AGENDA
CITY OF LAUREL
CITY COUNCIL WORKSHOP
TUESDAY, SEPTEMBER 06, 2022
6:30 PM
COUNCIL CHAMBERS

Public Input: *Citizens may address the Council regarding any item of City business that is not on tonight's agenda. The duration for an individual speaking under Public Input is limited to three minutes. While all comments are welcome, the Council will not take action on any item not on the agenda. If a citizen would like to speak or comment regarding an item that is on tonight's agenda, we ask that you wait until the agenda item is presented to the Council by the Mayor and the public is asked to comment by the Mayor. Once again, each speaker is limited to three minutes.*

Be advised, if a discussion item has an upcoming public hearing, we would request members of the public to reserve your comments until the public hearing. At the public hearing, the City Council will establish an official record that will include all of your comments, testimony and written evidence. The City Council will base its decision on the record created during the public hearing. Any comments provided tonight will not be included in the record or considered by the City Council.

General Items

Executive Review

1. Resolution - Resolution Of The City Of Laurel City Council Granting A Variance For Goldberg Sporting Estates Subdivision, First Filing, For The Use Of A Low-Pressure Sewer System
2. Ordinance No. O22-03: An Ordinance Amending Certain Chapters Of Title 14 Of The Laurel Municipal Code Relating To The Adoption And Enforcement Of Building Codes For The City Of Laurel As Required By The State Of Montana (PH 9.13.2022)
3. Ordinance - An Ordinance Amending Section 2.20.010 Of The Laurel Municipal Code Relating To The City Court Clerk For The City Of Laurel
4. Ordinance - An Ordinance Amending Chapter 1.01 (Code Adoption) Of The Laurel Municipal Code Relating To The General Provisions

Council Issues

5. Parking Expectations Discussion

Other Items

Attendance at Upcoming Council Meeting

Announcements

The City makes reasonable accommodations for any known disability that may interfere with a person's ability to participate in this meeting. Persons needing accommodation must notify the City Clerk's Office to make needed arrangements. To make your request known, please call 406-628-7431, Ext. 2, or write to City Clerk, PO Box 10, Laurel, MT 59044, or present your request at City Hall, 115 West First Street, Laurel, Montana.

DATES TO REMEMBER

File Attachments for Item:

1. Resolution - Resolution Of The City Of Laurel City Council Granting A Variance For Goldberg Sporting Estates Subdivision, First Filing, For The Use Of A Low-Pressure Sewer System

CITY HALL
115 W. 1st. St.
PUB WORKS: 628-4796
PWD FAX: 628-2241
WATER OFFICE: 628-7431
WTR FAX: 628-2289
MAYOR: 628-8456

City of Laurel

P.O. Box 10
Laurel, Montana 59044

DEPARTMENT

REQUEST FOR CONSIDERATION OF
AGENDA ITEM BY CITY OF LAUREL CITY COUNCIL

To: City of Laurel
Attn: City Mayor
Civil City Attorney
City Clerk/Treasurer Executive Assistant

From: _____Kurt Markegard_____

Date: _____September_____

Action Item Being Requested of City Council: *Please clearly specify what you are requesting from City Council.*
_____Variances From Public Works Standards- See Ryan's report from KLJ_____
_____
_____

Date of Proposed Consideration by City Council:

_____September 13th Vote_____

Checklist of Items in Advance of Submission to City Council:

If applicable, have all meeting minutes and supporting documents been submitted to the City for review and approval?

Yes ___X__ No _____

If applicable, have all Department Heads and relevant personnel been consulted and approve of this item to be placed in front of City Council for consideration?

Yes __X___ No _____

Has the Civil City Attorney reviewed all proposed legal documents to be executed by the City and/or prepared all relevant documents?

Yes _____ No __X___

Are all proposed legal documents to be executed by the City signed by opposing parties and ready to be presented as accepted to City Council?

Yes _____ No ___?__

If it is a land use issue, has the County approved and accepted all relevant documents?

Yes _____ No _____

Have you received approval from the Mayor for your proposed action item, and have you submitted all supporting documentation for it?

Yes __X___ No _____

Have you clearly indicated to City Council the proposed action item that you seek from City Council?

Yes ___X__ No _____

Have you clearly indicated to the City when you request that the proposed action item be put on City Council agenda?

Yes ___X__ No _____

Have you clearly indicated to the City if the matter is required to be set for public hearing?

Yes _____ No __X___

Have all supporting documents intended to be included in the City Council packet been included with this submission?

Yes __X___ No _____

Please include/attach all supporting documents, including Agenda, Minutes, Voting Affirmation/Declination, Supporting Legal Documents, and Proposed Memoranda on Additional Issues for City Attorney and/or City Council Consideration.

RESOLUTION NO. R22-_____

RESOLUTION OF THE CITY OF LAUREL CITY COUNCIL GRANTING A VARIANCE FOR GOLDBERG SPORTING ESTATES SUBDIVISION, FIRST FILING, FOR THE USE OF A LOW-PRESSURE SEWER SYSTEM

WHEREAS, the Developer of Goldberg Sporting Estates Subdivision, First Filing (hereinafter "the Development"), is requesting a Variance from the City of Laurel for the use of a Low-Pressure Sewer System (hereinafter "LPSS") to collect wastewater within the Development;

WHEREAS, the proposed scope, effect, and operations of the LPSS are fully-described in the August 31, 2022 Report from KLJ Engineering, a copy attached hereto and fully incorporated herein;

WHEREAS, the Developer retained a Design Engineer to analyze the downstream collection system to determine the effects of the proposed Variance, and the Findings of the Developer's Design Engineer's Report are attached hereto and fully incorporated herein;

WHEREAS, the Developer has proposed additional benefits to the City of Laurel, as fully-described in the August 31, 2022 Report from KLJ Engineering, a copy attached hereto and fully incorporated herein;

WHEREAS, in order for the Developer to use the LPSS, the City of Laurel is required to grant a Variance, for the reasons fully-described in the August 31, 2022 Report from KLJ Engineering, a copy attached hereto and fully incorporated herein;

WHEREAS, the City Council of the City of Laurel may conditionally approve the installation and use of the LPSS, subject to the conditions recommended and fully-described in the August 31, 2022 Report from KLJ Engineering, a copy attached hereto and fully incorporated herein; and

WHEREAS, the City Council of the City of Laurel hereby adopts the conditions for approval of the installation of the LPSS, and further the City Council finds it is in the best interests of the residents of the City of Laurel to allow the variance, based upon the conditions fully-described in the August 31, 2022 Report from KLJ Engineering, a copy attached hereto and fully incorporated herein, since:

1. allowing the variance in this case relates only to a special condition that is specific to the applicant;
2. the current hardship was not created by the applicant;
3. the variance requested appears to be within the spirit, intent and purpose of the Laurel Municipal Code; and

4. granting the variance will not injure or result in an injustice to others.

NOW THEREFORE, BE IT RESOLVED that the Variance for Goldberg Sporting Estates Subdivision, First Filing, for the use of a low-pressure sewer system is hereby granted, subject to all of the conditions fully-described in the August 31, 2022 Report from KLJ Engineering, a copy attached hereto and fully incorporated herein; and

BE IT FURTHER RESOLVED, that the variance is site specific to the Development.

Introduced at a regular meeting of the City Council on the _____ day of _____, 2022 by Council Member _____.

PASSED and APPROVED by the City Council of the City of Laurel, Montana on the _____ day of _____, 2022.

APPROVED by the Mayor on the _____ day of _____, 2022.

CITY OF LAUREL

_____
Dave Waggoner, Mayor

ATTEST:

_____
Kelly Strecker, Clerk-Treasurer

APPROVED AS TO FORM:

_____
Michele L. Braukmann, Civil City Attorney

PERFORMANCE ENGINEERING
608 North 29th Street • Billings, MT 59101 • 406-384-0080

August 29, 2022

City of Laurel Planning Department
City of Laurel Public Works Department
City of Laurel Council
P.O. Box 10
Laurel, MT 59044

To Whom it May Concern:

The Developer of Goldberg Sporting Estates, First Filing, a 73-lot proposed residential development and 15 lot proposed commercial development, is submitting this written petition respectfully requesting allowance for use of a Low-Pressure Sewer System (LPSS) for collection wastewater within the development. It was noted in the comment letter from Planning on January 16, 2020 that "….Public Works cannot consider a LPSS system until authorized by City Council."

Since that point we have met with the Public Works Director and consultant KLJ two times to review the system proposed. This has included providing all materials requested by the Director and coordinating a meeting with the LPSS system representative (Ben Lewis of Ambiente H2O, Inc. located in Billings) to answer questions and discuss operation and maintenance of both the on-lot pumps and the main collection force main proposed in the public rights-of-way. The applicant has provided manuals and study information to the Public Works Department to develop a comfort level with the proposed system, which is used in multiple large developments within the City of Billings, showing it is reliable and sustainable. The applicant, through the creation of an HOA, has put a structure in place to ensure that the HOA controls all on-lot components through a direct contract with the system supplier (Ambiente H2O, Inc.) to ensure continuity and continued maintenance of all on-lot components. All information has been presented and documented to both the Planning and Public Works Departments to this point.

Following those discussions it was requested that the applicant complete a study of the system's potential impacts on the downstream gravity sewer collection system it would tie into as well as the Elm Lift Station. A complete Elm Lift Station Analysis memo was completed with numerous iterations of review through the City's consultant KLJ. The analysis shows that the 8-inch existing gravity sewer main from MH 332 to MH 335 will be required to be upgraded to 10-inch gravity as a result of the project, which the applicant is agreeing to do as part of the development work at their cost. Additionally, the analysis shows that by using the LPSS no further upgrades would be required at the Elm Lift Station. On the contrary, if the LPSS is denied the Elm Lift Station would be undersized for contributions of the Goldberg Estates development and neighboring properties if a traditional gravity collection system and municipal lift station were installed as part of the proposed project. The analysis shows that those cost can be avoided if a LPSS is approved for use by the Council.

As part of the Elm Lift Station review consideration was given to neighboring properties and for allowing connection into the same LPSS system. Land to the east and south along Eleanor Roosevelt/East 8th Street were included in the sizing and planning of the proposed system so as not to isolate any neighboring properties. The potential land uses of those parcels were planned for what could be the maximum density use to be conservative and still show that the LPSS system is viable for both the Goldberg Sporting Estates development and still allow the neighboring properties the opportunity to develop and connect to the system. That report and associated documentation was presented in its final version to Public Works and KLJ on August 3, 2022.

As noted previously, the HOA will own and maintain, through an annual service term agreement with Ambiente H2O, the on-lot tank and pumping systems to assure continuity with the systems and annual maintenance and upkeep. Ambiente installs a remote monitoring system on each unit installed on lots that alarms them to any discrepancies in the pump operations or if something has failed so they can replace/repair immediately. That responsibility will be the sole responsibility of the HOA which will be established. During the meetings in 2020 the applicant was notified that any main lines installed in City of Laurel public right-of-way would have to be owned and operated by the City of Laurel. As such, the system is proposed to be installed in the road rights-of-way and the main lines, up to lot lines on services, is proposed to be owned, operated and maintained by the City of Laurel. Should the City have concerns about that arrangement the Developer would happily take owner, maintenance, and operation responsibility for those main lines in public right-of-way

and work with the City on whatever agreement would be required to facilitate that arrangement. At this time it is proposed that the City of Laurel own, operate, and maintain all force main lines within the public rights-of-way.

As a result of this proposal the Developer is proposing to leave the Elm Lift Station as it is currently configured and operating. The Developer is committing to upgrade the gravity sewer main between MH 332 to MH 335 to a 10-inch diameter gravity main. The entire collection and force main system to support the development and neighboring properties would be installed by the Developer as part of the development project as outlined in the information submitted to Planning, Public Works, and KLJ.

The true benefit of this project to the City of Laurel is that we are avoiding installation of another public central lift station that would be owned and operated by the City. During our initial pre-application meeting in 2019 the Public Works department stated that they did not want to have another public lift station installed in this area to maintain and operate which was the impetus for proposing the LPSS system. Our proposal allows the City to put the burden of lift station operation and long-term maintenance on the lot owners and not the existing residents and rate payers of Laurel. We've shown thoroughly that this system can work and will allow for growth and development of neighboring properties as well. The Developer would take responsibility and ownership of the main force mains and service lines as well if Public Works or the City is uncomfortable with that responsibility.

The applicant is respectfully requesting acceptance of the proposed system by the Laurel City Council as stated was required by the Planning Department in their comment letter dated January 16, 2020. All supporting information has been provided to both agencies, primarily the Public Works Department and consultant KLJ. Any questions or concerns will be happily discussed during the City Council hearing or before/after to assure that all parties are comfortable with the information provided to make an educated decision. We appreciate your review and scheduling for hearing of this matter and await your response.

Feel free to contact PE Project Manager Scott Aspenlieder with any questions or concerns at (406) 384-0080 or scott@performance-ec.com.

Sincerely,

Scott Aspenlieder, PE
Project Manager

PERFORMANCE ENGINEERING

MEMO

To: Kurt Markegard, City of Laurel Public Works Director

From: Scott Aspenlieder, PE

Date: August 3, 2022

Re: Goldberg Sporting Estates – Sewer Impact Analysis – Revision 6

This memo is intended to clarify questions raised by the City of Laurel and contract engineer KLJ during review of the proposed development in consideration of allow a Low-Pressure Sewer System (LPSS) for the Goldberg Sporting Estates Subdivision. Information presented in this memo is focused on sewer system impacts only, water system impacts will be considered in a standard design report during permitting of water infrastructure.

The proposed subdivision includes seventy-three (73) residential lots that are assumed to be quadplex multi-family units, and fifteen (15) commercial lots that could range from a healthcare clinic, daycare, gas station, and offices based on market demand at the time of development. Based on the zoning in place, this analysis assumes that every residential lot within the proposed development will have a quadplex building for multi-family development to evaluate the maximum potential impact the development may have on the existing system. There is no plan to develop the property in that manner, nor do some lots have the room to allow for that type of construction, but it is evaluated in this manner at the request for the City of Laurel. Commercial flows were developed assume higher density businesses to account for what could potentially be included in the property. The commercial projected businesses are projections only, there is no guarantee or warrantee implied that the parcel will be developed out in that manner, by their use for this memo.

The City also requested the existing collection system to be evaluated at and downstream of the desired connection point for the LPSS to the existing system. As such, there are thirty-two (32) existing residential lots southwest of the proposed project area tied into the sewer line(s) that the proposed subdivision will contribute to. No flow measurements were taken on the gravity collection system, instead DEQ – Circular 4 guidance was used for design flows that would have been used to size the original system. These design flows are conservative in nature and higher than actual flows in the existing system.

The City additionally requested that consideration be given for the five (5) residential lots and one (1) commercial lot southeast of the proposed subdivision that may tied into the same existing gravity sewer line that the proposed subdivision will contribute to sometime in the future. Assumptions have been made based off the wastewater design flow rates as outlined in DEQ – Circular 4, which is more conservative that City of Laurel guidelines. The assumptions used to determine the base and peak demand flows for the proposed subdivision are described below:

General

Notes/Assumptions

1. Lot 1 of Block 1, Lot 1 of Block 5, and Lots 1 & 17 of Block 6 will be used as utility areas. No sewer demands
2. The Public Park along the north within Block 4 will be used as parkland. No sewer demands.

Residential Zoning Assumptions:

1. Per Circular DEQ 4 Section 3.1.2B – 100 gpd per person & an average of 2.5 persons per living unit.

Phase 1 – GSE Residential

1. Assume seventeen (17) quadplex lots equating to 68 living units, 2.5 persons per living unit.

Phase 2 – GSE Residential

1. Assume twenty-two (22) quadplex lots equating to 88 living units, 2.5 persons per living unit.

Phase 3 – GSE Residential

1. Assume thirty-four (34) quadplex lots equating to 136 living units, 2.5 persons per living unit.

Phase 4 – Commercial Lots

1. Assume twelve (12) of the 15 lots are office buildings with 20 employees, 13 gpd per employee.
2. Assume 1 of the 15 lots is a health clinic, 25 beds, 165 gpd per bed & 15 employees, 10 gpd per employee.
3. Assume 1 of the 15 lots is a daycare, 30 kids, 25 gpd per kid & 20 employees, 15 gpd per employee.
4. Assume 1 of the 15 lots is a gas station, 600 vehicles, 10 gpd per vehicle & 15 employees, 12 gpd per employee.

Existing Residential – Locust, Juniper, & Mullberry

Assume thirty-two (32) single-family lots equating to 32 living units, 2.5 persons per living unit.

Future Residential – South of E 8th St.

Assume five (5) single-family lots equating to 5 living units, 2.5 persons per living unit.

Existing Commercial – South of E 8th St.

Assume 1 of the 6 lots is an office building with 20 employees, 13 gpd per employee.

The LPSS system proposed includes the use of a 4-inch force main connecting to the existing gravity sewer collection system. The hydraulic capacity of that 4-inch force main is 88 gpm which will be used in the analysis to follow in determining impacts to the gravity collection system and Elm Lift Station to follow. System curve information used to determine the capacity of the 4-inch force main

is attached to this memo. At the request of KLJ the system was re-analyzed to assume that every pump represents a flow rate of 1,000 gpm (the potential flow rate based on zoning of the lots). The modified system analysis is provided in the attachments. The analysis shows that the system will require a 4-inch force main with a hydraulic capacity of 88 gpm, which is used in this analysis. This does result in higher retention times if that flow rate is not reached, and that odor control should be incorporated in the on-site systems. This could lead to an over-sizing of the system and is not advised but for maximum system impact analysis on the Elm Lift Station it is included at the behest of the City of Laurel and KLJ. Additional information was requested on the system operation by KLJ and the City of Laurel, particularly around how the system responds during power outages and power restoration. A full scenario explanation from E/One is provided as an attachment to this document for review.

Tables 1-7, included in the attachments show the contributing flows from all four phases of the GSE development; existing neighborhoods on Locust, Juniper, and Mulberry between E 8th St. and East Main St.; and the existing residential and commercial development which is not publicly sewered but could be at a time in the future.

Existing Gravity Sewer Analysis

Performance Engineering measured and reviewed the sewer capacity leading up to the Elm Lift Station. The controlling reach of sewer main was determined to be MH 332-MH 335 along the alley between Juniper Ave and Locust Ave. City of Laurel Standards for Public Works Improvements require all gravity collection lines under 10-inch diameter to flow at peak under 50% full pipe.

	Total Base Demand (gpd)	Total Base Demand (gpm)	Total Base Demand (cfs)	Total Peak Demand (gpm)	
	PROPOSED				→ *GOLDBERG DEVELOPMENT CONTRIBUTION*
	97,135	67.45	0.1503	269.82	
	EXISTING HOUSES				→ *CONTRIBUTING TO MH 332-MH 335*
	8,000	5.56	0.0124	22.22	
	NEIGHBORING DEVELOPMENT				→ *FUTURE CONTRIBUTION*
	1,510	1.05	0.0023	4.19	
Goldberg Total	98,645	68.50	0.1526	274.01	
Total	106,645	74.05	0.1650	296.24	

The flows from the existing houses, the neighboring development, and the proposed GSE project area were considered as if they were conveyed through gravity collection or via large regional lift station as a worst-case scenario to check capacity. In either a gravity collection or conventional lift station for GSE, the development would contribute a peak discharge of 270 gpm. Should the proposed LPSS be approved, due to the 4-inch diameter force main the maximum capacity for discharge to this existing area would be 77gpm. For capacity analysis purposes the 270 gpm scenario was analyzed below. When combined with the existing flows from the neighborhood we conclude that the combined peak hour flow rate is 296 gpm, which exceeds the 50% capacity requirement noted above. This would require the 8-inch gravity main between MH 332 and MH 335 to be replaced and upgraded to a 10-inch gravity main.

ELM LIFT STATION ANALYSIS

Existing Flow Rates

In reviewing the design reports provided by the City of Laurel the Elm Lift Station pump capacity is technically undersized per DEQ regulations. The Village Lift Station has a pump capacity of 300 gpm connected to the Elm Lift Station which has a pump capacity of 600 gpm as well based on the Morrison-Maierle reports provided by the City of Laurel. Table 4-3 presented below was pulled directly from the Morrison-Maierle report without modification. It appears there are rounding errors that occurred in the excel cells however the Peak Hour Flows are within 2-3 gpm, within the accuracy of the projections presented. With that said this memo uses the data as presented in the Morrison-Maierle report as is without modification to minimize confusion and because the data is well within the conservative nature of these estimates. The Elm Lift Station wet well and ancillary equipment was upgraded in 2011 with two Gorman-Rupp 600 gpm pumps installed in 2015. In 2021 a Homa 600 gpm pump was installed to replace one of the 2015 Gorman-Rupp pumps, leaving the replaced pump in storage as a backup for the lift station. From the information provided and pump measurements taken in the field, it appears that the City created the storage capacity in the wet well recommended by Morrison-Maierle along with installing the recommended 600 gpm pumps to fully improve the lift station.

TABLE 4-3
FLOW RATES FOR AREAS TRIBUTARY TO EXISTING AND PROPOSED LIFT STATIONS

Area	Area (acres)	Green-Space (acres)	Devel-opable Area (acres)	Est. Pop.[1]	Per Capita Flow Rate[2] (gpcd)	Ave. Day (gpd)	Ave. Day (gpm)	Peaking Factor (MDEQ)	Peak Hour Flow (gpd)	Peak Hour Flow (gpm)
Elm LS Service Area				360	177	63,720	44	4.0	257,650	179
Area North and East of and Tributary to Elm LS	286	57	229	1,143	115	131,458	91	3.8	494,519	343
Village LS Service Area				598	177	105,846	74	3.9	416,290	289
Area North and East of and Tributary to New East LS Service Area	77	15	62	308	115	35,467	25	4.1	144,467	100

1. Elm and Village Lift Station Service Area populations are taken from 2000 census data. Populations for the remaining areas are calculated assuming 0.5 acre lots and 2.5 people per household.

2. From Table 4-7 in the 2003 Wastewater Facilities Plan, new construction is assumed to have no infiltration.

The Village Lift Station and Elm Street Service Area are two variables that contribute to the capacity of the Elm Lift Station, which is currently capable of pumping 600 gpm of wastewater. To be clear the Existing Elm Service Area includes areas west of the station contributing to the facility above and beyond the 22 gpm included in the gravity analysis. The 22 gpm flow outlined in the gravity analysis was pulled only to analyze gravity capacity and is included in the 179 gpm peak outlined in the Morrison-Maierle data. In an effort to be conservative that 22 gpm is counted in both the proposed flows and existing data, providing additional capacity buffer. Again, to be conservative we've used the design flows shown below:

Village Lift Station Flows — 300 gpm Existing Elm Service Area Flows — 179 gpm

Proposed Development, Including Existing Flows—296 gpm

Elm Lift Station Data

Based on a review of existing reports and plans, in conjunction with new field measurements, it was determined that the pumps in the Elm Lift Station are sized to pump at 600 gpm. PE performed field measurements on February 7, 2022, in coordination with City staff, at which time the cycles for the facility were times and levels were measured. The field data confirmed that the Elm Station pump are 600 gpm.

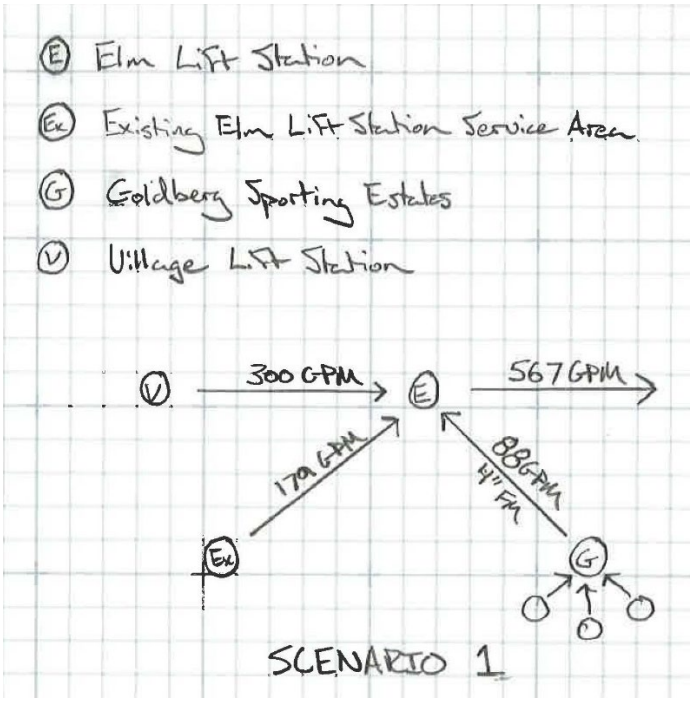
Our Findings

Based on review of the 2009 Laurel Wastewater Facilities Plan Update, Elm and Village Lift Stations Alternatives Analysis Technical Memorandum, and data initially provided, it appeared that the Elm Lift Station was operating at or below the design criteria outlined in DEQ Circular 2. Additional information provided by Kurt Markegard on November 5, 2021 showed that the pumps had been replaced in 2015 and then another in 2021, all with 600 gpm capacity. Currently, each pump is capable of servicing the total peak demand of the flows seen from Village Lift Station and Elm Service Area when combined.

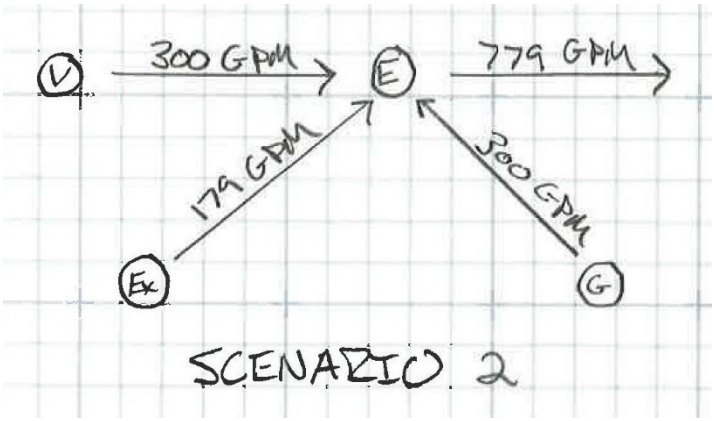
PROPOSED ALTERNATIVES AND REQUIRED ELM LIFT STATION MODIFICATIONS

Scenarios

Scenario 1- Proposed development utilizing LPSS with individual pumps having a 4" force main discharging to the existing gravity sewer in the Elm Service Area. Includes replacement of 8-inch gravity main between MH 332-MH 335 with 10-inch gravity main.



Scenario 2- Proposed development utilizing gravity sewer and a single large lift station at 300 gpm discharging to the existing gravity sewer in the Elm Service Area. Includes replacement of 8-inch gravity main between MH 332-MH 335 with 10-inch gravity main.



Conclusion

Based on the two scenarios visually presented above the Elm Lift Station, with the pump replacements in 2015 and 2021 to provide 600 gpm capacity as recommended in the Morrison-Maierle report can support Scenario 1 without modification. That would leave the existing wet well, pumps and ancillary equipment in place and sized properly to service the existing neighborhoods along with the new GSE development and all potential future development along East 8th Street. Under this scenario it may be beneficial to replace the last Gorman-Rupp pump with a matching Homa pump as was installed in 2021. This would provide matching equipment for the facility and extend the useful life of the pumping equipment impacted by the proposed GSE development.

Should the City decide that a conventional lift station be used for the GSE the facility would be sized to accommodate 300 gpm peak flows. Under Scenario 2 you can see it would require the entirety of the Elm Lift Station, wet well and ancillary equipment included, to be upgraded and replaced to accommodate a design flow of 779 gpm at peak. It is our opinion that this is an unnecessary upgrade when flows can be controlled through a LPSS servicing the GSE development area.

Goldberg Sporting Estates - GSE Demands

Task: Sewer Demands
By: SA
Date: 6/20/2022

DEQ Circular 4 Demands:

4 Peak Factor
2.5 Persons/Residential Living Units
100 gpd/Person in Residential Units
165 gpd/Bed in Health Clinic
10 gpd/Employee in a Health Clinic
13 gpd/Employee in an Office
25 gpd/Child in a Daycare
15 gpd/Employee in a Daycare
10 gpd/Vehicle Served
12 gpd/Employee in a Gas Station

		Estimated Usage							
	No. of Lots	No. of Residential Living Units					Total Base Demand (gpd)	Total Base Demand (gpm)	Total Base Demand (cfs)	Total Peak Demand (gpm)
Block 1										
Lots 2-7	6	4	Per Each Lot				6,000	4.17	0.0093	16.67
						Block 1 Subtotal	**6,000**	**4.17**	**0.0093**	**16.67**
Block 2										
Lots 1-13	13	4	Per Each Lot				13,000	9.03	0.0201	36.11
						Block 2 Subtotal	**13,000**	**9.03**	**0.0201**	**36.11**
Block 3										
Lots 1-30	30	4	Per Each Lot				30,000	20.83	0.0464	83.33
						Block 3 Subtotal	**30,000**	**20.83**	**0.0464**	**83.33**
Block 4										
Lots 1-20	20	4	Per Each Lot				20,000	13.89	0.0309	55.56
						Block 4 Subtotal	**20,000**	**13.89**	**0.0309**	**55.56**
Block 5										
Lots 2-5	4	4	Per Each Lot				4,000	2.78	0.0062	11.11
						Block 5 Subtotal	**4,000**	**2.78**	**0.0062**	**11.11**
Lot Total	**73**					**Total**	**73,000**	**50.69**	**0.1129**	**202.78**

		Estimated Usage								
	No. of Lots	No. of Residential Living Units	No. of Employees	No. of Beds in Health Clinic	No. of Children	No. of Vehicles Served	Total Base Demand (gpd)	Total Base Demand (gpm)	Total Base Demand (cfs)	Total Peak Demand (gpm)
Block 6										
Office: Lots 2-13	12		20				3,120	2.17	0.0048	8.67
Clinic: Lot 14	1		15	25			4,275	2.97	0.0066	11.88
Daycare: Lot 15	1		20		30		1,050	0.73	0.0016	2.92
Gas Station: Lot 16	1		15			600	6,180	4.29	0.0096	17.17
						Block 6 Subtotal	**14,625**	**10.16**	**0.0226**	**40.63**
Lot Total	**15**					**Total**	**14,625**	**10.16**	**0.0226**	**40.63**
						Total Overall	**87,625**	**60.85**	**0.1356**	**243.40**

Goldberg Sporting Estates - Phase 1

Task: Sewer Demands, Phase 1
By: SA
Date: 6/20/2022

DEQ Circular 4 Demands:

4 Peak Factor
2.5 Persons/Residential Living Units
100 gpd/Person in Residential Units

	No. of Lots	Estimated Usage: No. of Residential Living Units		Total Base Demand (gpd)	Total Base Demand (gpm)	Total Base Demand (cfs)	Total Peak Demand (gpm)
Block 1 Lots 2-7	6	4	Per Each Lot	6,000	4.17	0.0093	16.67
			Block 1 Subtotal	**6,000**	**4.17**	**0.0093**	**16.67**
Block 2 Lots 1-6	6	4	Per Each Lot	6,000	4.17	0.0093	16.67
			Block 2 Subtotal	**6,000**	**4.17**	**0.0093**	**16.67**
Block 3 Lots 1-2	2	4	Per Each Lot	2,000	1.39	0.0031	5.56
			Block 3 Subtotal	**2,000**	**1.39**	**0.0031**	**5.56**
Block 4 Lots 1-2	2	4	Per Each Lot	2,000	1.39	0.0031	5.56
			Block 4 Subtotal	**2,000**	**1.39**	**0.0031**	**5.56**
Block 5 Lot 2	1	4	Per Each Lot	1,000	0.69	0.0015	2.78
			Block 5 Subtotal	**1,000**	**0.69**	**0.0015**	**2.78**
Lot Total	**17**		**Phase 1 Total**	**17,000**	**11.81**	**0.0263**	**47.22**

Goldberg Sporting Estates - Phase 2

Task: Sewer Demands, Phase 2
By: SA
Date: 6/20/2022

DEQ Circular 4 Demands:

4 Peak Factor
2.5 Persons/Residential Living Units
100 gpd/Person in Residential Units

	No. of Lots	Estimated Usage: No. of Residential Living Units		Total Base Demand (gpd)	Total Base Demand (gpm)	Total Base Demand (cfs)	Total Peak Demand (gpm)
Block 2 Lots 7-13	7	4	Per Each Lot	7,000	4.86	0.0108	19.44
			Block 2 Subtotal	**7,000**	**4.86**	**0.0108**	**19.44**
Block 3 Lots 3-15	13	4	Per Each Lot	13,000	9.03	0.0201	36.11
			Block 3 Subtotal	**13,000**	**9.03**	**0.0201**	**36.11**
Block 4 Lots 2-3	2	4	Per Each Lot	2,000	1.39	0.0031	5.56
			Block 4 Subtotal	**2,000**	**1.39**	**0.0031**	**5.56**
Lot Total	**22**		**Phase 2 Total**	**22,000**	**15.28**	**0.0340**	**61.11**

Goldberg Sporting Estates - Phase 3

Task: Sewer Demands, Phase 3
By: SA
Date: 6/20/2022

DEQ Circular 4 Demands:

4 Peak Factor
2.5 Persons/Residential Living Units
100 gpd/Person in Residential Units

	No. of Lots	Estimated Usage: No. of Residential Living Units		Total Base Demand (gpd)	Total Base Demand (gpm)	Total Base Demand (cfs)	Total Peak Demand (gpm)
Block 3 Lots 16-30	15	4	Per Each Lot	15,000	10.42	0.0232	41.67
			Block 3 Subtotal	**15,000**	**10.42**	**0.0232**	**41.67**
Block 4 Lots 5-20	16	4	Per Each Lot	16,000	11.11	0.0248	44.44
			Block 4 Subtotal	**16,000**	**11.11**	**0.0248**	**44.44**
Block 5 Lot 3-5	3	4	Per Each Lot	3,000	2.08	0.0046	8.33
			Block 5 Subtotal	**3,000**	**2.08**	**0.0046**	**8.33**
Lot Total	**34**		**Phase 3 Total**	**34,000**	**23.61**	**0.0526**	**94.44**

