXISTING MANHOLE ●
- NEW MANHOLE ●

B - BASEMENT
S - SEWER CONNECTED



SCALE 1" = 80'

AREA 6

**BUREAU OF ENVIRONMENTAL SERVICES
SEWER EXTENSION MASTER PLAN
PROJECT NO. 5308**

AREA NO 6

NEIGHBORHOOD St Johns

LOCATION N Macrum at N Fessenden

QUARTER SECTION 2024

Project Description:

This project will provide sanitary sewer service to 11 homes in the St Johns neighborhood. The line will begin with a connection to the existing sewer system near the intersection of N Macrum and N Fessenden and will extend 175 feet along N Fessenden Street. Completion of this project will allow removal of 3 existing septic systems.

The following figures and tables present detailed information about this project.

Priority Ranking:

Review of the existing septic system conditions and the age of the existing systems place this project as the number 10 priority. The residences in this project area were constructed in the 1950's and 1960's and all of the septic systems installed at that time are still in service.

Project Cost:

Construction of this project will cost about \$ 149,500. This includes provision of service lines to the edge of the property of each home. In all, 11 homes will receive sewage service connections to the public system.

On average this project will cost \$ 13,590 per residence. This compares to a city-wide average of \$ 9769 per residence for all similar projects.

**CRANE MERSETH
ENGINEERING/SURVEYING
UN SEWERED AREAS**

AREA	PARCEL	OWNER FIRST NAME	LAST NAME	SITE	ADDRESS	CITY	ZIP
6	R22740 2990	James D	Markoff	6261	N Cecelia St	Portland	97203
6	R22740 3030	Donald W & Juanita L	Taylor	6237	N Cecelia St	Portland	97203
6	R22740 3120	CENTRAL UNIT OF THE PORTL		6222	N Cecelia St	Portland	97203
6	R22740 3260	Merlin	Radke	6298	N Cecelia St	Portland	97203
6	R28410 0020	James P	Axtell	3984	SW Condor Ave	Portland	97201
6	R28410 0030	John B	McGivary	3986	SW Condor Ave	Portland	97201
6	R28410 0090	Frank N & Mary H	Frost	3976	SW Condor Ave	Portland	97201
6	R28410 0110	Mary Elizabeth	Dreyer	3968	SW Condor Ave	Portland	97201
6	R28410 0130	John F	Moyer	3964	SW Condor Ave	Portland	97201
6	R28410 0310	Douglas L & Paula P	Dawley	3993	SW Condor Ave	Portland	97201
6	R28410 0350	Theresa S	Lorentz	3983	SW Condor Ave	Portland	97201
6	R28410 0370	Edwin G & Betty R	Borgeson	3977	SW Condor Ave	Portland	97201
6	R67053 0650	Edna O & Melissa	Riddle	9115	N Hodge Ave	Portland	97203
6	R67053 0680	Robert A & Joan	Chrnsite	9045	N Hodge Ave	Portland	97203
6	R90670 0400	Conne V	Torgerson	9118	N Hodge Ave	Portland	97203
6	R22740 2990	James D	Markoff	6261	N Cecelia St	Portland	97203
6	R22740 3260	Merlin	Radke	6298	N Cecelia St	Portland	97203
6	R22740 3300	Merlin	Radke	6285	N Fessenden St	Portland	97203
6	R22740 3320	Merlin F	Radke	6279	N Fessenden St	Portland	97203
6	R22740 3350	Merlin	Radke	6255	N Fessenden St	Portland	97203

ITEMS OF WORK & MAT'LS	QUANTITY	UNIT PRICE	TOTAL AMOUNT
8" ASTM C-14, CL 3 CSP	1296 LF	\$ 25 00 LF	\$ 32,400 00
6" ASTM C-14, CL 3 CSP	275 LF	\$ 22 00 LF	\$ 6,050 00
6"X8" TEE, ASTM C-14, CL 3	11 EA	\$ 100 00 EA	\$ 1,100 00
48" STD PRECAST MH	6 EA	\$ 1,800 00 EA	\$ 10,800 00
48" STD PRECAST MH, OVER 8'	0 LF	\$ 200 00 LF	\$ -
8" CONNECTION TO EXISTING MH	1 EA	\$ 600 00 EA	\$ 600 00
8" CONNECTION TO EXISTING PIPE	0 EA	\$ 400 00 EA	\$ -
COMMON TRENCH EXC & NATIVE BACKFILL	1330 CY	\$ 15 00 CY	\$ 19,953 61
CSP PIPE BEDDING CLASS "C"	399 CY	\$ 25 00 CY	\$ 9,976 81
IMP GRANULAR BACKFILL	931 CY	\$ 10 00 CY	\$ 9,311 69
AC PAVEMENT REPLACEMENT 2" THICK	498 SY	\$ 20 00 SY	\$ 9,953 89
ROCK SURFACING	0 CY	\$ 20 00 CY	\$ -
CONCRETE CURB REPLACEMENT	33 LF	\$ 20 00 LF	\$ 660 00
SIDEWALK REPLACEMENT	99 SF	\$ 50 00 SF	\$ 4,950 00
SUMP REPLACEMENT	0 EA	\$ 10,000 00 EA	\$ -
RECONSTRUCT EXIST INLET	2 EA	\$ 500 00 EA	\$ 1,000 00
TOTAL CONSTRUCTION COST			\$ 106,755.99
TOTAL PROJECT COST			\$ 149,458.39
EXISTING HOMES SERVED	11 EA		
VACANT LOTS SERVED	0 EA		
TOTAL SERVICES	11 EA		
TOTAL COST PER SERVICE			\$ 13,587.13

