

**GLADSTONE CITY COUNCIL  
SPECIAL MEETING/WORK SESSION  
CITY HALL COUNCIL CHAMBERS  
March 24, 2015**

**SPECIAL MEETING**

**6:30 p.m. CALL TO ORDER**

**ROLL CALL**

**FLAG SALUTE**

**BUSINESS FROM THE AUDIENCE**

Visitors: Presentations not scheduled on the Agenda are limited to five (3) minutes. Longer presentations should be submitted to the Assistant City Administrator two weeks prior to the Tuesday City Council meeting.

**CONSENT AGENDA**

All items below will be enacted by one motion unless someone requests specific item(s) be removed prior to Council adoption of the Consent Agenda.

**CORRESPONDENCE**

1. Letter of Resignation from Park & Recreation Board - Jessica Veazey

**REGULAR AGENDA**

2. Item Removed for Legal Review

**ADJOURN SPECIAL MEETING**

**WORK SESSION**

**REGULAR AGENDA**

3. City Council Training
4. RH Development Agreement – Transue Property, 18121 Webster Road

**BUSINESS FROM THE COUNCIL**

**ADJOURN**





## **CORRESPONDENCE**



## Peter Boyce

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**From:** Tami Bannick  
**Sent:** Monday, March 09, 2015 8:05 AM  
**To:** Peter Boyce  
**Subject:** FW: Parks and Rec Board Resignation

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**From:** jessica Veazey [<mailto:jessicaetaff@hotmail.com>]  
**Sent:** Monday, March 09, 2015 1:29 AM  
**To:** Linda Cosgrove; Tami Bannick  
**Subject:** Parks and Rec Board Resignation

Tami and Linda,  
Please let me know if you need anything additional from me in the next few weeks before we move. Please make sure this gets to all the appropriate parties, as I only have contact information for the two of you.

Jessica Veazey  
6650 Parkway Drive  
Gladstone, OR 97027  
801-699-6380  
[jessicaetaff@hotmail.com](mailto:jessicaetaff@hotmail.com)

March 9, 2015

RE: City of Gladstone Parks and Rec. Board Resignation

I regret to inform you that I am resigning from my position as a member of the City of Gladstone Parks and Rec. Board effective March 9, 2015.

My husband has recently changed companies and has been asked to transfer to Las Vegas, NV. Although it was an extremely difficult decision, this opportunity is too good for our family to pass up and we will be relocating as quickly as possible.

I am very sorry to have caused any inconvenience. I have had a very positive experience in the short time I have been involved with the board. Thank you so much for your understanding in this matter.

Sincerely,  
Jessica Veazey





**REGULAR AGENDA**



# **WORK SESSION**





**GLADSTONE**

*Home of the Rose Wave Beach*

**COUNCIL WORKSHOP  
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## **CITY OF GLADSTONE COUNCIL WORKSHOP**

### **I. AUTHORITY OF THE CITY**

Appendix A sets forth the legal structure pursuant to which the city derives authority. There are two broad categories:

- 1984 Gladstone Charter (Charter) and home rule authority; and
- State law and constitutional context.

#### **Administrative**

As the administrative head of the city government, Charter Section 21 delegates specific powers and duties to the city administrator (Administrator) which are further described in Section 2.12.030 of the Gladstone Municipal Code (Code). Implicit with these delegations is the authority to make rules governing the administrative practices and procedures necessary to discharge these powers and duties.

The Administrator has duties to exercise control and supervision of all activities, departments and offices of the government except the office of municipal judge and office of city attorney; make recommendations as part of a committee to the Mayor and City Council as to the appointment of the City Recorder and department heads; remove all employees including department heads (some in consultation with the Council); be the chief budget and fiscal officer of the city and perform the functions of budget officer as prescribed by Local Budget Law; provide an annual fiscal year-end report; ensure the accounts and fiscal affairs of the city are audited annually by accountants and reported to the Council; supervise the administration and be responsible for the enforcement of all laws and ordinances in effect within the city (except criminal violations which are the responsibility of the police department); to conduct analysis and make recommendations concerning policy matters to the Council and shall administer and enforce polices, rules, procedures and resolutions duly adopted by the Mayor and Council; make recommendations to the Mayor and Council regarding the affairs of the city; be the chief purchasing and business agent; prepare and submit to the Mayor and Council activity reports with respect to each of the city departments and other matters as desired by the Council; make available to the public usual and customary information concerning the operations of the city; perform other duties as assigned by the Council.

These duties imply authority to adopt rules, practices, and procedures to perform them. The Council may by ordinance specifically delegate authority to the Administrator to adopt other administrative rules. Councilors have no legal authority over staff activities, and neither Councilors nor the Council should fall prey to micromanaging staff performance.

The Administrator in turn may sub-delegate authority to department directors and other city employees. All such authority is exercised in the name of the Administrator, and the Administrator remains legally responsible for the actions. All departmental regulations, practices and procedures, whether written or unwritten, formal or informal, must be consistent with the Charter, Code, and all state and federal law.

A major Council responsibility is the evaluation of the Administrator based on clearly defined goals, guidelines, and executive performance.

## **II. CITY ENACTMENTS**

A policy is a city enactment adopted by Council ordinance or resolution. All city legal authority not delegated to the Administrator, municipal judge or city attorney by the Charter remains with the Council. The Council has the authority to make city policy through its formal decisions. The Council must work in partnership with city staff to make good policy for the city.

### **Ordinances – purposes and drafting**

A city may exercise legislative authority by adopting ordinances. Only a city council may adopt an ordinance, and this authority may not be delegated to others. An ordinance may be amended or repealed only by another ordinance. After adoption, the city recorder or other custodian of records must attest to the adoption and the date of adoption and submit the ordinance to the Mayor for signature which must occur within three days of passage. Ordinances are retained as permanent city records and often are codified in the Code. The Code contains the general laws of the city that are uniformly applicable without exception.

State law provides that certain city decisions must be made by ordinances. For example, city annexation decisions under ORS 222.120 must be by ordinance. The Charter also requires some Council actions by ordinances. City policies relating to council rules, competitive procurement methods, public improvements and special assessments must all be by ordinance.

Charter Section 34 requires each ordinance to have an ordaining clause that states: “The City of Gladstone ordains as follows:” An ordinance may be adopted after being read at two different Council meetings and after approval by a majority of the Council. An ordinance may be read and adopted at a single Council meeting if certain notice requirements are met and it is approved by unanimous vote of all Council members present. Ordinances normally take effect on the 30<sup>th</sup> day after adoption by the Council. If an ordinance has an emergency clause, it may take effect immediately or at some other time less than 30 days.

### **Resolutions – purposes and drafting**

A resolution is a form of council action less formal than an ordinance. Resolutions are passed at one council meeting and are used for council administrative decisions. Resolutions and other administrative decisions take effect on the date of approval or on a later day provided in the

resolution. State law permits certain city decisions to take place by resolution. For example, annual city budgets and budget amendments or transfers may be approved by resolutions.

Council resolutions may establish city policies and procedures. Resolutions may also adopt procedures for appointing city committees, a comprehensive risk management policy, and financial policies and goals.

Resolutions are often used to set city fees and charges. The city imposes a wide range of fees for specific administrative and other services. It also imposes both systems and user charges for sewer, water, and storm water utilities. The legal authority for fees and charges is often provided by ordinances that are incorporated into the Code.

### **Recordkeeping – Public Meetings Law ORS 192.610 – 192.710**

Minutes serve as a historical record for the governing body and for the public. Meeting minutes must include the following information:

- Members present;
- Motions, proposals, resolutions, orders, ordinances, measures and other items of business and their disposition;
- Results of all votes and the vote of each member by name;
- The substance of any discussion on any matter; and
- A reference to any document introduced or discussed.

The minutes are a summary of what took place and need not include a verbatim transcript. The Council is not required to take minutes of executive sessions and may audio or videotape or digitally record them instead.

### **III. COUNCIL RULES AND PROCEDURES**

Parliamentary procedure is a set of rules that regulates and standardizes how the Council conducts its business. The parliamentary rules that apply to the Council are primarily set forth under Sections E and F of the Council Rules which were adopted by ordinance. The Council may amend its rules to modify procedures to best suit its needs. If a parliamentary rule is not covered, the Council defaults to Robert's Rules of Order pursuant to section Q of the Council Rules. There is "cheat sheet" for Robert's Rules of Order attached as Appendix E.

#### **Council Rules**

Council meetings are for conducting Council business. For effective and productive meetings, clearly defined rules and procedures are needed, the adoption of which are required in Charter Section 13. Rules help councils maintain focus and avoid redundant discussions. Rules can also

promote useful citizen input, courtesy, and sensitivity to public concerns and viewpoints. They help the Mayor maintain civility in public discourse. They facilitate conducting business in an orderly, disciplined and productive manner.

Charter Section 13 requires the Council to meet at least once a month at a designated time and place. Charter Section 15 provides that a record must be kept of council meetings.

### **Councilor roles and responsibilities**

- i. Internal: any Council meeting requires a minimum of four Councilors or the Mayor and three Councilors to conduct business (i.e. a quorum). Under City Charter Section 13, regular council meetings must be held at least once a month at a designated time and place.
- ii. External: Councilors and the Mayor are cautioned to avoid situations where four members are present outside of Council meetings. There may be social gatherings where there will be a quorum present. In such situations, city business should not be discussed so as not to run afoul of the public meeting laws.

### **Conduct of meetings: agenda, decorum and protocol**

The Council is the elected governing body of the city government. Councilors only exercise legal authority when meeting as the governing body. The Council is responsible for council functions including:

- Establishing community-wide goals that address short- and long-range needs;
- Formulating policies that define a course of action and shape city operations including analysis and balancing of complex and sometimes competing issues;
- Legislation / administrative / quasi-judicial decisions;
- Community relations – constituencies & intergovernmental; and
- Providing quality services using available resources.

Councilors are local leaders who are expected to perform their roles and fulfill their responsibilities. The electorate expects the Council to act as the city “board of governors” and set the tone and direction for municipal operations.

## **IV. PUBLIC MEETINGS LAW (ORS 192.610 – 192. 710): OPEN AND EXECUTIVE SESSIONS**

Oregon’s public meeting law gives members of the public the right to attend all meetings of governing bodies of public agencies with a few exceptions. The right to attend is not the same as a right to participate in the meetings. Governing bodies include all city councils, planning

commissions, budget committees, citizen advisory committees, council committees, and others if their functions are advisory to a city council. The public meeting law does not apply to staff meetings.

### **Scope and purpose of executive sessions**

Specific rules apply to council executive sessions. Only a limited number of purposes allow an executive session. For cities they most often involve litigation, personnel, real property, labor matters, obtaining legal advice, or reviewing information that is not subject to disclosure. No final decisions may be made in such sessions. Representatives of the news media may attend executive meetings except under limited circumstances. (Note: although internet bloggers are gaining additional recognition as members of the “news media” they are not always necessarily entitled to statutory benefits, such as the right to attend executive sessions.)

### **Council communication and confidentiality**

The public meetings law applies whenever a governing body convenes on any matter to make a decision or to deliberate toward a decision—this includes “conference call” telephone meetings. In general, meetings may not be held outside the city limits. Notice is required for all public meetings and must include the date, location, time and principle subjects to be considered.

### **Public Meeting Issues**

In a recent Circuit Court decision, *Dumdi v. Handy, et. al.*, the Lane County Circuit Court found the Lane County Board of Commissioners (“Board”) violated the Public Meetings Law and held two county commissioners personally liable for willfully violating the law. The Court held that the Board and two of its commissioners violated the law when they continued to deliberate, jockey for votes, and discuss approval of staff positions outside of public view in a series of meetings after it was clear the issue would come before the Board for a decision. The court emphasized that once notice was given that the matter was pending Board approval at an upcoming meeting, all deliberations should have ceased and the Board and its individual members should have heeded County Counsel’s advice and warnings to stop the discussions. The county was held liable for \$350,000 and the two commissioners who were found individually liable were each required to pay \$20,000 to the county.

## **V. PUBLIC RECORDS LAW**

The Public Records Law (ORS 192.410 to 192.505) was enacted in 1973. It establishes state policy that the public is entitled to know how governments operate. The written record of public business is available, with some important exceptions, to any person.

### **Scope and purpose of the law**

#### *Right to Inspect*

Under ORS 192.420 “every person” has a right to inspect any non-exempt public record. Any natural person, corporation, partnership, firm or association has this right. ORS 192.410(2). The identity, motive and need of persons requesting access to public records are irrelevant unless an exemption from disclosure allows consideration of those factors. Interested persons, news media representatives, people seeking access for personal gain, busybodies on fishing expeditions, persons seeking to embarrass government agencies, and scientific researchers all have equal footing. See *MacEwan v. Holm*, 226 Or. 27 (1961).

The identity and motive of the person seeking a specific public record may be relevant in determining if a record is exempt from disclosure under a conditional exemption. ORS 192.501 conditionally exempts certain records from disclosure “unless the public interest requires disclosure in the particular instance.” Many exemptions in ORS 192.502 require balancing privacy rights, governmental interests, and other confidentiality policies against the public interest in disclosure. The identity of the requestor and the use to be made of the record may be relevant in determining the weight of the public interest in disclosure.

ORS 192.420(2) places an additional requirement on a person who is a party to civil litigation or has filed notice under ORS 30.275(5)(a). When such a person makes a request for a public record that the person knows relates to the litigation or notice, the person must submit the request to the custodian and the attorney for the public body at the same time.

### *Records Covered*

The definition of “public records” and the ORS 192.420 policy statement make it clear that the records law applies to all government records of any kind. Oregon public records laws define “public record” as:

- any information that is prepared, owned, used or retained by a public body;
- any document or retainable information that relates to an activity, transaction or function of a public body; and
- is necessary to satisfy the fiscal, legal, administrative or historical policies requirements or needs of a state agency or political subdivision.

The definition of public record was expanded during the 2011 legislative session to include social media communications including information found on Facebook or Twitter, etc.

Records need not be prepared originally by the city to qualify as public records. If records prepared outside government contain “information relating to the conduct of the public's business,” and are “owned, used or retained” by the city, the records are within the scope of the records law. For example, letters written to the city, retained and used by the city are public records.

However, a document prepared by a private entity does not become a public record merely because a public official reviews the document in the course of official business. Materials prepared and owned by a private company do not become “public records” when they are in the temporary custody of a public official for the purpose of preliminary review.

Public records include any “writing” containing information relating to the conduct of public business. ORS 192.410(4). “Writing” is broadly defined by ORS 192.410(6) to include:

handwriting, typewriting, printing, photographing and every means of recording, including letters, words, pictures, sounds, or symbols, or combination thereof, and all papers, maps, files, facsimiles or electronic recordings.

“Writing” thus includes information stored on computer tape, microfiche, photographs, films, tape or videotape recordings and virtually any other method of recording information.

Note that the Public Records Law does not require the city to *create* public records. This is especially important for computer-stored data. Although the data in computer programs and printouts generated for use by the city are public records, the city is not obligated to perform specific computer runs or manipulate computer data in a requested manner.

### *Inspecting and Obtaining Public Records*

Under the records law, the “custodian” of the public records has the duty to make non-exempt public records available for inspection and copying. The Legislature has defined “custodian” as a public body mandated to create, maintain, care for or control the records. ORS 192.410(1). The public's right to inspect non-exempt public records is limited by the use of “reasonable” in the law. These reasonable limits are allowed to protect identified governmental interests.

The 2007 legislature amended ORS 192.440 to assure more timely disclosure to interested parties by requiring a response to requests as soon as practicable and without unreasonable delay. Additionally, as of January 1, 2008, all public bodies must make available to the public a written procedure for submitting the requests, including at least one person and address to which it can be delivered along with the methods that will be used to calculate the fees charged.

### *Individual Councilor Right to Review Exempt Records*

While the public has the right to review certain “public records,” there are exemptions under state law whereby a “public body” should not release specific records. A “public body” is defined under ORS 192.410(3) to include city governing bodies, but it does not include individual governing body members. Therefore, as the custodian of the record, the Council could potentially view otherwise exempt public records. However, individual councilors, without the consent of the entire governing body, are not entitled to view otherwise exempt public records. *See State ex rel Weldon v. Campbell, Fisher et al* (Linn County Case No. 11-1589).

If a Councilor, in his or her personal capacity, wishes to view a public record, the councilor may submit a request to the city as a member of the public.