Goldberg Sporting Estates - Phase 4

Task: Sewer Demands, Phase 4
By: SA
Date: 6/20/2022

DEQ Circular 4 Demands:

4 Peak Factor
165 gpd/Bed in Health Clinic
10 gpd/Employee in a Health Clinic
13 gpd/Employee in an Office
25 gpd/Child in a Daycare
15 gpd/Employee in a Daycare
10 gpd/Vehicle Served
12 gpd/Employee in a Gas Station

		Estimated Usage					Total Base Demand (gpd)	Total Base Demand (gpm)	Total Base Demand (cfs)	Total Peak Demand (gpm)
	No. of Lots	**No. of Residential Living Units**	**No. of Employees**	**No. of Beds in Health Clinic**	**No. of Children**	**No. of Vehicles Served**				
Block 6										
Office: Lots 2-13	12		20				3,120	2.17	0.0048	8.67
Clinic: Lot 14	1		15	25			4,275	2.97	0.0066	11.88
Daycare: Lot 15	1		20		30		1,050	0.73	0.0016	2.92
Gas Station: Lot 16	1		15			600	6,180	4.29	0.0096	17.17
						Block 6 Subtotal	**14,625**	**10.16**	**0.0226**	**40.63**
Lot Total	**15**					**Total**	**14,625**	**10.16**	**0.0226**	**40.63**

Goldberg Sporting Estates - Existing Houses

Task: Sewer Demands, Existing Houses
By: SA
Date: 6/20/2022

DEQ Circular 4 Demands:
4 Peak Factor
2.5 Persons/Residential Living Units
100 gpd/Person in Residential Units

			No. of Lots	Estimated Usage: No. of Residential Living Units		Total Base Demand (gpd)	Total Base Demand (gpm)	Total Base Demand (cfs)	Total Peak Demand (gpm)
MH 333-MH 334			10						
	Mulberry Ave	Lot 702	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Mulberry Ave	Lot 706	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Mulberry Ave	Lot 708	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Mulberry Ave	Lot 1612	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Locust Ave	Lot 703	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Locust Ave	Lot 707	1	1	Per Each Lot	250	0.17	0.0004	0.69
Locust Ave	Lot 711		1	1	Per Each Lot	250	0.17	0.0004	0.69
	Locust Ave	Lot 715	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Locust Ave	Lot 719	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Locust Ave	Lot 1602	1	1	Per Each Lot	250	0.17	0.0004	0.69
					Block 1 Subtotal	**2,500**	**1.74**	**0.0039**	**6.94**
MH 331-MH 332			12						
	Locust Ave	Lot 702	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Locust Ave	Lot 706	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Locust Ave	Lot 710	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Locust Ave	Lot 714	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Locust Ave	Lot 718	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Locust Ave	Lot 722	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Juniper Ave	Lot 703	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Juniper Ave	Lot 707	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Juniper Ave	Lot 711	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Juniper Ave	Lot 715	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Juniper Ave	Lot 719	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Juniper Ave	Lot 723	1	1	Per Each Lot	250	0.17	0.0004	0.69
					Block 2 Subtotal	**3,000**	**2.08**	**0.0046**	**8.33**
MH 332-MH 335			10						
	Juniper Ave	Lot 519	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Juniper Ave	Lot 523	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Juniper Ave	Lot 605	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Juniper Ave	Lot 615	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Juniper Ave	Lot 619	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Locust Ave	Lot 616	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Locust Ave	Lot 618	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Locust Ave	Lot 622	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Locust Ave	Lot 628	1	1	Per Each Lot	250	0.17	0.0004	0.69
	Locust Ave	Lot 1515	1	1	Per Each Lot	250	0.17	0.0004	0.69
					Block 3 Subtotal	**2,500**	**1.74**	**0.0039**	**6.94**
Lot Total			**32**		**Total**	**8,000**	**5.56**	**0.0124**	**22.22**

Goldberg Sporting Estates - Neighboring Contributions

Task: Sewer Demands, Neighboring Development Connections
By: SA
Date: 6/20/2022

DEQ Circular 4 Demands:

4 Peak Factor
2.5 Persons/Residential Living Units
100 gpd/Person in Residential Units
13 gpd/Employee in an Office

		No. of Lots	Estimated Usage: No. of Residential Living Units		Total Base Demand	Total Base	Total Base Demand	Total Peak Demand
EAST 8TH ST, MAIN ST		5						
E 8th St	Lot D02662	1	1	Per Each Lot	250	0.17	0.0004	0.69
E 8th St	Lot D02661	1	1	Per Each Lot	250	0.17	0.0004	0.69
E Main St	Lot D02660	1	1	Per Each Lot	250	0.17	0.0004	0.69
E 8th St	Lot B01692	1	1	Per Each Lot	250	0.17	0.0004	0.69
E 8th St	Lot B01690	1	1	Per Each Lot	250	0.17	0.0004	0.69
				Block 1 Subtotal	**1,250**	**0.87**	**0.0019**	**3.47**
Lot Total		**5**		**Total**	**1,250**	**0.87**	**0.0019**	**3.47**

		No. of Lots	Estimated Usage: No. of Residential Living Units	No. of Employees	No. of Beds in Health Clinic	No. of Children	No. of Vehicles Served	Total Base Demand (gpd)	Total Base Demand (gpm)	Total Base Demand (cfs)	Total Peak Demand (gpm)
E 8TH ST											
	Office: Lot D02662A	1		20				260	0.18	0.0004	0.72
							Block 6 Subtotal	**260**	**0.18**	**0.0004**	**0.72**
							Phase 4 Total	**1,510**	**1.05**	**0.0023**	**4.19**

Goldberg Sporting Estates - Full Contribution

Task: Sewer Demands Summary
By: SA
Date: 6/20/2022

DEQ Circular 4 Demands:

4	Peak Factor
2.5	Persons/Residential Living Units
100	gpd/Person in Residential Units
165	gpd/Bed in Health Clinic
10	gpd/Employee in a Health Clinic
13	gpd/Employee in an Office
25	gpd/Child in a Daycare
15	gpd/Employee in a Daycare
10	gpd/Vehicle Served
12	gpd/Employee in a Gas Station

PROPOSED PROJECT CONTRIBUTION

	No. of Lots	Residential Estimated Usage		Total Base Demand (gpd)	Total Base Demand (gpm)	Total Base Demand (cfs)	Total Peak Demand (gpm)
Phase 1	17	4	Per Each Lot	17,000	11.81	0.0263	47.22
Phase 2	22	4	Per Each Lot	22,000	15.28	0.0340	61.11
Phase 3	34	4	Per Each Lot	34,000	23.61	0.0526	94.44
Total	**73**		**Total**	**73,000**	**50.69**	**0.1129**	**202.78**
	No. of Lots	**Commercial Estimated Usage**		**Total Base Demand (gpd)**	**Total Base Demand (gpm)**	**Total Base Demand (cfs)**	**Total Peak Demand (gpm)**
Phase 4	15	Varies		14,625	10.16	0.0226	40.63
Total	**15**		**Total**	**14,625**	**10.16**	**0.0226**	**40.63**
			Phase Total	**87,625**	**60.85**	**0.1356**	**243.40**

EXISTING HOUSES CONTRIBUTION

	No. of Lots	Residential Estimated Usage		Total Base Demand (gpd)	Total Base Demand (gpm)	Total Base Demand (cfs)	Total Peak Demand (gpm)
Existing Residential Connec.	32	1	Per Each Lot	8,000	5.56	0.0124	22.22
Total	**32**		**Total**	**8,000**	**5.56**	**0.0124**	**22.22**

NEIGHBORING DEVELOPMENT CONNEC. CONTRIBUTION

	No. of Lots	Residential Estimated Usage		Total Base Demand (gpd)	Total Base Demand (gpm)	Total Base Demand (cfs)	Total Peak Demand (gpm)
Future Service Connections	5	1	Per Each Lot	1,250	0.87	0.0019	3.47
Total	**5**		**Total**	**1,250**	**0.87**	**0.0019**	**3.47**
	No. of Lots	**Commercial Estimated Usage**		**Total Base Demand (gpd)**	**Total Base Demand (gpm)**	**Total Base Demand (cfs)**	**Total Peak Demand (gpm)**
D02662A	1	20		260	0.18	0.0004	0.72
Total	**1**		**Total**	**260**	**0.18**	**0.0004**	**0.72**
			Neighboring Development Total	**1,510**	**1.05**	**0.0023**	**4.19**

	Total Base Demand (gpd)	Total Base Demand (gpm)	Total Base Demand (cfs)	Total Peak Demand (gpm)
TOTAL OF ALL CONTRIBUTIONS	**97,135**	**67.45**	**0.1503**	**269.82**

PE STANDARD.CTB

8/13/2019 8:24:51 AM

C:\Users\Katrina S\Dropbox (PEC Billings)\PEC Billings Team Folder\Goldberg Investments\2018-017 Yard Office Subdivision\CAD\DWG\Exhibits\18-017 GSE Proposed Site Map.dwg

PUBLIC PARK
164604 SQ FT
3.779 ACRES

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5
ZONE 6
ZONE 7
ZONE 8
ZONE 9
ZONE 10
ZONE 11
ZONE 12
ZONE 13
ZONE 14
ZONE 15
ZONE 16
ZONE 17

YARD OFFICE RD

ELEANOR ROOSEVELT DR

E MAIN ST

STORMWATER POND AREA

EXISTING SSMH
8" IE OUT = 3281.30

0 20 40
1" = 80'

REVISIONS				
NO.	DESCRIPTION	DATE	BY	CHECKED BY
1				
2				
3				
4				
5				
6				

PERFORMANCE ENGINEERING
608 NORTH 29TH STREET
BILLINGS, MT 59101
(406) 384-0080
performance-ec.com

PRELIMINARY NOT FOR CONSTRUCTION

DSGN. BY
DESIGNED BY

DRWN. BY
DRAWN BY

DATE
DATE

QUALITY ASSURANCE

CHCK BY
CHECKED BY

CHCK DATE
DATE

GOLDBERG SPORTING ESTATES

LAUREL, MT

LOT LAYOUT

PROJECT NUMBER
2018-017

SHEET NUMBER
1 OF 1

DRAWING NUMBER
EX 1

Environment One Corporation

Pressure Sewer Preliminary Cost and Design Analysis For Yard Office Rd-rev4 Laurel, Montana

Prepared For:
Performance Engineering
608 North 29th Street
Billings MT 59101 USA
Tel: 406-384-0080
Fax:
Prepared By: M. Crowley/D. Benson
July 6, 2022

Yard Office Rd-rev4
Laurel, Montana

Prepared by : M. Crowley/D. Benson **On:** July 6, 2022

Notes :
Analysis based upon drawings and data provided. Station recommendations are preliminary.

GPD values impact retention times only, not line sizing or hydraulics. GP laterals to be 1.25".

General recommendations for valve placement are: clean out valves at intervals of approximately 1,000 ft and at branch ends and junctions; isolation valves at branch junctions; and air release valves at peaks of 25 ft or more and/or at intervals of 2,000 to 2,500 ft. Lateral kits comprised of a ball and check valve are required to be installed between the pump discharge and street main on all installations. Laterals should be located as close to the public right of way as possible.

Flow has been modified to 1000 GPD for all units per request of engineer and municipality.

Normal residential flow is 200 GPD. Altering GPD will only affect force main retention times. Retention times will increase substantially if the 1000 GPD is not met.

Odor control recommended if retention time exceeds 10 hours.

Larger station size recommended to account for 1000 GPD.

<<<<< E N D O F N O T E S >>>>>

July 6, 2022

Budgetary Low Pressure Sewer System Costs

Yard Office Rd-rev4
Laurel, Montana

	Quantity	Description	Unit Cost	Installation	Sub Total
Valves	1	Air/Vacuum Release Valve	$0.00	0.00	$0.00
	9	Clean Out	$0.00	0.00	$0.00
					$0.00
Pumps	75	DH151-93	$0.00	0.00	$0.00
	90	Lateral Kits (Includes Ball\Check Valve Assembly)	$0.00	0.00	$0.00
	90	Lateral (Boundary) Installation	$0.00	0.00	$0.00
	90	Pump/Panel Installation	$0.00	0.00	$0.00
	4,500	LF of 1.25" Lateral Pipe	$0.00	0.00	$0.00
	15	DH152-93	$0.00	0.00	$0.00
					$0.00
Piping	1,997	2.00" Pipe	$0.00	0.00	$0.00
	3,306	3.00" Pipe	$0.00	0.00	$0.00
	632	4.00" Pipe	$0.00	0.00	$0.00
					$0.00

Number of Connections	**90**		
Total Per Connection	**$0.00**	**Total (w/o other)** >>>>>>>>>>>>>	**$0.00**
Grand Total Per Connection	**$0.00**	**Grand Total (including other)** >>>>>>>>>>>>>	**$0.00**

Note: The System Costs above are based on piping sized for, and Grinder Pumps manufactured by Environment One Corporation.

PRELIMINARY PRESSURE SEWER - PIPE SIZING AND BRANCH ANALYSIS

Prepared By:
M. Crowley/D. Benson

Yard Office Rd-rev4
Laurel, Montana

July 6, 2022

Zone Number	Connects to Zone	Number of Pumps in Zone	Accum Pumps in Zone	Gals/day per Pump	Max Flow Per Pump (gpm)	Max Sim Ops	Max Flow (GPM)	Pipe Size (inches)	Max Velocity (FPS)	Length of Main this Zone	Friction Loss Factor (ft/100 ft)	Friction Loss This Zone	Accum Fric Loss (feet)	Max Main Elevation	Minimum Pump Elevation	Static Head (feet)	Total Dynamic Head (ft)
This spreadsheet was calculated using pipe diameters for: SDR11HDPE											Friction loss calculations were based on a Constant for inside roughness "C" of: 150						
1.00	2.00	3	3	1000	11.00	2	22.00	2.00	2.38	200.00	1.19	2.38	30.36	3,286.00	3,278.00	8.00	38.36
2.00	5.00	5	8	1000	11.00	3	33.00	2.00	3.57	376.00	2.52	9.47	27.98	3,286.00	3,280.00	6.00	33.98
3.00	4.00	3	3	1000	11.00	2	22.00	2.00	2.38	348.00	1.19	4.14	28.37	3,286.00	3,277.00	9.00	37.37
4.00	5.00	4	7	1000	11.00	3	33.00	2.00	3.57	227.00	2.52	5.72	24.23	3,286.00	3,279.00	7.00	31.23
5.00	6.00	3	18	1000	11.00	4	44.00	3.00	2.19	475.00	0.65	3.09	18.51	3,286.00	3,284.00	2.00	20.51
6.00	7.00	12	30	1000	11.00	5	55.00	3.00	2.74	730.00	0.98	7.17	15.42	3,286.00	3,282.00	4.00	19.42
7.00	17.00	6	36	1000	11.00	6	66.00	3.00	3.29	282.00	1.38	3.88	8.25	3,286.00	3,285.00	1.00	9.25
8.00	9.00	3	3	1000	11.00	2	22.00	2.00	2.38	168.00	1.19	2.00	28.13	3,294.00	3,286.00	8.00	36.13
9.00	10.00	6	9	1000	11.00	3	33.00	2.00	3.57	298.00	2.52	7.51	26.13	3,294.00	3,288.00	6.00	32.13
10.00	11.00	9	18	1000	11.00	4	44.00	3.00	2.19	433.00	0.65	2.81	18.62	3,294.00	3,289.00	5.00	23.62
11.00	12.00	12	30	1000	11.00	5	55.00	3.00	2.74	551.00	0.98	5.41	15.81	3,294.00	3,291.00	3.00	18.81
12.00	16.00	3	33	1000	11.00	6	66.00	3.00	3.29	129.00	1.38	1.78	10.40	3,289.00	3,289.00	0.00	10.40
13.00	14.00	3	3	1000	11.00	2	22.00	2.00	2.38	124.00	1.19	1.47	19.62	3,289.00	3,289.00	0.00	19.62
14.00	15.00	6	9	1000	11.00	3	33.00	2.00	3.57	256.00	2.52	6.45	18.15	3,289.00	3,285.00	4.00	22.15
15.00	16.00	8	17	1000	11.00	4	44.00	3.00	2.19	474.00	0.65	3.08	11.70	3,289.00	3,288.00	1.00	12.70
16.00	17.00	2	52	1000	11.00	7	77.00	3.00	3.83	232.00	1.83	4.25	8.62	3,286.00	3,286.00	0.00	8.62
17.00	17.00	2	90	1000	11.00	8	88.00	4.00	2.65	632.00	0.69	4.37	4.37	3,286.00	3,286.00	0.00	4.37

Note: This analysis is valid only with the use of progressive cavity type grinder pumps as manufactured by Environment One.

PRELIMINARY PRESSURE SEWER - ACCUMULATED RETENTION TIME(HR)

Prepared By:
M. Crowley/D. Benson

Yard Office Rd-rev4
Laurel, Montana

July 6, 2022

Zone Number	Connects to Zone	Accumulated Total of Pumps this Zone	Pipe Size (inches)	Gallons per 100 lineal feet	Length of Zone	Capacity of Zone	Average Daily Flow	Average Fluid Changes per Day	Average Retention Time (Hr)	Accumulated Retention Time (Hr)
This spreadsheet was calculated using pipe diameters for: SDR11HDPE								Gals per Day per Dwelling		1,000
1.00	2.00	3	2.00	15.40	200.00	30.81	3,000	97.38	0.25	0.98
2.00	5.00	8	2.00	15.40	376.00	57.91	8,000	138.13	0.17	0.74
3.00	4.00	3	2.00	15.40	348.00	53.60	3,000	55.97	0.43	1.11
4.00	5.00	7	2.00	15.40	227.00	34.96	7,000	200.20	0.12	0.68
5.00	6.00	18	3.00	33.47	475.00	158.97	18,000	113.23	0.21	0.56
6.00	7.00	30	3.00	33.47	730.00	244.31	30,000	122.80	0.20	0.35
7.00	17.00	36	3.00	33.47	282.00	94.38	36,000	381.46	0.06	0.16
8.00	9.00	3	2.00	15.40	168.00	25.88	3,000	115.93	0.21	0.83
9.00	10.00	9	2.00	15.40	298.00	45.90	9,000	196.08	0.12	0.62
10.00	11.00	18	3.00	33.47	433.00	144.91	18,000	124.22	0.19	0.50
11.00	12.00	30	3.00	33.47	551.00	184.40	30,000	162.69	0.15	0.31
12.00	16.00	33	3.00	33.47	129.00	43.17	33,000	764.39	0.03	0.16
13.00	14.00	3	2.00	15.40	124.00	19.10	3,000	157.07	0.15	0.61
14.00	15.00	9	2.00	15.40	256.00	39.43	9,000	228.25	0.11	0.46
15.00	16.00	17	3.00	33.47	474.00	158.63	17,000	107.17	0.22	0.35
16.00	17.00	52	3.00	33.47	232.00	77.64	52,000	669.74	0.04	0.13
17.00	17.00	90	4.00	55.31	632.00	349.58	90,000	257.45	0.09	0.09

Note: This analysis is valid only with the use of progressive cavity type grinder pumps as manufactured by Environment One

\\Eoneis1\data\Common\SSB\SSB Engineering Data\AE Projects\Yard Office Rd, MT\Yard Office Rd, MT-rev4.EOne

Scott Aspenlieder

From: blewis@ambienteh2o.com
Sent: Thursday, June 9, 2022 10:41 AM
To: Scott Aspenlieder
Cc: Craig Dalton
Subject: RE: Goldberg Sporting Estates - Laurel

Scott,

What happens when more pumps are running than designed/expected?

This is most likely to occur after a prolonged power outage where there may be many stations at or above the ON level.

There are three different or simultaneous scenarios that may occur depending on product configuration or user settings.

1.) E/One grinder pumps feature a semi positive displacement / progressive cavity pump design. This pump design has inherent "reserve hydraulic capacity" beyond the design limit of the pump. This reserve hydraulic capacity allows the grinder pumps to operate periodically above the design parameters. Depending on the size of the pressure sewer network, the duration of the power outage, and the number of grinder pump stations above the ON level, after power returns the system may operate above the calculated design pressure. These scenarios are typically infrequent and short in duration. In most cases, there is no detriment to the grinder pump service interval when the pump operates briefly above the design limit and the system recovery from a prolonged power outage is practically transparent to the users and system operator. The only indication may be nuisance high level alarms at certain stations if they are above the ALARM level when the power returns. In most cases, users are instructed to silence the audible alarm with the push button switch on the exterior of the alarm panel enclosure. Depending on the type of station, the unit may take 10-30 minutes to recover at which point the light on the alarm panel will turn off. If after 30+ minutes, the light is still on, the user should contact the appropriate party for investigation or service.
2.) All E/One grinder pumps have an integrated "smart" motor control unit. This motor control unit is responsible for normal start/stop operation of the motor/pump. The motor controller also has pump protection features including thermal protection and overpressure (high amperage) protection. In the event more pumps are operating than expected, the network pressure will be greater than expected. If the pressure exceeds the design capabilities of the E/One grinder pump (80 psi or 185 ft TDH), the motor will begin to generate more heat. Eventually, the excess heat will trigger a temperature actuated safety switch on the electric motor within the pump. Prior to that occurring, amperage monitoring on the motor controller unit may detect that the pump is doing more work than expected and therefore drawing higher amps. The motor controller unit will disable the pump and enter a 5 minute rest period. During this time, other pumps in the network (specifically those pumps closer to the discharge point) will continue to operate and recovery from the power outage. After the 5 minute rest period, the unit will automatically restart. If the pressure has reduced, the system will operate normally. If the high amperage condition remains, another 5 minute rest period will begin. That cycle will continue until the issue is self corrected.
3.) Certain E/One alarm panels have features that can help system users and operators mitigate operational risks – including after a prolonged power outage. The E/One Protect Plus alarm panel features overpressure protection which operates similar to the amperage protection described in #2 but uses operating wattage as opposed to amperage. The wattage based overpressure protection is more sensitive and generally responds quicker. Additionally, the Protect Plus alarm panel has a feature called "Power On Delay". This feature is specifically designed to mitigate the risks of too many grinder pumps turning on immediate after a power outage. With this feature, grinder pumps can be configured to delay start-up when power is first applied to the station. This is a user programmable setting with the factory default of 0 minutes. When this feature is used, typically those

stations closest to the discharge point of the network (therefore, those with the least amount of system pressure) will have a 0 minute delay and will operate immediate when the power returns. Moving upstream, the next group of units can have a 5-7 minute power on delay. During this time, the downstream units will be emptying their contents and shut off. Moving further upstream, the next group of units can have a 7-10 minute delay...and so on. The size of each group usually depends on the size of the total project. There is no set method to determine the size of the group or the duration of the delay but the delay time should increase as you move away from the discharge point.

If power outages are a frequent occurrence or concern, E/One recommends users select the Sentry Protect Plus alarm panel so they have the wattage based overpressure protection and can utilize, if they so choose to configure, the power on delay. Regardless, all E/One users will receive the benefits of the resilient nature of the progressive cavity pump design and the unique integrated pump protection features of the E/One motor controller unit.

Hope this helps!

Ben Lewis

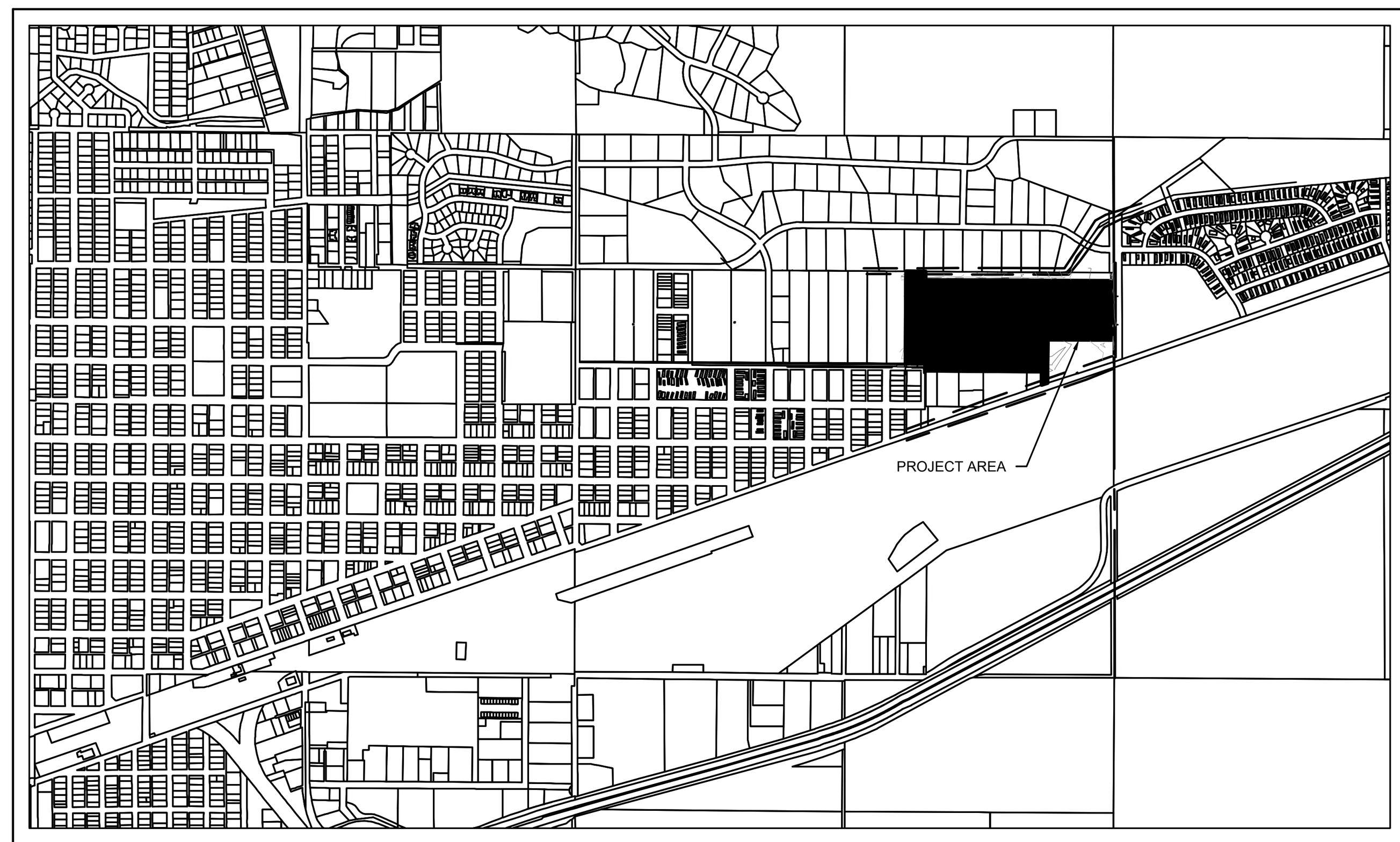
AMBIENTE H_2O INC. Wastewater & Water Treatment Specialists

525 St. Johns Ave. STE D
Billings, MT 59102
blewis@ambienteh2o.com
Direct: 406-850-0030
Office: 406-969-2022
Fax: 303-380-0664

PRELIMIMARY MASTER PLAT OF

GOLDBERG SPORTING ESTATES, FIRST FILING

BEING LOT 18 OF NUTTING BROTHERS SUBDIVISION, 2ND FILING & LOTS 19-25 OF NUTTING BROTHERS SUBDIVISION, 3RD FILING SITUATED IN THE NE 1/4 OF SECTION 10, T 02 S, R 24 E, P.M.M.
LOCATED IN CITY OF LAUREL, YELLOWSTONE COUNTY, MONTANA



VICINITY MAP

PREPARED FOR : GOLDBERG INVESTMENTS, LLC

PREPARED BY : PERFORMANCE ENGINEERING, LLC

PRELIMINARY PLAT DATE : JANUARY 2021

PROPERTY OWNER: GOLDBERG INVESTMENTS, LLC

EXISTING LAND USE: AGRICULTURAL

EXISTING ZONING: RESIDENTIAL LIGHT MULTI - FAMILY (RLMF) & COMMUNITY COMMERCIAL (CC)

PROPOSED LAND USE: RESIDENTIAL & COMMERCIAL

PROPOSED ZONING: RLMF & CC

SITE DATA	
# OF LOTS	88
MAXIMUM LOT AREA	± 0.64 AC
MINIMUM LOT AREA	± 0.17 AC
TRAIL / PARKLAND AREA	± 0.83 AC
LINEAL FEET OF STREETS	± 6,113 LF
GROSS TOTAL ACREAGE	± 37.05 AC
NET RESIDENTIAL ACREAGE	± 18.13 AC
GROSS RESIDENTIAL ACREAGE	± 27.74 AC
NET COMMERCIAL ACREAGE	± 8.61 AC
GROSS COMMERCIAL ACREAGE	± 9.31 AC

⊗ = INFLECTION POINT IN CENTERLINE CURVE
—— = PROPERTY BOUNDARY
— - — = CENTERLINE OF ROAD, UNLESS OTHERWISE NOTED

SHEET 1 OF 1

2611 Gabel Road
Billings, MT 59102-7329
406 245 5499
KLJENG.COM

August 31, 2022

Kurt Markegard
Public Works Director
City of Laurel – Public Works Department
PO Box 10
Laurel, Montana 59044

Re: Petition for Variance from City Code for Goldberg Sporting Estates – Low Pressure Sewer System

Dear Mr. Markegard:

The Developer of Goldberg Sporting Estates, First Filing is requesting a Variance from the City of Laurel Standards for the use of a Low-Pressure Sewer System (LPSS) to collect wastewater within the development. As a non-standard collection system this type of system requires approval by City Council prior to acceptance.

The proposed sanitary sewer will have a standard 4-6" sewer service exit the building and discharge into an on-lot sewage collection tank with a sewage pump. This tank/pump station will discharge to a small diameter force main that will eventually discharge into the City gravity sewer collection system. The proposed system would consist of 1.25" discharges from each tank with the primary subdivision internal force main ranging from 2-3" in diameter. Prior to leaving the subdivision the force main will increase to a 4" force main, then flow west along Eleanor Roosevelt Drive for approximately 190', then south in the alley between Locust Ave and Mulberry Ave for approximately 65' where it will discharge into existing MH 333.

The Developer's Design Engineer was requested to analyze the downstream collection system to determine the effects of this subdivision development. The findings of the Design Engineer's Report are the following:

1. The existing 8" sanitary sewer main between MH 332 and MH 335 will be a limiting line and be required to be upsized to a 10" gravity line.
2. The LPSS requires no upgrades to occur at the downstream Elm Lift Station.
3. A traditional gravity collection system or single lift station from Goldberg Sporting Estates to MH 333 would require upgrades to the Elm Lift Station.

As additional benefits to the City of Laurel, the Developer is proposing:

1. Creation of a Homeowner's Association (HOA) to control and maintain the on-lot components through a direct contract with the system supplier.
2. To replace the 8" sewer main between MH 332 and MH 335 with a 10" sewer main.
3. Lands to the east and south along Eleanor Roosevelt Drive were included in the sizing and planning of the proposed LPSS.

4. Force Mains in the Public Right-Of-Way are typically Owned by the City of Laurel, however, Developer is willing to maintain its ownership in the HOA to discharge at MH 333.
5. Installation of the entire force main and collection system to be paid for by the Developer.

There are several items in the City Rules and Regulations Governing Utility Services that contradict the installation of an LPSS. These are items that would either need to be agreed to by the Developer or waived by the City of Laurel. They are:

1. Section 2.11 MISCELLANEOUS DEVICES
   The utility may also require the customer to submit semi-annual test results on such devices certifying that the devices have been checked by an authorized service representative and are in good working order.

2. Section 2.14 LIABILITY OF UTILITY
   The utility is responsible for wastewater facilities up to the service wye or tee. All facilities from the building up to and including the service wye or tee are the responsibility of the property owner. The City of Laurel shall determine whether a line is a service line or a public main if a discrepancy occurs.

3. Section 12.1 DISCHARGING CERTAIN MATTER INTO SEWER PROHIBITED
   Except as hereinafter provided, no person shall discharge or cause to be discharged any of the following described waters or wastes into any public sanitary sewer:
   12.1.9 Any noxious or malodorous gas or substance capable of creating a public nuisance.
   This LPSS has the potential to create odor problems at downstream facilities as mentioned in the E-One sewer system analysis.

4. Section 12.5 PRELIMINARY TREATMENT FACILITIES
   The Owner shall provide facilities meeting the requirements set forth in these rules and regulations as his/her own expense where it is necessary, in the opinion of the Public Works Director, to provide preliminary treatment of any water or wastes to:
   12.5.3 Reduce objectionable characteristics or constituents in such water or wastes to with the maximum limits provided by this section.
   This could include odor elimination practices at the Elm Street Lift Station.

5. Section 14.6.1.3 APPLICATION REVIEWS AND RECOMMENDATIONS
   Make commitment to construct all the necessary water and/or wastewater system facilities and to begin development of the entire parcel of property to be included in the water and/or wastewater service area within 2 years from the date of the City Council's approval of the enlargement application. In the event the applicant fails to comply with this commitment, the property in question shall automatically be excluded from the service area.
   Would the two year commitment include the installation of all pump stations*?*

6. Section 15.11 OWNERSHIP OF EXTENSIONS
   The ownership of all extensions of the municipal water and/or wastewater system constructed within the corporate City limits shall be vested in the City whether same are

constructed by special improvement district or by private contract.