PRIORITY RATING

Sewer Extension Master Plan

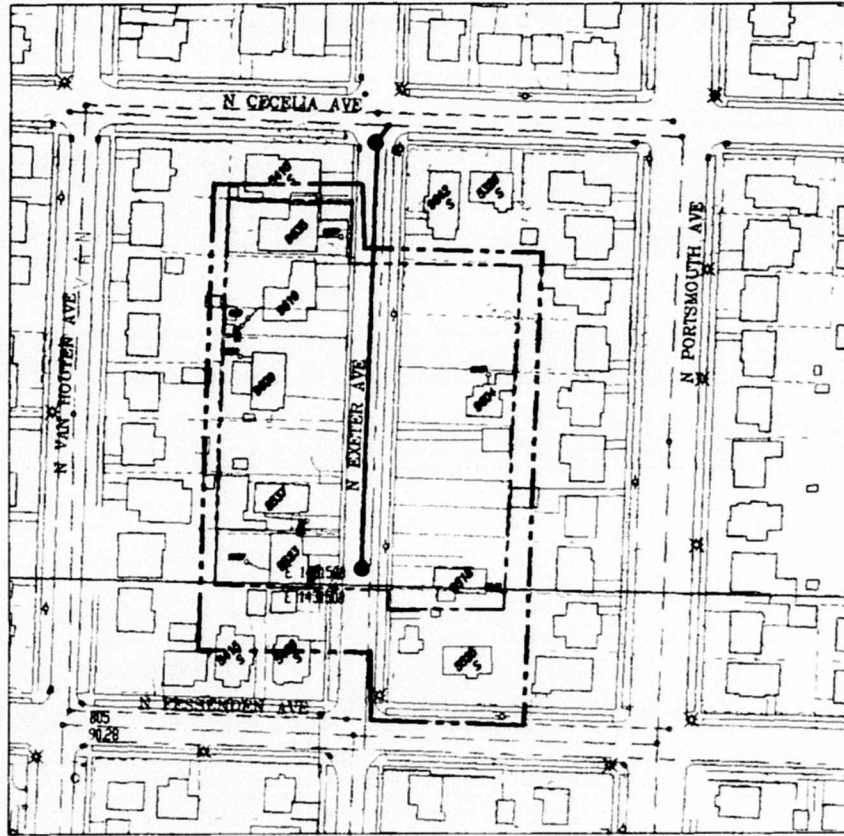
Priority Criteria and Scoring

Project Area Number

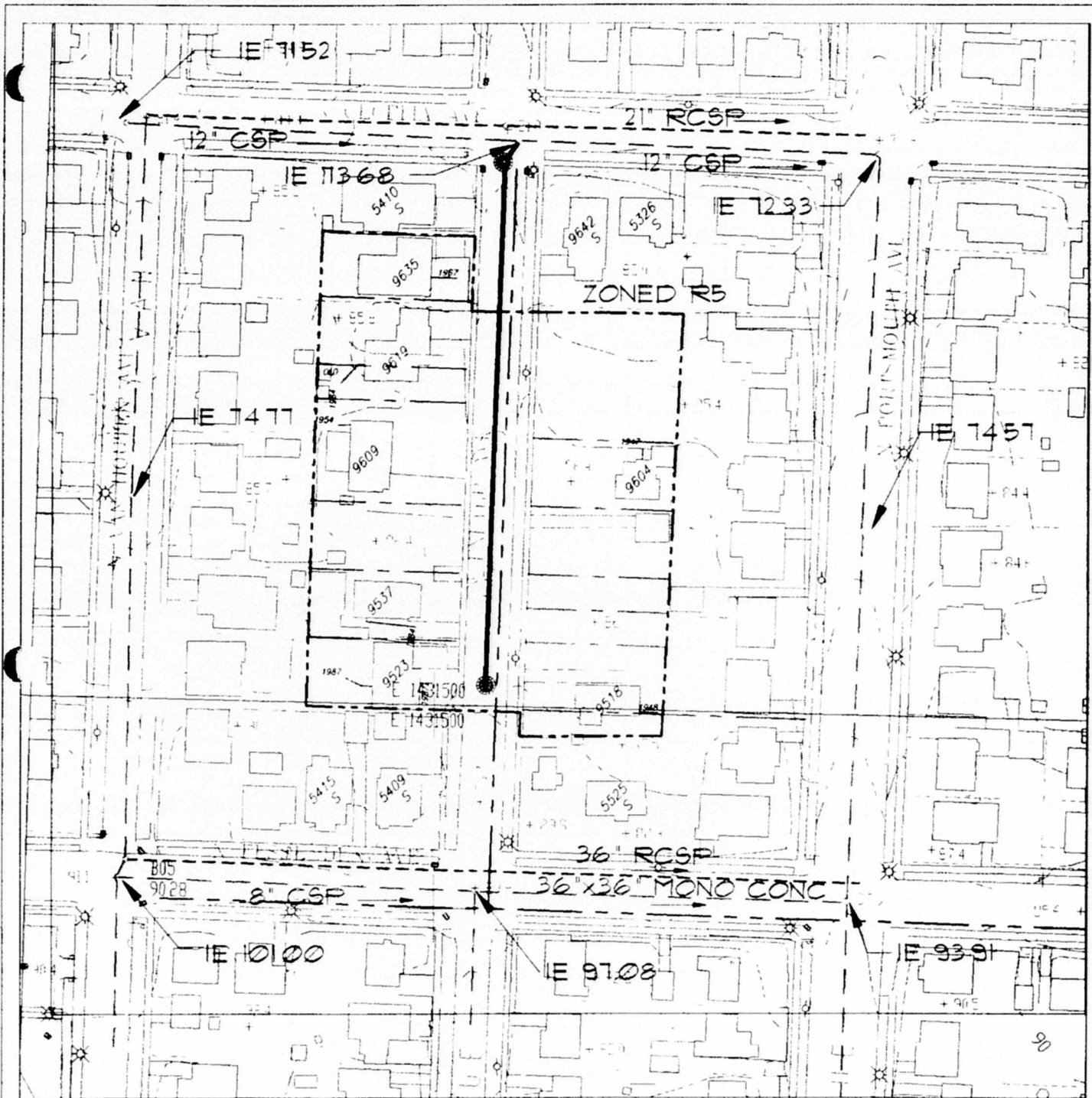
6

CRITERIA	GUIDELINES	SCORE
I Public Health		
1 Does the area have any record of septic system failure or public health problems?	0 = None 10 = Many, well documented 5 = No Record	10
2 How many septic systems have been replaced? None 25 Percent 50 Percent > 50 percent No records exist	0 points 4 points 7 points 9 points 5 points	7
II Implementation		
1 Is the project in a CSO impact area?	Yes <input checked="" type="checkbox"/> No	
2 If yes, will the CSO project occur Before year 2000? Year 2000 - 2010? After 2010? Not in a CSO project area	9 points 5 points 2 points 1 point	9
3 Are there any other city projects planned in the same area * within 3 years? 5 years? 10 years? None planned	8 points 6 points 3 points 0 points	0
4 Will the project impact any environmental zones during construction?	yes - 3 points no - 8 points	8
III Project Costs		
1 Is the average cost per residence < 80 % of city average? > 80 % < 120 % of city average > 120 % of city average	8 points 5 points 2 points	2