### **Special considerations: email, calendars, etc.**

The city uses electronic mail (e-mail) for communications. E-mail is a public record. Even after e-mail messages are "deleted" from individual computer accounts, they generally continue to exist on computer back-up tapes that are also public records. The city must make non-exempt e-mail available for inspection and copying. It is recommended that Councilors use their city e-mail for all communication on matters that concern the city. This will make it easier to respond to potential public records requests as the collection can be done by the city using the city servers.

If a state or local elected official claims a right to withhold disclosure of a public record, the claim is not subject to administrative review by the Attorney General or a district attorney. The person denied access to the record may immediately file legal action in the Clackamas County Circuit Court. ORS 192.480. The petitioner who prevails will be compensated for the cost of litigation, including attorney fees.

### **Destruction of Public Records**

State laws and regulations govern the retention and destruction of public records. ORS 192.001 to 192.170. In order to comply with these laws, public employees and officials are required to identify public records and determine their retention period; retain records in compliance with records retention schedules promulgated by the State Archivist; and destroy those records that are non-public records and those that have reached their retention period. For purposes of the record retention and destruction laws, "public record" includes correspondence, including email, but excludes extra copies of a document preserved only for convenience. ORS 192.005(5)(d). Even public records exempt from disclosure are subject to the retention schedules. See Appendix C.

It is important to follow these requirements as state law makes it a crime to knowingly destroy, conceal, remove or falsely alter a public record. ORS 162.305.

## **VI. OREGON GOVERNMENT ETHICS LAW**

### **Overview**

Oregon's government ethics laws are set forth in ORS Chapter 244. These laws apply to all public officials<sup>1</sup>, which includes elected city councilors. Under these laws, no public official may use the office, official position or information to obtain a financial gain, other than official salary, honorariums or reimbursement of expenses for themselves, their relatives and members of their households or businesses with which either they or their relatives or members of their households are associated. ORS 244.040.

### **Conflicts of Interest**

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<sup>1</sup> "Public official" means any person who \*\*\* is serving the State of Oregon or any of its political subdivisions or any other public body as defined in ORS 174.109 as an elected official, appointed official, employee or agent, irrespective of whether the person is compensated for the services.

State law also requires public disclosure of actual and potential conflicts of interest and requires public officials to refrain from further participation in official action on the issue that gave rise to an actual conflict of interest. An actual conflict of interest is defined in ORS 244.020(1) and a potential conflict of interest is defined in ORS 244.020(12). In brief, a public official is met with a conflict of interest when participating in official action which could (potential) or would (actual) result in a financial benefit or detriment to the public official, a relative of the public official or a business with which either is associated.

All elected and some appointed officials serving on boards or commissions must state the nature of any actual or potential conflict of interest by publicly announcing it at a council meeting. If the conflict of interest is an actual conflict, the official must refrain from further participation in official action on the issues that gave rise to an actual conflict of interest. If the conflict is a potential conflict, the official may participate in further official action on the issue that gave rise to the conflict of interest once the public disclosure is made. The public disclosure must be made every time the issue arises. Appointed officials, other than those on boards and commissions, are required to notify the appointive authority of any potential conflict, leaving disposition of the matter to that authority.

### **Gifts**

The law also prohibits public officials from soliciting or receiving offers of future employment in return for influence. Legislation passed in 2007 and 2009 limits the value of gifts which officials, candidates, or members of their families may receive to an aggregate of \$50 annually from any single source that may have a legislative or administrative interest in the activities of the official. See Appendix C. This legislation redefined and expanded the definition of “members of household” and “relatives” as used in the reporting rules as well as explicitly setting forth the exceptions to the term “gift”.

### **Reporting Requirements**

State law also imposes reporting requirements on some public officials. The city public officials are city councilors, planning commissioners, city managers and municipal judges. These public officials are required to file Annual Verified Statements of Economic Interest that become public records. These reports must be filed by April 15<sup>th</sup> every year disclosing, among other things, any expenses reimbursed with an aggregate value exceeding \$50, all honoraria received with a value exceeding \$15, and each source of income in excess of \$1,000 from an individual or business that could have an administrative or legislative interest. The rules no longer require the listing of the names of adult family members and relatives in the statements. The income reporting requirements were also amended so that if there is no potential administrative or legislative interest in a source of income then the reporting requirement is limited to a listing of those sources that produce 10% or more of a public official’s annual household income.

State law also prohibits nepotism in the form of a public official’s participation in the hiring, firing, promoting or demoting of relatives and members of the household by the agency of the public official. This does not apply to volunteer positions. Direct supervision is also forbidden.

The Oregon Government Ethics Commission (OGEC) administers the conflicts of interest law, including investigation of infractions, imposition of penalties and issuance of advisory opinions. In addition to civil sanctions, some conflicts of interest may subject public officials to criminal penalties.

### **Quasi-Judicial Matters**

In quasi-judicial matters, the public has a right to have hearing-body members free from prehearing or *ex-parte* contacts on matters heard by them. If contacts are made prior to a hearing but do not impair the member's impartiality, the member may so state and participate and vote on the matter. Likewise, members of a hearing body must be free from having any bias, such as a financial interest or a close personal relationship, which affects their ability to render an impartial decision. Finally, members of hearing bodies must decide quasi-judicial matters based upon the record presented to them and may not conduct their own investigations or research.

### **Personal Liability**

Under some circumstances, public officials may be personally liable. Tort actions may be brought against them. Torts are injuries or wrongs done to the person or property of another. The personal liability of public officials is governed primarily by the Oregon Tort Claims Act (ORS 30.260 to 30.300), and Section 1983 of Chapter 42 of the United States Code. Under the Act public officials are defended and held harmless by their public body for actions taken in their official capacity, as long as they are acting within the scope of their authority.

Members of the Council can best protect themselves from personal liability by soliciting and following the advice of the city attorney. Additionally, new legislation provides a public official the option of establishing a legal defense fund. The same quarterly deadlines mentioned above apply to the filing of statements of contributions and expenses to the legal defense fund.

### **Councilor Benefit Increases**

There is an actual conflict of interest if public officials participate in an official action to increase their current compensation or benefits. However, the same may not be true of granting a benefit to *future* public officials. In that case, the current public official either have a potential conflict of interest if the public official is eligible for another term in office or no conflict of interest if the public official is ineligible for another term.

If the benefit does not become effective until after the expiration of the term of service of a current Councilor, that Councilor could, if eligible for another term of service, publicly announce the nature of the potential conflict and then proceed to participate in any discussion, debate, or vote on the benefit. ORS 244.120(2)(a). If the Councilor is ineligible for another term, the Councilor may participate in the action without conflict.

In addition to the conflict of interest provisions, ORS 244.040(1) prohibits public officials from using or attempting to use their official position to gain a financial benefit or avoid a financial detriment would not otherwise be available but for the holding of the official position. Therefore, ORS 244.040(1) requires current public officials to refrain from participating in conferring benefits upon themselves which would immediately and certainly affect their personal financial interest. Similar to conflicts of interest, it does not appear that *current* public officials are prohibited from participating in adopting a benefit increase for *future* councilors under ORS 244.040(1).

## VII. LOCAL BUDGET LAW

### Oregon Budget Law

The Oregon budget law is found in ORS chapter 294. The Oregon Department of Revenue administers this law and publishes the *Local Budgeting Manual* that serves to guide the city budgeting process. The law sets standards for preparing, presenting and administering the budget. It requires citizen involvement through the budget committee and public hearings before the annual budget may be adopted by the Council.

City governmental accounting requires the recording of city financial transactions and reporting them back to city administration, the Council and the public. Governmental agencies must comply with generally accepted accounting principles (GAAP), as approved by the Government Accounting Standards Board (GASB).

Unlike private sector accounting, government accounting is on a fund basis. State law requires separate funds. There are specific requirements for separate funds for Bancroft bond debt service (ORS 223.285), and reserves (ORS 294.525).

ORS 294.100 makes it unlawful for any public official to expend money in excess of the amounts provided by law, or for any other or different purpose than provided by law. Any official that violates this law is civilly liable for the return of the money in a suit by the District Attorney or any city taxpayer, if the expenditure constitutes malfeasance in office or willful or wanton neglect of duty.

### Budget Committee

The law requires the City Administrator, as the budget officer, to prepare a budget message. The budget message must be given at the first budget committee meeting when the budget is presented to the committee.

The budget committee is composed of the Council and an equal number of appointed citizens. The committee must elect a chair and secretary. Its function is to receive the budget message, hear public testimony on the proposed budget, prepare meeting minutes, request information from city staff, amend a budget for Council adoption and set the property tax levy. The Council

is required to adopt a budget no later than each June 30, the last day of each fiscal year. The budget and related forms must be filed with the County Assessor by July 15.

## APPENDIX A

### CITY LEGAL AUTHORITY

#### Structure of City Authority

1. Oregon Constitution
  - Home Rule – Art. XI, sec. 2 (1906)
  
2. City Charter
  - a. General powers
  - b. Powers vested in Council – legislative, administrative & quasi-judicial
  - c. Council president
  - d. Mayor authority & duties
  - e. Quorum & vote
  - f. City Administrator
  - g. Ordinances – adoption procedures
  
3. Ordinances & City Code (legislative)
  - a. Council meetings & decision practices
  - b. Ordinance preparation
  - c. Boards, commissions & committees
  - d. Business licenses & regulations
  - e. Buildings & construction
  - f. Health & safety regulations
  - g. Public peace, morals & welfare
  - h. Zoning & community development
  
4. Resolutions (administrative)
  - a. Council decisions, less formal
  - b. Budget decisions
  - c. Policy statements
  - d. Political statements
  - e. Council rules
  
5. Orders (quasi-judicial)
  - a. Decisions on appeals to & from Council
  - b. Adoption of administrative rules (City Administrator or department head)

#### Limitations on City Authority

1. Federal Law
  - a. U.S. Constitution
    - i. Supremacy clause (federal / state / local hierarchy)
    - ii. Commerce clause (protects interstate commerce)
    - iii. Due process clause (procedural & substantive)
  - b. Federal statutes – U.S. Code

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- i. Civil rights acts
- ii. Fair Labor Standards Act
- iii. Environmental protection acts
- iv. Cable Communications Act
- v. Equal Employment Opportunity Act
- vi. Americans with Disabilities Act
- vii. Tax acts
- viii. Transportation acts
- ix. Many others

2. State Law

- a. Oregon Constitution
  - i. Property tax limitations
  - ii. Art. I, sec. 8 & other Bill of Rights provisions
  - iii. Initiative & referendum
  - iv. Recall
- b. Oregon Revised Statutes (ORS)
  - i. Public meetings – ORS 192.610 *et seq.*
  - ii. Public records – ORS 192.410 *et seq.*
  - iii. Land Use, Measure 37 & Measure 49 – ORS 197
  - iv. Cities – ORS 221
  - v. Local budget law – ORS 294
  - vi. Public ethics law – ORS 244
  - vii. Election law – ORS 250.255 *et seq.*
  - viii. Public contracts – ORS 279
  - ix. Public improvements – ORS 223
  - x. Intergovernmental agreements – ORS 190
  - xi. Urban service agreements – ORS 195
  - xii. Workers compensation – ORS 656
  - xiii. Criminal law, civil forfeitures & many others

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## Your Responsibilities for Maintaining Public Records

**Q:** What is a public record?

**A:** Public records are documents, files, or recordings created by a public employee in connection with agency business per ORS 192.005.

**Q:** What are my responsibilities for maintaining public records?

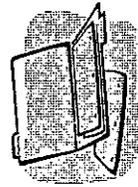
**A:** Each public employee must comply with statutes, administrative regulations, and agency policy and procedures relating to records management. Your responsibilities for managing records in your custody include: identifying public records and determining their retention period; retaining records in compliance with records retention schedules; and destroying those that are non-public records and those that have reached their retention period.

**Q:** How can I determine if an item is a public record?

**A:** Refer to the flow chart on the reverse side of this page.

**Q:** Implementing a classification scheme in my agency would change my folder names and structure, and affect the way I do my work. How would I benefit from this change?

**A:** A systematic filing structure for the entire agency is important in order to improve access, retrieval and retention of your agency's records. The change would not affect the way you conduct your business, but would help manage your records more efficiently.



**Q:** Who oversees public records management in Oregon?

**A:** The State Archivist is responsible for public records management in Oregon, per ORS 192 and 357.

**Q:** Who is responsible for maintaining the official agency record?

**A:** Responsibility for maintaining the official agency record is a matter of agency policy.

**Q:** I do all my work on a computer, and never print or sign anything. Do the records retention schedules, Public Records Law, and records management policies apply to me?

**A:** Retention schedules, statutes, and procedures apply to all agency records regardless of how they are created or where they are stored.

**Q:** I regularly forget to follow the records retention schedule. Nothing can happen to me, right?

**A:** Oregon sets a high value on the management of and access to public records. If you destroy, alter, or withhold public records you can be found guilty of Tampering with a Public Record per ORS 162.305, punishable by a year in prison and \$6250 fine.

**Q:** Do I have a say in how long a record should be kept?

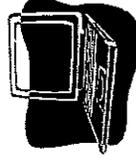
**A:** The inventory process, which is attended by both agency and records management personnel, is meant to be beneficial to the state agency; honest answers to questions concerning the use of records lead to retention periods that are better suited to the agency's needs.

**Q:** How long should I keep my files?

**A:** The General Records and Special Retention Schedules should be consulted for the records you create to better gauge the frequency for the purging of files. Failure to take stock of your records on a regular basis could place an agency in violation of the Records Retention Schedule.

**Q:** Where can I find more information about managing my records?

**A:** Refer to statutes, administrative regulations, and your agency's policy and procedures governing records and information management. The State Archives Division's Records Management Unit also provides assistance to government agencies at no charge regarding the management of records and information, per Oregon's Public Records Law and OAR 166.



## Oregon State Archives

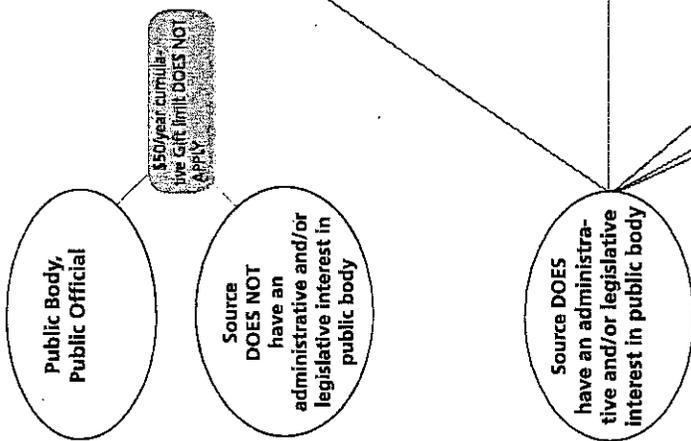
800 Summer St. NE  
Salem, OR 97310

Phone: 503.373.0701  
Fax: 503.373.0953

<http://arcweb.sos.state.or.us>

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# WHO PAYS?