An applicant constructing an extension within the corporate City limits by means of a private contract or special improvement district shall be deemed to have conveyed the ownership of such an extension to the City upon acceptance of the extension by the City. In addition, the City shall at that time have assumed complete control over the facilities so extended, including the right to connect additional customers to the extended facilities as well as the right to further extend said facilities.
The City will have to agree to waive the ownership of the force main to MH 333 or agree to operate and maintain the force mains within the subdivision.

7. Section 15.12 MAINTENANCE OF EXTENSIONS
   The City shall be responsible for the maintenance of extensions only when the ownership and control of said extensions are vested in the City. The responsibility for installation, operation, maintenance, repair, enlargement, or replacement of facilities that are privately owned and/or controlled by persons other than the City shall rest solely with the owners of facilities.

8. Section 15.19 SUBDIVISION EXTENSIONS OF WATER SUPPLY/WASTWATER FACILITIES
   All public water supply, necessary off-site public water and sewer mains, and wastewater system facilities required to serve a subdivision, including connecting and cross-tie water mains, as well as the water and sewer mains in, to, around, and through said subdivision, shall be installed by and at the expense of the applicants requesting an extension of the municipal water supply and wastewater system to serve the subdivision in question. Said applicants shall also extend the municipal water supply and wastewater system to the farthest point or points of their subdivision at their expense.

9. Section 15.33 MINIMUM CAPACITY, SIZE, ARRANGEMENT, AND SPACING CRITERIA FOR WASTEWATER SYSTEMS
   15.33.5 Arrangement of Sewers. Public sanitary sewers shall be arranged in such a manner and in such a way so as to serve by gravity flow the total tributary area of the wastewater extension project in question. The use of wastewater pumping stations to provide wastewater service for said area, or portions thereof, shall be avoided whenever it can be feasibly accomplished.

   15.33.11 Wastewater Pumping Stations and Force Mains. Wastewater pumping stations and force mains installed during the construction of wastewater extensions shall be as specified by the City.

The following are items that in contrast with the Standards for Public Works Improvements:

1. Section 5 MEETING REGIONAL NEEDS
   5.1 All public improvements shall be designed as a logical part of the development of the surrounding area. Storm sewer and sanitary sewer shall be sized to accommodate the entire drainage basin which they will ultimately serve. Water mains shall be designed to provide distribution and looping to adjoining systems.

Arterial streets will be developed to the extra width for "Streets". Utilities and street improvements will be extended to the boundaries of the development for future extensions to adjoining areas. The Public Utilities Director (PUD) may require oversizing of utility lines to accommodate future growth of the City.

5.2 Where existing City utility lines do not adjoin the proposed development, the developer will be required to extend the lines to the development as necessary. Where the existing roadway improvements do not extend to the proposed developments, the developer may be required to improve the roadway to the development. Except as provided below, these extension will be at no cost to the City.

2. Chapter 6. Section 29.3 Design Standards for Pump Stations for Alternative Collection Systems. The minimum pipe diameter for force mains shall be 1.5 inches.

The following items are issues that the MT Department of Environmental Quality may require as part of their review and approval process.

- MDEQ may require a plan from the City to increase the size of the gravity sewer system from MH 332 to the Elm Lift Station
- The Elm lift station currently has odor issues. The use of an LPSS may increase the odor issue.

The Council has three options for a response to the Developer on this variance request.

1. They can deny the request to install a low pressure sewer system.
2. They can approve the request to install the low pressure sewer system as planned.
3. Or, They can conditionally approve the installation of a low pressure sewer system.

If the Council wishes to conditionally approve the low pressure sewer system; we recommend the following conditions.

- The company contracted to inspect the collection/pumping units perform their analysis on a semi-annual basis and the HOA provide copies of those reports to the City.
- The Developer install facilities at the force main discharge point to minimize the odor problems that are expected to occur there.
- The City take Ownership of the sewer force mains within the ROW. Individual properties will own the service up to the wye or tee connection in the street.
- As part of the sewer force main installation in the ROW, the Developer shall install tracer wire and access points for connection.
- Establish an SID on the lots within the subdivision to pay for capital improvements to cover force main maintenance.
- Developer provide an extension down Eleanor Roosevelt Dr for potential connection by all lots included in the sewer impact analysis.

- Developer be required to upsize the direct sewer line from MH 332 to the Elm Street Lift Sation connection with a 10” PVC line.

If there are any questions, please feel free to give me a call at 406.245.5499.

Sincerely,

KLJ

Ryan E. Welsh, P.E.
Project Engineer

Standards

for

Public Works Improvements

for the City of Laurel, Montana

2003

Prepared by:

MORRISON MAIERLE, INC.

Morrison-Maierle, Inc. 2020 Grand Avenue Billings, MT 59102 (406) 656-6000 Fax (406) 656-3432

Part 1 - General Provisions

Part 2 - General Engineering Plan Requirements

Part 3 - Construction Changes / Revisions

Part 4 - As-Built Plans

Part 5 - Street Design Technical Standards

Part 6 - Sewer Design Technical Standards

Part 7 - Water Design Technical Standards

Part 1 - General Provisions

1 ESTABLISHMENT OF MINIMUM STANDARDS

This Public Work Standards Manual, based upon sound, practical, and well-established principals of civil engineering, is prepared for the purpose of adopting minimum standards for the design of improvements, kind and use of materials, methods of construction, and the preparation of plans for construction, repair, or alternation of streets, roadways, alleys, drainage, sewer, or water facilities which lie within municipal right-of-way or easements.

2 UNIFORMITY OF ENGINEERING AND CONSTRUCTION PRACTICES

This Public Work Standards Manual is established to promote the maximum uniformity of engineering and construction practices within the community and thereby reduce design, supply, construction, and maintenance costs.

3 ADHERENCE TO STANDARDS

It will be the policy of the Department of Public Works to require adherence to the Standards set forth herein; however, where unique circumstances of design consideration make it impractical to follow the Standards and where such adherence would actually create problems detrimental to the public interest, the Department of Public Works will consider alternate solutions and may approve departures from Standards when substantiated by design analysis.

4 LICENSES

Contract construction in the public right-of-way must be by a contractor licensed in the State of Montana and holding bonding and insurance as required by the City of Laurel. In addition, within the City limits, a contractor may need a City Business License.

5 MEETING REGIONAL NEEDS

5.1 All public improvements shall be designed as a logical part of the development of the surrounding area. Storm sewer and sanitary sewer shall be sized to accommodate the entire drainage basin which they will ultimately serve. Water mains shall be designed to provide distribution and looping to adjoining systems. Arterial streets will be developed to the extra width for "Streets". Utilities and street improvements will be extended to the boundaries of the development for future extensions to adjoining areas. The Public Utilities Director (PUD) may require oversizing of utility lines to accommodate future growth of the City.

5.2 Where existing City utility lines do not adjoin the proposed development, the developer will be required to extend the lines to the development as necessary. Where the existing roadway improvements do not extend to the proposed developments, the developer may be required to improve the roadway to the development. Except as provided below, these extension will be at no cost to the City.

6 RECOVERING COSTS

When the improvements serve adjoining properties (e.g., extensions of existing utilities or improvements along the boundary of the development), a portion of the cost can be recovered from owners of the adjoining property by one of the following methods:

6.1 A private agreement between the various property owners.

6.2 A Sewer/Water Extension Agreement, requiring the owner of adjoining property to pay an equitable share of the costs in the future at the time they connect to the improvements (requires City Council approval for formation of reimbursement), as negotiated by the Department of Public Utuilities.

6.3 A Special Improvement District, which authorizes the City to make the improvements and to distribute the costs to the benefitted property owners, usually allowing ten years for repayment (requires City Council approval and usually agreement of more than 50% of the property owners). Property owners will be required to pay, in advance, a portion of any new development infrastructure costs.

7 CITY PARTICIPATION IN COST

The City may share the cost of oversizing of improvements for public use in excess of the following. Typically this is offered when oversizing is for the purpose of meeting regional requirements, and that it exceeds requirements of the specific project being built.

7.1 Water lines, valves, and associated materials in excess of 12 inches in diameter.
7.2 Sanitary sewers in excess of 10 inches in diameter.
7.3 Storm sewers in excess of 24 inches in diameter.
7.4 Street widths in excess of 40 feet (curb to curb back).
7.5 Arterial street pavement structural sections in excess of minimums shown in the Montana Public Works Standard Specifications (MPWSS), latest edition, Standard Drawings. Soil analysis determines the street sections.

The City's share of the cost of oversizing will be based on the extra material costs caused by oversizing. The City's share of materials cost will be determined by the PUD using recent bids received by the City and/or price quotations from reputable suppliers on similar impartial information. Any agreement by the City to share the costs of oversizing is subject to the availability of City funds, must be in writing, and must have the prior approval of the City Council by resolution. Any work completed prior to City Council approval of an agreement will not be eligible for City payment for oversizing.

8 DEFERRED CONSTRUCTION

When projects are located remote to existing roadway improvements, portions of street work may be deferred to a later date to allow more orderly construction of a complete project. The developer will be required to provide security for the estimated cost of deferred work in an amount and form approved by the City Council.

Part 2 - General Engineering Plan Requirements

The following items, if they apply, will be required before the checking of plans can be completed. As many items as possible should be submitted with the initial submittal. Items not included in the initial submittal may add additional rechecks to the checking procedure. A complete list of requirements will be returned with the first check.

1 COMPLETE SET OF PLANS

A complete set of plans shall be drawn to include the following:

- 1.1 Title Sheets
- 1.2 Improvement Sheets
- 1.3 Grading Sheets
- 1.4 Landscape and Irrigation Sheets (optional)
- 1.5 Right-of-Way and Easement Plats and Legal Descriptions, if needed

2 CONSTRUCTION COST ESTIMATE

In addition to the quantities, each estimate will include the description of the project, company name and address, date prepared, and the signature of the person preparing the estimate.

3 SOILS AND GEOTECHNICAL REPORT

4 COPY OF SUBDIVISION MAP AND ANY OFF-SITE EASEMENT DRAWINGS

5 TITLE SHEET

The title sheet shall be sheet 1 of each set of plans and will include the following items:

- 5.1 Work to be Done. Include a brief description of the project.
- 5.2 Standard Specification. Plans shall reference applicable standard specifications.
- 5.3 Standard Drawings
- 5.4 Legend
- 5.5 Vicinity Map / North Arrow
- 5.6 Phone Contacts, Utilities
- 5.7 Engineer's signature, seal, date of license expiration, R.P.E. number, phone number, and date to be shown on all sheets.
- 5.8 Bench Mark
- 5.9 Title Block
- 5.10 All General Engineering and Construction Notes
- 5.11 Plans, if preliminary, shall be clearly shown to be as such including "not for construction", indicated.

6 IMPROVEMENT SHEETS

Sheets covering public improvements will include the following items:

6.1 Street Section Typical

6.1.1 Show type of pavement, curb, and sidewalk for each street (by name) in the project. Partial street improvements (using asphalt concrete paving) that do not terminate with a curb shall have an extra 1 foot of asphalt concrete paving width at the edge of right-of-way.

6.1.2 Dimensions Shown. Right-of-way, centerline to curb, curb to property line sidewalk, and sidewalk to property line.

6.2 Stationing

6.3 Scale. One (1) inch equals 50 feet (1"=50') horizontal and 1 inch equals 5 feet vertical (1"=5') is the recommended scale to be used for the plan and profile.

6.4 Original Drawings. All sheets must be drawn in black India ink on 24-inch by 36-inch (24"x36") size mylars.

6.5 Existing and New Improvements and Easements. Existing and new improvements and easements shall show width. Existing easements should also show the document number and the receipt date.

7 ADDITIONAL ITEMS TO BE INCLUDED ON ALL PUBLIC IMPROVEMENT DRAWINGS:

7.1 Street Name
7.2 Subdivision Boundary
7.3 Lot Lines and Numbers
7.4 Pavement Shaded
7.5 Concrete Symbol on Sidewalk, etc.
7.6 Size, Material and Length of Each Run of Pipe
7.7 Centerline, Curb, Storm Drain, Sewer, and Water Data
7.8 All roads and improvements that are not public are to be labeled "Private"

8 GENERAL ENCROACHMENT PERMITS. General encroachment permits are required for all private facilities within any public right-of-way or easement.

General encroachment permits are required for all private facilities within any public right-of-way or easement .

8.1 When an encroachment is approved, a note will be put on each sheet where it applies.

8.2 Some typical examples of encroachments are private drains tying into public drains, sidewalk underdrains, fences, and walls in easements or right-of-way.

9 PROFILE ITEMS SHOWN WHEN APPLICABLE

Show all of the street, driveways; structures, pipelines, etc., which affect the profile.

10 ALLEYS

10.1 Alleys are to be improved as specified in the conditions of improvement for each particular project.

10.2 Alley aprons, curbs, and pedestrian ramps are required at all street or alley intersections.

Part 3 - Construction Changes / Revisions

Any change made to a set of plans after they have been signed will require a construction change. Some minor changes may be approved by the Field Inspector, which will then be included in the "As-Built Drawings".

1 REVISIONS OF EXISTING SHEETS

Only items being covered by the proposed revision will be shown on the plans. Future changes not to be approved at this time will not be shown on the plans.

Part 4 - As-Built Plans

The original plans shall be certified by BOTH the Design Engineer and the City as being "As-Built", prior to the finalizing of any public works improvement projects. Plans needing "As-Builts" are:

a. Grading / Drainage
b. Street Improvements
c. Storm Drain
d. Sanitary Sewer
e. Water System
f. Site Improvement

A developer shall give to the City on AutoCAD, or other Computer-Aided Drafting system, acceptable to the City, a diskette will all of the projects "As Built" documents in addition to hard copies. All documentation shall be given to the City 30 days before acceptance is expected. All test documentation and certifications shall have an Engineer's certification.

Part 5 - Street Design Technical Standards

1 GENERAL CONDITIONS

1.1 The arrangement, type, extent, width, grade, and location of all streets must be considered in their relation to existing and planned streets, to topographical conditions and to public convenience and safety, and in their relation to the proposed uses of the land to be served by them.

1.2 All roads must meet the design specifications in Table 1. Urban-suburban roads must meet the design specification in Figure 1.

1.3 Where streets terminate, either a cul-de-sac, "T" or "Y" turnaround must be provided at the terminus. Cul-de-sacs, "T" and "Y" turnarounds must conform to the design specifications set forth in Table 1, *Road Design Standards for Subdivisions.*

1.4 All streets within a subdivision must either be dedicated to the public or be private streets to be owned and maintained by an approved property owners' association.

1.5 Proposed roads which will intersect state or county roads shall be kept to a minimum. State and county permits and/or authorization must be obtained. Turn lanes may be required and must be built to the Approach Standards for Montana Highways.

1.6 Residential driveways must not have direct access to primary highways. Where no reasonable option is available, the Montana Department of Transportation may issue a road approach permit.

1.7 Local streets must be designed so as to discourage through traffic.

1.8 Whenever a subdivision abuts or contains an existing or proposed arterial highway or major thoroughfare, the governing body may require frontage roads, with a reservation prohibiting access along the rear property line, deep lots, or other treatment as may be necessary for adequate protection of residential properties and to separate arterial and local traffic.

1.9 All roadway improvements including pavement, curbs, gutters, sidewalks, and drainage must be constructed in accordance with the specifications and standards prescribed in the latest edition of the Montana Public Works Standard Specifications (MPWSS), including any revisions.

1.10 Plans, specifications, and special provisions for street design projects must be completed by a Registered Professional Engineer (RPE).

1.11 Roadway subgrades must be free of topsoil, sod, vegetation, or organic matter, soft clay, or other substandard materials, properly rolled, shaped, and compacted, and subject to approval by the governing body.

1.12 Streets and roads must be designed to ensure proper drainage, including but not limited to surface crown, culverts, curbs and gutters, drainage swales, and storm drains.

1.13 Where access from a public road to the subdivision will cross properties not owned by the subdivider, the subdivider must obtain proper easements, at least 60 feet wide, from each property owner or the appropriate administration of public lands. Each easement must allow construction and perpetual maintenance of a road across the property and allow vehicular travel on the road.

Table 1
Road Design Standards Subdivisions

Minimum Design Standards		Minor Collector	Local Street
1.	Minimum Right-of-Way Width	~~70~~ ft	64
2.	Minimum Roadway Width[a]	26 ft	24 ft
3.	Minimum Curb Radius or Edge of Pavement at Intersections	25 ft	15 ft
4.	Maximum Grades[b]	8%	9%
5.	Approaches onto Public Roads		
	a. minimum sight distance	200 ft	150 ft
	b. minimum width	35 ft	30 ft
	c. maximum grade for 20 feet	5%	5%
	d. minimum grade for 20 feet	1%	1%
6.	Curvature[c]		
	a. design speed	25 mph	25 mph
	b. maximum curve	23	53.5
	c. minimum radius	249 ft	107 ft
7.	Cul-de-Sacs and Turnarounds		
	a. Long Cul-de-Sac		
	I. maximum road length		600 ft
	ii. cul-de-sac: minimum outside right-of-way radius		52 ft
	iii. cul-de-sac: minimum outside roadway radius		44 ft
	b. Short Cul-de-Sac		
	I. maximum road length		100 ft
	ii. cul-de-sac: minimum outside right-of-way radius		40 ft
	iii. cul-de-sac: minimum outside roadway radius		35 ft
	c. "T" or "Y" Turnaround		
	I. backup lengths (2 required)		30 ft ea.
	ii. inside turning radius		26 ft
	iii. outside turning radius		38 ft

Adequate and appropriate easements must be granted by each property owner through a signed and notarized document that grants the easement.

The location of any road easement must be shown on the plat or on a supplemental map. The existence of easements must be noted on the face of the final plat and any deeds or other instruments conveying lots within the subdivision.

[a] Where parking will be permitted, add eight feet on each side. If guardrail installation is required or a shoulder is desired, add two feet to each side of roadway.
[b] Grades over 10% must not exceed 100 feet in length.
[c] Curvature is based on a superelevation of 0.08/ft.

2 ALIGNMENT CRITERIA FOR STREETS

2.1 Minimum centerline radius of horizontal curvature based on design speeds shall be as follows (assuming a normal crown):

2.1.1 Major streets - 1,000 feet (25 mph)

2.1.2 Collector streets and industrial and commercial streets - 800 feet (25 mph)

2.1.3 Residential collector streets - 500 feet (25 mph)

2.1.4 Residential streets - 300 feet (25 mph)

2.1.5 Alleys - 50 feet (15 mph)

2.2 Intersections

2.2.1 Streets must intersect at 90 degree angles, except where topography precludes, and in no case may the angle of the intersection be less than 60 degrees to the centerline of the roadway being intersected.

2.2.2 Two streets meeting a third street from opposite sides must be offset at least 125 feet for local roads and 300 feet for arterials or collectors.

2.2.3 No more than two streets may intersect at one point.

2.2.4 Intersection design must provide acceptable visibility for traffic safety as dictated by the designed operating speeds on the individual roadways.

2.2.5 Hilltop intersections are prohibited, except where no alternatives exist. Intersections on local roads within 100 feet of a hilltop are prohibited. Intersections on arterial and collector roads within 200 feet of a hilltop are prohibited.

2.2.6 Maximum grade of approach to a major highway must not exceed 5%.

2.3 Where the angle of intersection is acute, or where a sight-distance problem may be anticipated, an increased property line radius may be required by the PWD.

2.4 The angle between centerlines of intersecting streets shall be as nearly right angles as possible, but in no case less than 80 degrees or greater than 100 degrees, except as approved by the PWD.

2.5 All streets entering upon any given street shall have their center lines directly opposite each other or separated by preferably 300 feet, 200 feet minimum.

3 GRADIENT

Streets and roads must be designed to ensure proper drainage, including but not limited to surface crown, culverts, curbs and gutters, drainage swales, and storm drains.

4 GRADING

4.1 Generally, roadways will be graded by the developer 3 feet beyond the right-of-way.

4.2 Additional grading beyond the right-of-way may be required to provide for safe sight-distance and to control drainage.

4.2 All grading or excavating in public right-of-way and encroachments shall be first authorized by a valid encroachment permit.

4.3 Slope easements shall be provided for all abutting property that requires a cut or fill when meeting either existing or proposed grades.

5 PAVEMENT, STRUCTURAL SECTIONS

All streets shall be surfaced by the developer in accordance with the following specifications:

5.1 All design shall conform to the latest edition and revisions of the MPWSS.

5.2 Road surfacing on all classes of residential streets shall be asphaltic concrete.

5.3 Major Streets, Collector Streets, and Industrial Streets

5.3.1 Surfacing shall be asphaltic concrete.

5.3.2 Structural section shall be determined using standard design methods, engineering soils analysis, traffic index, and standard specifications.

5.4 Minimum thickness of asphaltic concrete surfacing shall be 3 inches.

5.5 Minimum thickness of base material shall be 8 inches.

5.6 Alley surfacing shall be of 2 inches of ¾-inch crushed gravel surface, and 4 inches of 3-inch minus base.

6 CROSS-FALL, CROWN, AND CROSS-SLOPE IN STREETS

6.1 "Crown" is the highest part of the street shape between paving edges.

6.2 "Cross-slope" is the gradient determined by dividing the difference in elevation from crown to pavement edge by the horizontal distance from crown to pavement edge, expressed as a percentage.

6.3 "Grade" is the slope of the longitudinal road profile generally measured along the centerline, expressed as a percentage.

7 UTILITY PLACEMENT WITHIN STREETS

Water and sewer utilities to be constructed in streets shall be installed according to Part 6 and Part 7.

8 STREET CLASSIFICATION

8.1 Collector Street

A collector street is a street used for major traffic flow. Access to residential lots should be discouraged, and access to business lots should require turning lanes.

8.2 Residential Collector Street

A Residential Collector Street is a street designed to provide main ingress and egress to a subdivision or neighborhood. Traffic flows of 400 vehicles per day to 4500 vehicle per day.

8.3 Local Residential Street

A Local Residential Street is a street which provides access to individual lots or areas. Cul-de-sacs are within this category. Traffic flow of 400 vehicles per day or less.

8.4 Alley

An Alley is a secondary City street which services primarily as a service access to individual lots.

8.5 Bicycle Path and/or Walkway

A Bicycle Path and/or Walkway is an access way for non-motored use, primarily for recreational use.

9 HALF-WIDTH STREETS, ALLEYS, HILLSIDE STREETS

9.1 Half-Width Street

When warranted, half-width streets may be permitted by the City Council along the boundary of a subdivision or the property of the developer. Such street shall be designed and improved by the developer as follows:

9.1.12 The right-of-way shall have a minimum width of 40 feet.

9.1.2 Surfaced roadbed shall be 28 feet in width, or one-half of the surfaced improvement that would be required for the development of the street at its ultimate width, whichever is greater.

9.2 Alleys

Alleys shall be designed and improved by the developer.

9.2.1 Right of way shall be a minimum of 20 feet in width.

9.2.2 There shall be no intersecting alleys.

9.2.3 Surfaced roadbed shall be 15 feet of the right-of-way, except at intersections with streets where standard returns shall be constructed.

9.3 Hillside Street

9.3.1 To encourage the orderly development of steep areas, certain deviations from the normal standards for residential streets will be permitted as specified herein.

9.3.2 These deviations shall apply only to residential, residential cul-de-sac, and residential loop streets in areas where the natural slope exceeds specified limits.

10 CURB and GUTTER, SIDEWALKS

10.1 Portland cement concrete curb, gutter, and sidewalks shall be constructed by the developer.

10.2 Sidewalks shall be constructed per the latest edition of the MPWSS.

10.3 Sidewalks shall typically be constructed adjacent to the curb line. Other sidewalks shall be constructed only if authorized by the PWD.

10.4 Curb and gutter and sidewalks shall be constructed at the total cost of developers or property owners.

11 DRIVEWAYS

11.1 Residential Driveway

11.1.1 Driveways serving property used solely as a single family, two-family, or three-family residence shall be residential type driveways conforming to the latest edition of the MPWSS Standard Drawings.

11.1.2 Driveways shall be constructed 12-foot minimum/24-foot maximum, measured at the base of the driveway.

11.2 Commercial Driveway

11.2.1 All driveways other than residential driveways shall be commercial driveways conforming to the latest edition of the MPWSS Standard Drawings.

11.2.2 Commercial driveways shall be 12-foot minimum/25-foot maximum.

11.3 Driveway Separation/Distance from the Property Line

11.3.1 Driveway, except for approved joint-use driveways and driveways or lots having 25-foot frontage or less, shall be located at least 5 feet from the side property line.

11.3.2 Driveways, other than approved joint-use driveways, shall be separated by a distance of at least 10 feet. Exceptions are allowed for cul-de-sacs. Multiple driveways for a single lot shall only be approved on a case-by-case basis.

11.4 Location

Driveways shall be so located by the approval of the Public Works Director as to result in no undue interference with or hazard to the free movement of normal traffic or interfere with the placement and proper functioning of highway sign, signals, lighting, or other devices that affect traffic operation.

11.5 Frontages

Frontages of 50 feet or less shall be limited to one driveway, with not more than two driveways to be provided to any single property tract or business establishment, except where the property frontage exceeds 600 feet.

11.6 Drainage Structures

All driveways shall be so constructed so as not to impair drainage within the street or highway right-of-way nor alter the stability of the roadway subgrade and at the same time not impair or materially alter drainage of the adjacent areas. All drainage structures required within the public right-of-way and under the driveways as a result of the property being developed shall be installed in accordance with the standards of the Public Works Director.

11.7 Transition Design

All driveways shall have the back of curb dropped a minimum of 4 inches for the width of the driveway. The minimum driveway transition distance shall be from the back of the curb to the property line and shall occur in a uniform manner. Curb fillets constructed by filling in the curb and gutter are prohibited as a means of transition from the street to the driveway. This prohibition of curb fillets is retroactive to all existing curb fillets within the City and all future annexations to the City. Exceptions for cause must be approved by the Public Works Director.

11.8 Width Limitations

Residential use driveway width as measured parallel with the edge of the traveled way, shall be limited to 10 feet per garage stall or parking pad to a maximum of three. For commercial uses, driveway width shall be limited to 45 feet.

11.9 Adjoining

The distance between two adjacent driveways to the same frontage shall be not less than 30 feet.

11.10 Right-of-Way Distances

Gasoline pump islands or other installations with parking parallel to the right-of-way line shall be at least 10 feet outside of the right-of-way line. Buildings or other installations with an angle of ninety degrees parking between it and the right-of-way line shall be at least 30 feet outside the right-of-way line.

11.11 Intersection Clearances

At an intersecting street or highway, the dimension measured along the edge of the traveled way to provide adequate corner clearance shall be measured a minimum distance of 10 feet from the intersecting property line except at intersections where there are traffic signals, the nearside clearance shall be two or more times this distance.

11.12 Culverts

Driveway culverts shall only be allowed by approval of the PWD. If permitted, culverts shall be maintained by the property owner.

11.13 Curb Cuts

Every curb cut and driveway apron constructed or altered in the street right-of-way shall conform to the following regulations:

11.13.1 No driveway apron shall be constructed closer than 5 feet from the side property line or as may be regulated by City specifications in effect at the time of such work.

11.13.2 No driveway apron shall be closer than 5 feet to, nor shall it be so located as to interfere with, intersecting sidewalks, utility facilities, light standards, fire hydrants, catch basins, street signs, signals, or other public improvements or installations.

11.13.3 Any necessary adjustments to utility facilities, light standards, fire hydrants, catch basins, street signs, signals, underground conduits for street lighting or fire alarm systems, or other public improvements or installations shall be accomplished without cost to the City.

11.13.4 No curb cut shall be made between the points of curvature of any curb radius at intersections nor closer than 10 feet from the points of curvature.

11.13.5 No curb cut or driveway apron shall be located so as to create a hazard to pedestrians or motorists, or to invite or compel illegal or unsafe traffic movements.

11.13.6 Every curb cut and/or driveway apron must provide complete access to a parking space, building or loading dock on private property requiring the entrance of vehicles.

11.13.7 In any commercial, professional, and industrial zone, driveways shall be designed such that vehicles entering or egressing shall not be required to back from or into a street right-of-way.

11.13.8 All curbs cuts and driveway aprons are to be constructed of Portland cement concrete of a quality and type as specified by the Public Works Director, and in accordance with City specifications in effect at the time of such work. Curb

cuts shall be permitted only with construction of adjoining concrete aprons having a minimum depth of 5 inches.

11.13.9 All work shall be done under the supervision of the Public Works Director, and in accordance with City specifications in effect at the time of such work.

11.13.10 The licensed and bonded contractor or his agent doing the construction or alteration work shall maintain the premises in a safe manner and shall provide adequate barricades and lights at his own expense to protect the safety of the public using the adjacent streets or sidewalks and shall hold the City free from any damages incurred by his operations.

11.13.11 The angle between any driveway apron and the street and/or curb line shall be ninety degrees to the street tangent or on a radial line to the street curve.

11.13.12 The two side borders of each driveway apron between the curbline and property line shall be parallel.

11.13.13 City street right-of-way shall not be used for private commercial purposes. A permit for the construction of a curb cut driveway shall not be issued unless vehicles which will use the driveway can be parked entirely within the private property lines.

11.13.14 Any curb cut or driveway apron which has become abandoned or unused through a change of the conditions for which it was originally intended shall be closed and the owner shall replace any such curb cut and/or driveway apron with a standard curb and sidewalk (if necessary) to be constructed according to the City specifications in effect at the time of such work. In the event the owner does not make such replacement within sixty days after notice, the City may do so at the expense of the owner.

11.13.15 Driveways serving facilities that will generate five hundred or more vehicle trips per day may, after review and recommendation of the City building inspector/City engineer and theCity/county planning board, be classified and constructed as a street intersection. A complete design of the intersection shall be submitted to theCity Public Works Director before a permit is issued. Approval of this type entrance may be contingent upon the applicant installing traffic control devices at this sole expense. This type of entrance shall be included in calculating number, spacing, or any other requirement pertaining to driveways as specified herein.

11.13.16 Restrictions

In addition to the general regulations prescribed herein, curb cuts and driveway aprons to be constructed or altered in districts must conform to the following:

11.13.16.1 Where a property abuts more than oneCity street, the maximum curb cut permitted on each street shall be considered separately and shall be governed by the frontage of the property on that street.

11.13.16.2 Two or more curb cuts serving the same property must be separated by islands with full height curb not less than 25 feet long.

11.13.16.3 Where a property width is 60 feet or less, joint curb cut with an adjoining property of 60 feet or less may be constructed at a maximum width of 28 feet. Both property owners must be in agreement to a joint curb cut and must submit a written agreement to the Public Works Director. The City Public Works Director shall have discretion to waive the maximum width restriction in a proper case, after application has been submitted, when in his opinion the purpose and intent of this section will be maintained.

12 STREET NAME SIGNS

12.1 The developer shall install street name signs as part of the improvements. Installation and design shall be in accordance with the latest Montana Department of Transportation (MDT) specifications and the MPWSS Standard Drawings and at the locations specified by the City, i.e., one (1) sign at each intersection will be required.

13 SURVEY MONUMENTS

Boundary, lot corner and street survey monuments shall be installed or preserved as a part of the street improvements as follows:

13.1 The developer of any street other than in a new subdivision shall:

13.1.1 Reset or preserve all existing monuments affected by the street improvements.

13.1.2 Set such additional monuments to mark the limiting lines of the streets as the City may require.

14 DRAINAGE FACILITIES

14.1 General

All developments being constructed within the City of Laurel shall be protected from drainage problems by the use of proven engineering techniques as set forth and described hereinafter. Problems resulting from natural waters such as creeks, springs, and groundwater from storm water runoff, from winter icing accumulations, and from spring breakup waters, will be considered in determining the necessary drainage improvements that will be required for any specific project.

14.2 Types of Required Improvements

The following improvements, if based on or designed in accordance with proven engineering techniques, are viable alternatives which may be used in solving drainage problem: Placement of proper drainage easements or reserves, construction of temporary storage areas, construction of subdrains, construction of dry wells, construction of metering basins, placement of staggered culverts, and other methods or combinations of the above, if the situation warrants such use.

14.3 Basis for Required Improvements

The need for drainage improvements may be based on one or more of the following items: topographic maps, field inspections, historical information, soil tests, existing storm drainage improvement studies, and any future drainage-related studies, reports, or ordinances as may be adopted for use by the City.

14.4 Design of Improvements

14.4.1 Design Size. Storm drain inlets, pipes, and drainage structure shall be sized to carry storm drainage runoff based on engineering calculations for the following minimum storm recurrence frequency:

For drainage areas less than 50 acres - a ten-year storm frequency, 6 hour duration; for drainage areas greater than 50 acres but less than 100 acres - a 20-year storm, 6 hour duration; for drainage areas greater than 100 acres - a 50-year storm, 6 hour duration; for improvements to drainage channels in the floodway - a 100-year storm, 6 hour and 24 hour duration whichever produces the greater flow.

The rational formula may be used in calculating storm runoff utilizing rainfall intensity.

14.4.2 Discharge Design. Plans for storm drainage shall indicate where the storm water will be discharged. If the proposed development will increase the rate or energy of runoff, it must be shown that the pipes and channels downstream from the discharge point can carry the proposed runoff without damage to the adjoining properties. Provisions should be made for detainage and/or retainage of storm water on site, with no net increase in discharge after development.

14.4.3 Easements. Where storm drains run outside an existing public right-of-way, easements will be required for public maintenance. Such easements shall be a minimum of 20 feet.