* Annual CIP review should include survey of other bureaus for area projects



NEIGHBORHOOD	ST JOHNS
QUARTER SECTION	2025,2125
LOCATION:	N CECELIA TO FESSENDEN ST N EXETER AVE
CONTRIBUTES TO CSO?	NO



LEGEND

- NEW SANITARY LINE
- EXISTING SANITARY LINE
- EXISTING STORM LINE
- EXISTING WATER LINE
- BOUNDARY LINE
- FENCE LINE
- LOT LINES
- EXISTING MANHOLE
- NEW MANHOLE

B - BASEMENT
S - SEWER CONNECTED



SCALE 1"=100'

AREA 7

**BUREAU OF ENVIRONMENTAL SERVICES
SEWER EXTENSION MASTER PLAN
PROJECT NO. 5308**

AREA NO 7

NEIGHBORHOOD St Johns

LOCATION N Exeter between
N Fessenden and
N Cecelia

QUARTER SECTION 2025 & 2125

Project Description:

This project will provide sanitary sewer service to 7 existing homes and 5 lots that have the potential for new homes to be constructed on them. The line will begin with a connection to the existing sanitary sewer system on N Cecelia Street and will extend south for 390 feet on N Exeter Street. Completion of this project will allow removal of 7 existing septic systems.

The following figures and tables present detailed information about this project.

Priority Ranking:

Review of the existing septic system conditions and the age of the existing systems place this project as the number 13 priority. The residences in this project area were constructed in the 1940's and all but 2 of the septic system installed at that time appear to have been replaced since initial installation. The latest of these installations occurred in 1987.

Project Cost:

Construction of this project will cost about \$ 66,870. This includes provision of service lines to the edge of each of the properties. In all, 7 homes will receive sewage service connections to the public system.

On average this project will cost \$ 6079 per residence. This compares to a city-wide average of \$ 9769 per residence for all similar projects.

ITEMS OF WORK & MAT'LS	QUANTITY	UNIT PRICE	TOTAL AMOUNT
8" ASTM C-14, CL 3 CSP	410 LF	\$ 25 00 LF	\$ 10,250 00
6" ASTM C-14, CL 3 CSP	275 LF	\$ 22 00 LF	\$ 6,050 00
6"X8" TEE, ASTM C-14, CL 3	11 EA	\$ 100 00 EA	\$ 1,100 00
48" STD PRECAST MH	2 EA	\$ 1,800 00 EA	\$ 3,600 00
48" STD PRECAST MH, OVER 8'	0 LF	\$ 200 00 LF	\$ -
8" CONNECTION TO EXISTING MH	1 EA	\$ 600 00 EA	\$ 600 00
8" CONNECTION TO EXISTING PIPE	0 EA	\$ 400 00 EA	\$ -
COMMON TRENCH EXC & NATIVE BACKFILL	543 CY	\$ 15 00 CY	\$ 8,140 28
CSP PIPE BEDDING CLASS "C"	163 CY	\$ 25 00 CY	\$ 4,070 14
IMP GRANULAR BACKFILL	380 CY	\$ 10 00 CY	\$ 3,798 80
AC PAVEMENT REPLACEMENT 2" THICK	202 SY	\$ 20 00 SY	\$ 4,047 22
ROCK SURFACING	0 CY	\$ 20 00 CY	\$ -
CONCRETE CURB REPLACEMENT	33 LF	\$ 20 00 LF	\$ 660 00
SIDEWALK REPLACEMENT	99 SF	\$ 50 00 SF	\$ 4,950 00
SUMP REPLACEMENT	0 EA	\$ 10,000 00 EA	\$ -
RECONSTRUCT EXIST INLET	1 EA	\$ 500 00 EA	\$ 500 00
TOTAL CONSTRUCTION COST			\$ 47,766.44
TOTAL PROJECT COST			\$ 66,873.01
EXISTING HOMES SERVED	7 EA		
VACANT LOTS SERVED	4 EA		
TOTAL SERVICES	11 EA		
TOTAL COST PER SERVICE			\$ 6,079.36