# Guide to Oregon Government Standards & Practices Act Gift Limitations and Exceptions - ORS 244.020(5)(b) Exceptions (A)-(N)\*

## APPENDIX C: Gift Limitations

<b>Food Beverage Admission Reception</b>	Public Official is speaking at a meeting or appearing at a fair or similar public event. Food/beverage consumed in association with review or execution of financial documents including any business agreement between public body and a vendor or public entity. Food/beverage to incidental (secondary or minor) to main purpose of reception and no cost placed on host or beverage. Food/beverage consumed during trade conferences, public meetings, legislative development activity or negotiation. None of above.	Allowable as Exception to Gift Rules (exception (A)) Allowable as Exception to Gift Rules (exception (B)) Social gathering where food and beverages are informally provided. Public Official will represent public body. \$50/year cumulative Gift limit applies. Must receive authorization to represent public body and activity must be "officially sanctioned" via written approval from council or supervisor. Allowable as Exception to Gift Rules (exception (B))
<b>Travel Lodging Food Reasonable Expenses</b>	Expenses paid by federal/state/local govt, membership organization to which public body / gov dues, or by limited publicly funded (501(c)(3)). Trip is trade-promotional, fact-finding mission, economic development activity, or legislative. Travel expenses paid by one public official to another for travel within Oregon. None of above.	Allowable as Exception to Gift Rules (exception (C)) Public Official will represent public body for public safety, make presentation, or participate in panel. Must receive authorization to represent public body via written approval from council or supervisor. \$50/year cumulative Gift limit applies. \$50/year cumulative Gift limit applies. Must receive authorization to represent public body and activity must be "officially sanctioned" and trip expenses approved in advance via written approval from council or supervisor. Allowable as Exception to Gift Rules (exception (B))
<b>Entertainment Spectator or Participant</b>	Entertainment is incidental (secondary or minor) to main purpose of another event. Public Official is allowing another participating in the entertainment for a ceremonial purpose with an official role in the entertainment event. None of Above.	Allowable as Exception to Gift Rules (exception (M)) Public Official is acting in official capacity and is representing public body. NOT ALLOWED. NOT ALLOWED. Must receive authorization to represent public body via written approval from council or supervisor. Allowable as Exception to Gift Rules (exception (B))
<b>Unsolicited tokens or awards of appreciation</b>	Plaques, trophy, desk item, wall memorials, or similar. None of Above. \$50/year cumulative Gift limit applies.	Allowable as Exception to Gift Rules (exception (O)) \$50/year cumulative Gift limit applies. \$50/year cumulative Gift limit applies.
<b>None of Above</b>	None of above. \$50/year cumulative Gift limit applies.	Allowable as Exception to Gift Rules (exception (N))

\* Note: this chart is intended as a guide only, and is not a substitute for legal advice regarding specific situations. Administrative Rules are being revised by Ethics Commission; call Ethics Commission at 503-378-5105 regarding application of these rules to specific situations.

**APPENDIX D**  
**Public Official Ethics**  
**(Gifts and other Financial Gain)**

**Who do the ethics laws apply to?**

The ethics laws apply to all public officials. Under the law, "public official" means any person who \*\*\* is serving the State of Oregon or any of its political subdivisions or any other public body as defined in ORS 174.109 as an elected official, appointed official, employee, agent or otherwise, irrespective of whether the person is compensated for the services.

**What are the penalties for violating the ethics laws?**

- Up to \$5,000 for each violation.
- If financial gain was realized, a civil penalty may be assessed of twice the financial gain.

**What is prohibited?**

A public official may not use their office to obtain financial gain or to avoid financial detriment for the public official, relative or member of the household of the public official or for a business with which the public official, relative or household member is associated.

A public official, relative or household member may not accept a gift of entertainment from someone with an administrative or legislative interest in unless it fits within one of the gift exceptions. This may include concerts, plays, sporting events, movies and similar events.

**Who is a relative of public official?**

- A spouse.
- A domestic partner.
- Any children of the public official or the public official's spouse.
- Siblings, spouses of siblings or parents of the public official or of the public official's spouse.
- Any individual for whom the public official has a legal support obligation.
- Any individual for whom the public official provides benefits arising from the public official's public employment or from whom the public official receives benefits arising from that individual's employment.

**What can you accept?**

- Official compensation (salary, health insurance benefits, PERS).
- Honorarium.
- Reimbursement of expenses (from the City such as travel expenses when performing official job duties).
- Unsolicited award for professional achievement (retirement gift).
- Gifts from a source that could not reasonably be known to have an administrative or legislative interest in any decisions you participate in making or votes you take.

- Gifts from a single source that do not have a cumulative value in excess of \$50 per year from a source that could reasonably be known to have an administrative or legislative interest in decisions you participate in making or votes you take.
- Gifts from a single source that have a cumulative value in excess of \$50 per from a source that could reasonably be known to have an administrative or legislative interest in decisions you participate in making or votes you take but that fit within one of the gift exceptions and therefore are not gifts.
- Contributions to a legal expense trust fund or campaign contributions.

**Who is a person with an administrative or legislative interest in your decisions or votes?**

- “‘Legislative or administrative interest’ means an economic interest, distinct from that of the general public, in: (a) any matter subject to the decision or vote of the public official acting in the public official’s capacity as a public official; or (b) any matter that would be subject to the decision or vote of the candidate who, if elected, would be acting in the capacity of a public official.”
- This includes persons or groups that the City regulates and contracts with.

**What is considered to not be a gift from a person with an administrative or legislative interest in your decisions and votes?**

There are fourteen gift exceptions. Only the most relevant to city councilors are included and paraphrased:

- Gifts from relatives or members of household.
- Unsolicited token or award of appreciation with resale value of less than \$25.
- Informational material, publications or subscriptions related to the recipient’s performance of official duties.
- Admission or cost of food or beverage provided to public official, relative or staff, at a “reception, meal or meeting held by an organization before whom the public official appears to speak or answer questions as part of a scheduled program.”
- Reasonable expenses paid by federal, state or local government or tribe to attend a convention, fact-finding mission or trip, or other meeting at which the public official is to deliver a speech, make a presentation, participate in a panel, or represent state or local government.
- Reasonable food, lodging or travel expenses when public official is representing state or local government (must be approved by supervisor or board has voted on representation).
- Waiver or discount of registration expenses at a continuing education event needed to satisfy a professional licensing requirement.
- Expenses provided by one public official to another for travel inside this state to or from an event that bears a relationship to the public official’s office.
- Food and beverage consumed by a public official at a reception where the food and beverage is an incidental part of the reception and no cost is placed on the food or beverage.
- Entertainment provided to a public official that is incidental to the main purpose of another event.
- Entertainment when the public official is acting in an official capacity and is there for a ceremonial purpose.

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- Campaign Contributions.

**What can I do if I receive an unsolicited gift that is a violation of Oregon ethics laws?**

- Transfer the item to the City if it is something that the City could reasonably use.
- Donate the item to charity if you receive no benefit from the donation.
- Return the item to the giver.

**What if someone at the City says its OK?**

- The City cannot permit what the ethics law forbids.
- City tolerance for a practice is not a defense.
- Public officials are personally liable and not the City.

**What can I do to protect myself?**

- Ask questions. Be responsible for your own actions.
- Check the Oregon Government Ethics Commission web site and contact them for advice.
- Ask staff or the City Attorney's Office for assistance.

**APPENDIX E**  
**ROBERT'S RULES OF ORDER NEWLY REVISED**  
**PARLIAMENTARY PROCEDURES OUTLINE**

*Motions*

Steps effectively to introduce, consider, and dispose of an agenda matter.

- (1) Introduction with a motion by a councilor and seconded by another councilor
- (2) Consideration by council discussion, vote by council, and results announced.

*Floor* recognition by the Mayor is necessary to *obtain the floor* to make a motion or address the Council.

*Seconds*

- (1) Requiring a second serves useful purpose to prevent:
  - (a) Matter from being forced on the Council by only one councilor; and
  - (b) Wasting time on debate and vote when not necessary
- (2) Council rules should generally require a second to consider a motion.
- (3) Mayor should ask for second if a motion not immediately seconded.

*Routine non-controversial* matters, even those requiring a majority vote, may be adopted by unanimous or general consent (e.g., the Mayor may state: "Unless there is an objection, the matter passes by general/unanimous consent.")

*Agenda*

An agenda is the order of business for matters to come before the Council. It often consists of the following:

- (1) Call to order
- (2) Roll call;
- (3) Flag Salute and Pledge of Allegiance;
- (4) Business from the Audience (topics not on the agenda);
- (5) Consent Agenda;
- (6) Correspondence
- (7) Regular Agenda;
- (8) Business from the Council;
- (9) Adjournment

*Agenda Approval*

The Council should make any necessary changes and adopt the meeting agenda. The agenda should follow the order of business. The agenda may be amended by majority vote before being adopted or by two-thirds vote after it is adopted.

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### *Minutes*

- (1) Minutes must be taken at all council meetings and made available within a "reasonable time after the meeting."
- (2) After minutes are prepared, they are public records and may not be withheld from the public merely because they have not yet been approved by the Council.
- (3) If minutes have not been approved, they may be so identified.

### *Consent agenda*

- (1) The Council may have a "consent agenda" that includes routine and non-controversial items.
- (2) Items on the consent agenda are considered all together without discussion or amendment, and adopted by a single motion or unanimous consent.
- (3) Any councilor may make a motion to remove an item from the consent agenda, and then make a motion to dispose of that item separately.

### *Conducting business*

- (1) Mayor announces matter.
- (2) Staff report.
- (3) Mayor asks councilors if there are questions for staff.
- (4) Councilor makes a motion or Mayor asks for motion.
- (5) Another councilor seconds the motion or Mayor asks for motion.
- (6) Mayor states the motion as made (or as amended).
- (7) Mayor asks if there is discussion on the motion:
  - (a) Matter discussed by councilors after recognition by Mayor
  - (b) Mayor allows moving councilor to discuss motion first.
- (8) Mayor puts the motion to vote:
  - (a) At any time a councilor may move to call the question. If this motion is seconded and approved by a two-thirds vote, discussion must end and vote occur; or
  - (b) If no one calls the question and no one is addressing the matter, the Mayor must:
    - (i) Ask if there is any further discussion on the motion, and
    - (ii) Call the question by stating the motion.
- (9) When the question is called, the Mayor either:
  - (a) Puts the matter to vote by:
    - (i) Stating the motion as made (or amended);
    - (ii) Having the councilors vote on the motion; and
    - (iii) Announcing the results of the question; or
  - (b) If consensus on the matter, then it is approved (or denied) without objection
- (10) Mayor then calls the next matter on the agenda.

### *Voting methods*

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Voting prohibited by proxy, secret ballot, absentee, electronic, recorded or mail. Telephone meetings and votes in compliance with the Oregon Public Meetings Law are permitted. Matters should not be adopted by "general" consent, unlike "unanimous" consent, especially important or significant items of business.

*Abstentions*

Councilors should not abstain unless there are compelling circumstances such as a pecuniary conflict of interest governed by ORS chapter 244 (Government Standards and Practices).

*Adjournment*

- (1) An item of business not yet considered or pending when the meeting adjourns should be rescheduled for the next meeting. The unfinished business is treated the same as if there had been no adjournment.
- (2) A business item pending at adjournment is automatically taken up as the first item of business under unfinished (old) business resuming where previously interrupted.
- (3) Any business item not reached is taken up under unfinished or old business.

*Main motions*

- (1) A main motion must be made for the Council to consider a matter (bring the business to the floor).
- (2) A main motion is a statement requesting that an action be taken. It may be presented orally or formally in written form as an ordinance, resolution or order.
- (3) A main motion should be stated in the affirmative; it should be uncomplicated, clear and concise.
- (4) Only one main motion may be considered at a time.
- (5) Councilors have a right to know the pending motion and to have it restated by the Mayor before a vote is taken.
- (6) The main motion is the lowest ranking motion; all other pending motions must be disposed with first before the main motion may be considered.
- (7) Various secondary procedures facilitate a decision on the main motion.

*Seven ordinary motions*

- (1) To Adjourn – used to end a meeting; the date, time, and location of the next regular meeting must be announced by the Mayor.
- (2) To Recess – used to interrupt the meeting and to reconvene at a time certain. The Mayor may temporarily permit a brief pause without a declaration of recess. This is technically not an interruption of the meeting.
- (3) To Close Debate – used to force a vote on the most recent prior motion that, if seconded and approved, brings that motion to immediate vote.
- (4) To Limit (or Extend) Debate – used to set or extend a debate.
- (5) To Postpone to a Certain Time – used to set off consideration of main motion to another time certain
- (6) To Refer – used to send a matter to a committee.
- (7) To Amend – used to change a motion stated or already adopted.

*Three challenge motions*

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- (1) Point of Order – used to correct errors or mistakes of procedure; no vote is required; the Mayor decides the point.
- (2) To Appeal – used to put a ruling of the Mayor to a council vote; it requires reasons stated by mover, opportunity for discussion, and vote.
- (3) To Object – used to object to considering a matter before a main motion, or to object to action being taken by the Mayor or Council, such as approving a matter by unanimous consent or recess.

*Four special motions*

- (1) To Withdraw – used to remove a motion from consideration; no vote is required; the Mayor may rule on the motion if there are no objections.
- (2) To Suspend the Rules to [provide the reason] – used to circumvent a rule that disallows consideration of a matter
- (3) To Reconsider – used to reconsider a decision made earlier in that meeting.  
Reconsidering a vote has the effect of treating the matter as if no vote had been taken at that meeting.
- (4) To Rescind – used to negate and dispose of a previous action that cannot be nullified by the motion to reconsider

# SISUL ENGINEERING

*A Division of Sisul Enterprises, Inc.*

375 PORTLAND AVENUE, GLADSTONE, OREGON 97027  
(503) 657-0188  
FAX (503) 657-5779

September 25, 2014

3J Consulting, Inc.  
5075 Griffith Drive, Suite 150  
Beaverton, OR 97005

ATTN: Andrew Tull

RE: Sanitary Sewer Report for Transue Property, 18121 Webster Road, Gladstone  
J.O. SGL 13-006 Transue

Andrew,

At the request of City of Gladstone Public Works Supervisor Scott Tabor, we have reviewed the August 29, 2014 "Proposed Sanitary Sewer and Waterline Upgrades" report for the Transue Property in Gladstone, prepared by Kathleen Freeman, PE. Although the report discusses both water system and sanitary sewer system related infrastructure improvements for development of the Transue site, our review was limited to only the sanitary sewer portion of the report.

After reviewing and discussing the report with Scott Tabor, we have the following comments and questions:

#### Basin Related Comments

1. Basin 1 on your map extends quite a bit farther north than the area that actually drains back this direction. Check your map versus the City of Gladstone Sanitary Sewer Map that we sent you earlier. Or if you need us to resend the city sewer map to you, let us know. Your Basin 1 currently includes about 50 homes do not drain into Hereford Street system.
2. Your zoning for Basin 10 is listed as Office Park. This should be Open Space.
3. For your Future Flows calculation, you assume that Basin 12 will not be developed any further than it currently is. Basin 12 should be assumed to be developed. The City does not want an improvement completed that will have to be upgraded when the next development in line is constructed. The City wants to make sure that if an improvement is made to the sewer system that it will be capable of accommodating buildout of Basins 8 and 12.
4. Basin 20 is designated R-7.2, but the south portion of this basin is R-5 according to the City Zoning Map.

#### Calculation Comments

1. On Page 4, in your discussion of XPSTORM Input, the n value is referred to as 0.13 instead of the 0.013 used in the calculations.
2. The existing schools, parks, churches and commercial sites were assumed to remain unchanged. A contingency factor of 1.25 was applied to the future flows to account for future changes. With the exception of Basins 8 & 12 we believe that this is a valid assumption. Please calculate Future Flows assuming buildout of Basins 8 & 12.

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3. Please explain how the Gallons/Day figures were arrived at for the Commercial, Industrial and Office Park zoned basins, as we cannot determine whether these figures were based on actual water usage or on the developed site and a unit flow rate.
4. Kraxberger Middle School calculations were based on 500 students. This is a valid assumption as 2013-14 Enrollment Summary identifies 505 students.

Additional Comments

1. The City will require replacement of the manhole at Hereford Street and Oatfield Road. The new manhole will have to be oversized in order to permit a broader sweep of the channel from Oatfield to Hereford Street than is permitted with a 48-inch diameter manhole.
2. In order to allow for easier cleaning and for flexibility, the new pipe in between Hereford Street and Gloucester Street should be 8-inch diameter with a six-inch removable orifice used to meter the flow to Gloucester.
3. The City will require two manholes at the Oatfield Road / Gloucester Street intersection that create two approximate 45 degree bends, rather than one 90 degree bend.

If you or Kathleen have questions regarding our comments and questions, please feel free to contact Doug Johnson, PE or myself. Doug can be reached by email at [dougjohnson@sisulengineering.com](mailto:dougjohnson@sisulengineering.com), I can be reached by email at [patsisul@sisulengineering.com](mailto:patsisul@sisulengineering.com) and both of us can be reached by telephone at (503) 657-0188.

Sincerely,

Patrick A. Sisul, PE







MEMORANDUM

TO: Honorable Dominick Jacobellis  
Gladstone City Councilors

FROM: David Doughman, City Attorney's Office

SUBJECT: Development Agreement Request from HT Properties

DATE: March 16, 2015

HT Properties is intending to develop the "Transue" property behind the Webster Road property the city owns. HT Properties would construct market-rate multi-family housing on the property, which the city's code permits outright. HT Properties would need to apply for design review approval for the apartments, which the Gladstone Planning Commission would consider in a public hearing.