14.5 Valley gutters shall be allowed only on minor streets at intersections.

15 REPAIRING UTILITY CUTS

The design of all excavations, including ground and surface water control, where necessary should be made available for review by the public works agency. (MPWSS Drawing No. 02221-1)

15.1 When requested, the construction equipment and procedures to be used *shall* be described in the permit application.

15.2 Pipe installation *shall* be done according to the requirements of the appropriate agency specifications in use. The required granular material should meet the material requirements for Select Granular Fill in the MPWSS, latest edition.

15.3 Pavement *shall* be cut at termination points of pavement replacement.

15.4 Pavement and shoulder removal *shall* be done in a manner that provides for proper restoration of the replacement section.

15.5 Straight vertical cuts of the pavement are required. Pavement surfaces that become undermined *shall* be cut back and removed.

15.6 The backfill material *shall* be placed and compacted according to established standards for backfilling structures, culverts, pipes conduits, and direct burial cable.

15.7 Generally, cuts *shall* be filled at the end of each work day. With prior approval, cuts may be properly signed and barricaded and left open.

15.8 The backfill material *shall* be replaced in layers not to exceed 6 inches and thoroughly compacted before placement of an additional layer. Mechanical compaction is required. The permit holder will be liable for repairs for a period of 1 year after total completion.

15.9 Under the permit, construction which adversely affects the subsurface drainage of the pavement structure *shall* be corrected by the addition of surface or subsurface drain.

15.10 The replacement pavement *shall* be similar to the existing pavement in composition and texture. The selection of the material type, composition, and place methods should be approved by the PWD. All joints to be tacked.

15.11 The limit of pavement replacement *shall* be such that the replacement pavement is supported by thoroughly compacted, subbase material and the pavement is restored to the proper grade, cross-slope, and smoothness. In addition, the replacement section shall be at a minimum 12 inches greater in all directions than the disturbed soils. All jointed to be tacked.

15.12 Inspection is required.

15.13 Non-shrink backfill may be required by the PWD.

16 STREET LIGHTING

The City will require lighting along streets.

Part 6 - Sewer Design Technical Standards

1 PURPOSE

The purpose of this design criteria is to provide engineers, designers, engineering technicians, and others, in handy reference form, the City's minimum standards for sanitary sewer design.

These criteria are intended to cover the design of main line sanitary sewers and apply to any sewer systems, public or private, 6 inches in diameter or greater. Private on-site sewer systems serving mobile home parks, condominiums or apartments may be designed in accordance with the uniform plumbing code and approved by the appropriate building inspector.

The design criteria set forth below are intended to result in sewers which will:

1.1 Be consistent with the Sewer Master Plan.
1.2 Be consistent with Montana Department of Environmental Quality (DEQ).
1.3 Be consistent with the latest edition of the MPWSS.
1.4 Be of adequate size to carry the expected flow, within their design life, and at sufficient depth to serve adjacent properties.
1.5 Have sufficient grade to maintain a minimum velocity of 2 feet per second when flowing half full.
1.6 Be strong enough to resist all external loads which may be imposed.
1.7 Be of materials resistant to both corrosion and erosion.
1.8 Be economical and safe to build and to maintain.
1.9 Prevent infiltration or inflow of ground and surface waters.
1.10 Be designed for municipal wastewater only, not roofs, streets, or ground waters.

Alternate materials and methods will be considered for approval on the basis of these objectives.

2 REFERENCES

2.1 "Waterworks Standards," Circular WQB-2 MT Department of Environmental Quality, Design Standards for Wastewater Facilities, latest edition.

2.2 Montana Public Works Standards Specifications, latest edition and revisions.

3 APPROVAL OF ALTERNATE MATERIALS OR METHODS

Approval of any major deviation from these standards will be in written form.

4 MONTANA WATER QUALITY BUREAU STANDARDS

WQB-2, published by the State of Montana, Department of Environmental Quality (DEQ), is hereby incorporated into this document. WQB's criteria will be used as a guideline to determine standards needed for items not specifically covered in this document.

5 SPECIAL PROBLEMS

The design of the following are considered special problems and are not covered in detail in these standards: WQB-2 provides general guidelines for most of these items.

5.1 Pump or Lift Stations/Force Main
5.2 Inverted Syphons
5.3 Relining of Existing Sewers
5.4 Internal Sealing of Existing Sewers
5.5 Treatment Plants
5.6 Outfall Sewers
5.7 Energy Dissipaters
5.8 Regulating Devices
5.9 Flow Measurement Devices

6 DESIGN PLANS AND PROFILES

Plans will be required for all new or extended sanitary sewers and shall include both a vicinity map and a general layout map of the area showing the location of existing facilities and of the proposed improvements. Plans should be accurate, legible and properly detailed. Dimensions should be either from right-of-way centerline or property lines.

6.1 Engineering Drawings (Plans)

Plans for sewer lines should contain at least the following information:

6.1.1 Adjacent streets, property lines, utility easements, and references thereto.

6.1.2 Location of sewer and appurtenances. Each manhole shall be numbered and stationed to facilitate checking the plans with the profiles.

6.1.3 Location of water courses, wells, stream and railroad crossings, water mains, gas mains, culverts and underground power, CATV, or other utilities wherever possible.

6.1.4 Limits of hard surface paving with dimension references.

6.1.5 Suitable title plate with name and address of owner, scale, north point, date, drawing number, and name, address and telephone of engineer, and the Registered Professional Engineer's (RPE) signature.

6.2 Profiles

Profiles for the individual sewer lines should contain at least the following information:

6.2.1 Location of manholes and other appurtenances with each manhole numbered and stationed.

6.2.2 Profile of existing and proposed ground surface and sewer invert.

6.2.3 Size, pipe class, slope, length of sewer, and pipe bedding class between consecutive manholes.

6.2.4 Elevation of original ground and finished grade shall be shown graphically and sewer inverts specified at each manhole.

6.2.5 Suitable title plate with the name and address of owner, scale, date, drawing number, and the name, RPE number and expiration date of the registration.

6.2.6 Limits of street improvements will be shown including a typical section of the subject street.

6.3 Sewer Appurtenances

Appropriate City Standards shall be included in all plans for construction of sanitary sewer lines.

6.4 Separate Drawings

Separate plans shall be submitted for public sewers installed in combination with private sewers or site plumbing. "Site plumbing" drawings are not acceptable. Public sanitary sewer plans may be combined with other public improvement plans, provided that the plans must be legible and properly detailed.

Appropriate labeling of the services as "Public" or "Private" will be done on both the plan view and profile view.

7 SPECIFICATIONS

Engineering consultants are encouraged to develop specifications and special provisions for each project. Specifications and special provisions shall incorporate the latest edition of the MPWSS. Special specifications pertaining to materials and workmanship, if developed, shall be submitted to the City for review and approval, together with check prints of the project.

In general, the sewer specifications should cover pipe material, excavation, laying of sewer pipe, jointing, backfilling, testing, etc. Strict supervision will be required by the City during construction to assure compliance with the specifications.

8 ADDITIONAL ITEMS OF CONCERN

8.1 Testing

Sanitary sewers will be required to pass tests specified in MPWSS, Section 02722, Sanitary Sewer Mains.

8.1.1 Hydrostatic Testing. Pipe and joint leakage for pipe shall be less than 200 gallons per day per inch diameter per 5,280 feet.

8.1.2 Air Test. As an alternative method to water testing, a low pressure air test may be utilized.

8.1.3 Internal (T.V.) Inspection. The developer will perform a T.V. inspection of completed projects prior to issuance of final acceptance. A minimum of five (5) working days notice is required to schedule the inspection. T.V. inspection will not be performed until the City's inspector has completed a final inspection and is satisfied that all construction is complete. The T.V. inspection tapes become the property of the City.

8.1.4 Manhole Exfiltration Test. The City may require a leakage test for manholes as provided in latest version of the MPWSS.

8.1.5 Mandrell Test. May be required on all PVC pipe as provided in the latest version of the MPWSS.

8.1.6 Light Test. The contractor shall perform a light test between manholes to check alignment and grade.

9 GENERAL DESIGN CONSIDERATIONS

9.1 Sanitary sewers should be designed to remove the domestic sewage from houses, business buildings and other public and private establishments, but not the street, roof, or subsurface drainage. Each main building on a parcel or residence shall be served by a separate sewer lateral.

9.2 Storm water, including street, roof, or footing drainage, shall be removed by a system of storm sewers or by some other method separate from the sanitary sewer system.

9.3 All materials and installation of sanitary sewers shall be in conformance with the latest edition of the MPWSS, except as noted herein and on the standard and special detail drawings.

9.4 All gravity-flow sewers, up to 10 inches, shall be designed to allow for peak flows at ½ the capacity; additionally, sewers 12 inches and larger shall be designed to allow for peak flows at ¾ of the capacity of the pipe.

9.5 In general, sewer systems should be designed to care for future flows which may reasonably be expected within a period of 15 to 20 years, and for ultimate development of the specific drainage basin concerned.

9.6 Specific approval of lift or pump stations will be required from the City.

10 CAPACITY

Design flows shall be determined by consideration of the following factors:

10.1 Drainage Basin Area to Be Served
10.2 Population Within the Area to Be Served
10.3 Land Use Within the Area to Be Served
10.4 Per Capita Sewage Flow
10.5 Commercial, Industrial, or Institutional Users to Be Served
10.6 Infiltration Allowance
10.7 Peaking Factors

In the absence of flow data or other reliable information, the design factors from Table 3 may be assumed. Appropriate peaking ratios should be applied to determine flows, where specified by the City.

Table 3
Design Factors

	Average Flow	Peaking Factor
Residential	100 gpcd	1.7 to 4.0
Commercial	1,200 gpcd	2.0 to 4.0
Industrial	1,200 gpcd	2.0 to 4.0
Infiltration and Storm Water Inflow	30-50 gpcd	1,000 gpcd

It is recommended that design calculations include estimates of average maximum and minimum daily flows. The submission of design calculations will not ordinarily be required but engineers should be prepared to substantiate pipe sizes, layout, population estimates, land uses or other design assumptions as may be requested.

11 SIZE

Main line sewers shall be a minimum of 8-inch inside diameter, except that the lateral sewer within private property which will not be extended may be of 4-inch inside diameter.

12 PIPE MATERIALS

12.1 Gravity Sewers

The following pipe materials and fittings are approved:

MATERIAL	SPECIFICATIONS
Concrete Pipe, Reinforced	ASTM C 76, Class III, IV, or V
Ductile Iron Pipe; Class 52	ANSI A21.51 or AWWA C151

MATERIAL	SPECIFICATIONS
Polyvinyl chloride (PVC); 4" to 15"	ASTM D 3034, SDR 35; or ASTM F 789
PVC Sewer Pipe; 18" and larger	ASTM F 679; ASTM F 794, Series 46

12.2 Force Mains

The following materials are approved for force mains:

MATERIAL	SPECIFICATIONS
Ductile Iron Pipe; Class 52	ANSI A21.51 or AWWA C151
Polyvinyl chloride (PVC)	AWWA C900

12.3 Other Uses

Pipe materials for special uses such as for liner pipe, temporary construction, stream crossing, bridge crossings, etc., will be considered special design cases and are not covered further in these standards.

13 EXCAVATION, PIPE BEDDING AND BACKFILL

13.1 Details

Standard plans are the latest edition of the MPWSS.

13.2 Installation

Installation of pipe shall conform to the following:

13.1.1 MPWSS, latest edition.

13.1.2 Water settling of backfill material is prohibited.

14 GRADE

Sewers shall be laid with uniform slope between manholes. All sanitary sewer shall be laid on a grade which will produce a mean velocity, when flowing full or half full, of at least 2 feet per second (fps), based upon Manning's "n", the coefficient of roughness, valued at not less than 0.013, depending upon the type of pipe used. The minimum grades for various sizes of pipe with an "n" value of 0.013 are listed below:

Inside Pipe Diameter (inches)	Minimum Grade (feet per 100 feet)
8	0.4
10	0.28
12	0.22
15	0.15
18	0.12
21	0.1
24	0.08
27	0.07
30	0.06
36	0.05

In general, slopes greater than those shown above are desirable and are particularly recommended on the upper ends of lateral sewers. Slopes slightly less than those shown above may be considered if substantial justification can be demonstrated. There must be enough live sewer interceptions to ensure that the average depth of sewage flow will be 0.3 of the pipe inside diameter.

Maximum pipe slope shall be governed by terrain and available fall between manholes. Maximum velocity in the pipes shall not exceed 8 fps, unless specifically approved by the City.

15 MINIMUM DEPTH

15.1 All sewers shall be laid at a depth sufficient to drain and be protected against damage from traffic. Sewers laid in areas subject to wheel loads shall have a minimum cover of 6 feet measured from top of pipe to finished grade or be otherwise protected from damage by traffic; except that minimum cover may be reduced to 4 feet with specific approval. Encasement will be required for depths less than 4 feet.

15.2 Under normal conditions, main line sewers in residential areas should be laid at an average depth of 8 to 9 feet. Services to adjacent properties from such sewers should normally be laid so that the depth of the service lateral at property line is at least 5 feet. Insulation shall be provided for sewers that cannot be placed at a depth sufficient to prevent freezing.

16 LOCATION

16.1 Relation to Water Lines and Wells

No sanitary sewer mains should be less than 10 feet from any well, spring, or other source of domestic water supply. All sanitary sewers or parts thereof which are located within 50 feet from any such source of domestic water supply shall be constructed of cement lined, ductile or PVC with watertight joints. Sanitary sewers and domestic water lines shall not be laid in the same trench. Parallel water and sewer lines wherever possible should be located at least 10 feet apart horizontally.

When physical conditions render this spacing impossible or impractical, then ductile iron water pipe with watertight joints or concrete encasement is required for the sewer line. Wherever it is necessary for sewer and water lines to cross each other, the crossing should be at an angle of approximately 90 degrees and the sewer shall either be located 18 inches or more below the water line or be cement lined, constructed of ductile or PVC pipe with watertight joints for a distance of 10 feet on both sides of the water line.

16.2 Sewers in Streets or Easements

Under normal conditions, sewers should be located in street right-of-way 5 feet north or east of the street right-of-way centerline. Sewers shall be located in centerline of alleys and easements, if possible. When it is necessary to locate sewers in easements, such easement shall be at least 20 feet in width. Sewers 24 inches in diameter or larger, or over 12 feet in depth, may require wider easements.

17 ALIGNMENT

17.1 Sewer lines shall be laid on straight alignment and uniform grade between consecutive manholes.

17.2 Horizontal and vertical curves in sewers are not recommended. However, in cases where justification can be shown, limited use of such designs will be considered.

Where curved alignments are utilized, the City may require the following:

17.2.1 Slope greater than minimum slope for the size of pipe.

17.2.2 Manhole spacing of less than 250 feet.

17.2.3 City may require that the developer or contractor shall provide a licensed professional land surveyor or engineer to continuously monitor installation of the curved sewer during construction.

17.2.4 Television inspection of curved sewers is required prior to final acceptance.

18 CHANGE IN PIPE SIZE

18.1 When a smaller sewer joins a large one, the invert of the larger sewer should be lowered sufficiently to maintain the same energy gradient. An approximate method for securing these results is to place the 0.8 depth point of both sewers at the same elevation.

18.2 Sewer extensions should be designed for projected flows even when the diameter of the receiving sewer is less than the diameter of the proposed extension. Special consideration should be given to minimizing turbulence when designing a flow channel within a manhole where there is a change in pipe size. The appropriate

reviewing agency may require a schedule for construction of future downstream sewer relief.

19 MANHOLES AND CLEANOUTS

19.1 Details

Standard Drawings are found in the MPWSS, latest edition.

19.2 Manhole Construction

19.2.1 Construction shall be watertight. If ground water or surface drainage can be expected to flood the top of the manhole, watertight frame and covers shall be used. A 100-year-recurrence-interval storm shall be used in determining flooding elevations.

19.2.2 Manholes located in easements outside of public right-of-way shall have locking frame and covers.

19.2.3 For rigid pipe, there shall be flexible connections provided at the inlets and outlets of each manhole. For all pipes, the flexible joint shall be within 1-1/2 pipe diameters, not to exceed 12 inches, of the exterior wall of the manhole. A flexible connection "boot"/or insert may be utilized in lieu of a flexible joint.

19.2.4 Generally, a 0.2 foot minimum and 0.4 foot maximum drop in flow line elevation is required through manholes. However, where grade considerations are considered critical, the design engineer may request a waiver from the City if sufficient justification exists.

19.3 Manhole Location

Manholes shall be located as follows:

19.3.1 Every change in grade or alignment of sewer.

19.3.2 Every point of change in size of sewer or pipe material.

19.3.3 Each intersection or junction of sewer.

19.3.4 Upper end of all lateral sewers.

19.3.5 At the beginning and end of all 24-inch diameter and smaller sewers on curved alignment.

19.3.6 At intervals of 350 feet or less as approved by the City.

19.4 Manhole Covers

19.4.1 Standard, used in public right-of-way.

19.4.2 Locking, may be required.

19.4.3 Watertight frame and cover assemblies are required for all installations within the 100-year flood or where periodic flooding may be possible.

19.5 Drop Manholes

19.5.1 Outside drop assemblies shall be provided for pipes 12 inches in diameter and smaller when entering a manhole at a distance of more than 24 inches above the invert of the manhole. Larger pipe should be introduced into the manhole at the manhole invert.[1]

19.5.2 Inside drop assemblies will be considered only in special cases involving connections to existing manholes. Special approval for all drop assemblies is required from the City.

19.6 Cleanouts

Cleanouts will not normally be approved as substitutes for manholes, except at the upper end of lateral sewers 100 feet or less in length. Temporary clean out assemblies may be installed in mainlines less than 150 feet in length, provided that the line will be extended at a later date, subject to the approval of the City. Manhole ring and cover is required over cleanouts.

19.7 Diameter

The minimum diameter of manholes shall be 48 inches; larger diameters are preferable for large diameter sewers. A minimum access diameter of 22 inches shall be provided.

19.8 Flow Channel

The flow channel straight through a manhole should be made to conform as closely as possible in shape and slope to that of the connecting sewers. For pipes greater than 8 inches in diameter, the channel walls should be formed or shaped to the full height of the crown of the outlet sewer in such a manner to not obstruct maintenance, inspection or flow in the sewers. For pipes 8 inches or less in diameter, the channel shall be formed at least to the spring line of the pipe. When curved flow channels are specified in manholes, including branch inlets, or when entrance or exit losses are significant, minimum slopes shall be increased to maintain acceptable velocities.[2]

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[1]Refer to MPWSS, latest edition.

[2]Refer to MPWSS, latest edition.

19.9 Bench

A bench shall be provided on each side of any manhole channel when the pipe diameter(s) are less than the manhole diameter. The bench should be sloped no less than ½ inch per foot (4%). No lateral sewer, service connection, or drop manhole pipe shall discharge onto the surface of the bench.

19.10 Water Tightness

19.10.1 Manholes shall be of the pre-cast concrete or poured-in-place concrete type. Manholes shall be waterproofed on the exterior. Pre-cast concrete manhole sections manufactured in accordance with ASTM C 478M-93 are exempt from the exterior waterproofing requirement.

19.10.2 Inlet and outlet pipes shall be joined to the manhole with a gasketed flexible watertight connection or any watertight connection arrangement that allows differential settlement of the pipe and manhole wall to take place.

19.10.3 Watertight manhole covers are to be used wherever the manhole tops may be flooded by street runoff or high water. Locked manhole covers may be desirable in isolated easement locations or where vandalism may be a problem.

19.11 Manhole Adjusting Rings

Adjusting rings installed in manholes on public sanitary sewers shall have a total height of not less than 2 inches and not more than 6 inches.

19.12 Manhole Frames and Covers

Frames and covers used on manholes for public sewers shall be made of cast iron or ductile iron, shall have a clear opening no less than 24 inches, shall have a total weight of not less than 410 pounds, and shall have machined surfaces to ensure a tight fit between cover and frame.

19.13 Manhole Steps

All manholes used for public sanitary sewers shall be equipped with steps of the polypropylene-coated steel type meeting applicable OSHA requirements for fixed ladders. The steps shall withstand a single concentrated load of 400 pounds, have a minimum width of 12 inches, and shall have ribbed, skid-resistant treads with drop fronts to prevent side slip. All manhole steps shall be installed with the center of the rung a minimum of 7 inches from the manhole wall.

20 PIPE JOINTS

All pipe joints must be constructed watertight. Rubber rings or other approved joint sealing

material shall be used. Joint deflections shall be controlled such that the watertight integrity of the joint is maintained.

21 SERVICE LATERAL (SIDE SEWER OR HOUSE BRANCH) CONNECTIONS

All service laterals with the exception of house branches from a main sewer to serve an individual building shall be of a minimum size of 6 inches in diameter within public right-of-way or within public easements. House branches to serve single family residences and multi-family residences up to a four (4) plex may be 4-inch diameter in size. Laterals shall be laid at a minimum slope of 2%. Construction of laterals shall conform to the same standards as for main sewer construction.

22 HOUSE OR BUILDING SEWERS

As a minimum criterion, construction of the house or building sewers (on site) shall be of the same quality and meet the same requirements as the public sewer with regard to materials, water tightness and location. In addition, these sewers shall conform to the state and local plumbing codes and restrictions. No roof, surface, foundation, or other storm water drain lines shall be connected to the public sanitary sewers.

23 SEPARATE CONNECTION REQUIRED

23.1 Each main building or legal lot (except a private garage) shall be separately connected to a public sewer. Except that main buildings or dwellings located on a single parcel may be connected to a private sewer discharging into the public sewer, provided that an approved statement of maintenance responsibility is recorded with the title to the property. Examples of such private systems are: mobile home parks, residential or office condominiums (unit/owner association by-laws to have statement of maintenance responsibility); or apartment complexes.

23.2 A manhole shall be required at the point of connection of a private sewer system to a public system with a clean out placed at the property line. A monitoring or sampling manhole is required for connections from industrial users.

24 STEEP SLOPE PROTECTION

Sewers on slopes of 20 percent or more may require special anchoring.

25 DRAINAGE DITCH OR STREAM CROSSINGS

Sewers entering or crossing drainage ditches or streams shall be constructed of watertight pipe. The pipe and joints shall be tested in place, shall not exhibit infiltration, and shall be designed, constructed, and protected against anticipated hydraulic and physical, longitudinal, vertical, and horizontal loads, erosion, and impact.[3]

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[3] Refer to Montana Department of Environmental Quality's Circular, WQB-2.

26 AERIAL CROSSINGS

Support shall be provided for all joints in pipes utilized for aerial crossings. The supports shall be designed to prevent frost heave, overturning, and settlement.[4]

27 PROTECTION OF WATER SUPPLIES

When wastewater sewers are proposed in the vicinity of any water supply facilities, requirements of Circular WQB-1 (DEQ) should be used to confirm acceptable isolation distances in addition to the following requirements.

27.1 Cross Connections Prohibited

There shall be no physical connections between a public or private potable water supply system and a sewer, or appurtenance thereto which would permit the passage of any wastewater or polluted water into the potable supply. No water pipe shall pass through or come in contact with any part of a sewer manhole.

27.2 Relation to Water Works Structures

27.2.1 Sewers shall not be located within 50 feet of a public water supply well.

27.2.2 All existing waterworks units, such as basins, wells, or other treatment units, within 100 feet of the proposed sewer shall be shown on the engineering plans.

27.3 Relation to Water Mains

27.3.1 Horizontal Separation.

27.3.1.1 Sewers shall be laid at least 10 feet horizontally from any existing or proposed water main. The distance shall be measured edge to edge.

27.3.1.2 If the proper horizontal separation as described above cannot be obtained, the design engineer shall submit a request for a deviation to the DEQ along with a description of the problem and justifying circumstances. If the deviation is granted, the sewer shall be designed and constructed with the following minimum conditions:

27.3.2.1 Sewer pipe shall be PVC with nominal 20-foot lengths.

27.3.2.2 The sewer shall pass low pressure air testing in accordance with UniBell Recommended Practice UNI-B-6-90.

[4] Ibid.

27.3.2.3 Sewer services utilizing in-line fittings and extending to at least property lines shall be provided and tested in the area of the encroachment. Saddles are not acceptable.

27.3.2 Crossings

27.3.2.1 Sewers crossing water mains shall be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and outside of the sewer. This shall be the case where the water main is either above or below the sewer. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to maintain line and grade and to prevent damage to the water main.

27.3.2.2 If the proper vertical separation as described above cannot be obtained, the design engineer shall submit a request for a deviation to the DEQ along with a description of the problem and justifying circumstances. If the deviation is granted, the sewer shall be designed and constructed with the following minimum conditions:

27.3.2.2.1 Minimum vertical separation at crossings between water and sewer mains shall be 6 inches.

27.3.2.2.2 Sewer pipe shall be PVC with normal 20-foot lengths.

27.3.2.2.3 At crossings, one standard length of new pipe shall be centered at approximately a 90 degree angle with respect to the existing pipe.

27.3.2.2.4 The sewer shall pass low pressure air testing in accordance with UniBell Recommended Practice UNI-B-6-90.

27.3.2.2.5 Sewer services utilizing in-line fittings and extending to at least property lines shall be provided and tested within 10 feet of the crossing. Saddles are not acceptable.

27.3.2.2.6 If the minimum separation is not viable, the water line must be relocated. In these cases, minimum vertical separation at crossings between water and sewer mains shall be 18 inches.

28 SEWER SERVICES AND PLUMBING

28.1 Plumbing

Sewer services and plumbing should conform to relevant local and state plumbing codes.

29 DESIGN STANDARDS FOR ALTERNATIVE SEWER SYSTEMS

These standards shall be used for design of alternate sewer systems. Variances may be allowed where adequate justification is provided by the design engineer. These standards may be modified as the technology evolves.

29.1 Small Diameter Gravity Sewer Design

29.1.1 Hydraulic Considerations

29.1.1.1 Design flow shall be based upon water use records where available. If water use records are not available, 70 gpcd per residential connection shall be used with additional flow allowances for infiltration and an appropriate peaking factor.

29.1.1.2 Hydraulic calculations shall use the Manning's formula with a roughness coefficient of n = 0.013.

29.1.1.3 Hydraulic design shall be based upon an approximately ½ to 3/4 full pipe at 20-year peak design flow.

29.1.1.4 Minimum design velocity of 1.0 fps in controlling sections should be used considering existing peak flow conditions.

29.1.2 All mains shall be 4-inch diameter pipe or larger.

29.1.3 To minimize potential sources of infiltration, 20-foot minimum pipe lengths and in-line service fittings should be used.

29.1.4 Detection wires for locating buried pipe should be considered.

29.1.5 Turbulence should be minimized wherever possible.

29.1.6 Performance tests shall be utilized for determining water-tightness, deflection and alignment of installed pipes.

29.1.7 Service lines and main lines shall be designed and constructed to prevent freezing of the wastewater within the lines.

29.2 Manholes/Cleanouts

29.2.1 The limited use of manholes is encouraged to minimize infiltration, reduce odor potential, limit introduction of extraneous materials and reduce cost. Manholes are to be located at major junctions of three or more pipes and limited to strategic locations for cleaning purposes.

29.2.2 Water-tight manhole covers are recommended for odor control and to limit inflow.

29.2.3 Manholes located in groundwater shall be waterproofed and should be of the type which has the base riser section cast with integral floor.

29.2.4 Clean outs should be used in place of manholes at changes in grade, alignment, and at intersections of pipe. Spacing of clean outs shall be dependent upon cleaning capabilities. A maximum of 600 feet for mechanically cleaned and jet-cleaned systems and a maximum of 1000 feet for systems cleaned by pigging.

29.2.5 Clean outs located in traffic areas shall be designed to withstand normal traffic loads without damage.

29.3 Design Standards for Pump Stations for Alternative Collection Systems

In addition to other requirements, the following standards shall apply to pump stations which pump septic tank effluent:

29.3.1 Pumps other than those capable of passing spheres of at least 3 inches in diameter are acceptable. Screens should be considered where this type of pump is used.

29.3.2 The inlet pipe shall be extended below the low water elevation in the wet well in order to reduce turbulence and odors.

29.3.3 The lift station wet well cover shall be water-tight for odor control.

29.3.4 A vent shall be provided with odor control. The vent can be connected to a buried gravel bed or to a charcoal filter.

29.3.5 Materials in the wet well shall be protected from corrosion. Stainless steel, plastic, or bronze materials are recommended.

29.3.6 The force main sizing shall be based upon hydraulic requirements using a minimum design velocity of 1.0 ft/sec based on a Manning's roughness coefficient of n = 0.013. The minimum pipe diameter for force mains shall be 1.5 inches.

29.3.7 The force main shall be designed and constructed to prevent freezing.

29.4 Septic Tank/Effluent Pumps

29.4.1 Typically one septic tank and one effluent pump per household will be provided. Multiple units may be considered where serving multiple family dwellings or trailer courts. Duplex pumps, each capable of handling maximum flow, may be required in these situations.

29.4.2 Pumping units will be activated by appropriate level control switches. High and low level alarms will be required with audio-visual alarms recommended. Low level pump deactivation controls shall be provided. A control panel with appropriate circuit protection and electrical safety devices shall be used. The alarm circuit should be separately wired from the pump circuit. All applicable electrical codes must be satisfied. The power cables to the pump shall be designed to facilitate maintenance of the pumping unit. Wiring shall be exterior to the residence for maintenance purposes.

29.4.3 Screens limiting solids carryover into the pump shall be provided. Pipe fittings used should be commonly available. Appropriate isolation, check, and air release valves must be used with ease of maintenance in mind. All components shall be protected from freezing.

29.4.4 All septic tanks shall be vented.

29.5 Septic Tanks

Septic tanks are not allowed within the City limits.

30 LIFT STATIONS

30.1 The City has City-owned and operated sanitary sewer lift stations.

30.2 Lift stations will be designed by a RPE.

30.3 All new sewage lift stations shall be equipped with a backup, redundant level control system.

30.4 The City requires emergency power on any new lift station. All new pumping stations shall be equipped with an emergency power receptacle and a Automatic transfer switch.

30.5 All new pumping stations shall be equipped with an alarm system detecting unauthorized entry, power interruption, high water, and high pump temperature conditions. The alarm signal shall be directed to optional remote locations by telephone dialer system.

30.6 All new pumping station shall be equipped with an electro-magnetic flow meter with 4, 20 ma output signal, flow totalizer, and chart recorder and/or electronic recorder.

Part 7 - Water Design Technical Standards

1 PURPOSE

The purpose of this design criteria is to provide engineers, designers, engineering technicians, and others, in handy reference form, the City's minimum standards for water system design.

These criteria are intended to cover the design of water mains and apply to any water systems, public or private, 6 inches in diameter or greater. Private on-site water systems serving mobile home parks, condominiums or apartments may be designed in accordance with the uniform plumbing code and approved by the appropriate building inspector.

The design criteria set forth below are intended to result in water systems which will:

1.1 Be consistent with the Water Master Plan.
1.2 Be consistent with Montana Department of Environmental Quality (DEQ).
1.3 Be consistent with the latest edition of the MPWSS.
1.4 Be of adequate size and pressure to meet expected demands, within their design life.
1.5 Have sufficient flows to meet fire flow requirements.
1.6 Be strong enough to resist all external loads which may be imposed.
1.7 Be of materials resistant to both corrosion and erosion.
1.8 Be economical and safe to build and to maintain.

Alternate materials and methods may be considered for approval on the basis of these objectives.

2 REFERENCES

2.1 "Waterworks Standards," Circular WQB-1 Montana Department of Environmental Quality, Design Standards for Wastewater Facilities, latest edition.

2.2 Montana Public Works Standards Specifications, latest edition and revisions.

3 APPROVAL OF ALTERNATE MATERIALS OR METHODS

Approval of any major deviation from these standards will be in written form.

4 MONTANA WATER QUALITY BUREAU STANDARDS

WQB-1, published by the DEQ, is hereby incorporated into this document. WQB's criteria will be used as a guideline to determine standards needed for items not specifically covered in this document.

5 SPECIAL PROBLEMS

The design of the following are considered special problems and are not covered in detail in these standards: WQB-1 provides general guidelines for most of these items.

5.1 Air relief valves
5.2 Water loading stations
5.3 Source development
5.4 Chemical application
5.5 Treatment plants
5.6 Pumping stations
5.7 Water storage

6 DESIGN PLANS AND PROFILES

Plans will be required for all new or extended water mains and shall include both a vicinity map and a general layout map of the area showing the location of existing facilities and of the proposed improvements. Plans should be accurate, legible and properly detailed. Dimensions should be either from right-of-way centerline or property lines.

6.1 Engineering Drawings (Plans)

Plans for water mains should contain at least the following information:

6.1.1 Adjacent streets, property lines, utility easements, and references thereto.

6.1.2 Location of water lines and appurtenances.

6.1.3 Location of water courses, wells, stream and railroad crossings, water mains, gas mains, culverts and underground power, CATV, or other utilities wherever possible.

6.1.4 Limits of hard surface paving with dimension references.

6.1.5 Suitable title plate with name and address of owner, scale, north point, date, drawing number, and name, address and telephone of engineer, and the Registered Professional Engineer's (RPE) signature.

6.2 Profiles

Profiles for the individual water lines should contain at least the following information:

6.2.1 Location of valves, hydrants, and other appurtenances

6.2.2 Profile of existing and proposed ground surface.

6.2.3 Size, pipe class, length of water line, and pipe bedding class.

6.2.4 Suitable title plate with the name and address of owner, scale, date, drawing number, and the name, RPE number and expiration date of the registration.

6.2.5 Limits of street improvements will be shown including a typical section of the subject street.

6.3 Water Appurtenances

Appropriate City Standards shall be included in all plans for construction of water lines.

6.4 Separate Drawings

6.4.1 Separate plans shall be submitted for public water mains installed in combination with private water lines or site plumbing. "Site plumbing" drawings are not acceptable. Public water main plans may be combined with other public improvement plans, provided that the plans must be legible and properly detailed.