COST ESTIMATES

PRIORITY RATING

Sewer Extension Master Plan

Priority Criteria and Scoring

Project Area Number

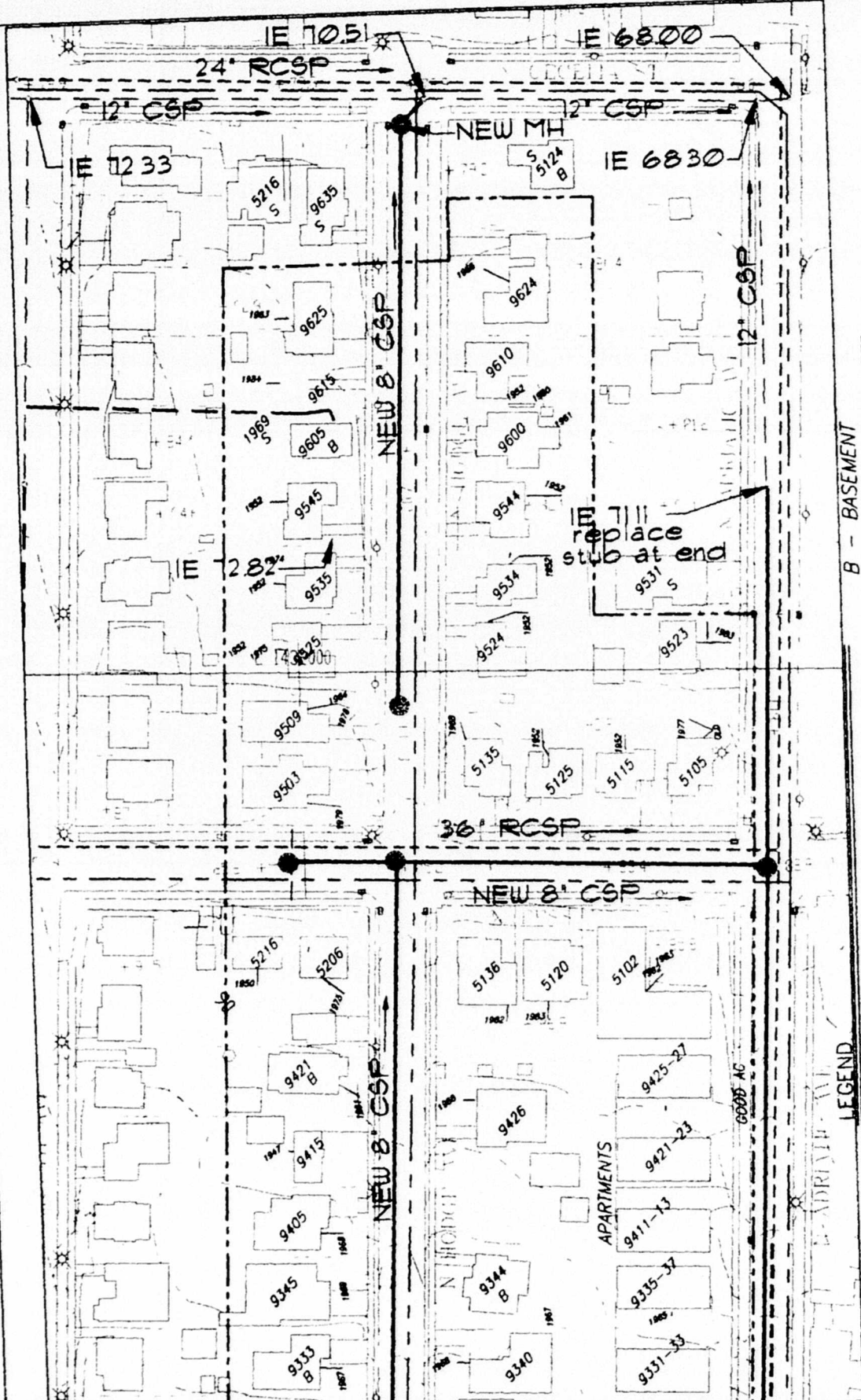
7

CRITERIA	GUIDELINES	SCORE
I Public Health		
1 Does the area have any record of septic system failure or public health problems?	0 - None 10 - Many, well documented 5 - No Record	5
2 How many septic systems have been replaced? None 25 Percent 50 Percent > 50 percent No records exist	0 points 4 points 7 points 9 points 5 points	4
II Implementation		
1 Is the project in a CSO impact area?	Yes <input checked="" type="checkbox"/> No	
2 If yes, will the CSO project occur Before year 2000? Year 2000 - 2010? After 2010? Not in a CSO project area	9 points 5 points 2 points 1 point	9
3 Are there any other city projects planned in the same area * within 3 years? 5 years? 10 years? None planned	8 points 6 points 3 points 0 points	0
4 Will the project impact any environmental zones during construction?	yes - 3 points no - 8 points	8
III Project Costs		
1 Is the average cost per residence < 80 % of city average? > 80 % < 120 % of city average > 120 % of city average	8 points 5 points 2 points	8