The site presents some challenges, particularly with respect to sewer service. City staff would also like to relocate and upsize an existing water line between the city's property and the Transue property. HT Properties is proposing to make some considerable improvements to sewer service in the area and is willing to split the cost of moving and upsizing the water line.

In the packet for the March 24 meeting, the council will find a request from HT Properties' attorney Mike Robinson, asking the city to enter into a development agreement with HT Properties. Because the council will ultimately need to approve how HT Properties proposes to finance the sewer and water improvements, HT Properties is seeking an agreement with the city on these points prior to applying for design review. Generally speaking, HT Properties is proposing to evenly split the cost of the water improvements, and seek system development charge credits for a portion of the sewer improvements that will benefit properties other than the Transue property.

HT Properties will attend the March 24 meeting to discuss these issues with the council and staff in a worksession. Legally speaking, the council may approve or deny HT Properties' request in its sole discretion. From a policy point of view, the council should consider how the city will benefit from the improvements HT Properties is proposing and whether the city could afford those improvements in the absence of HT Properties' proposal. Any approval would not affect the planning commission's authority relative to the design review criteria.

**RECOMMENDATION:** consider approval of HT Properties' request and provide direction to staff and our office on next steps.

# PERKINScoie

March 16, 2015

VIA EMAIL

TO: Pete Boyce  
FROM: Michael C. Robinson  
RE: **Request for Consideration of Development Agreement for Public Utility Improvements at Gladstone City Council Work Session on March 24, 2015**

---

Dear Pete,

I am writing on behalf of my client, HT Properties, LLC ("HT"). HT has entered into an agreement to purchase the Transue property in the City of Gladstone (the "City"). **Exhibit 1** to this memorandum is a map showing the Transue property and the adjacent City-owned property.

The purpose of this memorandum is to ask that the Gladstone City Council consider directing staff to work with HT on a Development Agreement between HT and the City for the construction of public utilities serving the Transue property that will also benefit the City. The Development Agreement would not obligate the City Planning Commission or the City Council to approve a land use application for development of the Transue property but would address only the public improvements and each party's obligations under the Development Agreement.

**1. What Public Improvements are Proposed?**

**A. Water Line.**

The Development Agreement will provide for construction of a new municipal water line on the City property that will be increased in size from 8 inches to 12 inches in order to increase water pressure in the intermediate pressure zone. The existing water line is on the Transue property but is partly outside of an easement. Relocating the water line to the City-owned property will make it easier for the City to maintain the water line. The benefits of increased water pressure include enhanced fire protection. Development of the Transue property does not require the upsized water line.

HT estimates that it can install the water line for about \$180,000 based on prevailing wage.

**B. Sanitary Sewer Line.**

At the same time HT is installing the water line, HT will also improve an existing municipal sanitary sewer line. The sanitary sewer line improvements will consist of the following:

4-2

- Replace the existing 48-inch sanitary sewer manhole at the intersection of Hereford Street and Oatfield Road (#22900) with a 60-inch manhole,
- Construct an 8-inch overflow line between manholes #22900 and #21380 with a 6-inch removable orifice to allow metered flow to Gloucester Street, and
- Construct two (2) manholes for the overflow connection at Oatfield Road and Gloucester Street intersection creating two (2) approximate 45-degree bends.

**2. Why is a Development Agreement Proposed?**

The reason that HT and the City staff believe that a Development Agreement makes sense is that it defines each party's obligations and assures the City that if the Planning Commission, after a public hearing process, approves development of the Transue property, the public utilities have been resolved in advance and the City and its citizens will be assured of what benefits they will receive, while HT is assured of what its obligations and costs will be for the construction of the public utilities.

**3. What would the City's Obligations Be Under a Development Agreement?**

In consideration for HT's construction of the upsized water line and the sanitary sewer line improvements, the City would allow construction of the two (2) utility lines on the City-owned property adjacent to the Transue property, share equally with HT the cost of the water line construction, and agree to fixed system development charge fees and credits for HT as of the date of the Development Agreement. The City will share the costs of the sanitary sewer line improvements. The City will need to reserve a 20 foot wide area for the water and sanitary sewer lines.

**4. Conclusion.**

We look forward to discussing this issue with City staff and the Gladstone City Council at the City Council work session on March 24, 2015.

MCR:rsr

Enclosure

cc: David Doughman (via email) (w/ encl.)  
 Hans Thygeson (via email) (w/ encl.)  
 Andrew Tull (via email) (w/ encl.)

## MEMORANDUM OF UNDERSTANDING

This non-binding Memorandum of Understanding ("MOU") is made and entered into this 2/ day of July, 2014, by and between HT PROPERTIES, LLC ("HT Properties") and the CITY OF GLADSTONE, a political subdivision of the State of Oregon (the "City") (collectively, "the Parties"), for the purpose of forming a Home Rule Development Agreement, not subject to ORS 94.504 – 94.528, that will govern water and sanitary sewer service improvements necessary for a multi-family residential development (the "Proposed Development").

### RECITALS

1. HT Properties proposes to develop property generally located at 18121 Webster Road for multi-family housing (the "Site"). **Exhibit A.** The Site is zoned Multi-Family Residential ("MR"). Any future multifamily development on the Site is subject to a Design Review process pursuant to Gladstone Zoning Code ("GZC") 17.80.021.
2. The Site is proposed to be developed for multi-family residential uses. Multi-family residential uses are permitted outright in the MR zone, pursuant to GZC 17.14.020.
3. GZC 17.80.061 sets forth the submittal requirements for a Design Review application. The application must include an explanation of planned utilities but the GZC does not provide a process for reviewing the adequacy of public utilities. Therefore, the Parties believe a Development Agreement is a proper mechanism to establish what public facility improvements, if any, may be required to serve the Proposed Development.
4. An existing water line crosses the Site and must be relocated to accommodate the Proposed Development, while also providing for adequate public service and maintenance access.
5. The Parties have agreed that a study of the adequacy of the existing sanitary sewer service to the subject property is required. HT Properties understands that there are several parts of the current sanitary sewer system that are or may be deficient. The City wishes HT Properties to investigate the downstream sanitary sewer system in order to determine what improvements are needed to serve the Proposed Development, if any, and HT Properties has agreed to do so.

HT Properties: HT PROPERTIES, an Oregon limited liability company

By: Hans Hegger  
Signature

Hans Hegger  
Printed Name

Managing member  
Title

8/21/2014  
Date

City: CITY OF GLADSTONE, an Oregon municipal corporation

By: Pete Boyce  
Signature

Pete Boyce  
Printed Name

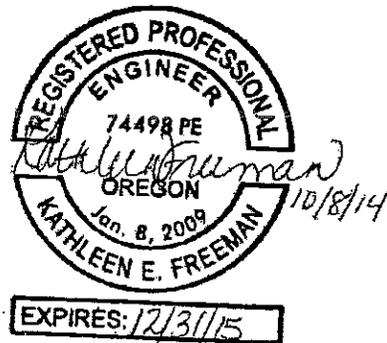
City Administrator  
Title

8/6/2014  
Date



MEMORANDUM

To: Patrick Sisul, PE
Sisul Engineering
From: Kathleen Freeman, PE
Water Resources Project Manager
Date: October 8, 2014



Project Name: Transue Property
Project No: 14208
RE: Sanitary Sewer Report for Transue Property - Response to Comments

This memorandum is intended to supplement the revised sanitary sewer report for the Transue Property at 18121 Webster Road in Gladstone, Oregon. The revisions are based on comments provided by Sisul Engineering on September 25, 2014 and the email correspondence dated October 7, 2014. We have provided responses to each comment noted below. Please do not hesitate to contact us if there are any questions.

Basin Related Comments

- 1. Basin 1 on your map extends quite a bit farther north than the area that actually drains back this direction. Check your map versus the City of Gladstone Sanitary Sewer Map that we sent you earlier. Or if you need us to resend the city sewer map to you, let us know. Your Basin 1 currently includes about 50 homes do not drain into Hereford Street system.
Basin 1 has been revised per the comments above.
2. Your zoning for Basin 10 is listed as Office Park. This should be Open Space.
Basin 10 has been revised to be Open Space instead of Office Park.
3. For your Future Flows calculation, you assume that Basin 12 will not be developed any further than it currently is. Basin 12 should be assumed to be developed. The City does not want an improvement completed that will have to be upgraded when the next development in line is constructed. The City wants to make sure that if an improvement is made to the sewer system that it will be capable of accommodating buildout of Basins 8 and 12. Further clarification from the email dated 10/7/2014:
Basin 8 - It appears that you assumed full buildout and applied a 1.25 contingency factor, so the Basin 8 calculation should be fine.
Per the email, modifications to Basin 8 calculations have not been made.
Basin 12 - The future flow calculations should assume full buildout for commercial zoning. Per the Portland Manual, the net acreage can be determined by multiplying the total area by a factor of 0.85. I believe that you were assuming a unit flow rate of 3000, which is consistent with the Portland

4-6

Manual. Additionally, the email states that the existing commercial development at the south end of the basin should be used for the net acreage.

- *For existing and future conditions, the calculations for Basin 12 has used commercial zoning. Additionally, per the email dated October 7, 2014, the net acreage for the existing flow calculation has used the area of existing commercial development at the south end of the basin (approximately 0.87 acres). Additionally, the future flow conditions used the multiplier of 0.85 times the total acres to calculate the net acres.*
4. Basin 20 is designated R-7.2, but the south portion of this basin is R-5 according to the City Zoning Map.
- *Basin 20 has been revised to eliminate the portion that was shown as R-7.2. Basin 23 now includes that area.*

#### Calculation Comments

1. On Page 4, in your discussion of XPSTORM Input, the n value is referred to as 0.13 instead of the 0.013 used in the calculations.
  - *The text is been modified to read 0.013 for the n value.*
2. The existing schools, parks, churches and commercial sites were assumed to remain unchanged. A contingency factor of 1.25 was applied to the future flows to account for future changes. With the exception of Basins 8 & 12 we believe that this is a valid assumption. Please calculate Future Flows assuming buildout of Basins 8 & 12.
  - *Future conditions were modeled for Basin 8 at 41.6 dwelling units/net acre with a contingency factor of 1.25.*
  - *Per email dated October 7, 2014, the contingency factor for Basin 12 of 1.25 has been eliminated. The total area has been multiplied by 0.85 to determine the Net Acres and future flow conditions.*
3. Please explain how the Gallons/Day figures were arrived at for the Commercial, Industrial and Office Park zoned basins, as we cannot determine whether these figures were based on actual water usage or on the developed site and a unit flow rate.
  - *Following discussions with Scott Tabor (Public Works Director) at the City of Gladstone, the City of Portland's Sewer and Drainage Facilities Design Manual, Chapter 5 was utilized to calculate the existing and future design flows. The estimated design flows were based on population and zoning data, flow allocations, contingency and peaking factors. The Gallons/Day figures were based on Section 5.2.5 Unit Wastewater Flow Rates from the City of Portland's Design Manual which stipulates gallons/net acre per day for different land uses. The values used were not based on actual water usage.*
4. Kraxberger Middle School calculations were based on 500 students. This is a valid assumption as 2013-14 enrollment summary identifies 505 students.

**Additional Comments**

1. The City will require replacement of the manhole at Hereford Street and Oatfield Road. The new manhole will have to be oversized in order to permit a broader sweep of the channel from Oatfield to Hereford Street than is permitted with a 48-inch diameter manhole.
  - *The Client agrees to construct a new 60" manhole at Hereford Street and Oatfield Road to permit a broader sweep of the channel.*
  
2. In order to allow for easier cleaning and for flexibility, the new pipe in between Hereford Street and Gloucester Street should be 8-inch diameter with a six-inch removable orifice used to meter the flow to Gloucester.
  - *The Client agrees to install an 8-inch diameter pipe with a 6-inch removable orifice between the manhole at Hereford Street and Gloucester Street.*
  
3. The City will require two manholes at the Oatfield Road / Gloucester Street intersection that create two approximate 45 degree bends, rather than one 90 degree bend.
  - *The Client agrees to construct two manholes at the Oatfield Road/Gloucester street intersection that creates two approximate 45 degree bends.*

**Summary**

With the revisions discussed above, we feel the proposed upgrades will meet the City's expectations for future development to the Transue Property. If there are further questions, please do not hesitate to ask.

# PROPOSED SANITARY SEWER AND WATER LINE UPGRADES

**TRANSUE PROPERTY  
Gladstone, OR**

**October 8, 2014  
Revised from August 29, 2014**

*Prepared For:*

**HT Investment Properties, LLC  
1962 Wallace Road, NW  
Salem, Oregon 97304**



**EXPIRES: 12/31/15**

*Prepared By:*  
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Project No: 14208  
kef

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## EXECUTIVE SUMMARY

The purpose of this report is to provide revisions to our original report dated August 29, 2014, per comments from Sisul Engineering dated September 25, 2014. Additionally, this report will describe our findings regarding the extent of any necessary sanitary sewer system upgrades which may be required to facilitate the development of the Transue property. The Transue property is located at 18121 Webster Road in Gladstone. This report was prepared in order to examine the effects of the proposed development on the sanitary sewer system within the immediate downstream vicinity of the project. This report also discusses the need for the relocation of the existing AC water transmission line traversing the site and proposes a possible alignment for the new water line. The following improvements are being proposed and will be discussed further in this report:

- Replace the existing 48-inch sanitary sewer manhole at the intersection of Hereford Street and Oatfield Road (#22900) with a 60-inch manhole,
- Construct an 8-inch overflow line between manholes #22900 and #21380 with a 6-inch removable orifice to allow metered flow to Gloucester Street,
- Construct two manholes for the overflow connection at the Oatfield Road and Gloucester Street intersection creating two approximate 45 degree bends, and
- Relocate the existing 8-inch AC water transmission line.

### **Sanitary Sewer Analysis and Upgrades**

The proposed Transue Property project will construct an apartment complex or some other multi-family dwelling facility on the property at the intersection of Webster Road and Oatfield Road within the City of Gladstone, Oregon. In order for the property to be developed, the City has required an analysis of the existing sanitary sewer (SS) system, downstream of the property. 3J has prepared this report to analyze the existing conditions of the system and to determine the extent of any required SS upgrades for the downstream system using the calculated future flow from the proposed development of the Transue site and surrounding properties. Additionally, this revised report addresses the comments raised by Sisul Engineering in the memorandum dated September 25, 2014 and email correspondence dated October 7, 2014 (See Technical Appendix: Exhibits – Sanitary Sewer Report for Transue Property-Response to Comments Memorandum).

Following discussions with Scott Tabor (Public Works Director) at the City of Gladstone, the City of Portland's Sewer and Drainage Facilities Design Manual, Chapter 5 was utilized to calculate the existing and future design flows. The estimated design flows were based on population and zoning data, flow allocations, contingency and peaking factors. The existing SS in E Gloucester and E Herford Streets and upstream on Oatfield and Webster Roads were surveyed. The surveyed data was input into the computer software program XPSTORM along with the calculated flow rates (modeled as constant flow) to determine capacity issues in the existing pipes.

Based on the XPSTORM model (and discussions with the City), the manhole at Oatfield Road and E Herford Street (#22900) experiences surcharge conditions. Additionally, approximately 1,500 feet downstream of this manhole on E Herford Street, a 20.7 foot long pipe is at a negative 0.24% slope which creates surcharge conditions as well (between manholes #22200 and 22100).

The XPSTORM model shows that the peak flows in the 10-inch diameter existing SS line within E Gloucester Street is well below capacity. Additionally, the City has not voiced concerns regarding capacity issues within the system within Gloucester. The SS line connects with the line from E Herford Street at the intersection of E Gloucester Street and Portland Avenue.

This report concludes that the least expensive and least intrusive solution to the existing surcharge problems on E Herford Street, as well as future development upstream is to install an overflow line between the two eastern most manholes on E Herford Street and E Gloucester Street (#22900 and 21380, respectively). This line would need to be a 6-inch diameter line 260 feet long. The installation of this line would alleviate all existing surcharge conditions on E Herford Street without creating any capacity issues on E Gloucester Street, even with the future flows from the Transue property apartments.