6.4.2 Appropriate labeling of the services as "Public" or "Private" will be done on both the plan view and profile view.

7 SPECIFICATIONS

7.1 Engineering consultants are encouraged to develop specifications and special provisions for each project. Specifications and special provisions shall incorporate the latest edition of the MPWSS. Special specifications pertaining to materials and workmanship, if developed, shall be submitted to the City for review and approval, together with check prints of the project.

7.2 In general, the water specifications should cover pipe material, excavation, laying of water main, jointing, backfilling, testing, etc. Strict supervision will be required by the City during construction to assure compliance with the specifications.

8 ADDITIONAL ITEMS OF CONCERN

8.1 Hydrostatic Testing

Hydrostatic and leakage testing shall be performed in accordance with the American Water Works Association C600. MPWSS Section 02713, "Water Mains" outlines procedure.

8.2 Cleaning Water Mains

Before chlorination, except when hypochlorite tablets are used, the mains shall be flushed thoroughly after the pressure and leakage test are completed. MPWSS Section 02713, "Water Mains" outlines procedure.

8.3 Disinfecting Water Mains

8.3.1 General. All water mains shall be disinfected subject to the PWD's approval in accordance with AWWA C651, "Disinfecting Water Mains", and MPWSS Section 02713, "Water Mains", before placing the main in service. The interior of all pipe, fittings, and appurtenances shall be kept free from dirt, heavy, and foreign particles.

8.3.2 Redisinfection. If the initial disinfection fails to produce approved bateriological or turbidity samples, the main shall be reflushed and resampled. If check samples show bacterial contamination, the main must be re-chlorinate until approved results are obtained.

9 GENERAL DESIGN CONSIDERATIONS

Water mains should be designed to serve houses, business buildings and other public and private establishments. Each main building on a parcel or residence on each parcel shall be served by a separate water service.

9.1 Domestic Flows

9.1.1 Water mains shall be designed in accordance with "Circular WQB-1, Standards for Water Works" published by the State of Montana Department of Environmental Quality. Water mains shall be sized to provide a combined fire flow and peak day flow in accordance with the standards shown below.

9.1.2 Water mains in residential areas shall be designed to supply 920 gallons per dwelling unit per day (based on average usage of 130 gpcd; 2.83 persons per dwelling unit; peak day demand of 2.5 times average demand) plus fire flow. The number of dwelling units used for design shall be consistent with existing development and the zoning of undeveloped land. Alternate design bases may be used if justified by the designer.

9.2 Fire Flows

9.2.1 For design purposes, minimum fire flows shall be 1000 gpm in low and medium density residential areas, 2500 gpm in commercial and high density residential areas, and 3500 gpm in industrial areas. The design shall provide for the system to provide the minimum fire flow at each fire hydrant, assuming one hydrant flowing at any given time and a minimum pressure of 20 psi.

9.2.2 Where special conditions exist, greater or lesser design fire flows may be approved by the Fire Chief (as per Fire Code) for new and existing buildings.

9.3 Pressure

9.3.1 Water systems shall be designed to provide a minimum pressure of 35 psi with no fire flow. With fire flow, a minimum pressure of 20 psi is required in all areas.

Water systems shall be designed by consulting the latest water system model of pressure zones. Pumping stations and pressure reducing valves may be required to lower high pressure concerns. Pipes shall be specified to withstand the maximum test pressures but in no case shall pipes be classed less than 150 psi. The designer should contact the PWD for information on the pressure zones and water supply available for the area.

9.3.2 In general, water systems should be designed to care for future flows which may reasonably be expected within a period of 15 to 20 years, and for ultimate development of the specific service area concerned.

9.3.3 Specific approval of booster pump stations, storage and additional sources, will be required from the City.

10 CAPACITY

10.1 Design flows shall be determined by consideration of the following factors:

10.1.1 Service area to be served
10.1.2 Population within the area to be served
10.1.3 Land use within the area to be served
10.1.4 Per capita water consumption
10.1.5 Commercial, industrial, or institutional users to be served
10.1.6 Fire flow requirements
10.1.7 Peaking factors

10.2 In the absence of flow data or other reliable information, the design factors from Table 4 may be assumed. Appropriate peaking ratios should be applied to determine flows, where specified by the City.

Table 4 Design Factors

	Average Flow	Peaking Factor
Residential	100 gpcd	1.7 to 4.0
Commercial	1,200 gpcd	2.0 to 4.0
Industrial	1,200 gpcd	2.0 to 4.0

It is recommended that design calculations include estimates of average maximum and minimum daily flows. The submission of design calculations will not ordinarily be required but engineers should be prepared to substantiate pipe sizes, layout, population estimates, land uses or other design assumptions as may be requested.

11 SIZE

Water mains shall be a minimum of 8 inches inside diameter. Fire hydrant lines may be of 6-inch inside diameter.

12 PIPE MATERIALS

The following pipe materials and fittings are approved:

Material	Specifications
Ductile Iron Pipe; Class 52	ANSI A21.51 or AWWA C151 (polyethylene film wrapped or encased)
Polyvinyl chloride (PVC)	AWWA C900
Concrete Cylinder Pipe	*Not allowed*
Cast Iron Pipe	*Not allowed*
Gate Valve	Mueller Resilient Wedge Gate Valve
MJ x MJ	Gate valve type-12-inch and under; Mueller Butterfly or Double Disc valve for larger than 12 inches
Tapping Valve	Mueller Resilient Seat Tapping Valve
Tapping Saddle	Powerseal Stainless Steel Model 3490AS Mueller also acceptable
Valve Boxes	Tyler 6868 Series "DD" -screw type #6 Base for water
Corporation Stops	Mueller H-15026 ¾-inch & 1-inch Mueller H-15008 ¾-inch & 1-inch Mueller H-B25008 ¾-inch & 2-inch; CC x 110 Mueller H-15013 1½-inch & 2-inch Mueller B-25000 ¾-inch & 1-inch Mueller B-25005 ¾-inch & 1-inch; CC x Install
Service Saddles	Smith Blair Model 371; 4-inch to 12-inch PVC Smith Blair Model 372; 4-inch to 12-inch Romac Model 304;2-inch to 12-inch PVC Romac Model 305; 10-inch to 32-inch Mueller Brass H16000
Service Pipe	Main to Building- 1. Type K Copper 2. PE Pipe (IPS) SDR 7-3/4-inch & 1-inch 3. PE Tube (CTS) SDR 9-11/12-inch & 2-inch (200 PSI)
Curb Stop	Mueller H-15209 3/4-inch to 2-inch cop x cop or CTS Mueller B-25209 3/4-inch to 2-inch cop x cop Mueller H-15172 3/4-inch to cop x fip Mueller B-25172 3/4-inch to 2-inch cop x inst Mueller B-25204 3/4-inch to 1-inch inst x inst Mueller B-20283 3/4-inch to 2-inch inst x inst or C110

Material	Specifications
Curb Boxes	Mueller H-10334 w/stationary rod-one piece lid
Adjustable Risers Couplings	Tyler 64-A & 65-B Solid Sleeve-Ductile Iron-Romac 501 or equal
Joint Restraint	Megalug 2000 or thrust blocks
Fire-Hydrant	Mueller Super Centurion 200, 5¼-inch, 3-way
Manhole F/C	Inland Foundary Model 771
Meters	All meters--Badger, Remote Read
Backflow Preventers	All new construction ¾-inch and 1-inch use dual check valve Dual Check Valve 3/4-inch McDonald 11-3NA-43 1-inch McDonald model 18-4-10-XD 1½-inch Febco 805Y-BV-S; USA Blue Book #45416 2-inch Febco 805Y-BV-S #45410; EPA 570/9-89-007 Larger check valves to be approved by Public Works Dept.

Alternate materials not listed must be approved by the Public Utilities Director.

13 EXCAVATION, PIPE BEDDING AND BACKFILL

13.1 Details

Standard plans are the MPWSS, latest edition.

13.2 Installation

Installation of pipe shall conform to the following:

13.2.1 MPWSS, latest edition.

13.2.2 Water settling of backfill material is prohibited.

14 MINIMUM DEPTH

All water lines shall be laid at a depth sufficient to prevent freezing and be protected against damage from traffic. Water mains shall have a minimum cover of 6 feet measured from top of pipe to finished grade or be otherwise protected from damage by traffic or freezing.

14 DEAD ENDS

15.1 In order to provide increased reliability of service and reduce head loss, dead ends shall be minimized by making appropriate tie-ins whenever practical.

15.2 Where dead end mains occur, they shall be provided with a fire hydrant flushing purposes. Flushing devices should be sized to provide flows which will give a velocity of at least 2½ feet per section in the water main being flushed. No flushing device shall be directly connected to any sewer.

16 VALVES

16.1 Valves

Valves should be located at not more than 500-foot intervals in commercial districts and at not more than 1 block or 800-foot intervals in other districts.

16.2 Line Valves in Distribution Pipe

Four valves shall be installed at a "cross" intersection. Three valves shall be installed at a "Tee" intersection.

16.3 Blowoff Valves

A fire hydrant must be located within 20 feet of the end of any dead-end water main including temporary dead-end mains in phased developments.

16.4 Air Relief Valves

An air relief valve will be required at the high point of each water main. Pipe grade design shall minimize the use of air relief valves wherever possible.

17 HYDRANTS

17.1 Spacing

Fire hydrant spacing shall not exceed 500 feet measured along the curb line in areas zoned R-1 or R-2 and shall not exceed 450 feet in other areas. The Fire Chief may require additional hydrants in accordance with Uniform Fire Code. All hydrants will have secondary valves.

17.2 Color Code

Hydrants shall be color coded to AWWA standards.

18 LOCATION

18.1 Relation to Sewer Lines and Wells

Sanitary sewers and domestic water lines shall not be laid in the same trench. Parallel water and sewer lines wherever possible should be located at least 10 feet apart horizontally. When physical conditions render this spacing impossible or

impractical, then ductile iron water pipe with watertight joints is required for the sewer line. Wherever it is necessary for sewer and water lines to cross each other, the crossing should be at an angle of approximately 90 degrees and the sewer shall either be located 18 inches or more below the water line or be cement lined, constructed of ductile or PVC pipe with watertight joints for a distance of 10 feet on both sides of the water line.

18.2 Water Mains in Streets or Easements

Under normal conditions, water mains should be located in street right-of-way 5 feet south or west of the street right-of-way centerline. Water mains shall be located in centerline of alleys and easements. When it is necessary to locate waterlines in easements, such easement shall be at least 20 feet in width.

19 ALIGNMENT

Water lines should be laid on straight alignment and uniform grade between blocks. However, in cases where justification can be shown, changes will be considered.

20 PIPE JOINTS

All pipe joints must be constructed watertight. Rubber rings or other approved joint sealing material shall be use. Joint deflections shall be controlled such that the watertight integrity of the joint is maintained.

21 SERVICE LINE CONNECTIONS

All service laterals from a water main to serve an individual building shall be of a minimum size of ¾ inch in diameter within public right-of-way or within public easements. Construction of service lines shall conform to the same standards as for water main construction.

22 SEPARATE CONNECTION REQUIRED

22.1 Each main building or legal lot (except a private garage) shall be separately connected to a public water main. Except that main buildings or dwellings located on a single parcel may be connected to a private line, provided that an approved statement of maintenance and billing responsibility is recorded with the title to the property.

22.2 A valve shall be required at the point of connection of a private water system to a public system.

23 DRAINAGE DITCH OR STREAM CROSSINGS

Water lines entering or crossing drainage ditches or streams shall be constructed with care. The pipe and joints shall be tested in place, and shall be designed, constructed, and protected

against anticipated hydraulic and physical, longitudinal, vertical, and horizontal loads, erosion, and impact.[5]

24 AERIAL CROSSINGS

Support shall be provided for all joints in pipes utilized for aerial crossings. The supports shall be designed to prevent frost heave, overturning, and settlement.[6]

25 PROTECTION OF WATER SUPPLIES

When wastewater sewers are proposed in the vicinity of any water supply facilities, requirements of Circular WQB-1 (DEQ) should be used to confirm acceptable isolation distances in addition to the following requirements.

25.1 Cross Connections Prohibited

There shall be no physical connections between a public or private potable water supply system and a sewer, or appurtenance thereto which would permit the passage of any wastewater or polluted water into the potable supply. No water pipe shall pass through or come in contact with any part of a sewer manhole.

25.2 Relation to Water Works Structures

25.2.1 Sewers shall not be located within 50 feet of a public water supply well.

25.2.2 All existing waterworks units, such as basins, wells, or other treatment units, within 100 feet of the proposed sewer shall be shown on the engineering plans.

25.3 Relation to Water Mains

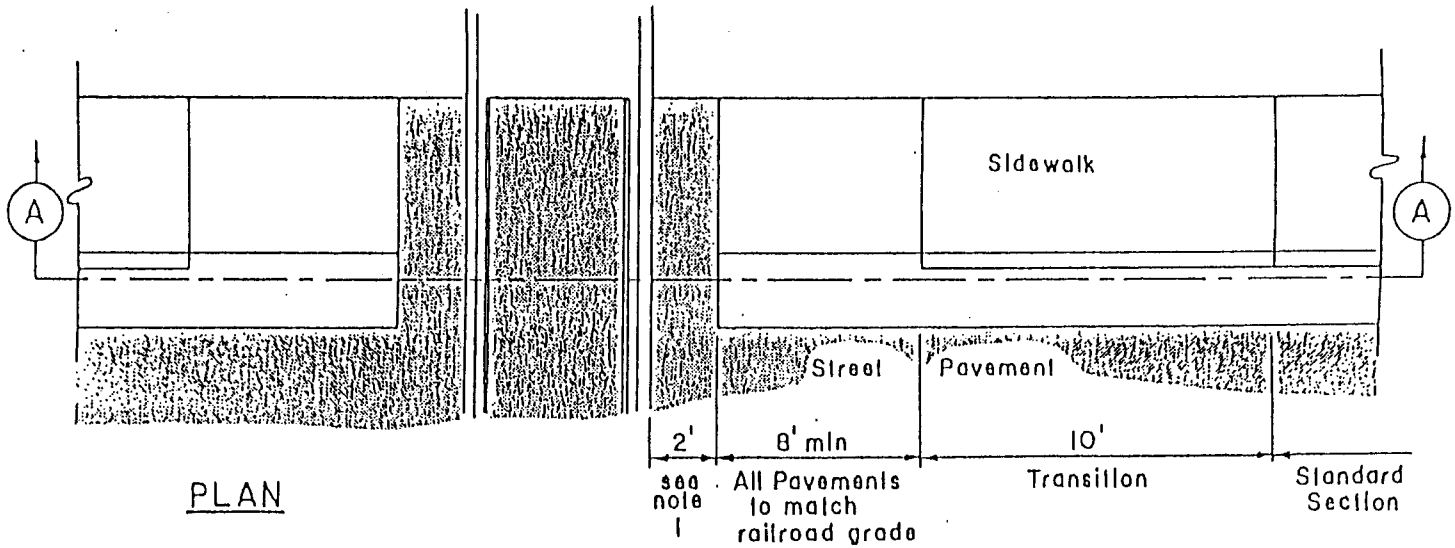
25.3.1 Horizontal Separation. Sewers shall be laid at least 10 feet horizontally from any existing or proposed water main. The distance shall be measured edge to edge.

25.3.2 Crossings. Sewers crossing water mains shall be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and outside of the sewer. This shall be the case where the water main is either above or below the sewer. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints.

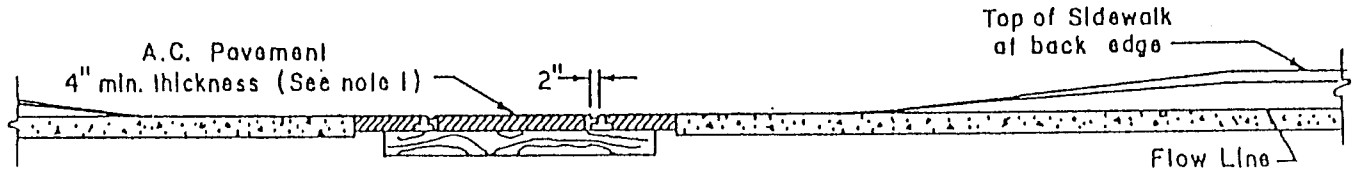
25.3.3 Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to maintain line and grade and to prevent damage to the water main.

Street Section at Railroad Crossing

Detailed Drawing No. _____



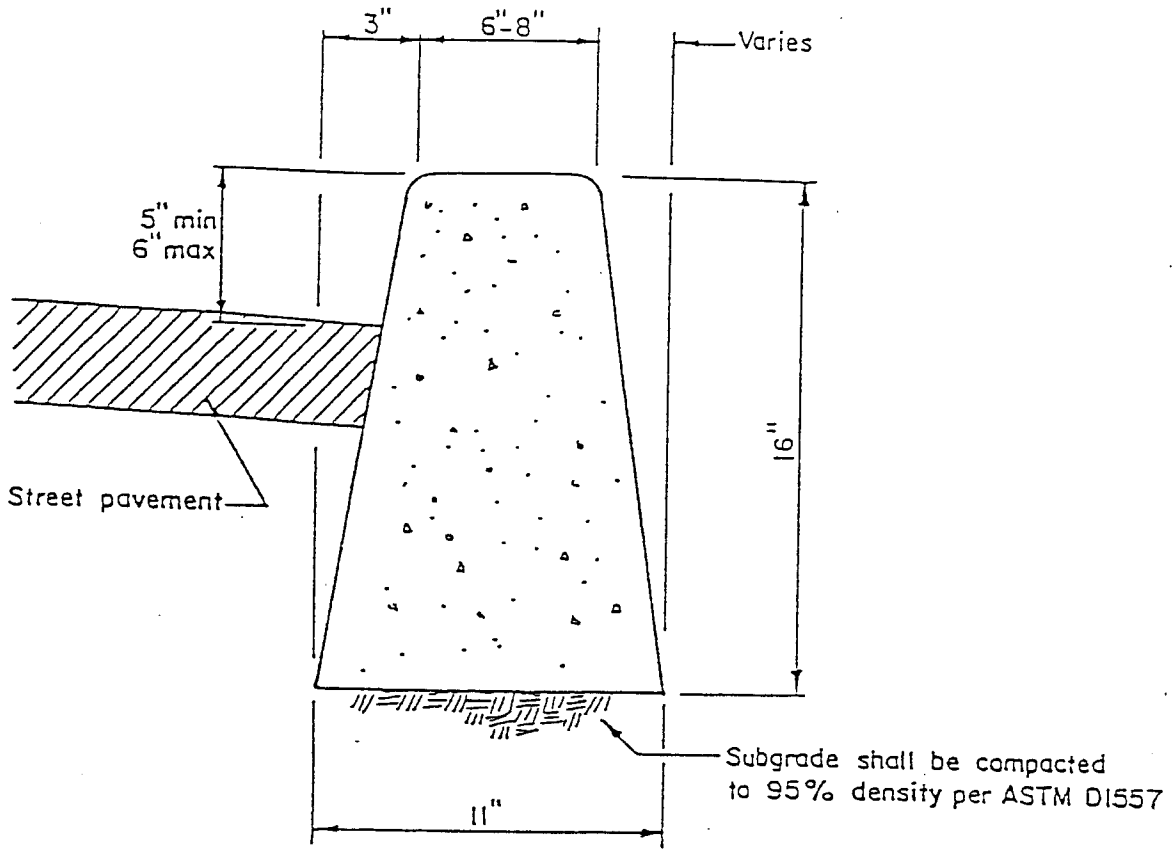
PLAN



SECTION A-A

Notes:

1. *If railroad has placed planking or prefabricated crossing material adjacent to rails, delete asphalt sidewalk and continue concrete sidewalk to match crossing placed by railroad.*
2. *Street crown to rail crossing slope transition design shall be submitted to city for approval.*
3. *Design must be approved by railroad for new construction.*



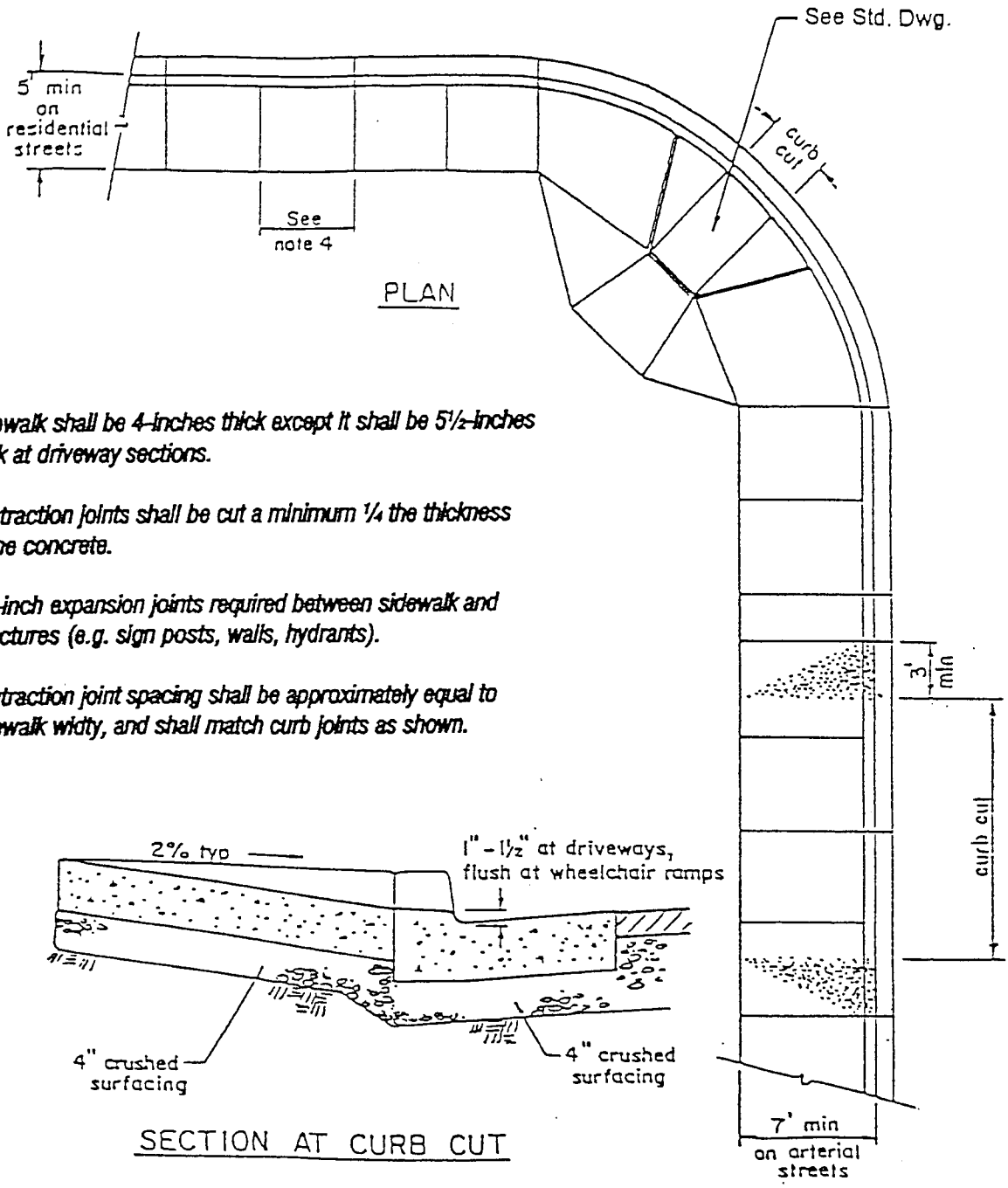
TYPICAL SECTION

Notes:

1. *Contraction joints with tooled edges shall be cut 1/4 to 1/3 the section depth at 10 foot intervals.*
2. *Through joints and full through form plates shall not be used except where specifically approved by the engineer.*
3. *All exposed corners shall be finished to a 1/2 inch minimum radius.*

Standing Curb

Detailed Drawing No. _____

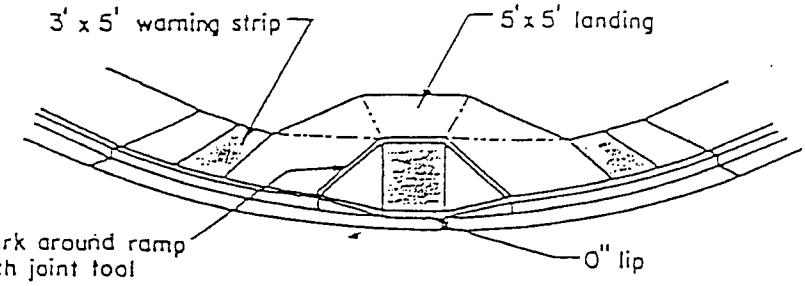


Notes:

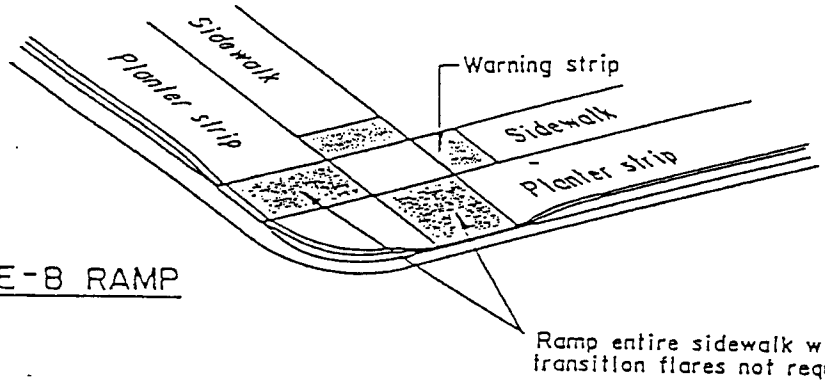
1. *Sidewalk shall be 4-inches thick except it shall be 5½-inches thick at driveway sections.*
2. *Contraction joints shall be cut a minimum ¼ the thickness of the concrete.*
3. *3/8-inch expansion joints required between sidewalk and structures (e.g. sign posts, walls, hydrants).*
4. *Contraction joint spacing shall be approximately equal to sidewalk widty, and shall match curb joints as shown.*

Sidewalk and Curb

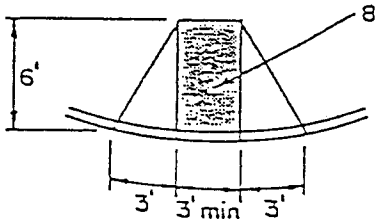
Detailed Drawing No. _____



TYPE-A RAMP



TYPE-B RAMP



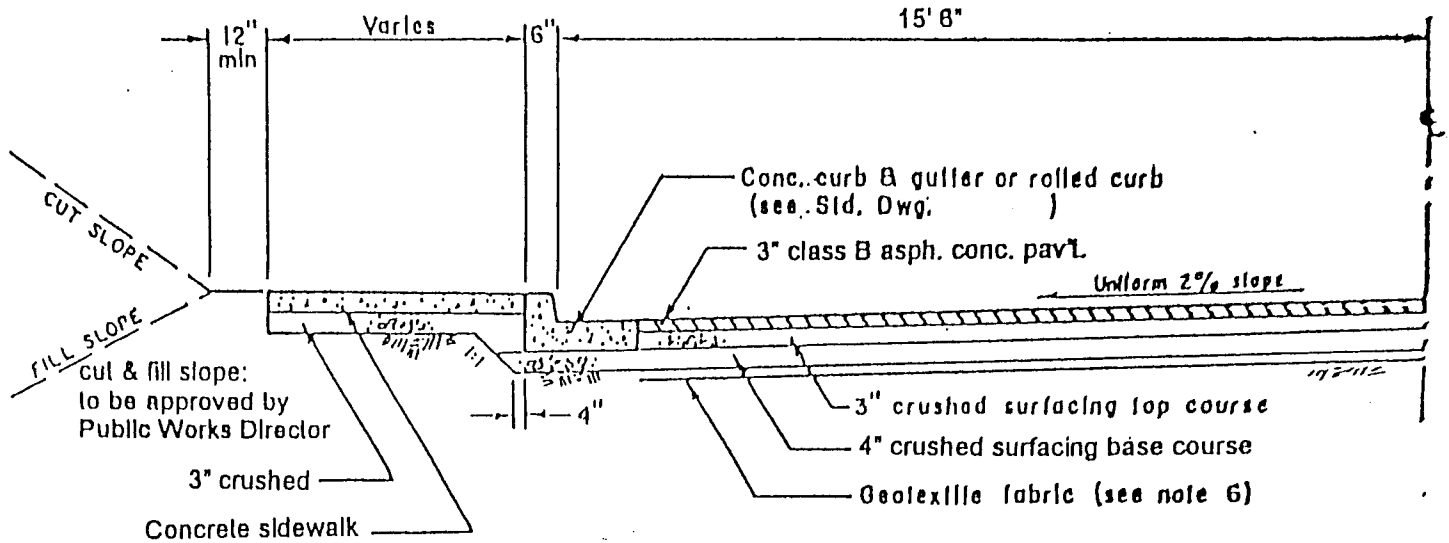
PLAN

Notes

1. *Warning strips may be deleted if ramp is not is line with the main pedestrian path.*
2. *The curb ramp and warning strips shall be distinguished from surrounding surfaces by texture.*
3. *Ramp cross slopes and landing slope should not exceed 3-percent in any direction.*
4. *Ramps shall be flush at the gutter flow line.*
5. *Construction of type-B ramps is preferred where both sidewalks are set back from the curb by an earth strip.*

Arterial Street Wheelchair Ramp Detail

Detailed Drawing No. _____



TYPICAL HALF-SECTION

Notes:

1. *Section is symmetrical about centerline.*

2. *All Dimensions are minimums.*

3. *This section is designed for typical clayey-silt soils found in the Columbia Falls area.*

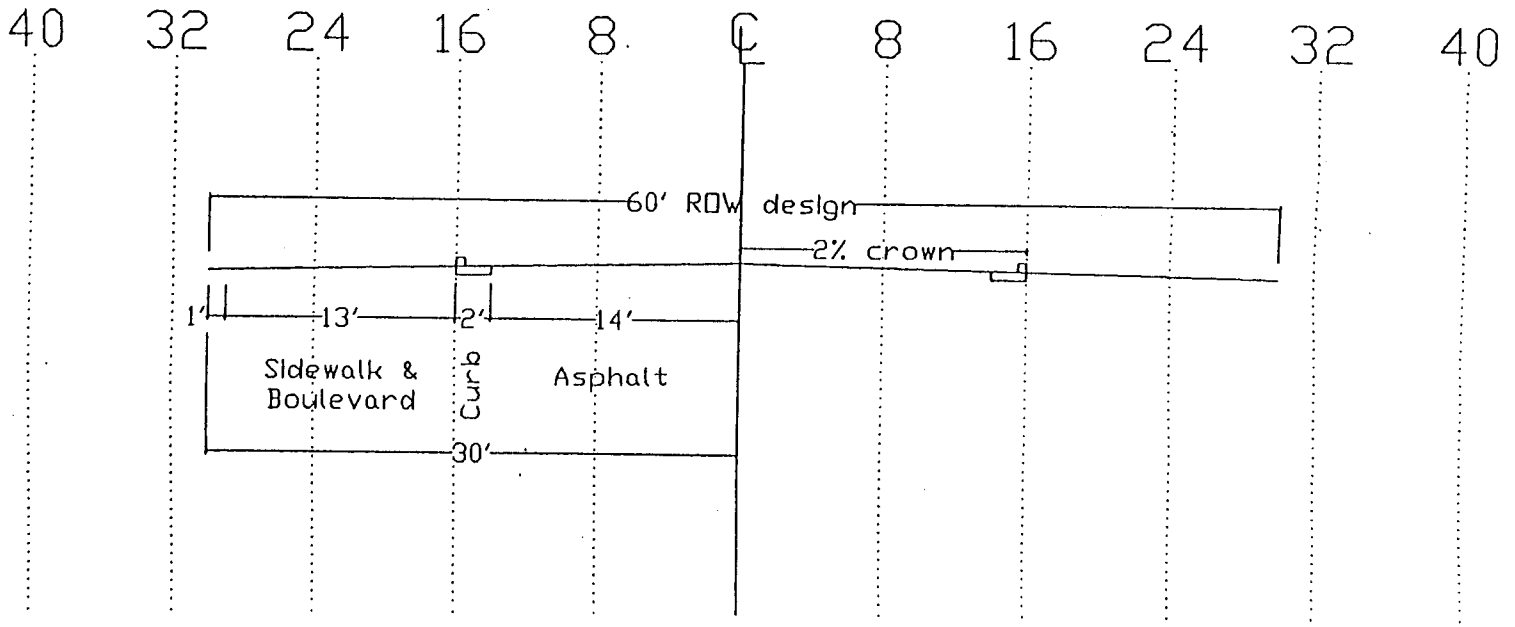
4. *In solid rock, cut slope may be steepened from 1½:1 to ½:1.*

5. *In cuts greater than 6 feet in height, acceptable side slopes will be determined by the engineer based on engineering analysis.*

6. *Geotextile fabric (if needed) shall be a woven material meeting or exceeding the following:*
   Tensile strength -- ASTM D 1682-200 PSI,
   Puncture Strength -- ASTM D 751-80 PSI,
   Elongation -- ASTM D 1682-20%,
   Mullen Burst Strength -- ASTM D 3786-450 PSI

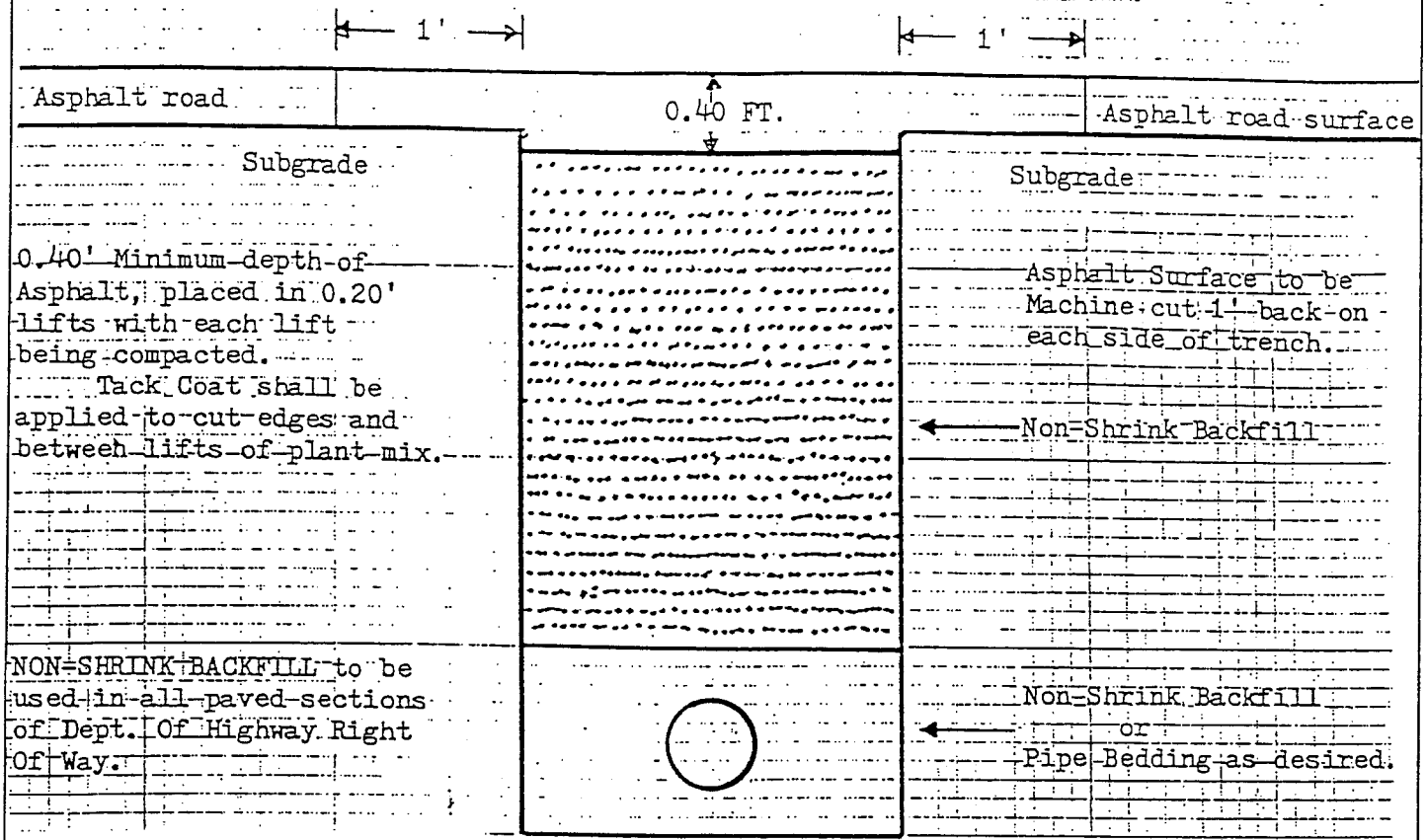
Asphalt Section for Residential Streets

Detailed Drawing No. ____



Notes:

1. *Typical 60 foot ROW section is 32 foot curb back to curb back; 28 foot asphalt pavement, 2 foot curb, 26 foot boulevard, and 2 foot easement area.*



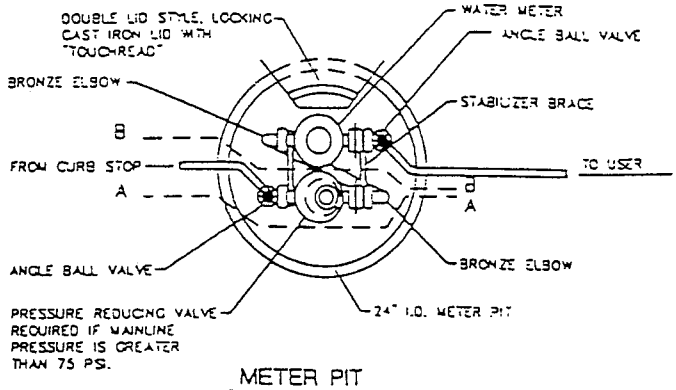
NON-SHRINK BACKFILL MIX

Ingredients	Weight/C.Y.
Cement - 0.45 sack	42 lbs.
* Water - 39 gallons	325 lbs.
Air (entrapped) - 1.5%	
Course Aggregate (1" max. - size)	1700 lbs.
Sand (ASTM C-33)	1845 lbs.
	3912 lbs.