* Annual CIP review should include survey of other bureaus for area projects



NEIGHBORHOOD	PORTSMOUTH
QUARTER SECTION	2025,2125
LOCATION:	HUDSON TO N OF CECELIA ST N HODGE AVE
CONTRIBUTES TO CS0?	NO

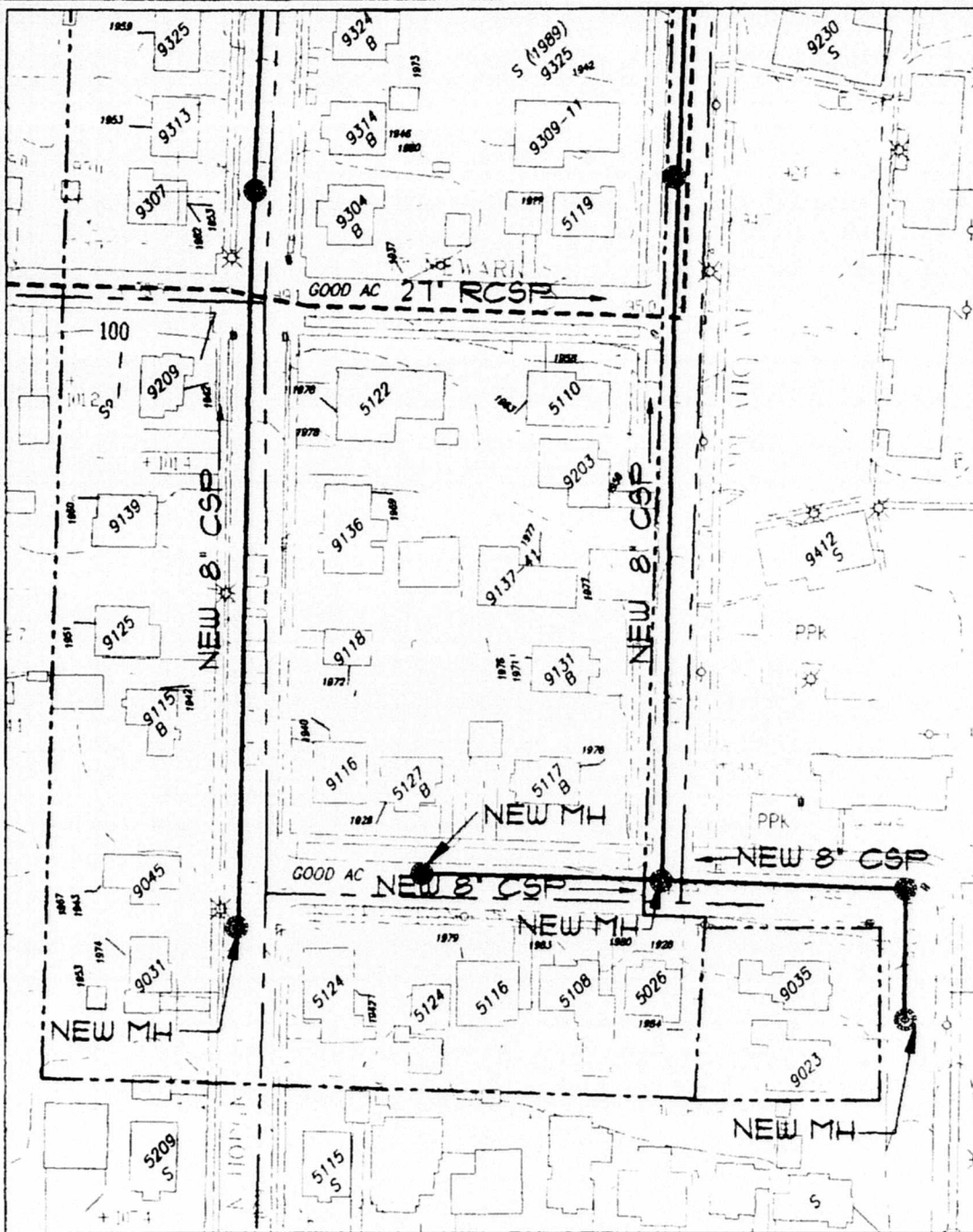


B - BASEMENT
S - SEWER CONNECTED

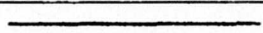

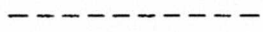

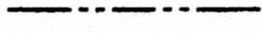




- LEGEND**
- NEW SANITARY LINE
 - EXISTING SANITARY LINE
 - EXISTING STORM LINE
 - EXISTING WATER LINE
 - BOUNDARY LINE
 - FENCE LINE
 - LOT LINES
 - EXISTING MANHOLE
 - NEW MANHOLE



SCALE 1"=100'
AREA 8A



LEGEND

- NEW SANITARY LINE 
- EXISTING SANITARY LINE 
- EXISTING STORM LINE 
- EXISTING WATER LINE 
- BOUNDARY LINE 
- FENCE LINE 
- LOT LINES 
- EXISTING MANHOLE 
- NEW MANHOLE 

B - BASEMENT
S - SEWER CONNECTED



SCALE 1"=100'

AREA 8B

**BUREAU OF ENVIRONMENTAL SERVICES
SEWER EXTENSION MASTER PLAN
PROJECT NO. 5308**

AREA NO 8

NEIGHBORHOOD Portsmouth

LOCATION N Hodge and N Adriatic
north of N Trenton

QUARTER SECTION 2025 & 2125

Project Description:

This project will provide sanitary sewer service to 68 homes and 3 vacant lots in the Portsmouth neighborhood. This system is comprised of 5 major line segments. These new lines will extend from connections to the sanitary sewer system on N Cecelia Street at the north end of the service area. One line will extend 425 feet south on N Hodge Street and serve 13 homes. A second system will begin at the end of the sanitary system on N Adriatic Avenue, about 275 feet south of N Cecelia Street and extend south on N Adriatic Avenue to N Trenton, a distance of 1170 feet.

At the intersection with N Fessenden Street the line will branch to the west and serve homes on N Fessenden and continue south on N Hodge and serve additional homes as far south as N Trenton Street. Completion of this project will allow removal of 69 existing septic systems.

The following figures and tables present detailed information about this project.

Priority Ranking:

Review of the existing septic system conditions and the age of the existing systems place this project as the 15th priority. Records of septic tank installation in this area would indicate that homes were probably constructed beginning in the late 1920's with a number of septic systems installed in the 1940's and 1950's. Some of the original septic systems are still in service. Records indicate that 15 of the homes have had new septic systems installed since 1970 with the latest of these installations occurring in 1984. Not all homes have records of septic system installation or plumbing changes.

Project Cost:

Construction of this project will cost about \$ 524,000. This includes provision of service lines to the edge of the property for each home. In all, 68 homes will receive sewage.

35471 1

service connections to the public system This includes 7 duplexes located on N Adriatic Avenue

On average this project will cost \$ 7595 per residence This compares to a city-wide average of \$ 9769 per residence for all similar projects

CRANE & MERSETH ENGINEERING/SURVEY
 UN SEWERED AREAS
 7/28/95

AREA	PARCEL	OWNER FIRST NAME	LAST NAME	SITE	ADDRESS	CITY	ZIP
8	R90670 0320	Alvin L	Koehmstedt	9131	N Adriatic Ave	Portland	97203
8	R90670 0300	Richard R	Voss	9137	N Adriatic Ave	Portland	97203
8	R16980 2580	Timothy	Marks	9203	N Adriatic Ave	Portland	97203
8				9230	N Adriatic Ave	Portland	
8	R16980 2640	Nicholas J	Lane	9309	N Adriatic Ave	Portland	97203
8	R16980 2620	Multnomah County		9325	N Adriatic Ave	Portland	97203
8	R67020 0080	Marjorie A	Norgaard	9331	N Adriatic Ave	Portland	97203
8				9335	N Adriatic Ave	Portland	
8	R67020 0070	Marjorie A	Norgaard	9411	N Adriatic Ave	Portland	97203
8				9412	N Adriatic Ave	Portland	
8				9413	N Adriatic Ave	Portland	
8	R67020 0050	Marjorie A	Norgaard	9421	N Adriatic Ave	Portland	97203
8				9425	N Adriatic Ave	Portland	
8	R67020 0290	Henry R & Naomi S	Cavanaugh	9523	N Adriatic Ave	Portland	97203
8				5026	N Fessenden	Portland	
8				5136	N Fessenden	Portland	
8	R67020 0010	Marjorie A	Norgaard	5102	N Fessenden St	Portland	97203
8	R67020 0310	Community	Portland	5105	N Fessenden St	Portland	97203
8				5115	N Fessenden St	Portland	
8				5120	N Fessenden St	Portland	
8	R16980 6510	Portland Community Reinvestmen		5125	N Fessenden St	Portland	97203
8	R16980 6490	Patricia	Larsen	5135	N Fessenden St	Portland	97203
8				5136	N Fessenden St	Portland	
8				5206	N Fessenden St	Portland	
8	R16980 2900	Douglas C & Linda F	Janes	5216	N Fessenden St	Portland	97203
8	R61060 0010	Merlin	Radke	6114	N Fessenden St	Portland	97203
8	R22740 3350	Merlin	Radke	6255	N Fessenden St	Portland	97203
8	R22740 3320	Merlin F	Radke	6279	N Fessenden St	Portland	97203
8	R22740 3300	Merlin	Radke	6285	N Fessenden St	Portland	97203
8	R67053 0710	Lucy	Shelton	9031	N Hodge Ave	Portland	97203
8	R67053 0680	Robert A & Joan	Christie	9045	N Hodge Ave	Portland	97203
8	R67053 0650	Edna O	Riddle	9115	N Hodge Ave	Portland	97203
8				9116	N Hodge Ave	Portland	
8	R90670 0400	Corine V	Torgerson	9118	N Hodge Ave	Portland	97203
8				9124	N Hodge Ave	Portland	
8	R67053 0630	Troy A & Jacquelyn L	Adamson	9125	N Hodge Ave	Portland	97203
8	R90670 0440	Robert C	Byers	9136	N Hodge Ave	Portland	97203
8	R67053 0590	George H & Virginia D	Cox	9139	N Hodge Ave	Portland	97203
8	R16980 2500	Ronald E	Oten	9209	N Hodge Ave	Portland	97203
8	R16980 2680	Genevieve C	Johnston	9304	N Hodge Ave	Portland	97203
8	R16980 3060	Henry E & Alberta N	Kuehl	9307	N Hodge Ave	Portland	97203
8	R16980 3040	Robert T & Joyce E	Bledsoe	9313	N Hodge Ave	Portland	97203
8	R16980 2700	Ruth L	Killam	9314	N Hodge Ave	Portland	97203
8	R16980 2720	Daniel V	McElligott Jr	9324	N Hodge Ave	Portland	97203
8	R16980 3020	Ezra M	Parks	9325	N Hodge Ave	Portland	97203
8	R16980 3000	John & Sharon	Hash	9333	N Hodge Ave	Portland	97203