**Water Line Upgrades**

There is an existing 8-inch asbestos cement (AC) water transmission line currently traversing the Transue property from Webster Road through to Oatfield Road via a series of utility easements (the exact location of the line and associated easement has not been determined). Construction of the proposed site will almost certainly require the relocation of the transmission line in order to avoid conflicts with new structures and to allow for continued access for maintenance.

After discussing the options available to the Applicant and the City, all parties are in agreement that the newly relocated line would be best located along the edges of properties where the line would not be a restriction on future building(s). The placement of the utility would typically require a 15 foot wide easement to allow for future access and maintenance activities.

Both the Applicant and the City's public works department are aware that the City owns approximately 11.5 acres of commercially zoned land immediately to the south of the Transue property. This property presents an ideal opportunity for the relocation of the water line as the property has access to both Oatfield and Webster Roads via a linear alignment, rather than a meandering route through a private development. The property is also an ideal candidate for the pipe's relocation because the property is under one ownership and is currently undeveloped.

**PROJECT LOCATION**

The proposed Transue Property is located on the property at the intersection of Webster Road and Oatfield Road within the City of Gladstone, Oregon (See Figures 1 and 2).

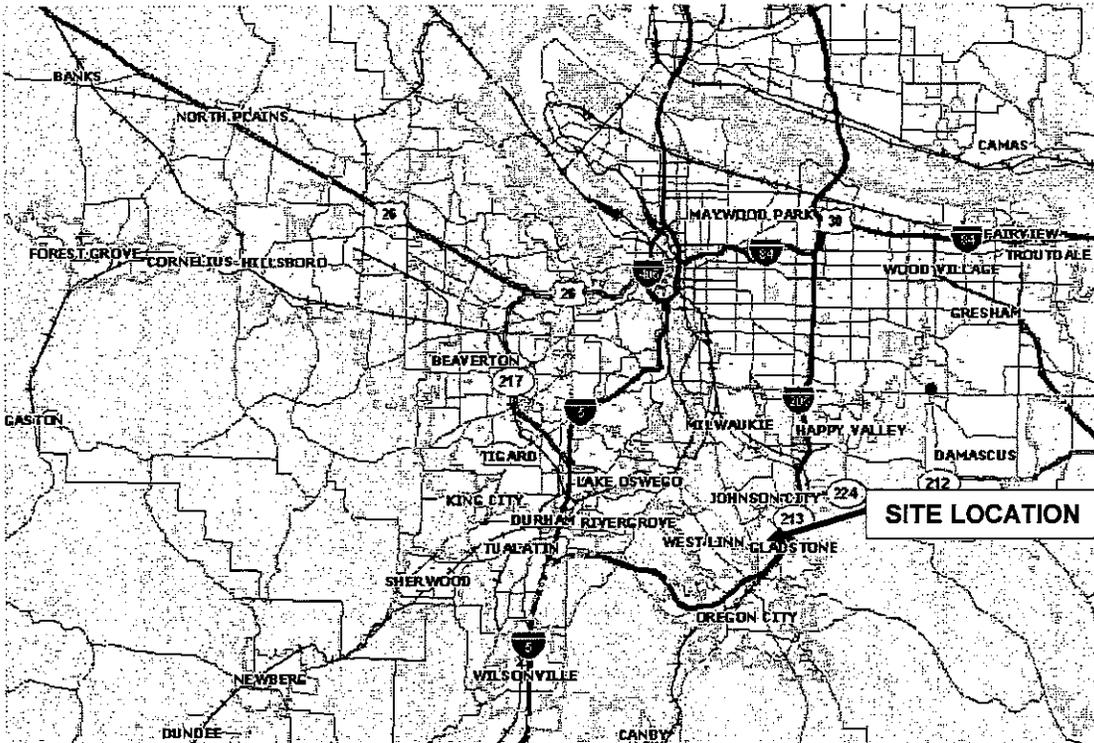


Figure 1 - Vicinity Map

4-12

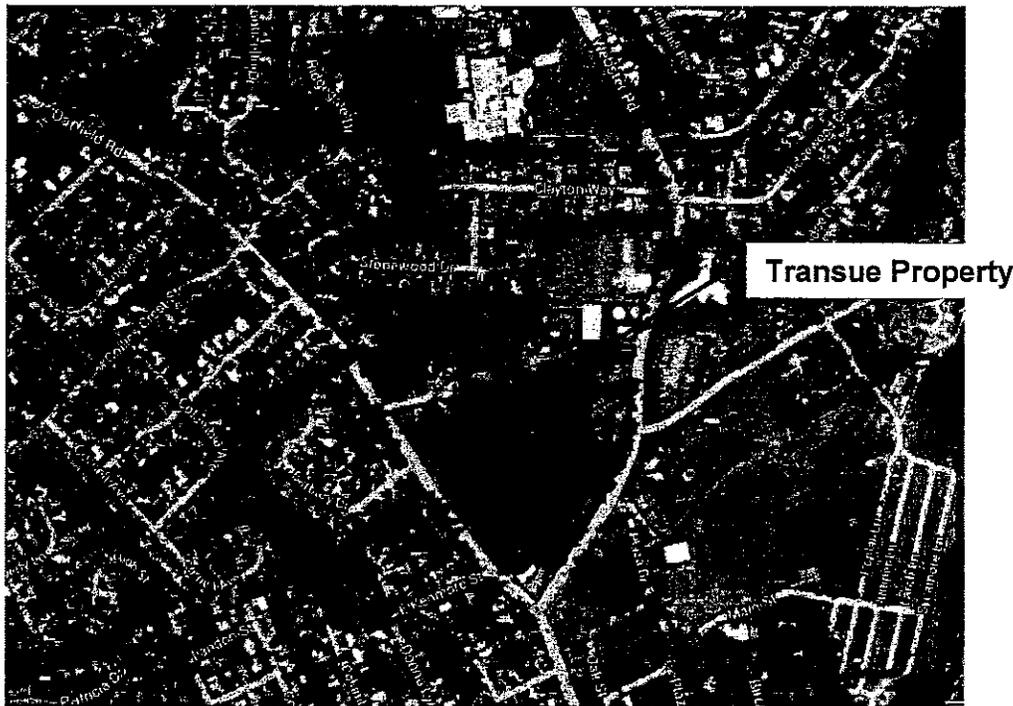


Figure 2 - Site Location

## SANITARY SEWER ANALYSIS

### EXISTING CONDITIONS

#### SS Basin

The City's zoning maps and contour information from Metro's RLIS GIS database were used to determine the basin areas for the SS flows draining to both E Herford Street and E Gloucester Street (See Technical Appendix: Exhibits – SS Basin Delineation). Additionally, an exhibit provided by Sisui Engineering showing the sanitary sewer map for the area was utilized (See Technical Appendix: Exhibits – Preliminary Sanitary Sewer Map).

The Transue property is located in Basin 8 as shown on the SS Basin Delineation exhibit. For the existing flow conditions the site was assumed to have 0.2 dwellings per net acre.

#### SS Survey

Portions of the SS system downstream of the Transue property were surveyed. The following includes the surveyed lines:

- Up to manhole #28200 on SE Cason Road,
- Up to manhole #28110 on Webster Road,
- Up to manhole #23100 and down to manhole #22900 on Oatfield Road,
- Down to manhole #22100 on E Herford Street, and
- All of E Gloucester Street down to manhole #21300 at the intersection of Portland Avenue and E Gloucester Street.

### SS Flow Calculations

As previously mentioned, the existing and future flows for each basin flowing to the SS system were calculated using Chapter 5 of the City of Portland's Sewer and Drainage Facilities Design Manual. The estimated design flows were based on population and zoning data, flow allocations, contingency and peaking factors. The following assumptions were made for the flow calculations:

- City of Gladstone's Community Commercial (C2) zoning is equivalent to the City of Portland's Neighborhood Commercial (CN2) Zoning
- Existing schools, parks, churches and developed commercial sites will remain unchanged in the future design flows.
- Assumed schools have an average daily sanitary sewer flow of 15 gallons/day/student with Kraxberger Middle School having 500 students. This is a common factor.
- Assumed the Churches (2) as commercial Low Density (3,000 gallons per net acre per day)
- Assumed Northwest Behavioral Healthcare as industrial (5,000 gallons per net acre per day)
- The Contingency Factor that the City of Portland was not utilized for existing conditions. During future conditions, a factor of 1.25 was used for basins upstream of node 22900, excluding fully built out residential zones (R-7.2 and R-5).

See the Technical Appendix: Calculations – Existing and Future Flow Calculations (2 Pages).

### Existing SS System Condition

Prior to modeling the existing SS system, the City expressed concerns that there has been sewage overflows at the manhole in the intersection of E Herford and Oatfield Road (#22900). They have stated that this could be an I/I issue with the upstream system; however, the line just upstream of this manhole is at a 4.8 percent slope when it enters the manhole. It abruptly changes to just 0.58 percent exiting the manhole (at a 90 degree angle). Additionally, approximately 1,500 feet downstream of this manhole on E Herford Street, a 20.7 foot long pipe is at a negative 0.24% slope which creates surcharge conditions as well (between manholes #22200 and 22100). The flooding is likely due to a combination of I/I issues and the configuration of the SS line. The SS line on E Herford Street begins as an 8-inch CSP, followed by a 12-inch tile and finally a 15-inch tile before entering a 15-inch tile on Portland Avenue.

The existing SS on E Gloucester is a 10-inch line. The XPSTORM model shows that in every pipe segment, the maximum depth of flow is 27% of capacity (assuming at capacity the pipe flows at 94% full).

## HYDROLOGIC ANALYSIS

### XPSTORM Input

To model the existing and future flows for each basin, the calculated flow rates were input into XPSTORM using a constant flow at each manhole designated on the flow calculation sheets. A Manning's coefficient of 0.013 was used in each pipe segment. At each 90 degree bend at a manhole, an entrance and exit loss of 1 was used.

### System Characteristics

Maximum flow in a pipe occurs at approximately  $0.94d_o$  (Depth of flow section ( $d_o$ ) – depth of flow normal to the direction of flow). At  $0.94d_o$  the section factor of uniform flow has a maximum value which results in optimum flow for a section without surcharge conditions. Additionally, the capacity of a pipe is measured by the ratio of maximum flow to design flow ( $Q_{max}/Q_{design}$ ). When this ratio is greater than 1, surcharge conditions will occur.

### System Performance – Existing SS Systems

As the XPSTORM output data shows, several segments within Herford Street experience surcharge conditions when modeled with existing flow rates (See the Technical Appendix: XPSTORM Output – Existing Sanitary Sewer Conveyance Data with Existing Flow-Herford Street and Upstream). Additionally, the existing SS on Herford Street was modeled using the future flows which produced out of system flooding

at manhole 22900 (See Technical Appendix: XPSTORM Output – Existing Sanitary Sewer Conveyance Data with Future Flow-Herford Street and Upstream). In three pipe segments the system was surcharging with 0.94do greater than 0.94 and one segment greater than 1 for Qmax/Qdesign.

As previously discussed, the Gloucester Street SS is performing at or below 0.27do and all pipe segments are well below 1 for Qmax/Qdesign (See the Technical Appendix: XPSTORM Output – Existing Sanitary Sewer Conveyance Data with Existing Flow-Gloucester Street).

## **PROPOSED UPGRADE**

To alleviate the capacity issues in Herford Street, an 8-inch diameter overflow pipe with a 6-inch removable orifice (used to meter the flow to Gloucester) from manhole 22900 to 21380 is being proposed (per the request of the City). This solution will adequately convey overflow from the upstream SS system (using future flow calculations) to the existing SS on Portland Avenue without surcharge conditions in Gloucester Street (See Technical Appendix: XPSTORM Output – Overflow to Manhole 21380 on Gloucester Sanitary Sewer Conveyance Data with Future Flow-Herford Street and Upstream and Gloucester Street). The proposed improvement will provide adequate capacity for the impacts of anticipated development of the Transue Property because it will not only improve the downstream conditions on Herford Street but adequately convey the future flows from the future development.

In addition to the proposed upgrade noted above, Sisul Engineering and the City has requested the following to be completed as part of the upgrades:

- Replace the manhole at Hereford Street and Oatfield Road with a 60" manhole to permit a broader sweep of the channel from Oatfield Road to Hereford Street;
- Install two (2) manholes at the Oatfield Road/Gloucester Street intersection creating two approximate 45 degree bends, rather than one 90 degree ben.

## **WATER LINE UPGRADE**

### **Existing Water Transmission Line**

The City has indicated that an 8" transmission line currently traverses the Transue property from Webster Road through to Oatfield Road via a series of utility easements. Figure 3 below shows only an approximate location as the water line was not as-built when constructed. Construction of the site will almost certainly require the relocation of the transmission line in order to avoid conflicts with new structures and to allow for continued access for maintenance.

4-15

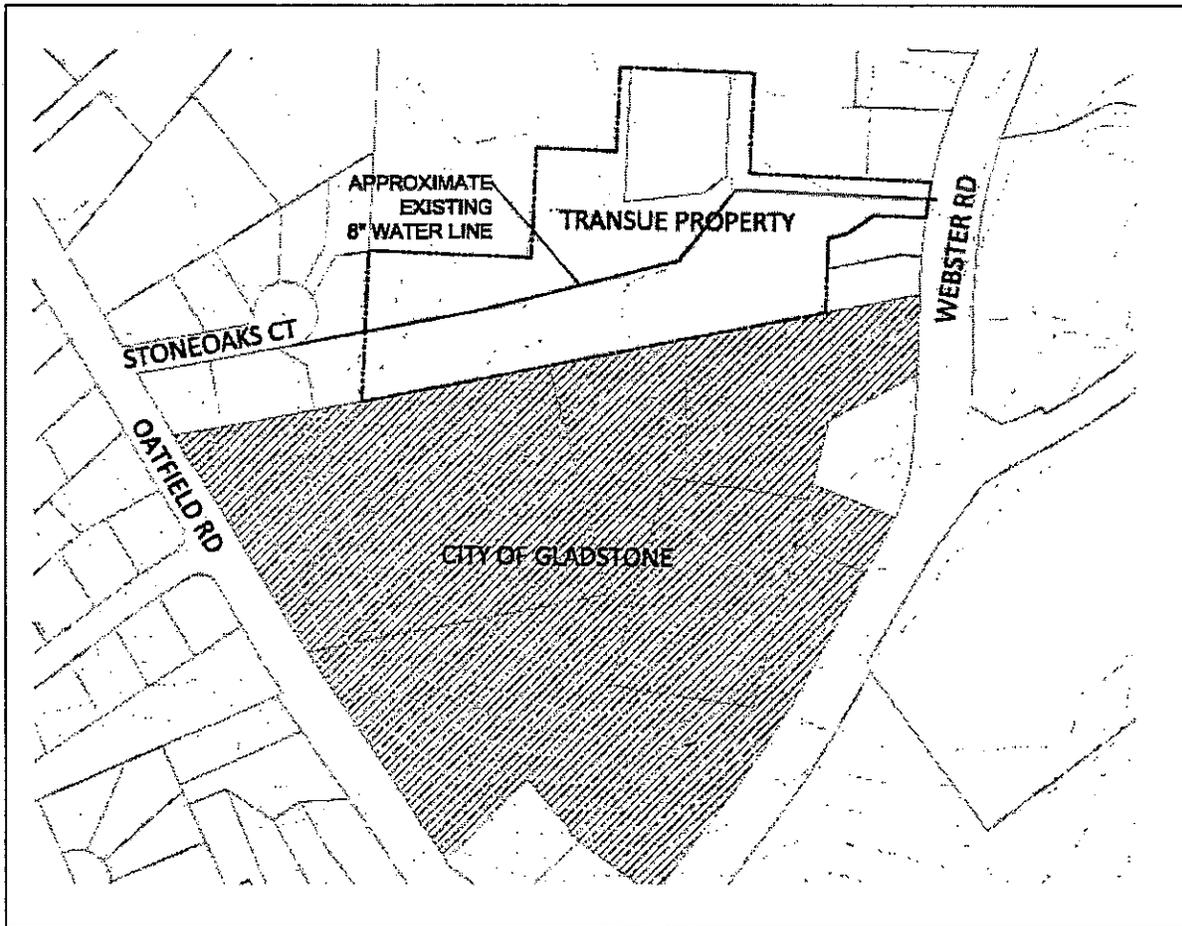


Figure 3 – Approximate Location of Existing 8" AC Water Line

### Proposed Water Transmission Line Relocation

After discussing the options available to the Applicant and the City, all parties are in agreement that the newly relocated line would be best located within a building setback, rather than under infrastructure or pavement. The placement of the utility would typically require a 15 foot wide easement to allow for access for future access and maintenance activities.