* Start with 30-32 gallons water and add more if needed. 6" slump or less is desirable.

Standard Trench Replacement Section for Roadway Cuts

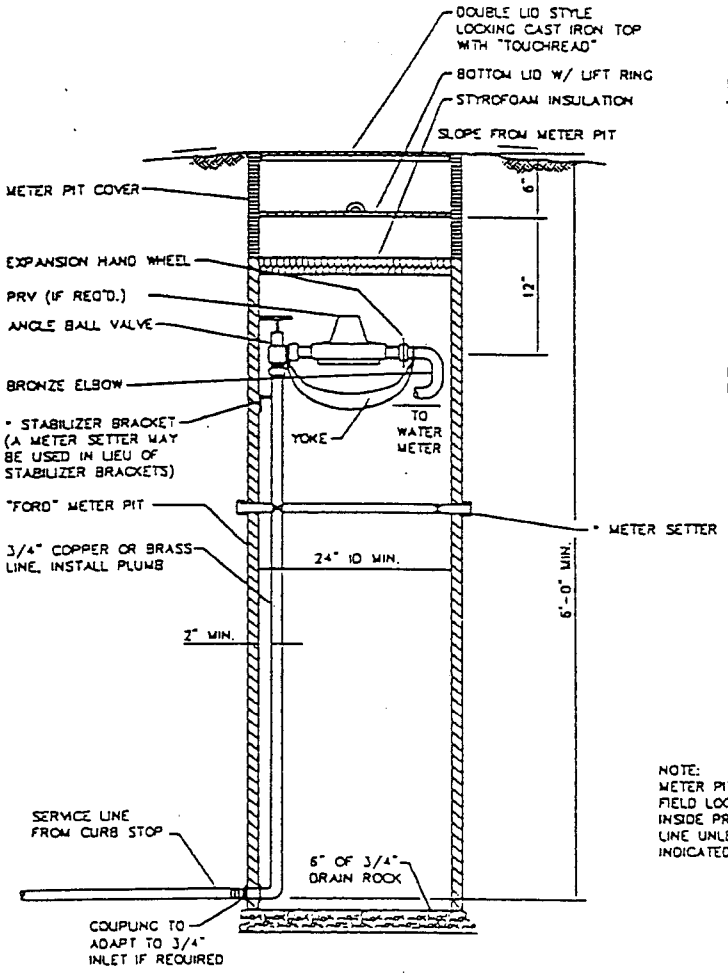
Detailed Drawing No. _____



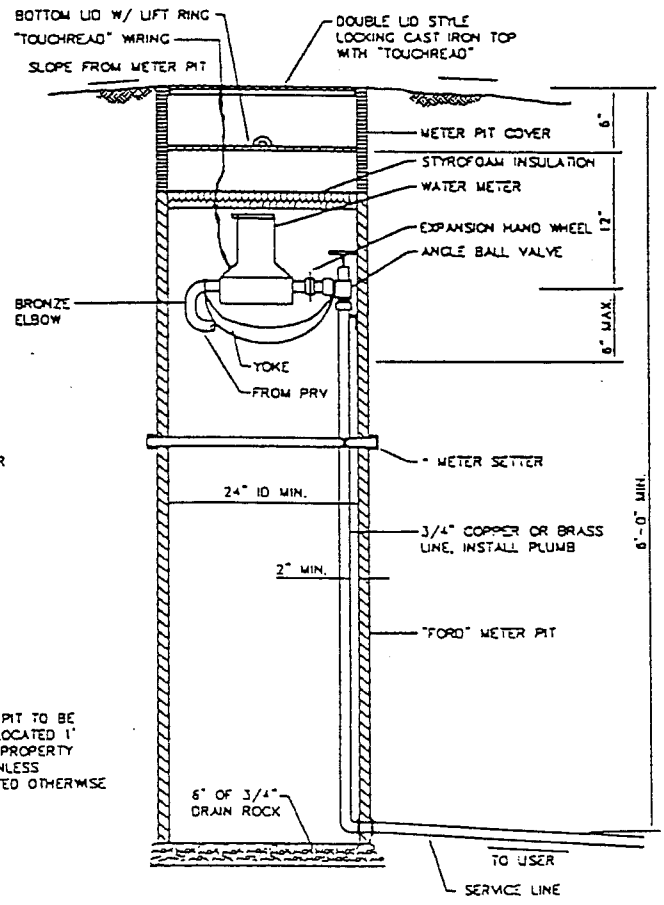
METER PIT

PLAN VIEW

NOT TO SCALE



SECTION A-A



NOTE:
METER PIT TO BE FIELD LOCATED 1' INSIDE PROPERTY LINE UNLESS INDICATED OTHERWISE

SECTION B-B

METER PIT - SECTIONS

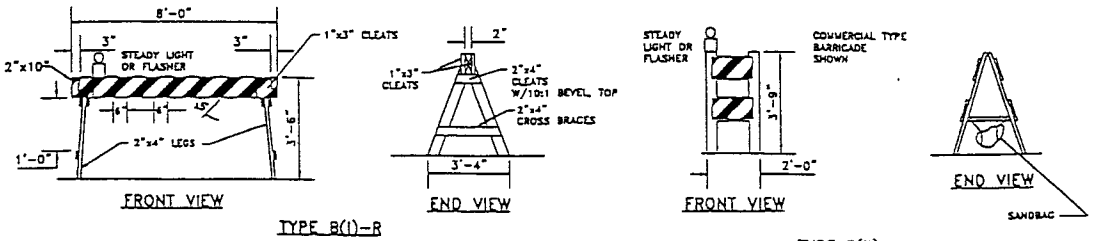
SECTION A-A & B-B

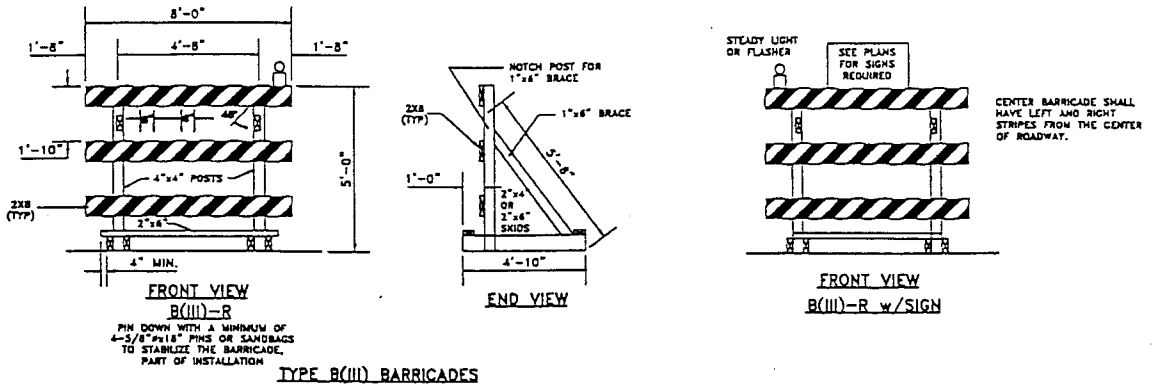
NOT TO SCALE

Standard Outside Meter Pit Detial

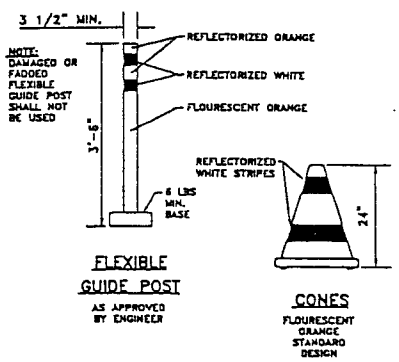
Detailed Drawing No. _____

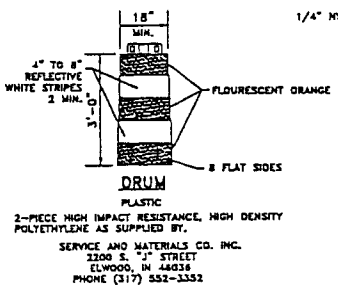
"SEE" MONTANA DEPARTMENT OF HIGHWAYS STANDARD DRAWING 210 FOR ALTERNATE DESIGN OF TYPE II BARRICADE

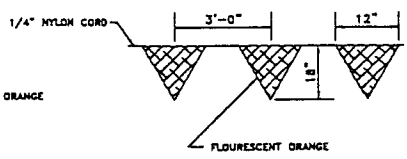


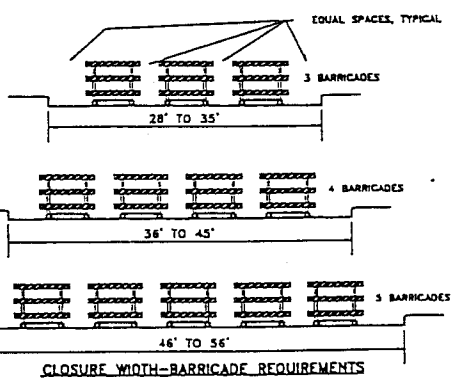


TYPE B(III) BARRICADES
TYPICAL BARRICADES









NOTES:

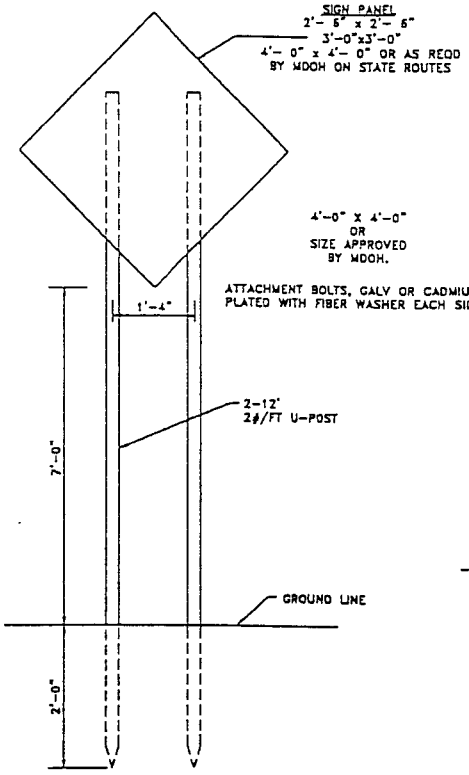
1. ALL BARRICADES SHALL HAVE ALTERNATING REFLECTIVE ORANGE AND WHITE STRIPES, 6" IN WIDTH, AT AN ANGLE OF 45° AS SHOWN. THE STRIPES SHALL SLOPE DOWNWARD TOWARD THE SIDE TRAFFIC IS TO PASS. BARRICADES DESIGNATED "R" SHALL BE PLACED TO THE RIGHT SIDE OF APPROACHING TRAFFIC. BOTH FRONT AND BACK RAILS LESS THAN THREE FEET LONG MAY HAVE 4" WIDE STRIPES
2. ALL BARRICADES SHALL BE REFLECTORIZED WITH ORANGE AND WHITE SHEETING MOUNTED ON ALUMINUM BACKING AT LEAST 0.019" THICK; ALUMINUM ALLOY 5061-T6 CONFORMING TO A.S. T. M. DESIGNATION B-209, SHALL BE USED. REFECTIVE ALUMINUM SHEETING SHALL BE SECURED WITH ALUMINUM NAILS.
3. BARRICADES, INCLUDING FRAMEWORK, SHALL BE PAINTED WITH TWO COATS OF WHITE PAINT.
4. SANDBAGS OF SUFFICIENT WEIGHT, OR 5/8"ø DOWELS, ONE EACH CORNER, SHALL BE USED TO HOLD THE BARRICADE IN PLACE.
5. BARRICADES SHALL BE CONSTRUCTED OF STANDARD GRADE (NO.2) OR BETTER SAS LUMBER. USE 3/8" CARRIAGE BOLTS FOR ALL CONNECTIONS.
6. WHERE TYPE III BARRICADES ARE TO FACE TRAFFIC FROM TWO DIRECTIONS, STRIPPING ON THE FRONT AND BACK SIDES WILL BE REQUIRED.
7. PLASTIC AND METAL FRAMEWORK MAY BE USED FOR BARRICADES WITH WRITTEN APPROVAL BY THE ENGINEER. THE CONTRACTOR SHALL SUBMIT DRAWINGS OF DESIGN AND FABRICATION DETAILS FOR REVIEW BY THE ENGINEER. THE ENGINEER SHALL HAVE A REVIEW PERIOD OF FOURTEEN(14) DAYS.
8. FLASHER UNITS SHALL BE USED ON ALL BARRICADES PLACED FOR NIGHT-TIME OPERATION. POSITION FLASHERS AS PER MONTANA DEPARTMENT OF HIGHWAYS SPECIFICATION.
9. ON TANGENT SECTIONS IN A SERIES OF BARRICADES, USE A FLASHER ON THE FIRST BARRICADE AND STEADY LIGHTS ON THE REMAINDER OF THE BARRICADES.
10. BARRICADES AND SUPPORTS SHALL NOT BLOCK SIDEWALKS THAT REMAIN OPEN.