AREA 8

ITEMS OF WORK & MAT'LS	QUANTITY	UNIT PRICE	TOTAL AMOUNT
8" ASTM C-14, CL 3 CSP	3900 LF	\$ 25 00 LF	\$ 97,500 00
6" ASTM C-14, CL 3 CSP	1725 LF	\$ 22 00 LF	\$ 37,950 00
6"X8" TEE, ASTM C-14, CL 3	69 EA	\$ 100 00 EA	\$ 6,900 00
48" STD PRECAST MH	12 EA	\$ 1,800 00 EA	\$ 21,600 00
48" STD PRECAST MH, OVER 8'	0 LF	\$ 200 00 LF	\$ -
8" CONNECTION TO EXISTING MH	2 EA	\$ 600 00 EA	\$ 1,200 00
8" CONNECTION TO EXISTING PIPE	0 EA	\$ 400 00 EA	\$ -
COMMON TRENCH EXC & NATIVE BACKFILL	4585 CY	\$ 15 00 CY	\$ 68,770 83
CSP PIPE BEDDING CLASS "C"	1375 CY	\$ 25 00 CY	\$ 34,385 42
IMP GRANULAR BACKFILL	3209 CY	\$ 10 00 CY	\$ 32,093 06
AC PAVEMENT REPLACEMENT 2" THICK	1712 SY	\$ 20 00 SY	\$ 34,241 67
ROCK SURFACING	0 CY	\$ 20 00 CY	\$ -
CONCRETE CURB REPLACEMENT	207 LF	\$ 20 00 LF	\$ 4,140 00
SIDEWALK REPLACEMENT	621 SF	\$ 50 00 SF	\$ 31,050 00
SUMP REPLACEMENT	0 EA	\$ 10,000 00 EA	\$ -
RECONSTRUCT EXIST INLET	9 EA	\$ 500 00 EA	\$ 4,500 00
TOTAL CONSTRUCTION COST			\$ 374,330.97
TOTAL PROJECT COST			\$ 524,063.36
EXISTING HOMES SERVED	68 EA		
VACANT LOTS SERVED	1 EA		
TOTAL SERVICES	69 EA		
TOTAL COST PER SERVICE			\$ 7,595.12