Both the Applicant and the City's public works department are aware that the City owns approximately 11.5 acres of commercially zoned land immediately to the south of the Transue property. This property presents an ideal opportunity for the relocation of the water line as the property has access to both Oatfield and Webster Roads via a linear pathway, rather than through a meandering route. The property is also an ideal candidate for the pipe's relocation because the site is under one ownership and it is undeveloped.

Figure 4 shown below proposes a new alignment for the water transmission line over the City's property. The proposed width of the easement for the transmission line and maintenance access will be 15 feet.

4-16

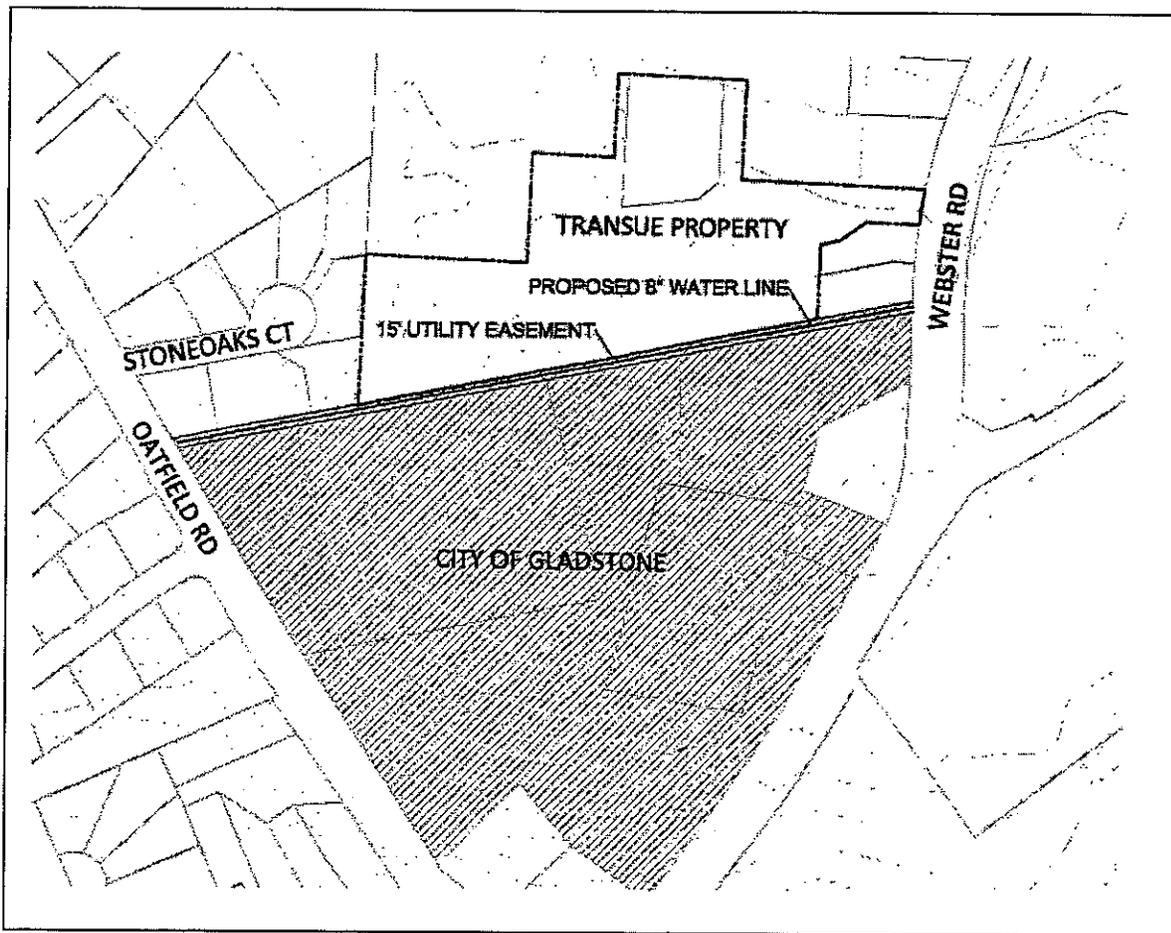


Figure 4 – Proposed Relocation of Water Line

### SUMMARY

The proposed upgrade to the existing sanitary sewer system will alleviate flooding in E Herford and accommodate the addition of future flows with relatively little disturbance to the area. The proposed 8-inch AC water line relocation will provide a linear pathway around the Transue property while avoiding all future structures.

## TECHNICAL APPENDIX

### **Exhibits**

- Sanitary Sewer Report for Transue Property-Response to Comments Memorandum & Email Correspondence
- SS Basin Delineation – Exhibit 1.0
- SS Basin Delineation – Exhibit 1.1
- SS Basin Delineation – Exhibit 1.2
- Preliminary Sewer Map

### **Calculations**

- Existing Flow Calculations
- Future Flow Calculations

### **XPSTORM Output**

- XPSTORM Schematic Layout
- Existing Sanitary Sewer Conveyance Data With Existing Flow-Herford Street and Upstream
- Existing Sanitary Sewer Conveyance Data With Future Flow-Herford Street and Upstream
- Overflow to Manhole 21380 on Gloucester Sanitary Sewer Conveyance Data with Future Flow-Herford Street and Upstream
- Existing Sanitary Sewer Conveyance Data With Existing Flow-Gloucester Street
- Overflow to Manhole 21380 on Gloucester Sanitary Sewer Conveyance Data with Future Flow-Gloucester Street

## REFERENCES

1. Sewer and Drainage Facilities Design Manual, City of Portland, July 2011

# EXHIBITS

4-20



SEE EXHIBIT 1.1 FOR CONTINUATION

LEGEND

- ← 3120000
- EXISTING SS LINE WITH FLOW DIRECTION
- EXISTING SS MANHOLE WITH STRUCTURE IDENTIFIER
- SINGLE-FAMILY RESIDENTIAL R-7.2 8 DU/ACRE
- SINGLE-FAMILY RESIDENTIAL R-5 8.7 DU/ACRE
- MULTI-FAMILY RESIDENTIAL MR 41.6 DU/ACRE
- COMMUNITY COMMERCIAL C2
- OFFICE PARK - OP
- SCHOOL (ZONED SINGLE FAMILY R-7.2)
- TRANSUE PROPERTY



3J CONSULTING, INC



# SS BASIN DELINEATION TRANSUE PROPERTY

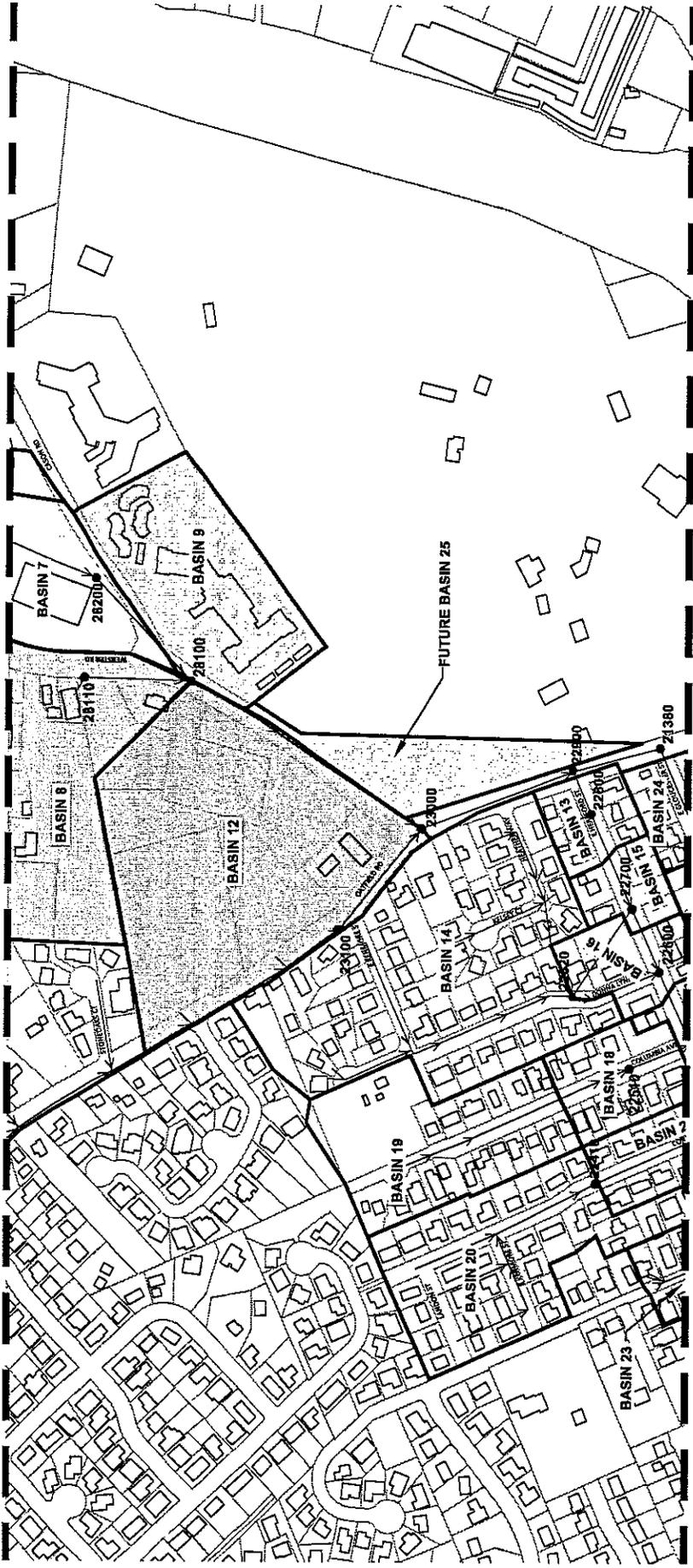
SS Analysis

## Exhibit 1.0

Date: 10/09/14

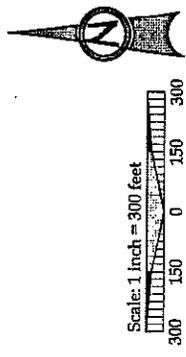
By: KEF

SEE EXHIBIT 1.0 FOR CONTINUATION



SEE EXHIBIT 1.2 FOR CONTINUATION

- LEGEND**
- EXISTING SS LINE WITH FLOW DIRECTION
  - EXISTING SS MANHOLE WITH STRUCTURE IDENTIFIER
  - SINGLE-FAMILY RESIDENTIAL R-7.2 6 DU/ACRE
  - SINGLE-FAMILY RESIDENTIAL R-5 8.7 DU/ACRE
  - MULTI-FAMILY RESIDENTIAL MR 41.6 DU/ACRE
  - COMMUNITY COMMERCIAL C2
  - OFFICE PARK - OP
  - SCHOOL (ZONED SINGLE FAMILY R-7.2)
  - TRANSUE PROPERTY



# SS BASIN DELINEATION TRANSUE PROPERTY



SS Analysis

## Exhibit 1.1

Date: 08/26/14

By: KEF

401



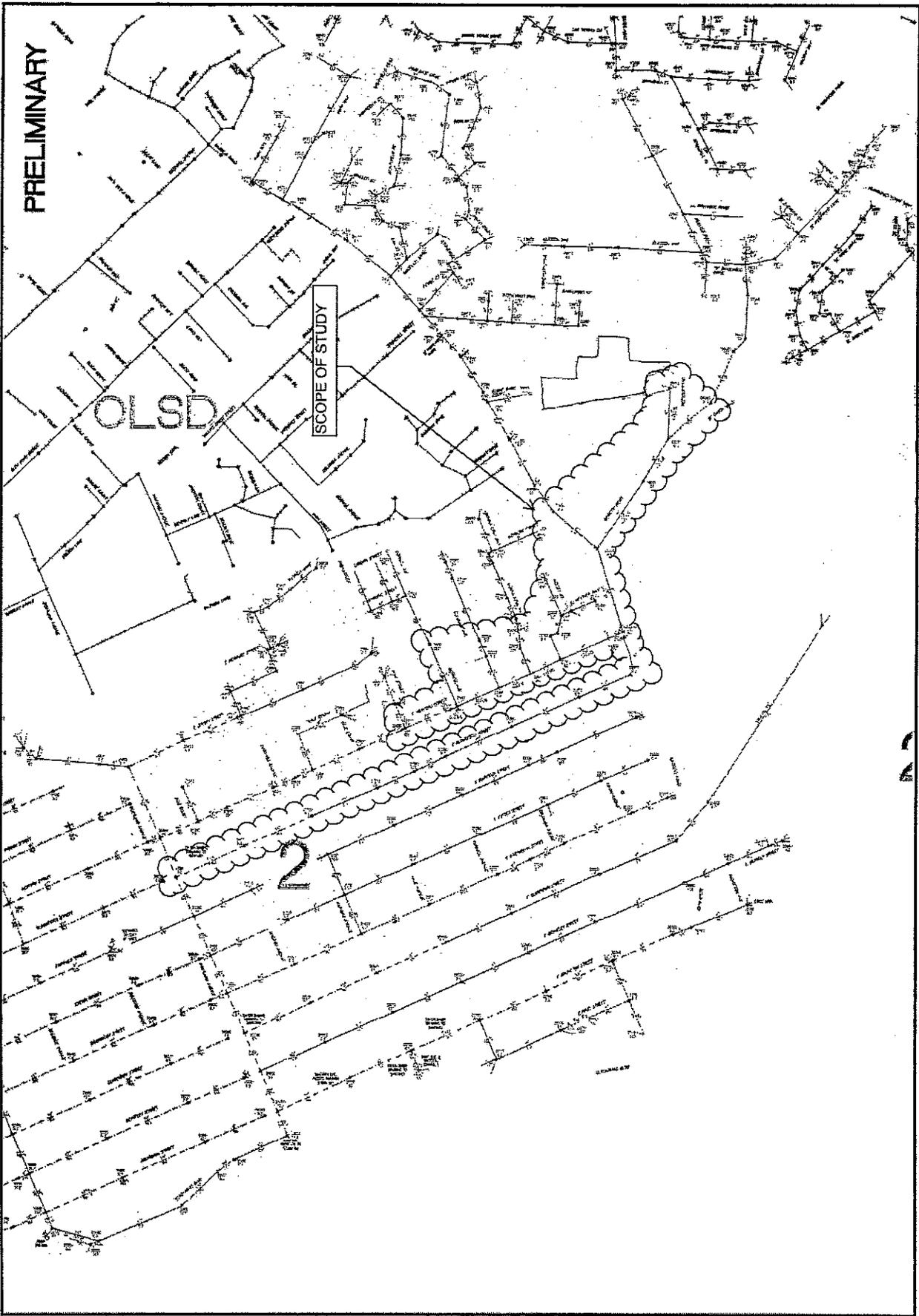
NO.	DATE	BY	REVISIONS

TRANSUSE PROPERTY  
CITY OF GLADSTONE

Preliminary Sanitary  
Sewer Map

**SIBUL ENGINEERING**  
 2324 PORTLAND AVENUE  
 SEASIDE, CALIFORNIA 92138  
 PHONE (619) 441-1111  
 FAX (619) 441-1112  
 WWW.SIBUL.COM