CONSTRUCTION TRAFFIC CONTROL

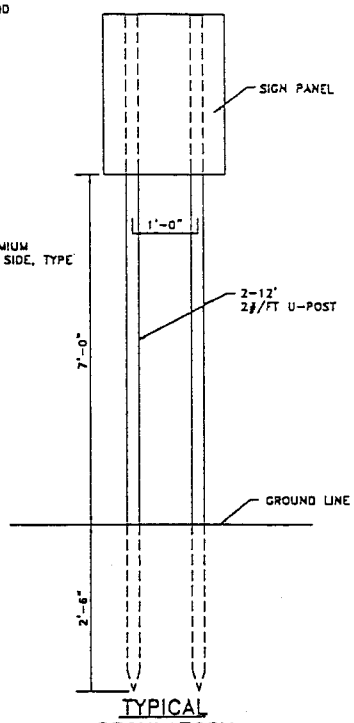
BARRICADES, CONES AND DRUM

Construction Traffic Control

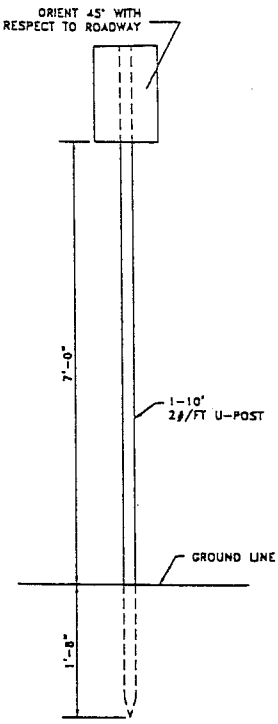
Detailed Drawing No. _____



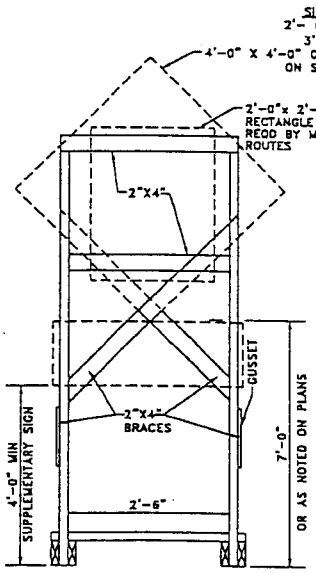
TYPICAL
WARNING SIGN INSTALLATION



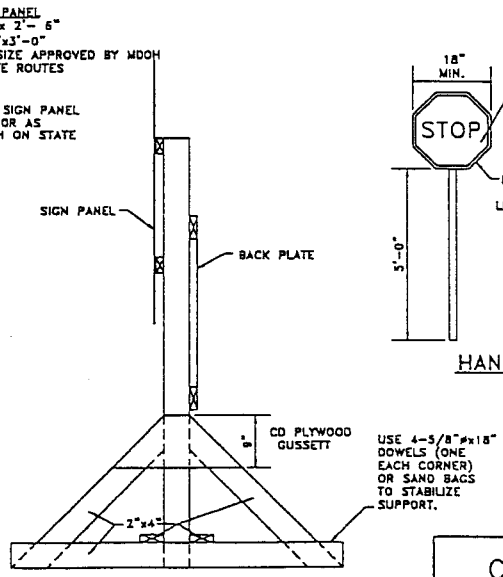
TYPICAL
REGULATORY
SIGN INSTALLATION



TYPICAL
PARKING SIGN
INSTALLATION

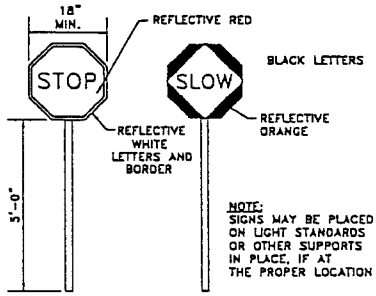


FRONT ELEVATION



SIDE ELEVATION

TYPICAL PORTABLE SIGN SUPPORT



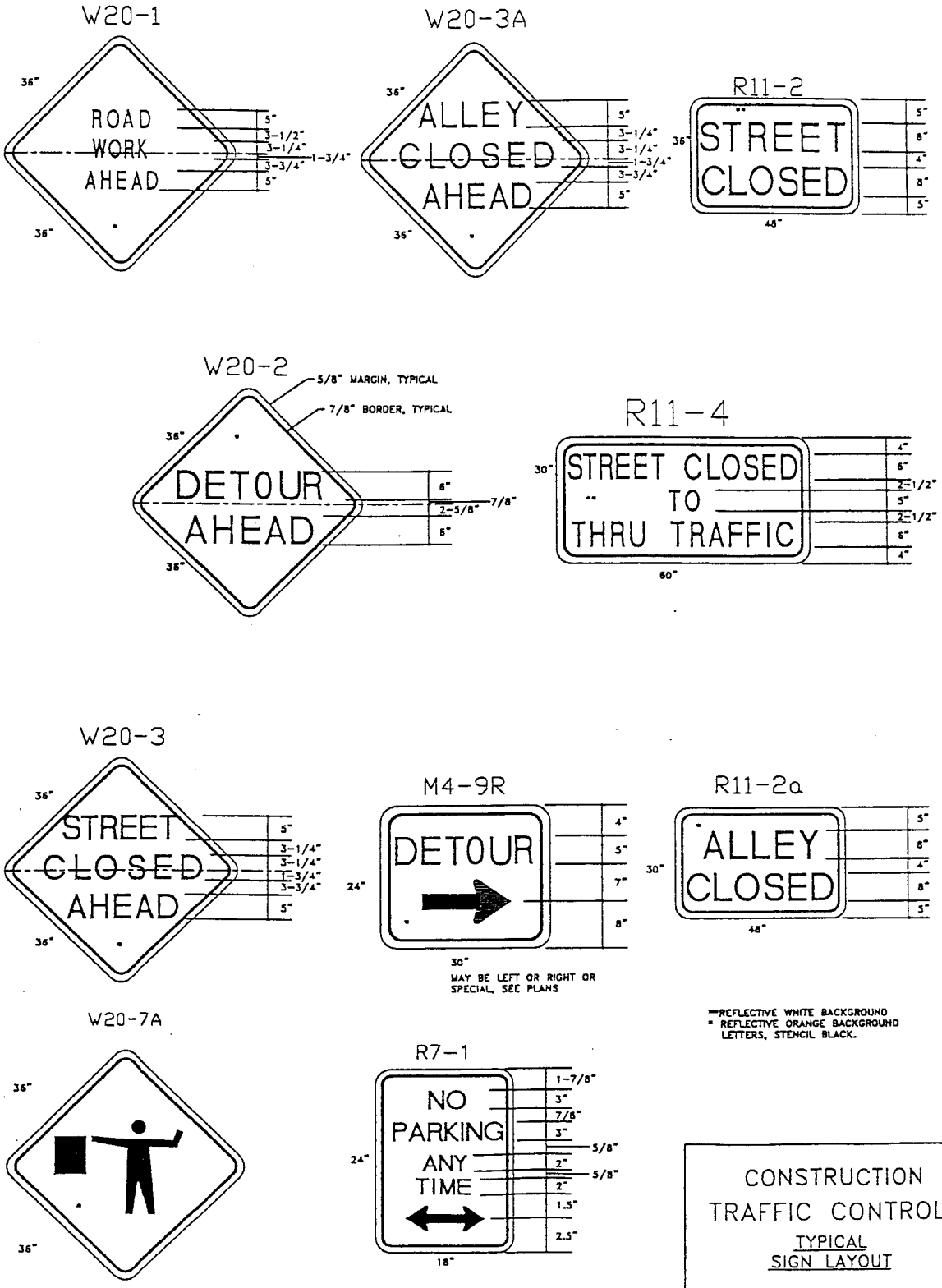
HAND SIGNS

CONSTRUCTION
TRAFFIC CONTROL

DETAILS
SIGN SUPPORTS

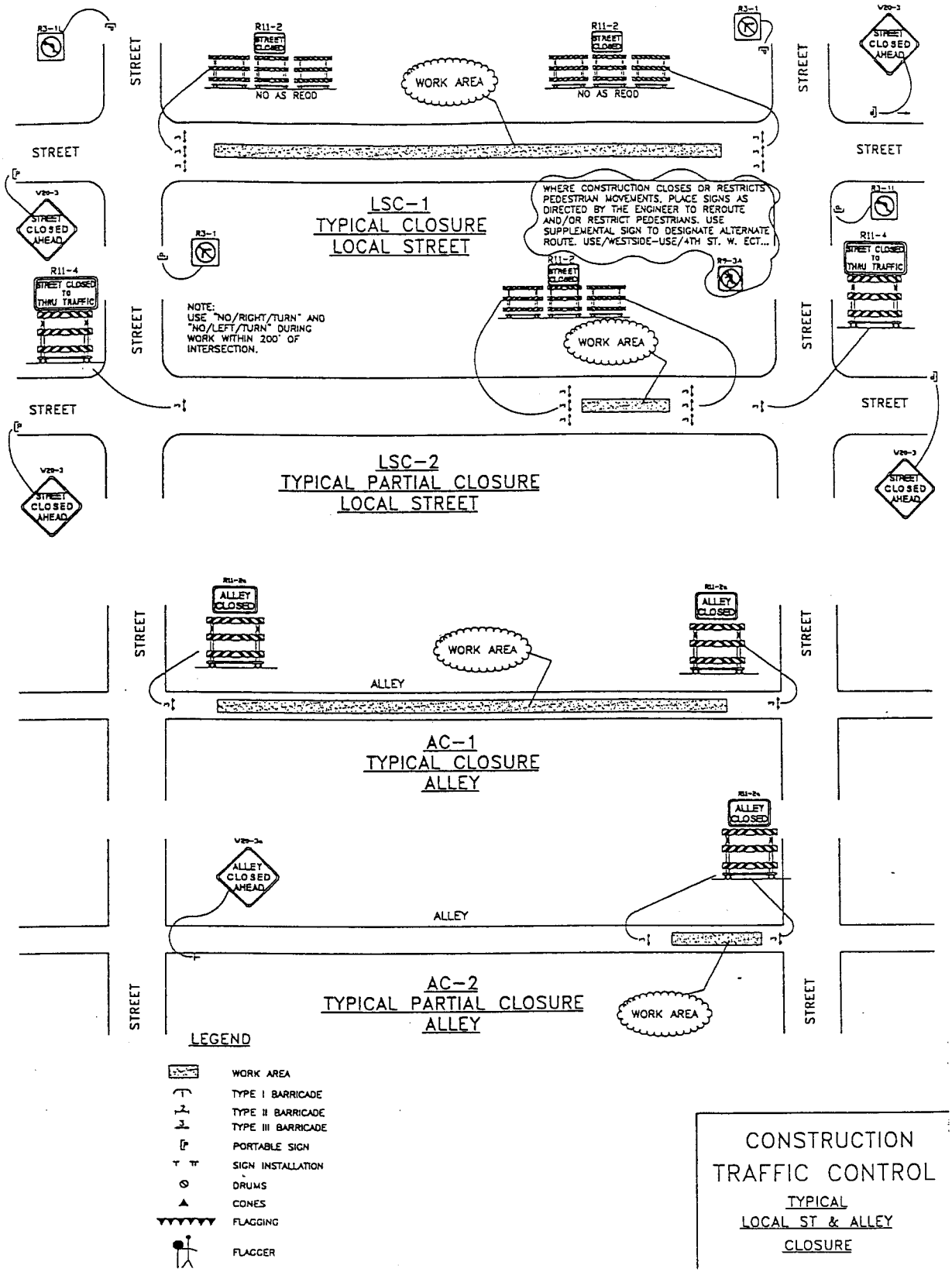
Construction Traffic Control

Detailed Drawing No. _____



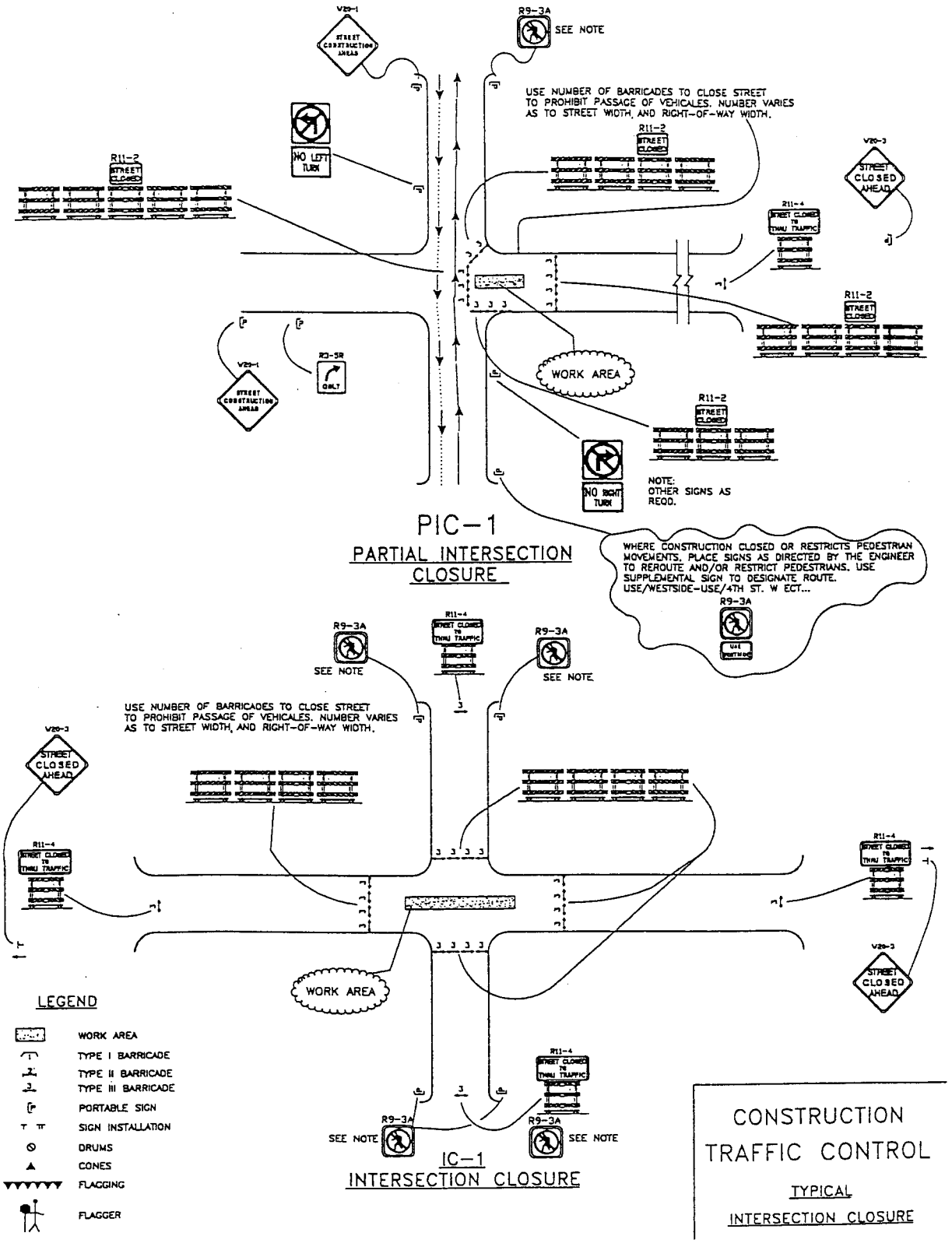
Construction Traffic Control

Detailed Drawing No. _____



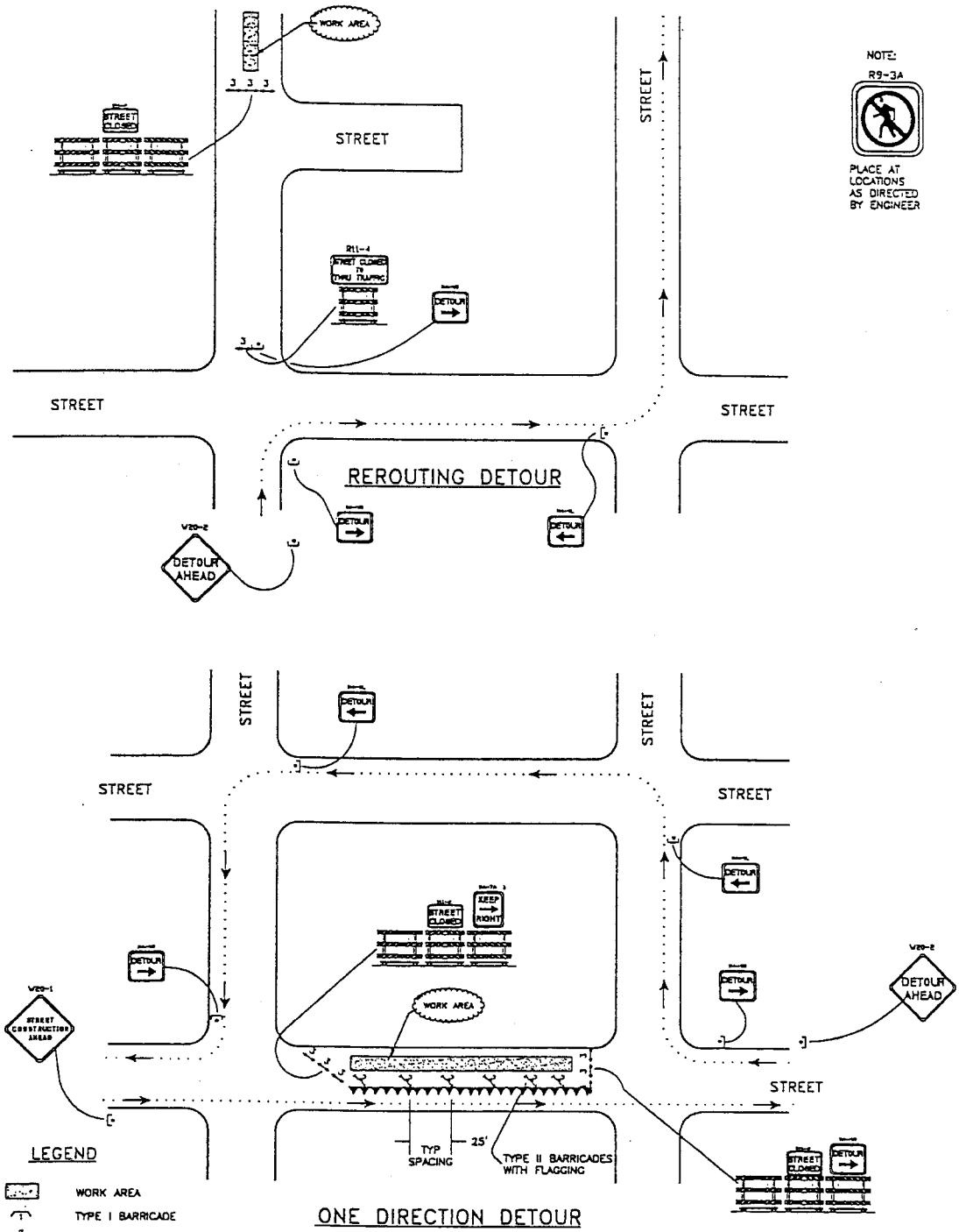
Construction Traffic Control

Detailed Drawing No. _____



Construction Traffic Control

Detailed Drawing No. _____

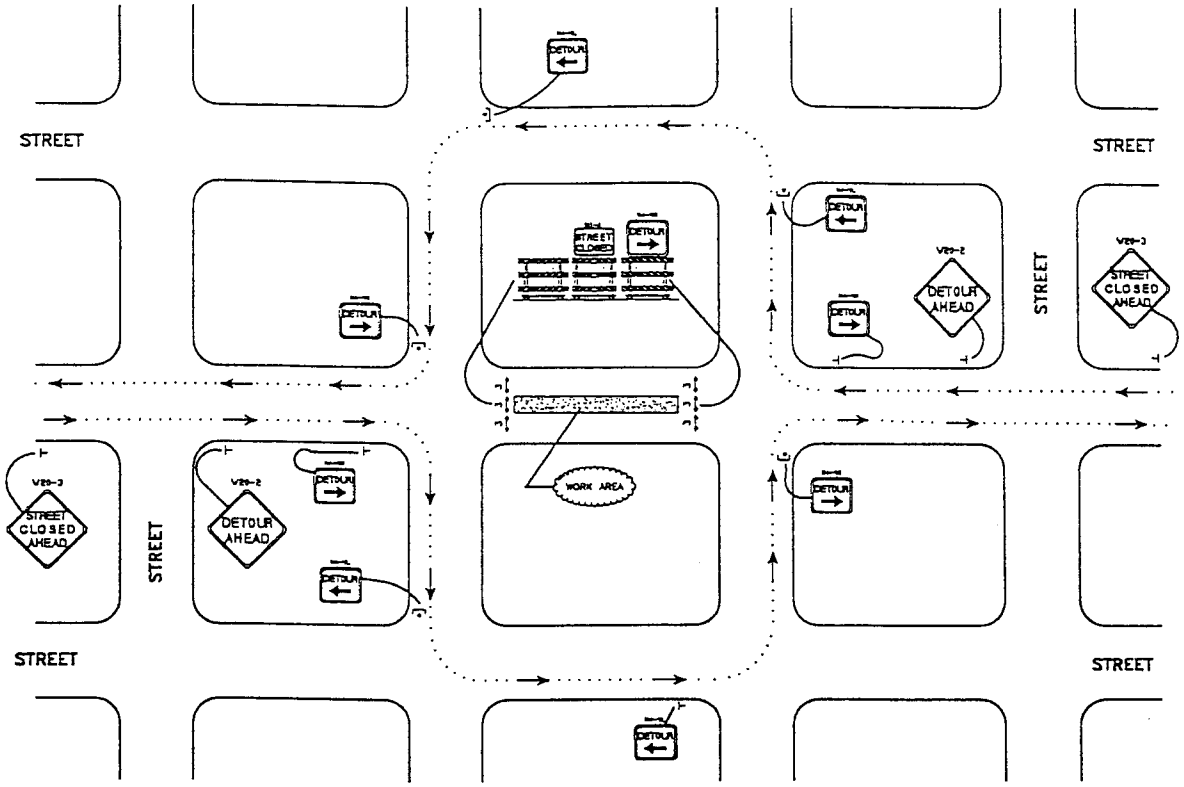


CONSTRUCTION
TRAFFIC CONTROL

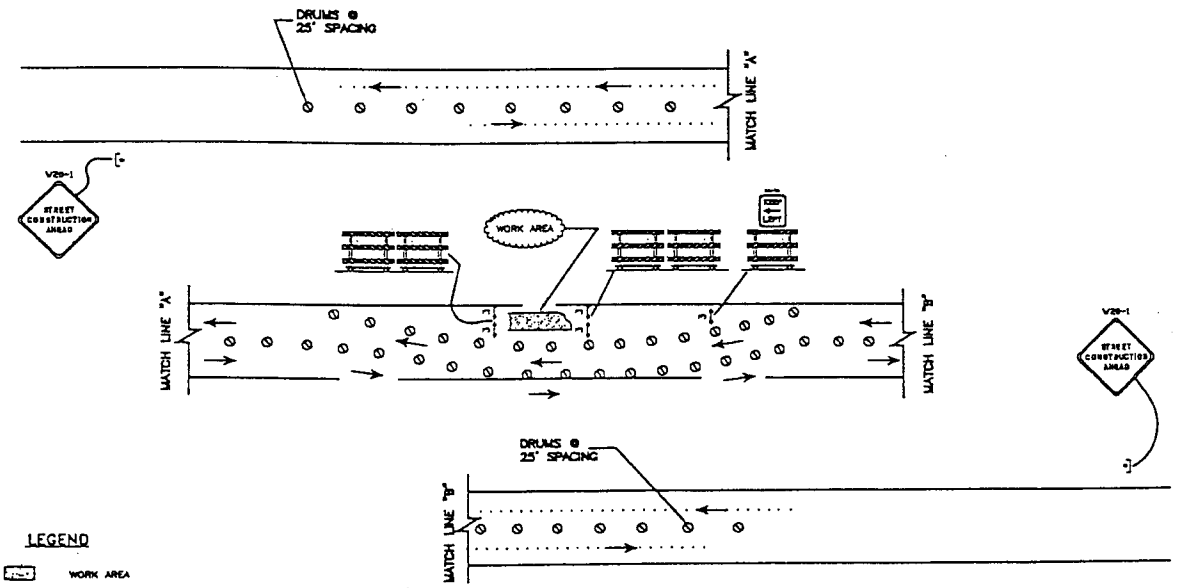
TYPICAL
REROUTING DETOUR
ONE DIRECTION DETOUR

Construction Traffic Control

Detailed Drawing No. _____



SPLIT DIRECTION DETOUR



LEGEND

- WORK AREA
- TYPE I BARRICADE
- TYPE II BARRICADE
- TYPE III BARRICADE
- PORTABLE SIGN
- SIGN INSTALLATION
- DRUMS
- CONES
- FLAGGING
- FLAGGER

PARTIAL STREET CLOSURE 2-LANE

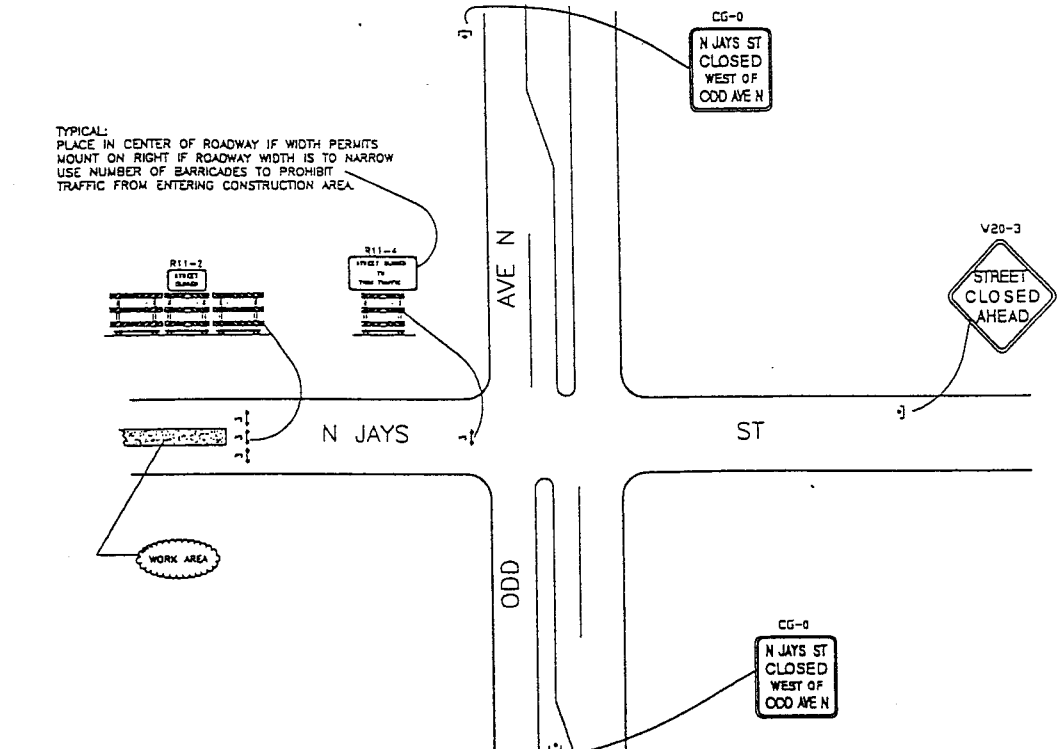
DAYTIME OPERATIONS ONLY

CONSTRUCTION TRAFFIC CONTROL

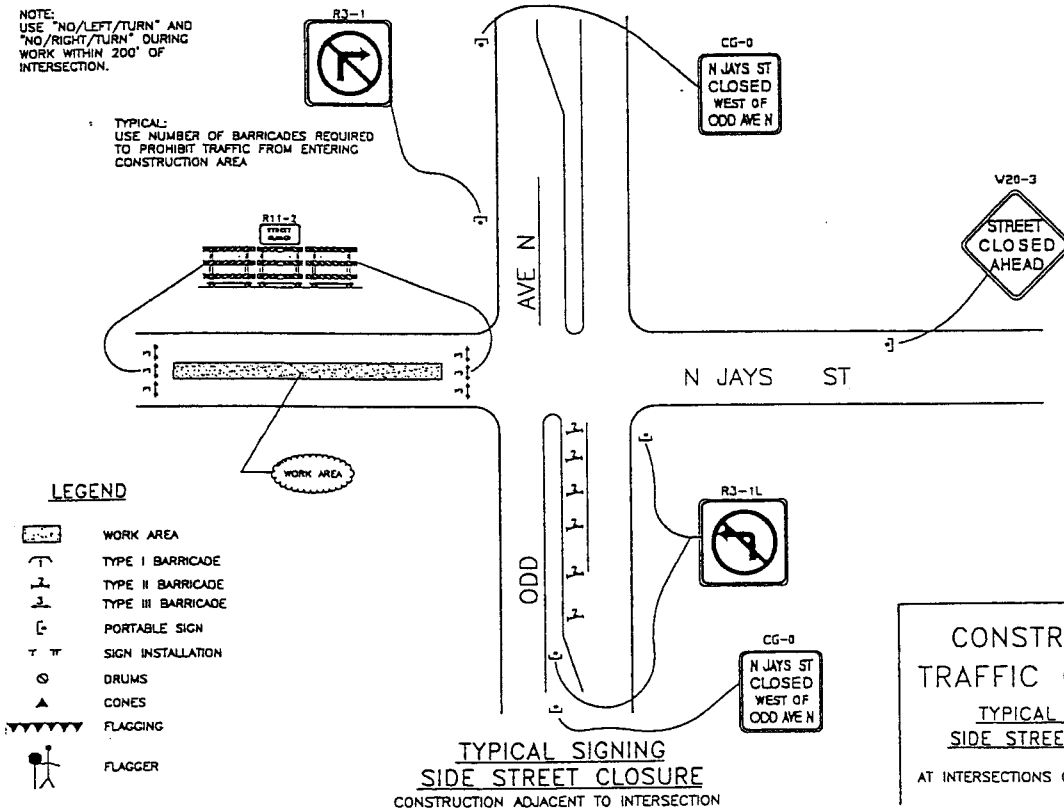
TYPICAL STREET CLOSURE AND LANE CLOSURE

Construction Traffic Control

Detailed Drawing No. _____



TYPICAL SIGNING
SIDE STREET CLOSURE
CONSTRUCTION BACK FROM INTERSECTION

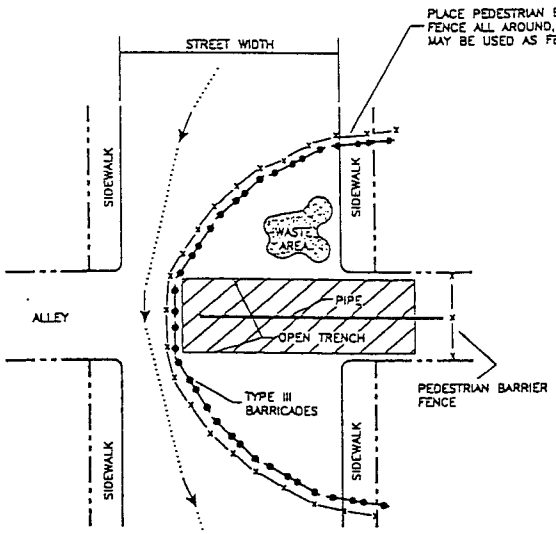


TYPICAL SIGNING
SIDE STREET CLOSURE
CONSTRUCTION ADJACENT TO INTERSECTION

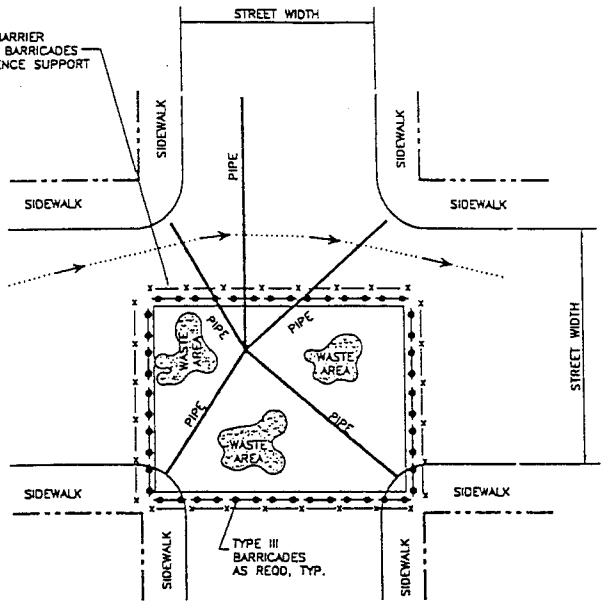
CONSTRUCTION
TRAFFIC CONTROL
TYPICAL SIGNING
SIDE STREET CLOSURE
AT INTERSECTIONS ON DIVIDED STREETS

Construction Traffic Control

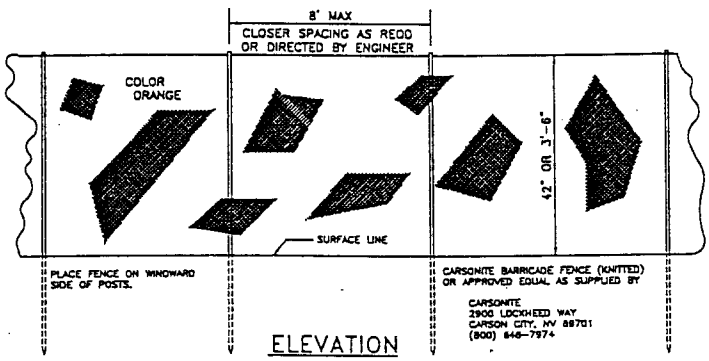
Detailed Drawing No. _____



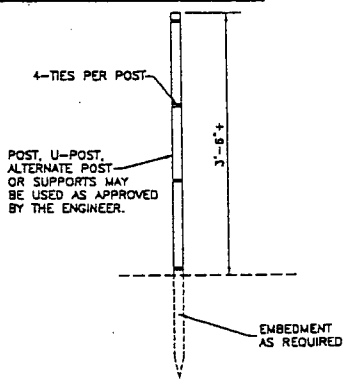
TYPICAL STREET CLOSURE AT ALLEY



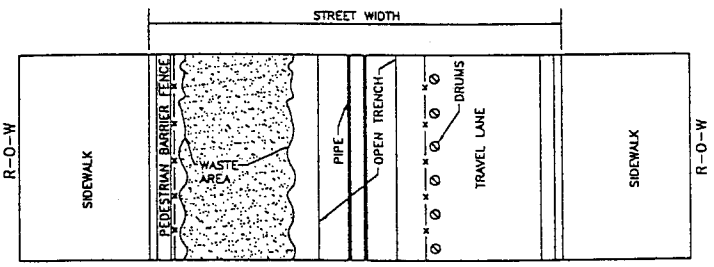
TYPICAL INTERSECTION CLOSURE



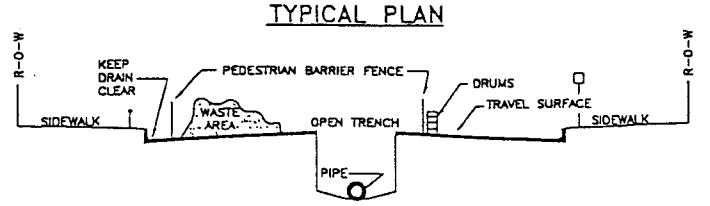
ELEVATION
PEDESTRIAN BARRIER FENCE



TYPICAL POST

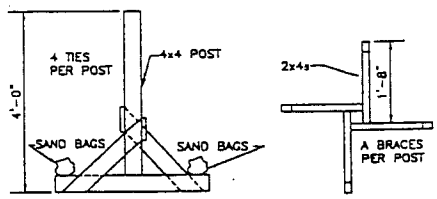


TYPICAL PLAN



TYPICAL SECTION
DOWNTOWN AND OTHER AREAS

NOTE:
1. THE PEDESTRIAN BARRIER FENCE IS TO BE USED AT LOCATION TO PROHIBIT ENTRY BY PEDESTRIANS.
2. THE PEDESTRIAN BARRIER FENCE SHALL BE IN PLACE WHEN CONSTRUCTION IS INACTIVE, NIGHT AND WEEKENDS.



ELEVATION — PLAN

STAND TYPE FENCE SUPPORT

GUIDE FOR
CONSTRUCTION
TRAFFIC CONTROL
TYPICAL
PEDESTRIAN BARRIER FENCE
DETAILS AND PLACEMENT

Construction Traffic Control

Detailed Drawing No. _____

Rules and Regulations Governing

Utility Services

and

Streets

for the City of Laurel, Montana

Prepared by:

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Division 1 - Utility Services

1 DEFINITIONS

1.1 DEFINITIONS

Unless the context specifically indicates otherwise, the meanings of the terms used in these rules and regulations shall be as follows:

1.1.1 "Approval Authority" means the regional administrator of the EPA.

1.1.2 "Appurtenances" refers to machinery, appliances, or auxiliary structures attached to the sewer to enable it to function, but not considered an integral part of it.

1.1.3 "Biochemical Oxygen Demand" (BOD) means the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure in 5 days at twenty degrees Centigrade (20□C), expressed in terms of weight and concentration (milligrams per liter).

1.1.4 "Building Drain" means that part of the lowest horizontal piping of a drainage system which receives the discharge from waste and other drainage pipes inside the walls of the building and conveys it to the building sewer, beginning 5 feet outside the inner face of the building wall.

1.1.5 "Building Sewer" means the privately-owned extension of the building drain to the public sanitary sewer or other place of disposal.

1.1.6 "Bypassing" means any act, using any means, the purpose of which is to obtain municipal utility service without having such service pass through the meter that is provided for measuring or registering such service.

1.1.7 "City" or "City of Laurel" means the City of Laurel in the County of Yellowstone and State of Montana.

1.1.8 "Combined Sewer" shall mean a sewer receiving both surface runoff and sewage.

1.1.9 "Commercial Account" means a municipal utility account other than a domestic account.

1.1.10 "Connection Charge" means one-time charge paid by those connecting to the municipal utilities system for the cost of materials, labor, inspection and administration by the municipality.

1.1.11 "Customer" means any person receiving municipal utility service either directly or indirectly from the municipal water supply system/municipal wastewater system.

1.1.12 "Discharge" is the direct or indirect introduction of treated or untreated wastewater into the waters of the State of Montana, either through the municipal wastewater system and municipal wastewater treatment plant or through a point source into State waters.

1.1.13 "Domestic Account" means a municipal utility account for residential dwellings and apartment buildings.

1.1.14 "Domestic Wastes" means liquid wastes (a) from the non-commercial preparation, cooking, and handling of food, or (b) containing human excrement and similar matter from the sanitary conveniences of dwellings, commercial buildings, industrial facilities, and institutions.

1.1.15 "Environmental Protection Agency" or "EPA", means the U.S. Environmental Protection Agency, or, where appropriate, the terms may also be used as a designation for the administrator or other duly authorized official of EPA.

1.1.16 "Extension" means the act or process of extending, adding to, or enlarging the municipal water supply system/municipal wastewater system on the City's side of the point of delivery/point of connection to provide municipal utility services to a prospective customer or group of prospective customers.

1.1.17 "Fire Hydrant Meter" means the meter which is owned by the municipal utility and which is used to measure the amount of water delivered to a customer through a fire hydrant.

1.1.18 "Fireline" means all service pipes, curb stops and/or valves, curb boxes and/or valve boxes, backflow prevention devices, check valves, inside piping, fittings, fixtures, and any other apparatus on customer's side of the point of delivery that is used for, and limited to, the providing of water to customers for fire suppression activities.

1.1.19 "Harmful Contribution" means an actual or threatened discharge or introduction of wastes to the municipal wastewater system which (a) presents or may present an imminent or substantial endangerment to the health and welfare of persons or to the environment, (b) inhibits or interferes with the physical or lawful operations of the municipal wastewater system, or (c) causes the violation of any condition of the City of Laurel's MPDES permit.

1.1.20 "Holding Tank Waste" means any waste from holding tanks such as vessels, chemical toilets, campers, trailers, recreational vehicles, or septage haulers.

1.1.21 "Individual Extension" means an extension of the utility system to provide utility service to an individual customer.

1.1.22 "Industrial" means of or pertaining to industry, manufacturing, agriculture, commerce, trade, or business.

1.1.23 "Industrial User" means (a) any person or source that introduces or discharges wastewater from industrial processes into the municipal wastewater system or (b) any non-domestic user or source regulated under Sections 307(b), (c), or (d) of the Clean Water Act.

1.1.24 "Industrial Wastes" or "Industrial Wastewater" means all liquid or water-carried wastes other than domestic wastes. The terms includes, by way of example and not by limitation, the trade wastes produced by food processing and bottling plants, food manufacturing plants, slaughtering plants, tallow works, plating works, disposal services, industrial cleaning plants, fertilizer plants, car and truck washing operations, vehicle repair facilities, commercial laundries and cleaning establishments, cooling plants, industrial plants, factories, feedlots, and chemical treatment installations.

1.1.25 "Interceptor Sewer" means a public sanitary sewer having a size greater than 24 inches that was installed by the City for the principal purpose of collecting and conveying wastewater from several district trunk sewers to the municipal wastewater treatment plant for treatment and disposal.

1.1.26 "Interference" means the inhibition or disruption of the municipal wastewater system treatment processes or operation which causes (a) a violation of any requirements of the utilities' MPDES Permit or (b) the violation of any requirement of any agency with jurisdiction over the discharges by the municipal wastewater treatment plant into the receiving waters. The term also includes contamination of the treatment plant sludge byproducts.

1.1.27 "Main" means a pipe or conduit carrying water for domestic, industrial, fire suppression, and other similar uses.

1.1.28 "Meter" means the instrument, including any auxiliary equipment, which is used to measure the amount of water delivered to a customer from the municipal water

supply system or the amount of wastewater contributed to the municipal wastewater system by a user.

1.1.29 "Municipal Wastewater Treatment Plant" means the wastewater treatment plant owned and controlled by the City of Laurel.

1.1.30 "Municipal Water Meter" means the meter, including the meter horn and remote read equipment, which is owned by the utility and which is used to measure the amount of water delivered to a customer through the customer's water service line.

1.1.31 "Municipal Utility" or "Utility" means the Public Works Department of the City of Laurel.

1.1.32 "Natural Outlet" means any outlet into a water course, pond, ditch, lake, or other body of surface or ground water.

1.1.33 "National Categorical Pretreatment Standards" or "Pretreatment Standard" means any regulation containing pollutant discharge limits promulgated by the State of Montana or the EPA in accordance with Section 307(b) and (c) of the Clean Water Act (33 U.S.C. Section 1317) that applies to a specific category of Primary Industrial Users.

1.1.34 "Organic Matter" refers to chemical substances of basically carbon structure. Comprising compounds consists primarily of hydrocarbons and their derivatives.

1.1.35 "Person" means any firm, company, partnership, public or private corporation, association, group or society, governmental agency, or other entity as well as a natural person.

1.1.36 "pH" refers to the negative logarithm of the hydrogen ion concentration in moles per liter of solution. pH is an indicator of the acid or base content of the solution.

1.1.37 "Point of Connection" means the point at which the municipal wastewater system connects physically to a user's building sewer. The point of connection shall be located at and include the user's service tee or wye fitting, which, in turn, is normally attached to the public sanitary sewer located in the public right-of-way that abuts and fronts the property to be served.

1.1.38 "Point of Delivery" means the point at which the municipal water supply system connects physically to a customer's corporation stop, which, in turn, is normally attached to the public water main located in the public right-of way that abuts and fronts the property to be served.

1.1.39 "Pollutant" means any dredged soil, solid waste, incinerator residue, sewage, garbage, septic waste, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discharged equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharges into water.

1.1.40 "Pollution" means the alteration of the chemical, physical, biological, or radiological integrity of water by human activity.

1.1.41 "Polluted Waters" means water that contains objectionable wastes or suspended solids as a result of human activity.

1.1.42 "Pretreatment" or "Treatment" means the reduction of the amount of pollutants, the elimination of pollutants, the alteration of the rate of their introduction into the municipal wastewater system, or the alteration of the nature of pollutant properties in wastewater to a less harmful state, prior to or in lieu of discharging or otherwise introducing such pollutants into a municipal wastewater system. The reduction or alternation can be achieved by physical, chemical, or biological processes, process changes, or by other means, except as prohibited by 40 CFR Section 403.6(d).

1.1.43 "Pretreatment Requirement" means any substantive or procedural requirement related to pretreatment, including National Categorical Pretreatment Standards, imposed on an industrial user.

1.1.44 "Public Building" means any building held, used, or controlled exclusively for public purposes by any department or branch of government, federal, state, county, or municipal, without reference to the ownership of the building or of the realty upon which it is situated.

1.1.45 "Public Sanitary Sewer" means the sewer directly controlled by the City and laid in the street or other right-of-way for the collection of wastewater from users' building sewers.

1.1.46 "Public Service Commission" refers to the elected body of Public Service Commissioners and their staff of the State of Montana.

1.1.47 "Public Water Main" means the main directly controlled by the City and laid in the street or other right-of-way for the distribution of water to customers' water service lines.

1.1.48 "Rate Schedule" means a resolution approved by the City Council which sets forth the charges and conditions for a particular class or type of utility service.

1.1.49 "Readily Accessible" means safely and easily reached and not being under "lock and key", "fenced in", "covered up", or otherwise obstructed.

1.1.50 "Sanitary Sewer" means a sewer that carries wastewater or sewage.

1.1.51 "Sanitary Sewer Service Line" or "Wastewater Service Line" means that portion of the privately-owned building sewer extending from the property served to the public sanitary sewer.

1.1.52 "Secondary Wastewater Meter" or "Secondary Meter" means a meter which is furnished, installed, and maintained by a user, and which is used to determine the amount of wastewater contributed by such user to the municipal wastewater system.

1.1.53 "Septage" means the mixed liquid and solid contents pumped from septic tanks used for receiving primarily segregated domestic wastes or wastes from sanitary conveniences.

1.1.54 "Septage Disposal Permit" means a written receiving ticket issued by the City of Laurel permitting the discharge of septage into the City of Laurel's approved location in accordance with the provisions of these rules and regulations.

1.1.55 "Septage Hauler" means a person having a valid City of Laurel business license, when appropriate, and, in addition, licensed by state and local government agencies to operate a business for the purpose of cleaning septic tanks and transporting septage to an approved septage disposal facility.

1.1.56 "Service Agreement" means the agreement or contract between the utility and its customers pursuant to which utility service is provided.

1.1.57 "Sewer" means a pipe or conduit for carrying wastewater or drainage.

1.1.58 "Shall" is mandatory; "May" is permissive.

1.1.59 "Significant Industrial User" means any user of the wastewater system (WWS) who:

1.1.59.1 Is subject to National Categorical Pretreatment Standards as defined herein;

1.1.59.2 Discharges an average of 25,000 gallons per day or more of process wastewater to the wastewater system, excluding sanitary, noncontact cooling and boiler blowdown wastewater;

1.1.59.3 Contributes a process waste stream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the municipal wastewater treatment plant(s), or

1.1.59.4 Is designated as such by the City on the basis that the industrial user has a potential for adversely affecting the WWS or for violating any pretreatment standard or requirement.

1.1.60 "Significant Violator" means an industrial user who is in significant noncompliance by violating one or more of the following criteria:

1.1.60.1 Chronic violations of wastewater discharge limits, defined as those in which 66 percent or more of all of the measurements taken during a 6-month period exceed, by any magnitude, the daily maximum limit or the average limit for the same pollutant parameter;

1.1.60.2 Technical review criteria (TRC) violations, defined as those in 33 percent or more of all of the measurements for each pollutant parameter taken during a 6-month period equal or exceed the product of the daily maximum limit or the average limit times the applicable TRC (TRC = 1.4 for BOD, TSS, fats, oil, grease, and 1.2 for all other pollutants except pH);

1.1.60.3 Any other violation of a pretreatment effluent limit (daily maximum or longer-term average) that the City of Laurel determines has caused, alone or in combination with other discharges, interference or pass through, including endangering the health of City personnel or the general public;

1.1.60.4 Any discharge of a pollutant that has caused imminent endangerment to human health, welfare, or the environment or has resulted in the City's exercise of its emergency authority to halt or prevent such a discharge;

1.1.60.5 Failure to meet, within 90 days after the scheduled date, a compliance schedule milestone contained in a local control mechanism or enforcement order for starting construction, completing, construction, or attaining final compliance;

1.1.60.6 Failure to provide, within 90 days after the due date, required reports such as baseline monitoring, reports, 90 day compliance reports, periodic self-monitoring reports, and reports on compliance with compliance schedules;

1.1.60.7 Failure to accurately report noncompliance; or

1.1.60.8 Any other violation or group of violations which the City of Laurel determines will adversely affect the operation or implementation of the local pretreatment program.

1.1.61 "Source" means any building, structure, facility, or installation from which there may be a discharge of pollutants.

1.1.62 "Sprinkling Meter" means a municipal water meter that is installed on a water service line for the purpose of measuring the water delivered by the utility to a customer exclusively for lawn and garden irrigation.

1.1.63 "State" means the State of Montana.

1.1.64 "Storm Sewer" or "Storm Drain" means a sewer which carries storm and surface waters and drainage, but excludes wastewater and polluted industrial wastes.

1.1.65 "Subdivision Extension" means an extension of the wastewater system or provide water or wastewater service to serve a subdivision, Certificate of Survey, commercial or industrial development, or any other similar type annexed parcel of land wherein the extended water or wastewater system facilities within the

development are to be owned by the City, not including any privately-owned facilities.