COST ESTIMATES

Sewer Extension Master Plan

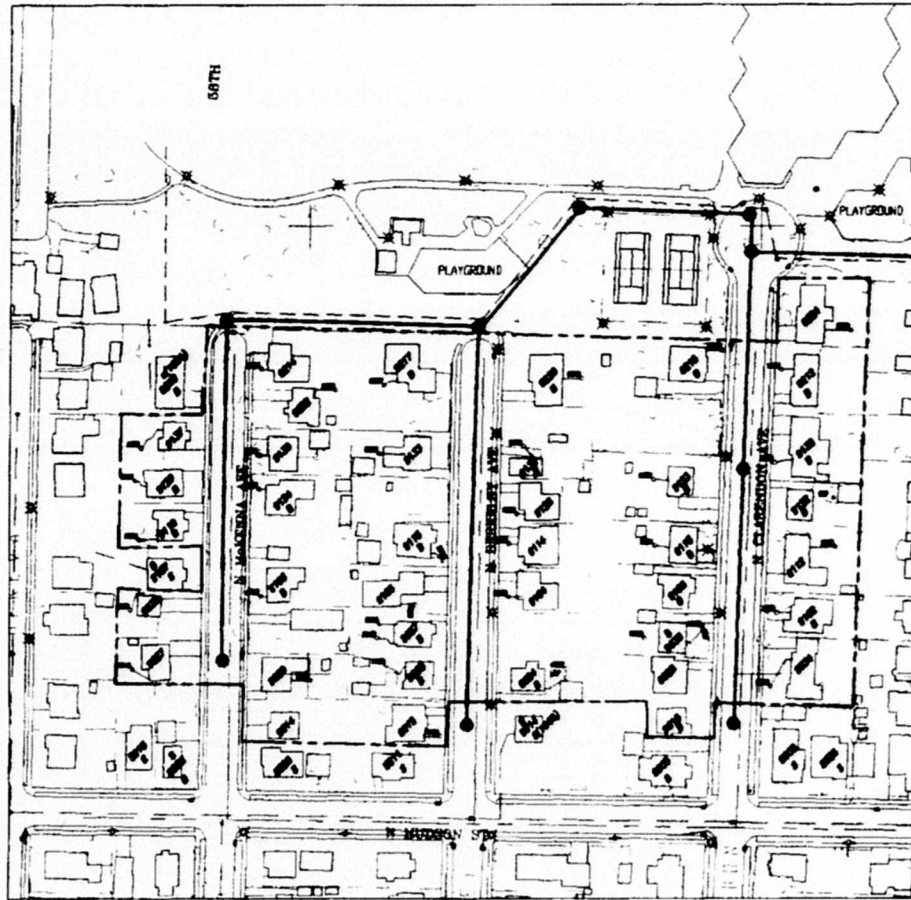
Priority Criteria and Scoring

Project Area Number

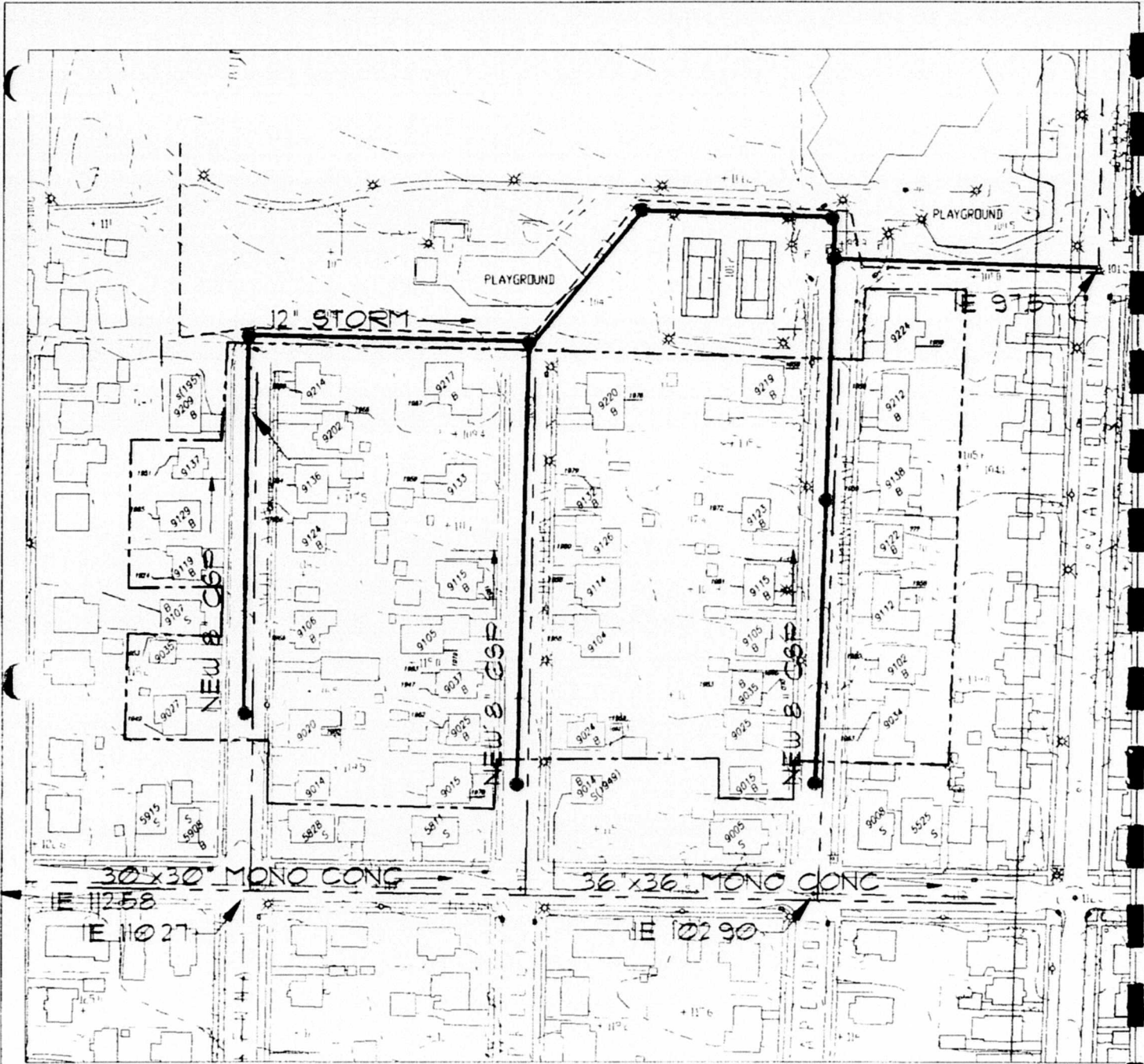
8

CRITERIA	GUIDELINES	SCORE
I Public Health		
1 Does the area have any record of septic system failure or public health problems?	0 = None 10 = Many well documented 5 = No Record	5
2 How many septic systems have been replaced? None 25 Percent 50 Percent > 50 percent No records exist	0 points 4 points 7 points 9 points 5 points	4
II Implementation		
1 Is the project in a CSO impact area?	Yes <input checked="" type="checkbox"/> No	
2 If yes, will the CSO project occur Before year 2000? Year 2000 - 2010? After 2010? Not in a CSO project area	9 points 5 points 2 points 1 point	9
3 Are there any other city projects planned in the same area * within 3 years? 5 years? 10 years? None planned	8 points 6 points 3 points 0 points	0
4 Will the project impact any environmental zones during construction?	yes - 3 points no 8 points	8
III Project Costs		
1 Is the average cost per residence < 80 % of city average? > 80 % < 120 % of city average > 120 % of city average	8 points 5 points 2 points	8

* Annual CIP review should include survey of other bureaus for area projects



NEIGHBORHOOD	PORTSMOUTH
QUARTER SECTION	2124
LOCATION-	HUDSON TO NEWARK ST
	N McKENNA, BERKELEY & CLARENDON AVE
CONTRIBUTES TO CSO?	NO



LEGEND

- NEW SANITARY LINE
- EXISTING SANITARY LINE
- EXISTING STORM LINE
- EXISTING WATER LINE
- BOUNDARY LINE
- FENCE LINE
- LOT LINES
- EXISTING MANHOLE
- NEW MANHOLE