SCALE: 1"=50'  
 SHEET NO. 13-001  
 SHEET 1  
 OF 1 SHEET



4-23

# CALCULATIONS

4-24

BASIN	Drains To	Zoning	Total Area (acres)	Non-Developable Area (acres)	Net Acre	Dwelling Units/Net Acre	Occupants/Dwelling Unit	Gallons/Occupants	Contingency Factor	Unit Flow Rate/Net Acre/Day (gpcad)	Gallons/Day	Conversion to cfs	Basin Flow (cfs)	Total Average Flow with 1/i (cfs)	Peak Factor	Peak Design Flow (cfs)
1	28200	R-7.2	27.447	6.731	20.716	6	2.6	80	N/A	N/A	N/A	1.547E-06	0.040	0.072	3.460	0.249
2	28200	R-7.2	1.303	0.195	1.10755	6	2.6	80	N/A	N/A	N/A	1.547E-06	0.002	0.004	4.657	0.018
3	28200	Open Space	7.654	0.000	7.654	N/A	N/A	N/A	N/A	750	98	1.547E-06	1.514E-04	1.514E-04	6.465	0.001
4	28200	School	12.235	2.000	10.235	N/A	N/A	N/A	N/A	3000	7500	1.547E-06	0.012	0.027	3.816	0.105
5	28200	Commercial	2.199	1.000	1.199	N/A	N/A	N/A	N/A	3000	2502	1.547E-06	0.004	0.006	4.473	0.026
6	28200	Commercial	2.764	2.235	0.529	N/A	N/A	N/A	N/A	5000	5671	1.547E-06	0.009	0.010	4.245	0.041
7	28200	Industrial	4.284	3.684	0.6	N/A	N/A	N/A	N/A	5000	8933	1.547E-06	0.013	0.014	4.091	0.057
<b>Total To 28200</b>																
8	28110	Multi-Family	10.932	0.450	9.882	0.2	2.2	80	N/A	N/A	N/A	1.547E-06	0.001	0.016	4.035	0.064
9	28100	Office Park	6.931	5.089	1.442	41.6	2.2	80	N/A	N/A	N/A	1.547E-06	0.016	0.019	3.970	0.074
10	23100	Open Space	1.886	0	1.886	N/A	N/A	N/A	N/A	750	398	1.547E-06	6.152E-04	6.152E-04	5.608	0.003
11	23100	R-7.2	58.735	13.245	45.49	6	2.6	80	N/A	N/A	N/A	1.547E-06	0.088	0.158	3.195	0.505
<b>Total To 23100</b>																
12	23000	Commercial	14.003	13.138	0.665	N/A	N/A	N/A	N/A	3000	3468	1.547E-06	0.005	0.007	4.402	0.030
13	22800	R-5	1.368	0.448	1.12	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.003	0.005	4.547	0.022
14	22620	R-7.2	13.203	1.993	11.21	6	2.6	80	N/A	N/A	N/A	1.547E-06	0.022	0.039	3.682	0.144
15	22700	R-5	1.3	0.464	0.836	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.002	0.004	4.684	0.017
16	22600	R-5	2.023	0.488	1.535	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.004	0.007	4.404	0.029
17	22500	R-5	1.155	0.512	0.643	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.002	0.003	4.810	0.033
18	22510	R-5	2.462	0.533	1.929	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.005	0.008	4.303	0.036
19	22510	R-7.2	5.819	0.618	5.001	6	2.6	80	N/A	N/A	N/A	1.547E-06	0.010	0.017	3.996	0.070
<b>Total To 22510</b>																
20	22410	R-7.2	6.146	1.465	4.681	6	2.6	80	N/A	N/A	N/A	1.547E-06	0.009	0.016	4.023	0.065
21	22400	R-5	2.603	0.685	1.918	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.005	0.008	4.306	0.036
22	22200	R-5	2.201	0.755	1.446	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.004	0.006	4.431	0.028
23	22210	R-5	3.217	0.204	3.013	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.008	0.013	4.113	0.054
24	21980	R-5	1.847	0.426	1.421	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.004	0.006	4.439	0.027
25	21360	R-5	2.746	0.909	1.837	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.005	0.008	4.325	0.035
26	21350	R-5	2.806	0.909	1.897	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.005	0.008	4.311	0.036
27	21340	R-5	1.618	0.7	0.918	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.003	0.004	4.640	0.019
28	21330	R-5	1.626	0.659	0.967	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.003	0.004	4.615	0.019
29	21320	R-5	2.857	0.944	1.913	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.005	0.008	4.307	0.036
30	21310	R-5	0.918	0	0.918	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.003	0.004	4.640	0.019
31	21310	R-5	2.206	1.224	0.982	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.003	0.004	4.608	0.020
32	21300	Commercial	1.084	0.234	0.85	N/A	N/A	N/A	N/A	3000	3529	1.547E-06	0.005	0.007	4.397	0.030

Table 5.2 from City of Portland's Sanitary and Drainage Design Manual  
 Section 5.2.2 from City of Portland's S&S DD Manual: Single Family = 2.6 Occupants, Multi-Family = 2.2 Occupants  
 Page 5-7 from City of Portland's S&S DD Manual: Domestic per capita flow = 80 gal/capita day (gpcad)  
 Flow Calculation assumed 15 gallons/day/student with 500 students  
 Proposed location of Webster Road Apartments. Area shown above is existing conditions.  
 Property is an assisted living development. Considered as Multi-Family with 41.6 DU/AC.  
 Not used.  
 Contingency Factor is only used for future design conditions as it's a factor used for changing land uses within the drainage basin. This factor will be used for all basins upstream of node 23100 in the future flow calculations.  
 Assumed 1,000 gallons per net acre per day for 1/i. Open space is assumed to have zero 1/i.  
 Peak Factor (PF) is used to convert Average Daily Flow (ADF) to Peak Design Flow (PDF): PF = 2.65 (Total Average Flow)<sup>0.1054</sup>  
 PDF = ADF X PF

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FUTURE FLOW CALCULATIONS

BASIN	Drains To	Zoning	Total Area (acres)	Non-Developable Area (acres)	Net Acre	Dwelling Units/Net Acre	Occupants /Dwelling Unit	Gallons/ Occupants	Contingency Factor	Unit Flow Rate/Net Acre/Day (gpcd)	Gallons/Day	Conversion to cfs	Basin Flow (cfs)	Total Average Flow with I/ (cfs)	Peaking Factor	Peak Design Flow (cfs)
1	28200	R-7.2	27.447	6.731	20.716	6	2.6	80	1.25	N/A	N/A	1.547E-06	0.050	0.082	3.415	0.280
2	28200	R-7.2	1.303	0.195	1.10755	6	2.6	80	1.25	N/A	N/A	1.547E-06	0.003	0.004	4.596	0.200
3	28200	Open Space	7.664	0.000	7.664	N/A	N/A	N/A	1.25	750	98	1.547E-06	1.892E-04	1.892E-04	6.321	0.001
4	28200	School	12.235	2.000	10.235	N/A	N/A	N/A	1.25	3000	7500	1.547E-06	0.015	0.030	3.777	0.115
5	28200	Commercial	2.199	1.000	1.199	N/A	N/A	N/A	1.25	3000	2502	1.547E-06	0.005	0.007	4.403	0.029
6	28200	Commercial	2.764	2.235	0.529	N/A	N/A	N/A	1.25	9000	5671	1.547E-06	0.011	0.012	4.157	0.049
7	28200	Industrial	4.284	3.684	0.6	N/A	N/A	N/A	1.25	5000	8333	1.547E-06	0.016	0.017	4.005	0.068
<b>Total To 28200</b>																
8	28110	Multi-Family	10.332	0.450	9.882	41.6	2.2	80	1.25	N/A	N/A	1.547E-06	0.140	0.155	3.201	0.497
9	28100	Office Park	6.531	5.089	1.442	41.6	2.2	80	1.25	N/A	N/A	1.547E-06	0.020	0.023	3.981	0.088
10	23100	Open Space	1.886	0	1.886	N/A	N/A	N/A	N/A	750	398	1.547E-06	6.152E-04	6.152E-04	5.608	0.003
11	23100	R-7.2	58.735	13.245	45.49	6	2.6	80	1.25	N/A	N/A	1.547E-06	0.110	0.180	3.153	0.568
<b>Total To 23100</b>																
12	23000	Commercial	14.003	2.100	11.9035	N/A	N/A	N/A	N/A	9000	252	1.547E-06	0.000	0.019	3.965	0.075
13	22800	R-5	1.568	0.448	1.12	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.003	0.005	4.547	0.022
14	22620	R-7.2	13.203	1.993	11.21	6	2.6	80	N/A	N/A	N/A	1.547E-06	0.022	0.039	3.682	0.144
15	22700	R-5	1.3	0.464	0.836	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.002	0.004	4.684	0.017
16	22600	R-5	2.023	0.488	1.535	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.004	0.007	4.404	0.029
17	22500	R-5	1.155	0.512	0.643	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.002	0.003	4.810	0.013
18	22510	R-5	2.462	0.333	1.929	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.005	0.008	4.303	0.096
19	22510	R-7.2	5.819	0.818	5.001	6	2.6	80	N/A	N/A	N/A	1.547E-06	0.010	0.017	3.996	0.070
<b>Total To 22510</b>																
20	22410	R-7.2	6.146	1.465	4.681	6	2.6	80	N/A	N/A	N/A	1.547E-06	0.009	0.016	4.023	0.065
21	22400	R-5	2.603	0.685	1.918	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.005	0.008	4.306	0.096
22	22200	R-5	2.201	0.755	1.446	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.004	0.006	4.431	0.028
23	22210	R-5	3.217	0.204	3.013	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.008	0.013	4.113	0.054
24	21380	R-5	1.847	0.426	1.421	8.7	2.6	80	N/A	N/A	N/A	1.547E-06	0.004	0.006	4.439	0.027
25	22900	Office Park	3.051	0.6102	2.4408	N/A	N/A	N/A	1.25	750	307	1.547E-06	0.001	0.004	4.557	0.020

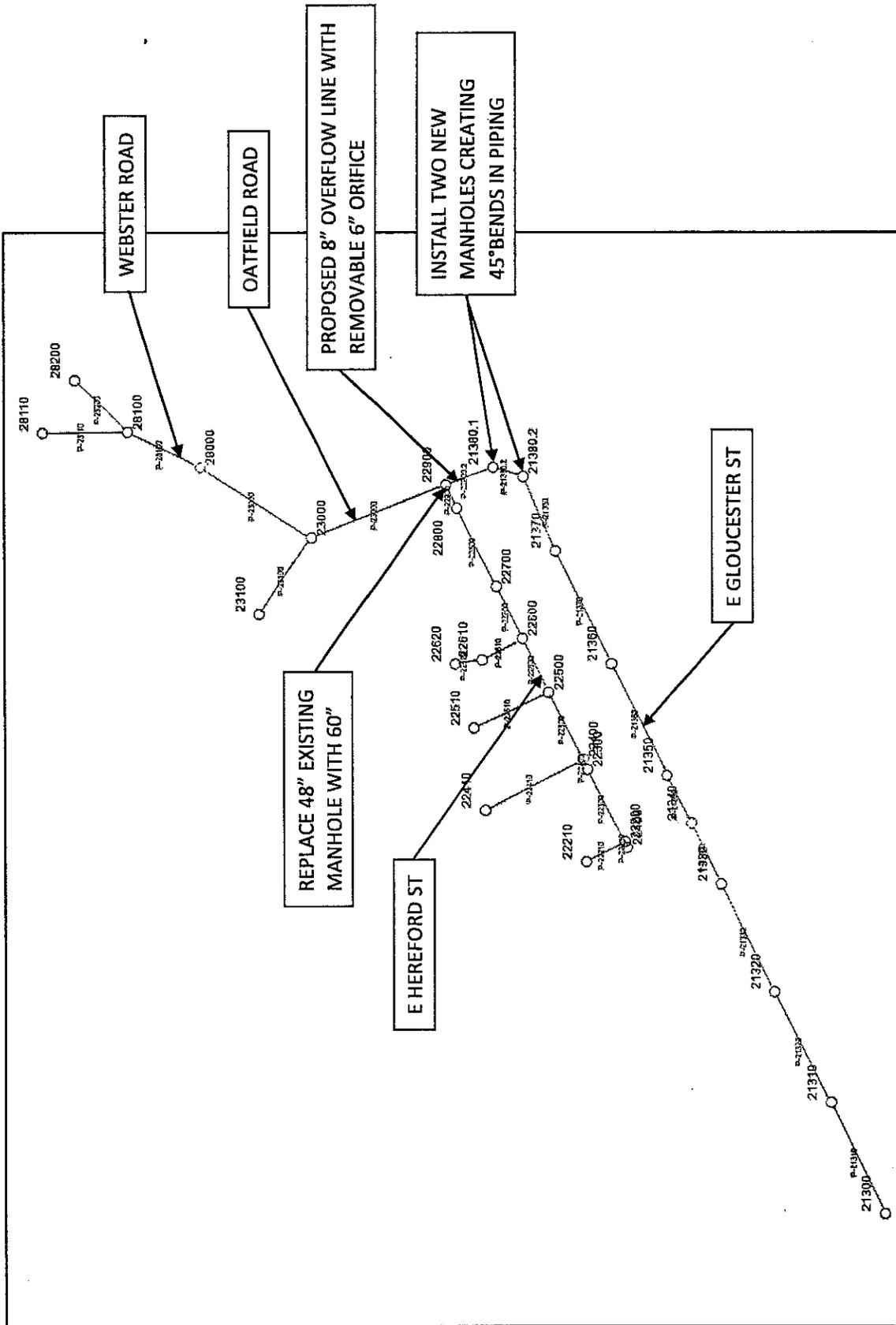
<sup>1</sup>Table 5.2 from City of Portland's Sanitary and Drainage Design Manual  
<sup>2</sup>Section 5.2.2 from City of Portland's S&S DD Manual: Single Family = 2.6 Occupants, Multi-Family = 2.2 Occupants  
<sup>3</sup>Page 5-7 from City of Portland's S&S DD Manual: Domestic per capita Flow = 80 gal/capita day (gpcd)  
<sup>4</sup>Flow Calculation assumed 15 gallons/day/student with 500 students  
<sup>5</sup>Proposed location of Webster Road Apartments. Assumed 41.6 DU/AC plus 1.25 contingency factor.  
<sup>6</sup>Property is an assisted living development. Considered as Multi-Family with 41.6 DU/AC  
<sup>7</sup>Net acreage of future buildout was calculated by multiplying the total area by a factor of 0.85, per the City of Portland's guidelines.  
<sup>8</sup>Contingency Factor is only used for future design conditions as it's a factor used for changing land uses within the drainage basin. This factor will be used for all basins upstream of node 23000 in the future flow calculations.  
<sup>9</sup>Assumed 1,000 gallons per net acre per day for I/I. Open space is assumed to have zero I/I.  
<sup>10</sup>Peak Factor (PF) is used to convert Average Daily Flow (ADF) to Peak Design Flow (PDF): PF = 2.65(Total Average Flow)<sup>0.104</sup>  
<sup>11</sup>PDF = ADF X PF  
<sup>12</sup>Basin is zoned office park and is currently undeveloped. This basin was not considered in the existing conditions.

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# XPSTORM OUTPUT

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4-23



XPSTORM Schematic Layout

**EXISTING SANITARY SEWER CONVEYANCE DATA WITH EXISTING FLOW**  
**HERFORD STREET AND UPSTREAM**

Link	Location		Conduit Results										Conduit Profile							
	Station	From	To	Diameter	Length	Slope	Design Capacity	10max/Code/design	Max Flow	Max Velocity	Max Flow Depth	γ/d0	US Ground Elev.	DS Ground Elev.	US IE	DS IE	1US Freeboard	2DS Freeboard	US HGL	DS HGL
P-23110	28110	28110	28110	0.67	313.99	5.70	2.92	0.02	0.05	3.33	0.10	216.22	207.53	185.72	185.91	3.43	10.28	215.78	187.25	
P-23200	28100	28100	28100	0.67	276.46	0.43	0.80	0.81	0.65	2.43	0.48	202.41	202.41	186.21	186.91	3.72	10.28	186.69	187.25	
P-28100	28100	28100	28100	0.67	300.25	1.58	1.54	0.51	0.78	4.38	0.34	207.53	195.71	187.90	187.90	10.28	3.41	187.25	182.30	
P-28000	28000	28000	28000	0.67	497.82	5.75	2.94	0.27	0.78	7.05	0.24	195.71	187.90	182.05	182.05	3.41	4.31	182.30	183.59	
P-23000	23000	23000	23000	0.67	846.51	4.85	2.70	0.51	1.38	7.02	1.19	187.90	140.13	163.25	163.25	4.31	2.17	183.69	183.59	
P-23100	23100	23100	23100	0.67	347.05	3.13	2.17	0.24	0.52	5.05	0.22	181.24	187.90	175.64	175.64	5.18	4.31	176.08	183.59	
P-28000	28000	28000	28000	0.67	100.09	0.68	0.93	1.48	1.38	3.92	1.48	140.13	138.60	136.48	136.48	2.17	3.37	137.98	136.33	
P-22800	22800	22800	22800	0.67	324.93	2.11	1.78	0.79	1.40	5.58	0.45	139.60	133.14	135.78	135.78	3.37	3.85	136.23	129.28	
P-22700	22700	22700	22700	0.67	214.77	2.74	2.03	0.70	1.42	6.22	0.41	140.43	126.93	128.88	128.88	3.85	4.33	129.28	122.60	
P-22600	22600	22600	22600	0.67	101.45	0.28	0.62	0.23	0.14	1.39	0.23	142.17	142.17	124.18	124.18	6.02	8.42	124.18	122.60	
P-22500	22500	22500	22500	0.67	221.00	5.12	2.77	0.05	0.14	4.07	0.27	142.17	126.93	133.65	133.65	12.18	8.42	133.75	122.60	
P-22400	22400	22400	22400	0.67	222.31	4.14	2.49	0.64	1.59	6.82	0.42	126.93	117.43	122.18	122.18	4.33	4.80	122.60	112.53	
P-22300	22300	22300	22300	0.67	338.39	5.14	1.27	0.08	0.11	3.92	0.10	135.58	117.43	130.23	130.23	5.25	4.80	130.33	112.53	
P-22200	22200	22200	22200	0.67	280.98	3.70	2.35	0.73	1.71	6.85	0.45	125.07	105.70	112.08	112.08	4.60	4.80	112.53	102.15	
P-22100	22100	22100	22100	0.67	428.82	2.90	1.86	0.04	0.09	2.46	0.40	105.70	105.39	101.60	101.60	13.38	3.55	102.15	101.11	
P-22000	22000	22000	22000	0.67	36.76	3.02	3.77	0.48	1.82	4.70	0.68	105.39	100.34	100.34	100.34	4.28	6.65	101.11	100.24	
P-21900	21900	21900	21900	0.67	303.54	0.31	1.87	0.92	2.78	2.78	0.83	100.34	100.34	99.28	99.28	3.75	6.65	100.97	100.24	
P-21800	21800	21800	21800	0.67	175.35	2.93	2.09	0.01	0.03	2.02	0.05	110.72	106.89	106.89	106.89	3.75	6.65	106.89	100.24	
P-21700	21700	21700	21700	0.67	20.66	-0.24	1.75	1.07	-1.87	-2.53	0.80	106.89	106.20	99.28	99.28	6.65	6.37	100.24	99.83	

**EXISTING SANITARY SEWER CONVEYANCE DATA WITH FUTURE FLOW**  
**HERFORD STREET AND UPSTREAM**

Link	Location		Conduit Results										Conduit Profile							
	Station	From	To	Diameter	Length	Slope	Design Capacity	10max/Code/design	Max Flow	Max Velocity	Max Flow Depth	γ/d0	US Ground Elev.	DS Ground Elev.	US IE	DS IE	1US Freeboard	2DS Freeboard	US HGL	DS HGL
P-23110	28110	28110	28110	0.67	313.99	5.70	2.92	0.17	0.50	5.18	0.19	216.22	207.53	185.72	185.91	3.31	10.14	215.81	187.39	
P-23200	28100	28100	28100	0.67	276.46	0.43	0.80	0.81	0.73	2.48	0.54	202.41	202.41	186.21	186.91	3.89	10.14	186.75	187.39	
P-28100	28100	28100	28100	0.67	300.25	1.58	1.54	0.88	1.32	4.90	0.48	207.53	195.71	187.90	187.90	10.14	3.34	187.39	182.37	
P-28000	28000	28000	28000	0.67	497.82	5.75	2.94	0.45	1.32	5.10	0.47	195.71	187.90	182.05	182.05	3.34	4.21	182.37	183.69	
P-23000	23000	23000	23000	0.67	846.51	4.85	2.70	0.73	1.97	7.64	3.95	187.90	140.13	163.25	163.25	4.21	0.00	163.69	180.13	
P-23100	23100	23100	23100	0.67	347.05	3.13	2.17	0.27	0.59	5.22	0.24	181.24	187.90	175.64	175.64	5.16	4.21	176.08	183.69	
P-28000	28000	28000	28000	0.67	100.09	0.68	0.93	2.12	1.98	5.49	3.65	140.13	139.60	136.48	136.48	0.00	2.64	140.13	137.06	
P-22800	22800	22800	22800	0.67	324.93	2.11	1.78	1.07	1.91	5.76	1.28	139.60	133.14	135.78	135.78	2.54	3.74	137.06	129.40	
P-22700	22700	22700	22700	0.67	214.77	2.74	2.03	0.95	1.92	6.54	0.52	140.43	126.93	128.88	128.88	6.02	4.22	129.40	122.71	
P-22600	22600	22600	22600	0.67	101.45	0.28	0.62	0.23	0.14	1.39	0.23	142.17	142.17	124.18	124.18	8.42	8.42	124.18	122.71	
P-22500	22500	22500	22500	0.67	221.00	5.12	2.77	0.05	0.15	4.02	0.39	126.93	117.43	122.18	122.18	4.75	4.75	122.71	112.68	
P-22400	22400	22400	22400	0.67	222.31	4.14	2.49	0.64	2.08	7.09	0.63	125.07	105.70	112.08	112.08	4.22	4.75	122.71	112.68	
P-22300	22300	22300	22300	0.67	338.39	5.14	1.27	0.08	0.11	3.87	0.10	135.58	117.43	130.23	130.23	4.75	3.03	130.33	112.68	
P-22200	22200	22200	22200	0.67	280.98	3.70	2.35	0.73	1.86	2.49	0.82	117.43	105.70	111.62	111.62	3.03	3.03	112.68	102.67	
P-22100	22100	22100	22100	0.67	428.82	2.90	1.86	0.04	0.09	2.31	1.25	105.70	105.39	101.60	101.60	4.75	4.75	102.67	101.68	
P-22000	22000	22000	22000	0.67	36.76	3.02	3.77	0.48	1.87	2.91	2.83	105.39	100.34	100.34	100.34	3.72	6.47	102.67	100.42	
P-21900	21900	21900	21900	0.67	303.54	0.31	1.87	0.92	2.02	2.02	0.05	110.72	106.89	106.89	106.89	3.75	6.47	106.89	100.42	
P-21800	21800	21800	21800	0.67	175.35	2.93	2.09	0.01	0.03	-2.97	1.08	106.89	106.20	99.28	99.28	6.47	6.28	100.42	99.81	

<sup>1</sup>10max/Code/design is greater than 1, the capacity of the pipe has been reached which will cause surcharging.  
<sup>2</sup>γ/d0 is equal to 1, the pipe is surcharging. This may happen when there is capacity in the pipe due to the slope of the pipe.  
<sup>3</sup>If the freeboard is equal to zero, the manhole is expending out of system flooding.

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OVERFLOW TO MANHOLE 21380 ON GLOUCESTER SANITARY SEWER CONVEYANCE DATA WITH FUTURE FLOW  
HERFORD STREET AND UPSTREAM

Link	Location Station		Conduit Properties				Conduit Results						Conduit Profile						
	From	To	Diameter ft	Length ft	Slope %	Design Capacity cfs	Omax/Qdesign	Max Flow cfs	Max Velocity ft/s	Max Depth ft	1 <sub>yd0</sub>	US Ground Elev. ft	DS Ground Elev. ft	US IE ft	DS IE ft	1 <sub>US</sub> Freeboard ft	3 <sub>DS</sub> Freeboard ft	US HOL ft	DS HOL ft
P-2110	28110	28100	0.67	313.88	5.70	2.82	0.17	0.50	6.16	0.19	0.28	218.22	207.53	215.72	198.91	3.31	10.14	215.91	187.38
P-2120	28200	28100	0.67	278.48	0.43	0.80	0.81	0.73	2.48	0.54	0.80	202.41	207.53	198.21	198.91	3.66	10.14	186.75	187.39
P-2130	28300	28000	0.67	300.25	1.58	1.54	0.88	1.32	4.00	0.48	0.71	207.53	185.71	198.91	192.06	3.34	3.34	197.39	182.37
P-2140	28400	28000	0.67	487.83	5.75	2.84	0.45	1.32	8.70	0.31	0.47	195.71	167.90	192.06	193.25	4.21	4.21	192.37	183.69
P-2150	23000	23000	0.67	545.51	4.85	2.70	0.73	1.97	8.00	0.44	0.68	187.90	140.13	183.25	138.48	4.21	2.83	163.69	137.20
P-2160	23100	23000	0.67	347.08	3.13	2.17	0.27	0.59	5.22	0.24	0.38	181.24	167.90	175.84	163.25	5.16	4.21	176.06	163.69
P-2170	23800	23800	0.67	100.09	0.88	0.83	0.87	0.81	2.87	0.72	1.00	140.13	139.80	138.48	138.78	2.83	3.40	137.20	136.12
P-2180	23700	23700	0.67	324.83	2.11	1.78	0.52	0.83	5.08	0.34	0.51	138.80	133.14	135.78	128.88	3.48	3.04	136.12	128.20
P-2190	22700	22600	0.67	214.77	2.74	2.03	0.47	0.84	5.65	0.32	0.48	133.14	128.83	128.86	122.18	3.84	4.41	129.20	122.52
P-2200	22820	22810	0.67	101.45	0.26	0.62	0.23	0.14	1.38	0.23	0.34	140.43	142.17	134.18	133.85	6.02	8.42	134.41	133.75
P-2210	22810	22800	0.67	221.00	5.12	2.77	0.05	0.15	4.02	0.18	0.28	142.17	128.83	133.85	122.18	8.42	4.41	133.75	122.52
P-2220	22800	22800	0.67	222.31	4.14	2.16	0.45	1.12	8.38	0.34	0.50	126.93	117.43	122.18	112.08	4.41	4.88	122.52	112.45
P-2230	22810	22500	0.50	335.38	5.14	1.97	0.08	0.11	3.97	0.10	0.20	135.58	117.43	130.23	112.08	5.25	4.88	130.33	112.45
P-2240	22500	22500	0.67	480.89	3.70	2.55	0.52	1.23	8.72	0.37	0.65	117.43	105.70	112.08	101.60	4.88	3.67	112.45	102.03
P-2250	22410	22400	0.67	494.92	2.50	1.89	0.04	0.09	2.77	0.26	0.42	125.07	105.38	111.62	101.60	3.87	3.67	111.71	102.03
P-2260	22400	22300	0.83	36.78	3.02	1.89	0.38	1.38	2.88	0.55	0.83	105.38	108.88	101.34	99.28	4.44	4.44	102.03	100.85
P-2270	22300	22300	1.00	395.84	0.31	1.87	0.03	0.03	1.85	0.67	0.87	105.38	106.88	106.82	99.28	3.75	6.81	100.85	100.08
P-2280	22210	22200	0.67	178.35	2.89	2.89	0.01	0.03	2.82	0.95	0.68	110.72	106.88	106.82	99.28	6.81	6.81	106.87	100.08
P-2290	22200	22100	1.00	20.89	-0.24	1.75	0.60	-1.40	-2.18	0.74	0.74	106.88	106.20	99.28	99.25	6.81	6.45	100.08	98.75

1<sub>r</sub> Omax/Qdesign is greater than 1, the capacity of the pipe has been reached which will cause surcharging.

2<sub>r</sub> 1<sub>yd0</sub> is equal to 1, the pipe is surcharging. This may happen even if there is capacity in the pipe due to the slope of the pipe.

3<sub>r</sub> If the freeboard is equal to zero, the manhole is overflowing out of system flooding.

**EXISTING SANITARY SEWER CONVEYANCE DATA WITH EXISTING FLOW**  
GLOUCESTER STREET

Link	Location		Conduit Properties				Conduit Results						Conduit Profile						
	From	To	Diameter ft	Length ft	Slope %	Design Capacity cfs	Q <sub>max</sub> / Q <sub>design</sub>	Max Flow cfs	Max Velocity ft/s	Max Flow Depth ft	Y <sub>1/10</sub>	US Ground Elev. ft	DS Ground Elev. ft	US IE ft	DS IE ft	US Freeboard ft	DS Freeboard ft	US HGL ft	DS HGL ft
P-21380	21370	21380	0.83	370.16	0.48	1.49	0.02	0.03	1.00	0.08	0.10	127.95	125.80	118.69	116.82	9.18	8.93	118.77	116.87
P-21370	21360	21370	0.83	459.52	3.32	3.95	0.01	0.03	2.01	0.05	0.06	125.80	110.63	118.92	101.53	8.93	9.02	116.97	101.61
P-21360	21350	21360	0.83	459.63	2.84	3.65	0.02	0.06	2.51	0.08	0.09	110.63	97.63	101.53	88.38	9.02	9.15	101.61	88.48
P-21350	21340	21350	0.83	207.29	2.02	3.08	0.03	0.10	2.59	0.10	0.12	97.63	84.04	88.38	84.04	9.15	10.86	88.48	84.13
P-21340	21330	21340	0.83	253.43	4.59	4.64	0.03	0.12	3.61	0.09	0.11	84.99	80.72	84.04	71.30	10.86	9.29	84.13	71.43
P-21330	21320	21330	0.83	448.67	1.62	2.76	0.05	0.14	2.63	0.13	0.15	80.72	72.23	71.30	63.93	9.29	8.08	71.43	64.14
P-21320	21310	21320	0.83	460.28	0.39	1.36	0.13	0.17	1.63	0.21	0.25	72.23	68.88	63.93	62.08	8.08	6.08	64.14	62.30
P-21310	21300	21310	0.83	459.51	0.44	1.43	0.15	0.21	1.82	0.22	0.27	68.88	65.88	62.08	59.73	6.08	6.95	62.30	59.93

**OVERFLOW TO MANHOLE 21380 ON GLOUCESTER SANITARY SEWER CONVEYANCE DATA WITH FUTURE FLOW**  
GLOUCESTER STREET

Link	Location		Conduit Properties				Conduit Results						Conduit Profile						
	From	To	Diameter ft	Length ft	Slope %	Design Capacity cfs	Q <sub>max</sub> / Q <sub>design</sub>	Max Flow cfs	Max Velocity ft/s	Max Flow Depth ft	Y <sub>1/10</sub>	US Ground Elev. ft	DS Ground Elev. ft	US IE ft	DS IE ft	US Freeboard ft	DS Freeboard ft	US HGL ft	DS HGL ft
P-22900.2	22900	21380	0.50	263.15	6.95	1.47	0.71	1.05	7.78	0.36	0.73	140.13	127.95	136.48	119.69	2.99	8.70	137.25	119.25
P-21380	21370	21380	0.83	370.16	0.48	1.49	0.72	1.07	2.80	0.56	0.68	127.95	125.80	118.69	116.82	8.70	8.68	119.25	117.12
P-21370	21360	21370	0.83	459.52	3.32	3.95	0.27	1.07	6.20	0.30	0.36	125.80	110.63	118.92	101.53	6.68	8.79	117.12	101.84
P-21360	21350	21360	0.83	459.63	2.84	3.65	0.30	1.11	5.91	0.31	0.38	110.63	97.63	101.53	88.38	8.79	8.90	101.84	88.73
P-21350	21340	21350	0.83	207.29	2.02	3.08	0.37	1.14	5.27	0.35	0.42	97.63	84.04	88.38	84.04	8.90	10.67	88.73	84.32
P-21340	21330	21340	0.83	253.43	4.59	4.64	0.25	1.16	7.13	0.28	0.34	84.99	80.72	84.04	71.30	10.67	8.04	84.32	71.69
P-21330	21320	21330	0.83	448.67	1.62	2.76	0.43	1.18	4.76	0.54	0.65	80.72	72.23	71.30	63.93	9.04	7.66	71.69	64.57
P-21320	21310	21320	0.83	460.28	0.39	1.36	0.91	1.23	2.82	0.64	0.77	72.23	68.88	63.93	62.08	7.66	5.65	64.57	62.72
P-21310	21300	21310	0.83	459.51	0.44	1.43	0.88	1.26	2.85	0.64	0.78	68.88	65.88	62.08	59.73	5.65	6.65	62.72	60.23

1 If Q<sub>max</sub>/Q<sub>design</sub> is greater than 1, the capacity of the pipe has been reached which will cause surcharging.  
 2 If Y<sub>1/10</sub> is equal to 1, the pipe is surcharging. This may happen even if there is capacity in the pipe due to the slope of the pipe.  
 3 If the freeboard is equal to zero, the manhole is experiencing out of system flooding.  
 4 6-inch overflow pipe from manhole 22800 to 21380