B - BASEMENT
S - SEWER CONNECTED



SCALE 1" = 150'

**BUREAU OF ENVIRONMENTAL SERVICES
SEWER EXTENSION MASTER PLAN
PROJECT NO. 5308**

AREA NO 9

NEIGHBORHOOD Portsmouth

LOCATION N McKenna, Berkeley
and Clarendon north of
N Hudson

QUARTER SECTION 2124

Project Description:

This project will provide sanitary sewer service to 31 homes in the Portsmouth neighborhood. Each street, N McKenna, Berkeley and Clarendon will be served by an 8-inch sanitary sewer flowing north. Each new sewer will connect to an existing 12-inch sanitary sewer running from west to east along the southerly edge of the Portsmouth school property. The sewer on N Clarendon will extend for 560 feet and require construction of 3 new manholes, the sewer on N Berkeley will extend 490 feet and require 2 new manholes, the sewer on N McKenna will extend 410 feet and require 2 new manholes.

Along these new sewer lines, service connections will be extended to 31 homes and provide sanitary sewer service to 4 vacant lots. In addition, service to the property at 9107 N McKenna will be made available allowing a new service to replace the existing service should it be needed. Completion of this project will allow removal of 22 documented septic systems. Other homes in the service area undoubtedly have septic systems but records of about them do not exist.

The following figures and tables present detailed information about this project.

Priority Ranking:

Review of the existing septic system conditions and the age of the existing systems place this project as the 17th priority. The residences in this project area appear to have been constructed in the 1940's and 1950's. Some of the septic system installed at that time are still in service, however many homes have records of septic systems installed or repaired as late as 1987. It is not possible to determine from the records which septic systems have been repaired or replaced since the original installation. It is estimated that as many as 60 percent of the homes have had new septic systems installed following the original installation.

Project Cost:

Construction of this project will cost about \$ 322,000 This includes provision of service lines to the edge of the property of each home In all, 31 homes will receive sewage service connections to the public system

On average this project will cost \$ 7855 per residence This compares to a city-wide average of \$ 9769 per residence for all similar projects

CRANE MERSETH
ENGINEERING/SURVEYING
UN SEWERED AREAS

35471

AREA	PARCEL	OWNER FIRST NAME	LAST NAME	SITE	ADDRESS	CITY	ZIP
9	R67050 0800	Carol J	Goff	9014	N Berkeley Ave	Portland	97203
9	R67050 0760	Milton J	Adams Jr	9015	N Berkeley Ave	Portland	97203
9	R67050 0840	Robert J	Sweet	9024	N Berkeley Ave	Portland	97203
9	R67050 0740	Dan	Butler	9025	N Berkeley Ave	Portland	97203
9	R67050 0720	Ronald J & Linda L	Benton	9037	N Berkeley Ave	Portland	97203
9	R67050 0880	Trey & Dawn R	Killam	9104	N Berkeley Ave	Portland	97203
9	R67050 0700	George H & Janeen M	Lee	9105	N Berkeley Ave	Portland	97203
9	R67050 0890	Jonathan C & Nalina	Sologar	9114	N Berkeley Ave	Portland	97203
9	R67050 0680	William D & Leona L	Valentne	9115	N Berkeley Ave	Portland	97203
9	R67050 0900	Philip E & Mary J	Fieseler	9126	N Berkeley Ave	Portland	97203
9	R67050 0940	Daniel L	Wear	9132	N Berkeley Ave	Portland	97203
9	R67050 0640	Gary G	Gray	9133	N Berkeley Ave	Portland	97203
9	R67050 0600	Mary M	Haley	9217	N Berkeley Ave	Portland	97203
9	R67050 0960	Phillip H & Odalee	Robinson	9220	N Berkeley Ave	Portland	97203
9	R16980 1600	Janet A	Porter	9034	N Clarendon Ave	Portland	97203
9	R16980 1260	Susan A	Meeks	9035	N Clarendon Ave	Portland	97203
9	R16980 1630	Dorothy P	Devine	9102	N Clarendon Ave	Portland	97203
9	R16980 1240	Richard C & Lynette M	Craig	9105	N Clarendon Ave	Portland	97203
9	R16980 1650	Donald Tr	Bachman	9112	N Clarendon Ave	Portland	97203
9	R16980 1220	Kuntoro H	Santoso	9115	N Clarendon Ave	Portland	97203
9	R16980 1680	Jackie P	Gruelle	9122	N Clarendon Ave	Portland	97203
9	R16980 1190	David I & Sheila F	Came	9123	N Clarendon Ave	Portland	97203
9	R16980 1700	Gregory L & Kyung B	Deblock	9138	N Clarendon Ave	Portland	97203
9	R16980 1730	David I & Sheila F	Came	9212	N Clarendon Ave	Portland	97203
9	R16980 1140	Wallace F & Lillie M	MacRitchie	9219	N Clarendon Ave	Portland	97203
9	R16980 1760	Gerald E	Dwight	9224	N Clarendon Ave	Portland	97203
9	R67050 0420	Bernice	McNeel	9020	N Mckenna Ave	Portland	97203
9	R87550 0150	Frank	Deianno	9027	N Mckenna Ave	Portland	97203
9	R87550 0130	Irene W	McNiece	9035	N Mckenna Ave	Portland	97203
9	R67050 0440	Mark A	Moshofsky	9106	N Mckenna Ave	Portland	97203
9	R67050 0460	Mark A	Moshofsky	9106	N Mckenna Ave	Portland	97203
9	R87550 0090	Irene W	McNiece	9119	N Mckenna Ave	Portland	97203
9	R67050 0480	Richard W	Elmyer	9124	N Mckenna Ave	Portland	97203
9	R87550 0070	Gerald L & Brenda S	Smith	9129	N Mckenna Ave	Portland	97203
9	R67050 0540	Gary D	Hergert	9136	N Mckenna Ave	Portland	97203
9	R87550 0050	Lowell W	McIntosh	9137	N Mckenna Ave	Portland	97203
9	R67050 0560	Linda J	Schur	9202	N Mckenna Ave	Portland	97203
9	R67050 0580	Roger N	Jean	9214	N Mckenna Ave	Portland	97203