1.1.66 "Sub Meter" means a meter or meters which are furnished, installed, and maintained by a customer, and which are installed downstream of the municipal water meter by the customer for the purpose of proportioning municipal utility charges between various tenants.

1.1.67 "Suspended Solids" means solids that either float on the surface or are in suspension in water, wastewater, or other liquids, and which are removable by laboratory filtering.

1.1.68 "System Development Fees" means one-time charge paid by new development as a proportionate share of the "general benefit" to finance the construction of public facilities needed to serve the development.

1.1.69 "Tampering" means damaging, altering, adjusting, or in any manner interfering with or obstructing the operation or function of any metering device that is used for measuring or registering municipal utility service.

1.1.70 "User" or "Customer" means any person receiving municipal water wastewater service either directly or indirectly from the municipal water supply system or municipal wastewater system.

1.1.71 "Waste Disposal Site" means the City of Laurel's designated waste disposal station for the purposes of disposing of septage.

1.1.72 "Wastewater" or "Sewage" means the liquid and water carrying industrial or domestic wastes from dwellings, commercial buildings, industrial facilities, and institutions, together with any ground water, surface water, and storm water that may be present, whether treated or untreated, which is discharged into or permitted to enter the municipal wastewater system.

1.1.73 "Wastewater Meter" means a meter which is furnished, installed, and maintained by a user, and which is used to measure the amount of wastewater contributed by such user to the municipal wastewater system.

1.1.74 "Wastewater Service" or "Municipal Wastewater Service" means the act of either directly or indirectly discharging wastewater into the municipal wastewater system from users' building sewers for the purpose of collecting, transporting, treating, and disposing of users' wastewater.

1.1.75 "Wastewater Service Area" means that particular territory which has been officially adopted by the City Council as the area it intends to provide with municipal wastewater service.

1.1.76 "Wastewater System" or "Municipal Wastewater System" means any wastewater facilities, including interceptor sewers, outfall sewers, wastewater collection systems, and wastewater treatment facilities, controlled by the City of Laurel.

1.1.77 "Water Service" or "Municipal Water Service" means the supply of water directly or indirectly from the municipal water supply system, or the availability of water supplied either directly or indirectly from the municipal water supply system, at the point of delivery and also the water so delivered or used.

1.1.78 "Water Service Area" means that particular territory which has been officially adopted by the City Council as the area it intends to serve with municipal water service.

1.1.79 "Water Service Line" means all privately owned facilities, including service pipe, corporation stop, curb stop, curb box, municipal water meter box or vault, backflow prevention device, expansion tanks, pressure reducing valve, inside piping, appliances, and other apparatus on the customer's side of the point of

delivery, except the municipal water meter and any other equipment owned by the City of Laurel.

1.1.80 "Water Supply System" or "Municipal Water Supply System" means any devices, facilities, structures, equipment, land or works controlled by the City for the purpose of the processing, treatment, transmission, storage, distribution, pumping, and measurement of water supplied to customers.

1.1 ABBREVIATIONS

The following abbreviations shall have the following designated meanings for the purposes of these rules and regulations:

1.1.1 BOD: Biochemical Oxygen Demand
1.1.2 CFR: Code of Federal Regulations
1.1.3 EPA: Environmental Protection Agency
1.1.4 MCA: Montana Code Annotated
1.1.5 mg/l: Milligrams per Liter
1.1.6 MPWSS: The current edition of the "Montana Public Works Standard Specifications"

2 GENERAL

2.1 AUTHORITY

These rules and regulations are enacted pursuant to the authority granted to the City under MCA 69-7-201. These rules and regulations are subsidiary to any State or Federal laws or regulations which may govern water and wastewater service within the State of Montana. The City of Laurel also hereby adopts the most recent version of the Uniform Plumbing Code as a guide for water and wastewater service design.

2.2 INTENT AND PURPOSE

The intent and purpose of these rules and regulations is:

2.2.1 To promote the health, safety, and general welfare of the inhabitants of the City and its environs; and

2.2.2 To provide the inhabitants of the City and its environs with efficient and economical utility service.

2.3 JURISDICTION

The jurisdictional area of these rules and regulations shall include any territory, whether situated within or outside the corporate City limits, which is presently or in the future located within the municipal utility service areas and served with municipal utility service. Section 14 defines water and wastewater service areas.

2.4 APPLICATION

These rules and regulations are hereby made a part of the contract with every person provided with municipal utility service. Further, every person making application for initiation of such service, or accepting such service, shall be bound thereby.

2.5 NON-COMPLIANCE

Any person who shall fail to comply with these rules and regulations after being given a written notice of the nature of the violation, and after being given the time to comply as stated in Section 3.8, shall be subject to discontinuance of municipal utility service. Provided, that in emergency situations, as determined at the sole discretion of the utility, such service may be discontinued without notice. Municipal utility service shall not be restored until the violation is corrected and full compliance is assured. Further, once service has been discontinued for non-compliance with these rules and regulations, it shall not be restored until the customer involved pays to the utility any applicable charges for discontinuance and/or reestablishment of service and restores any required deposits. In addition, persons failing to obey promulgated rules and regulations shall be subject to punishment and penalties.

2.6 REVIEW OF ADMINISTRATIVE ACTIONS

Any persons aggrieved by an administrative decision, any rules or regulation adopted, or the application of any rule or regulation governing the operation of the utility may petition the City Council for review. The aggrieved shall file a written notice of appeal with the Public Works

Committee within 10 days after the date on which the grievance occurred. The notice of appeal shall state the specific action being appealed, the service account number, the reasons for appealing such action, the particular relief sought, the aggrieved person's correct mailing address, and shall be signed by the aggrieved person. The aggrieved person shall be notified in writing by certified mail, return receipt requested, of the date, time, and place the matter will be considered by the City Council. The aggrieved person and all other interested persons may appear at that date, time, and place and be heard. The City Council shall act on the question at the next regular Council meeting.

2.7 OWNER'S DUTY TO USE MUNICIPAL WATER AND WASTEWATER FACILITIES

The owner of any house, building, or other property used for human occupancy, employment, or recreation, which is situated within the corporate City limits and abuts on any street, alley, or right-of-way in which there is situated municipal water supply system facilities or municipal wastewater system facilities, shall at the owner's expense, properly connect and use such facilities.

2.8 ACCESS TO CUSTOMER'S PREMISE

Access at reasonable hours to a customer's premise by authorized employees of the utility shall be deemed to have been granted to the utility by the customer during the time the customer accepts municipal utility service for the purpose of reading meters, testing, repairing, removing or exchanging any or all equipment belonging to the utility, examining pipes and fixtures and the manner the water is used, or for the purpose of ensuring that a customer is in compliance with these rules and regulations. All persons must at all times frankly and without concealment answer all questions put to them by said party relative to the consumption of water. Access shall also be granted to employees of the utility to cut off the water supply in absence of an outside shutoff valve. If access is denied the utility reserves the right to install a shut-off valve and shut the water off at the owners expense.

2.9 PERMIT REQUIRED FOR CONNECTION, EXTENSION, OVERUSE

No persons shall uncover, make any connections with, or opening into, extend, use, alter, or disturb the municipal water system and/or municipal wastewater system without first obtaining a written permit for the purpose from the and paying all applicable fees.

2.10 UNAUTHORIZED ACTS

No plumber or other person shall make connections with a customer's utility service line, connect such utility line when it has been disconnected by the utility, or turn customer's water on or off, without first obtaining written permission to do so from the City of Laurel.

2.11 MISCELLANEOUS DEVICES

The municipal utility may require a customer to install, as a condition of continued utility service and at the customer's expense, an approved backflow prevention device, an approved expansion tank, an approved pressure reducing device, an approved pumping device, or any other similar type device that the utility deems necessary to protect its municipal utility facilities, its service products, or its customers/users' facilities. The customer shall be responsible for the testing, operation, and maintenance of all such devices. The utility may also require the

customer to submit semi-annual test results on such devices certifying that the devices have been checked by an authorized service representative and are in good working order.

2.12 CONDITIONS OF SERVICE

Service shall be provided by the utility only under and in accordance with the rules and regulations contained herein, by modifications or additions thereto lawfully made, and under such applicable ordinances, resolutions, rate schedules, and contracts as may from time to time be lawfully established.

2.13 INTERRUPTIONS OF SERVICE

The utility reserves the right to temporarily interrupt utility service to its customers for the purpose of addressing emergency situations or making, connections, extensions, repairs, replacements, and/or additions to the municipal water supply system/municipal wastewater system. Whenever possible the utility will give reasonable notice to its customers in advance of accomplishing such work.

2.14 LIABILITY OF UTILITY

The utility shall only be responsible to a customer for providing utility service in accordance with the conditions set forth herein, irrespective of ownership of the property served. The utility shall not be responsible for inconvenience, damage, or injury to persons or property resulting from utility's termination, discontinuance, or interruption of municipal utility service to any property in accordance with these rules and regulations. Further, the utility shall not be responsible for the providing of municipal water service to a customer at a pressure greater than or less than the pressure existing in the public water main at the point of delivery of the customer in question. The utility is responsible for water facilities up to the corporation tap on the main. All facilities from the building up to and including the corporation stop are the responsibility of the property owner. The utility is responsible for wastewater facilities up to the service wye or tee. All facilities from the building up to and including the service wye or tee are the responsibility of the property owner. The City of Laurel shall determine whether a line is a service line or a public main if a discrepancy occurs.

3 INITIATION AND DISCONTINUANCE OF SERVICE

3.1 SERVICE APPLICATIONS REQUIRED

A person requesting to establish an account for municipal utility service with the utility shall make written application for such service with the City of Laurel. After approval by the utility, the application to establish an account for utility service shall constitute the agreement between the utility and the customer that the rules and regulations provided herein shall serve as the contract between said parties. Existing customers hereby agree to accept the rules and regulations provided herein as their contract with the utility upon passage of said rules and regulations by the City Council.

3.2 SERVICE APPLICATION PROVISIONS

An application to establish an account for municipal utility service shall contain a provision wherein the applicant agrees to pay to the utility all charges for service provided by the utility to the applicant. In addition, it shall contain a provision wherein the applicant agrees to abide by all the City's regulations governing municipal utility service, including the rules and regulations contained herein.

3.3 SERVICE APPLICANTS

A person requesting to establish an account for municipal water and/or wastewater service must be the occupant of the property to be served. The service application shall include the name and mailing address of the owner of the property involved. It shall be the responsibility of the property owner to maintain on file with the utility the owner's current mailing, address. The owner of the property shall be held ultimately responsible for payment for utility service regardless of amount used by tenants of rental properties.

3.4 INFORMATION TO BE PROVIDED

A person requesting to establish an account for municipal utility service shall, upon request by the utility, furnish proper identification, including but not limited to Driver's License Number, or birth date, together with any information necessary to verify identity of applicant and service address, including ownership, tenancy, or relationship of applicant to other present or former customers of the utility at the service address in question. Accounts will be established in the name of the tenant and the owner of the real property. In the event this information, or any other information required to be submitted under these rules and regulations, is not furnished, service to the applicant or service address involved shall be denied or discontinued until such information is provided. In addition, prior to restoring any service, the applicant must first pay to utility any applicable charges for discontinuance and reestablishment of service.

3.5 SERVICE APPLICATION PRE-REQUISITES

An application to establish an account for municipal utility service shall be accepted by the utility only for property that:

3.5.1 Is located within the City limits and the utility's service area;
3.5.2 Fronts and abuts a public water line and/or public sanitary sewer;
3.5.3 Has a utility service line stubbed to the property line of the property to be served;

3.5.4 Has building and yard plumbing meeting, the requirements of the latest edition of the Uniform Plumbing Code;

3.5.5 Has paid to the utility all applicable fees and any outstanding utility bills.

3.6 TRANSFER OF SERVICE ACCOUNT

A customer requesting to have the customer's municipal utility service account transferred to a new address may do so by telephone provided that the customer has an established account for municipal utility service. In the event that the applicant does not have an established account with the utility, then the provisions of Section 3.1 regarding submission of such an application, shall apply.

3.7 DISCONTINUANCE OF SERVICE BY CUSTOMER

Once municipal utility service is initiated, a customer shall be responsible for payment to the utility for any utility service provided, including any minimum charges due, until such time as the customer requests the discontinuance of said service. A customer shall, under normal circumstances, contact the utility at least 48 hours in advance of the need to discontinue the customer's/user's municipal utility service, Saturdays, Sundays, and holidays, excluded.

3.8 DISCONTINUANCE OF SERVICE BY UTILITY

The utility may discontinue municipal utility service to any customer/user as provided below or as may be provided elsewhere herein these rules and regulations:

3.8.1 Without Notice

3.8.1.1 In the event of any condition determined to be hazardous to property and/or persons.

3.8.1.2 In the event a customer/user uses equipment in such a manner that adversely affects the municipal water supply system/municipal wastewater system or that adversely affects municipal utility service to other customers and users.

3.8.1.3 In the event of any unauthorized use or diversion of municipal utility service or when any evidence of tampering with or bypassing of the municipal water meter is found.

3.8.1.4 Upon written receipt of orders from government authority to discontinue municipal utility service.

3.8.2 Upon Not Less Than 24 Hours Notice

3.8.2.1 For violation and/or non-compliance with any applicable federal, state, or local laws, and rules and regulations contained herein.

3.8.2.2 For failure of a customer to permit representatives of the utility reasonable access to the customer's premise for the purposes set forth in Section 2.8.

3.8.2.3 For failure of a customer to fulfill his/her contractual obligations for service, including, but not limited to, nonpayment of his/her current utility bill.

3.8.3 Upon 10 Days Written Notice

3.8.3.1 For failure of a customer to keep his/her water service line, meter box/vault, fixtures, and/or any other appurtenances in good repair and in a safe and operable condition.

3.8.3.2 For failure of a user to keep his/her building sewer and appurtenances in good repair and in a safe and operable condition.

Whenever service is discontinued under this section, or any other section contained in these rules and regulations, the provisions of Section 2.5 regarding non-compliance shall apply. Further, for the purposes set forth under this section, or any other section contained in these rules and regulations, written notice shall be deemed to have been given by the utility when such notice is mailed first class to the name and address of the owner of the property in question currently on file with the utility as required under the provisions of Section 3.3.

4 TURN ON AND TURN OFF OF SERVICE

4.1 GENERAL

The utility willl not turn the water on or off at a customer's curb valve to any property until such time as the owner and the tenant has established a municipal water, wastewater account with the utility as required under Section 3.1 and, in addition, has paid to the utility a turn-on fee, if applicable.

4.2 OPERATION OF CURB VALVES

Only authorized representatives of the utility shall turn water on or off at a customer's curb valve. Utility will not turn the water on at a customer's curb valve unless the customer or an authorized agent thereof is at the customer's premise at that time to check for open faucets and/or leaking fixtures and plumbing.

4.3 INSPECTION OF METER AND APPURTENANCES REMODELED

At the time the water is turned on, a representative of the utility shall inspect the municipal water meter in question for evidence of tampering/bypassing and to ensure that it is sealed properly. All properties shall be required to install an approved backflow prevention device and provide surge protection devices at the property owner's expense.

4.4 TURN-OFF FOR NONPAYMENT AND/OR NONCOMPLIANCE

The utility normally shall not turn the water off on the day preceding a non-working day for non-payment of charges for municipal utility service or for non-compliance with these rules and regulations, however, the utility may do so in those cases set forth in Section 3.8.

4.5 TURN-ON AND TURN-OFF LIABILITY DISCLAIMER

The utility shall not be liable for any damage to persons or property that may result from the turning on or turning off of the water to a customer's premises as provided for in these rules and regulations or from the water being left on when the premise may be unoccupied.

4.6 LANDLORD RESPONSIBILITY

The real property owner of a rental property shall be primarily responsible for the payment in full of all utility bills generated by the real property so billed for said water use. Failure of the real property owner to pay the bill as and when rendered will subject the property to termination of service, as per the Utility Billing Agreement.

5 DEPOSITS

5.1 WHEN REQUIRED AND AMOUNT OF DEPOSIT

For the purpose of guaranteeing payment of the municipal utility charges, the utility may require any prospective customer to file a deposit with the utility prior to providing the prospective customer with municipal utility service. A person desiring to establish an account for municipal wastewater service to a property not currently supplied with municipal water service shall be required to file a deposit with the utility prior to being granted such service.

5.2 APPLICATION OF DEPOSITS

Reserved

5.3 TRANSFER OF DEPOSITS

Any deposit made under the provisions set forth in this section may be transferred by the utility to any address within the utility's service area where service is provided in the depositor's name.

5.4 FAILURE TO MAKE DEPOSITS

Failure to make deposits, increase deposits, or restore deposits after notification shall be due cause for utility to refuse/discontinue service to the customer involved until such deposit has been made plus the payment of any applicable charges for discontinuance and/or reestablishment of service.

5.5 REFUND OF DEPOSITS

The utility may at any time refund a customer's deposit or any part thereof by check or by credit to the customer's account after deposit has been held 1 year and credit reviewed.

5.6 RECORD OF DEPOSITS

The utility shall maintain a record of any deposits filed by customers with the utility.

5.7 RECEIPT OF DEPOSITS

The utility shall issue to a customer from whom a deposit is received a non-assignable receipt. However, the utility shall provide reasonable ways and means whereby a deposit may be refunded to a customer who is unable to produce the original receipt. A current picture I.D. will be required to reclaim deposit.

6 TEMPORARY AND CONSTRUCTION SERVICE

6.1 TEMPORARY UTILITY SERVICE

Municipal utility service provided for a shorter period than 6 months shall be considered temporary, and in such cases, the customer shall be required to reimburse the utility for the cost of installing and removing the municipal water meter involved. Further, the customer shall at his/her expense install in accordance with utility standards any needed water service lines/building sewers required in order to connect such temporary service as well as remove such facilities, if required, when service is discontinued.

6.2 CONSTRUCTION WATER PERMIT REQUIRED

It is prohibited for any contractor or other person engaged in construction work to utilize municipal utility service without first obtaining a written permit from the City and paying to the City the appropriate fees and charges for such service as well as a deposit for the anticipated water use as determined by the Director of Public Works.

6.3 SERVICE FOR BUILDING CONSTRUCTION

A contractor, builder or owner shall take out a permit for use of any municipal utility service in connection with the construction of a building, and all such service shall be deemed temporary and subject to the provisions of Section 6.1. All water passing through the municipal water meter shall be billed to the applicant for such a permit at least monthly, and the charges for such service shall be calculated using the current minimum and metered water service schedules of the utility. Such bills shall be due and payable when rendered. Failure of the applicant to pay the bill within 30 days after mailing shall be deemed sufficient cause to immediately remove the municipal water meter. Once removed, the municipal water meter shall not be reset for an applicant until all outstanding bills for construction water are paid and the applicant has reimbursed the utility for its expenses in removing and installing the meter. In addition, regular municipal utility service to any new building shall not be initiated until all charges for temporary service, including any minimum service charges due, have been paid in full to the utility.

6.4 SERVICE FOR PUBLIC WORKS CONSTRUCTION

Application to obtain water by means of a fire hydrant for public works construction shall be made to the City on forms furnished for this purpose by the City. Payment of the appropriate municipal fire hydrant meter setting/removal fee shall be made to the City. All construction water passing through the municipal fire hydrant meter shall be billed to the applicant at least monthly and the charges for such service shall be calculated using the City's current minimum and metered water service schedules for a 3-inch meter. Such bills shall be deducted from the funds deposited prior to hookup. Failure of the applicant to pay any bill over and above the deposit amount within 30 days after mailing shall be deemed sufficient cause to immediately remove the municipal fire hydrant meter. Once removed, the municipal fire hydrant meter shall not be reset for an applicant until all outstanding bills for construction water are paid, and the applicant has again paid to the City the appropriate municipal fire hydrant meter setting/removal.

6.5 SPRINKLING METER SERVICE

Sprinkling meter service shall be available only to inside-City-limits customers. Water provided to an inside-city customer through a sprinkling meter shall be billed to such a customer at least monthly. Such bills shall be due and payable to the City when rendered. Failure to pay the bill within 30 days after mailing shall be deemed sufficient cause to immediately remove the sprinkling meter. Once removed, the sprinkling meter shall not be reset for the customer involved until all outstanding bills for water service are paid and the customer has reimbursed the City for its expenses in removing and installing the meter. Sprinkling meters installed for a shorter period than 6 months shall be considered temporary and subject to the provisions of Section 6.1.

7 BILLING

7.1 BILLING PERIOD

The charges for municipal water and wastewater services together shall be billed at least monthly. To meet unusual conditions, such as discontinuances, the utility may render bills for service at other than the aforementioned intervals.

7.2 BILLS DUE

All utility bills must be paid to the office of utility collector of the City promptly when due. Bills are due upon receipt but shall become delinquent 30 days from the date the billing is mailed. Users shall be notified of any delinquency by the Utility Clerk at the time of delinquency and shall be notified that the service will be discontinued by the City approximately 20 days from the date of the second month's bill, by attaching a notification to said bill. Upon failure to pay the delinquent account in full within such notification period, the City will discontinue service.

Before water service shall be turned back on, it shall be obligatory upon said user to pay all of the delinquent bill, the cost of cutting off and turning service back on, and a refundable deposit. All delinquent amounts plus additional charges and deposit must be paid in full before services will be turned back on. No services will be re-established except during normal working hours at the cities earliest convenience.

7.3 INFORMATION ON BILLS

As a minimum, a bill for municipal utility service shall show the customer's name and mailing address, the billing date, the billing period, the customer's account number, the service address, the previous and present meter readings, the actual or estimated water usage in cubic feet, the current and past due charges, the previous balance, and the total amount due.

7.4 COMBINED CHARGES

All bills issued for municipal wastewater service to persons or properties which are also customers of the municipal water utility, whether within or without the City limits, shall be included as a part of the bills for water service, but separately stated. No payment of municipal water service charges or of municipal wastewater service charges so billed shall be accepted without payment of all such charges.

7.5 BILLS FOR WASTEWATER SERVICES ONLY

Bills issued for municipal wastewater service to users connected to the municipal wastewater system but which do not receive municipal water service shall be made on the same forms and at the same times as are combined water and wastewater bills and solid waste bills. Payment of bills issued for only municipal wastewater service shall normally be handled as set forth under Sections 7.1 and 7.2. However, in the event of non-payment of such bills, the City may order the wastewater service line serving the property involved to be cut and plugged. Notice will be served as provided herein. Service shall not be restored until the total amount of the outstanding wastewater bill is paid plus all the expenses incurred by the utility in disconnecting and restoring service and the customer restores any required deposits. The procedures set forth under MCA 7-I3-4309, which inserts the payment as a tax against the property involved

and permits the bringing of a suit, may also be used to collect payment of delinquent municipal wastewater charges in this instance. Whenever an account for municipal wastewater service is established by a domestic customer with no prior history of water consumption, the City will estimate water consumption based upon an average City use for billing purposes until a sufficient history of use is established to the City's satisfaction.

7.6 REFUSAL OF SERVICE

The utility may refuse service to any delinquent customer or to other members of the delinquent customer's household or firm when the request by such person for service may be a means for evading payment of unpaid municipal water and wastewater charges.

7.7 MULTIPLE OWNERS

Where municipal utility service is provided through a single meter to property having multiple owners, the utility will not apportion the charges for the use of water and wastewater service among the various owners. The bill for such service shall be charged against the person in whose name the account stands. However, if the one in whose name the account stands fails, refuses, or is unable to pay such bill, the remaining owners shall be responsible for the unpaid municipal utility charges. Such unpaid bills may be cause for discontinuing service to the property involved until the total amount due is paid plus payment of any applicable charges for discontinuance and/or reestablishment of service and any required deposits are restored.

In instances where more than one service connection is served by a single curb stop, the City will require property owner to hire a plumber to install, a separate curb stop to any or all of the services in the event the account becomes delinquent. All charges associated with the installation of the curb stop as well as any reconnection charges must be paid by the property owner along with any required deposits before reestablishment of service.

7.8 PAYMENT TRANSFERS

Where a customer is liable to the utility for municipal utility service at one address and is thereafter located at some other address, any amounts due to service furnished at any previous location may be transferred to the customer's account at the customer's current location. Water service may be discontinued at the customer's current location until all outstanding accounts are paid in full, plus payment of any applicable charges for discontinuance and/or reestablishment of service and any required deposits are restored.

7.9 BILL PAYMENT STUB

Whenever possible, a bill payment stub should be presented when a municipal utility account is paid to ensure proper crediting of payment.

7.10 ESTIMATES

In instances where a meter is not read, the utility may use estimated water usage and/or wastewater contributions in determining a customer's utility bill.

7.11 ADJUSTMENTS OF WASTEWATER BILLS

The wastewater rates, charges, and fees may be adjusted, as applied to a particular premises by the procedure set forth below, where it appears that:

7.11.1 The character of the wastewater from any manufacturing, industrial, or other plant, building, or premises is such that the wastewater rates provided are unfair, inequitable, unreasonable, or inadequate to pay the cost of wastewater service to such premises;

7.11.2 The entire amount of water delivered through the metered line, such as a line with a sprinkling meter, to any premises is used for such a purpose and in such a manner as to establish beyond reasonable doubt that such water does not enter the municipal wastewater system;

7.11.3 The entire amount of water delivered through a secondary meter on any premises is used for such a purpose and in such a manner as to establish beyond reasonable doubt that water so delivered does not enter the municipal wastewater system. As provided under Section 10.23, secondary wastewater meters shall be furnished at the customer's expense and shall be of a type, size, and make and set at such place as shall be designated by the Public Works Director.

Any person who considers the wastewater rates, charges, and fees applicable to his/her premises unfair, inequitable, or unreasonable may present his/her complaints to the City Public Works Committee, stating the facts and grounds of complaint. The committee shall advise the Public Works Director of any need for investigation and a report of the investigation shall be made to the council. The Public Works Committee, shall consider each and all of such complaints and reports and coordinate its recommendations with the Public Works Director. Where the entire amount of water or any metered portion thereof delivered to any premises does not enter the municipal wastewater system, this fact shall be part of the report. When the City Council finds that the wastewater rates, charges, and fees applicable to any premises are unfair, inequitable, unreasonable, or inadequate, the Council shall have the right to order a public hearing as to any such matter, and if convinced that an adjustment of the wastewater rates, charges, and fees for such premises is necessary to provide equality with those charged to others, it shall so provide, either by amendatory ordinance, or by resolutions, special wastewater rates and charges for individual premises during the period of continuance of special circumstances which make the standard rates and charges unfair, inequitable, unreasonable, or inadequate.

8 RATES, CHARGES, AND FEES - GENERAL

8.1 GENERAL

All rates, charges, and fees for municipal utility service shall be adopted by the City Council by resolution as such may be lawfully changed from time to time. In addition, MCA 69-7-201 provides that rate increases adopted by the City Council. Further, in accordance with the provisions of MCA 7-13-4305, no person shall be permitted to use or enjoy the benefit of the municipal utility system unless they pay the full and established rate for said service.

8.2 MONTHLY METERED WATER CHARGES

Any monthly metered water charges adopted by the City Council, or as such may be lawfully changed from time to time, shall apply to all customers that have either direct or indirect water service connections with the municipal water supply system.

The monthly metered water charge shall be based upon the volume of water, in 100 cubic feet, which is registered monthly on the municipal water meter serving a customer. Monthly metered water charges are due and payable as set forth in Section 7.2.

Water hauled from fire hydrants will be metered and the charge will be based upon the 100 cubic feet volume charge for municipal services referenced in Section 9.

8.3 MINIMUM MONTHLY WATER CHARGES

The minimum monthly charges shall be based on the size of municipal water meter used to serve a customer. Minimum monthly water charges are due and payable as set forth in Section 7.2.

8.4 MONTHLY VOLUME WASTEWATER CHARGES

Any monthly volume wastewater charges adopted by the City Council, or as such may be lawfully changed from time to time, shall apply to all users that have building sewers connected with the municipal wastewater system.

The monthly volume wastewater charges for commercial and public school accounts shall be billed based upon the volume of water used monthly, which shall be determined by taking the total number of cubic feet of water registered monthly on the municipal water meter or such other approved utility meter that serves the account in question.

The monthly volume wastewater charges for domestic accounts and public buildings shall be billed based upon the average volume of water used monthly, which shall be determined by taking the total number of cubic feet of water registered monthly on the municipal water meter, or such other approved utility meter that serves the account in question, for the months of November, December, January, February, March, and April and dividing such total by 6 (Nov – April, 6 months).

Monthly volume wastewater charges are due and payable as set forth in Section 7.2.

8.5 MONTHLY WASTEWATER CHARGES

Any minimum monthly wastewater charges adopted by the City Council, or as such may be lawfully changed from time to time, shall apply to all users that have building sewers connected with the municipal wastewater system. Minimum monthly wastewater charges are due and payable as set forth in Section 7.2.

8.6 CHARGE FOR REESTABLISHMENT OF UTILITY SERVICE

Any charge for reestablishment of utility service adopted by the City Council, or as such may be lawfully changed from time to time, shall apply to any customer that has had the utility service to his/her property discontinued for failure to pay municipal utility charges or for failure to comply with the rules and regulations set forth herein. Once the utility service to a customer has been discontinued, such service shall not be restored until the customer involved is in full compliance with these rules and regulations and has paid to the utility the applicable charge for reestablishment of municipal utility service, plus payment of any outstanding charges for such service. No service will be re-established after normal working hours.

8.7 WASTEWATER EXTRA STRENGTH SURCHARGES

Any wastewater extra strength surcharge adopted by the City Council, or as such may be lawfully changed from time to time, shall apply to all users that have building sewers connected with the municipal wastewater system and that contribute wastewater to the system with strength concentrations in excess of the normal allowable limits of 250 mg/l of five-day BOD and 250 mg/l of total suspended solids. Charges will be handled on a case-by-case basis and will be based on the extra cost realized by the utility in handling such extra strength concentrations.

Users contributing extra strength wastewater to the municipal wastewater system shall pay wastewater extra strength surcharges to the utility in addition to the monthly volume wastewater charges.

Wastewater extra strength surcharges are due and payable as set forth in Section 7.2.

8.8 CONNECTION CHARGES FOR UTILITY SERVICE

Any charges for connection of service lines to the municipal utility system adopted by the City Council, or as such may be lawfully changed from time to time, shall apply to those wishing to make connections to the existing municipal utility system. This fee shall include costs of inspecting and tapping by City personnel or others subcontracted by the City to do so in place of City personnel.

There will be no waiver of connection fees. The City may choose, when it is so deemed to be in the City's best interest, to provide payment of a connection fee from the General fund rather than assess a particular non-profit group.

The purpose of the inspection and tapping fee is to compensate the utility for its expense in processing an application for introduction of service, as well as inspection and/or tapping of the service connection. Any leftover portion of the fee will be retained in a reserve account to cover expenses over and above the inspection and tapping fee for future taps. The City council may

annually roll over any excess funds from this account into other accounts for the respective utility or into the account for capital improvement costs.

8.9 MISCELLANEOUS UTILITY FEES AND CHARGES

Any miscellaneous utility fees and charges adopted by the City Council, or as such may be lawfully changed from time to time, shall apply as follows:

8.9.1 Applicable Fee for Service Area Enlargements

The application fee for enlargement of the water service area or for enlargement of the wastewater service area shall apply to any person submitting such type of application to the utility for processing. The purpose of the fee is to compensate the utility for its expense in processing an enlargement application. The fee shall be due and payable at the time the enlargement application is filed with the utility.

8.9.2 Application Fee for Extensions

The application fee for extension of the municipal water supply system or municipal wastewater system shall apply to any person submitting such type of application to the utility for processing. The purpose of the fee is to compensate the utility for its expense in processing an extension application and in reviewing and approving the plans and specifications for such an extension. The fee shall be due and payable at the time the extension application is filed with the utility.

8.9.3 Impact Fees (System Development Fees)

The impact fee for introduction of water service or wastewater service to a previously unserved tract or parcel of land which does not require an extension of the municipal water supply system/municipal wastewater system shall apply to any person submitting such type of application to the utility for processing. The impact fee shall only be utilized for capital improvements or debt retirement on capital improvements. The fees shall be due and payable at the time the Introduction of Building permit application is filed.

8.9.4 Fee for Special Agreements

The fee for a special agreement shall apply to any person desiring to enter into a special agreement with the utility, such as but not limited to Conveyance and Guarantee Agreements, Waiver of Right to Protest Agreements, Covenant and Subordination Agreements, Right-of-Way Easement agreements. The purpose of the fee is to compensate the utility for its expense in processing and approving such agreements. The fee shall be due and payable at the time the special agreement is filed with utility and shall depend on the type of agreement.

8.9.5 Fee for Performing a Special Meter Accuracy Test

The fee for performing a special meter accuracy test shall apply to any customer that desires the municipal water meter serving his/her property be tested for accuracy, as provided for under Section 10.12. The purpose of the fee for

performing a special meter accuracy test is to compensate the utility for its cost in performing such a test in those instances where the municipal water meter is found by a test to be within acceptable accuracy limits. The fee shall be due and payable to the utility at the time the request for performing a special meter accuracy test is filed with the utility.

8.9.6 Fee for Setting/Removing a Fire Hydrant Meter

The fee for setting/removing a fire hydrant meter shall apply to any person submitting to the municipal utility an application to obtain construction water by means of a fire hydrant meter, as provided for under Section 6.4. The purpose of the fee for setting/removing a fire hydrant meter is to compensate the utility for its expense in setting and removing such a meter. The fee shall be due and payable to the utility at the time the application for construction water is filed with the utility. A deposit will also be required to compensate utility for anticipated water usage.

8.9.7 Fee for Performing Fireflow Test

The fee for the performance of a fireflow test by the municipal utility shall apply to all persons who request the performance of such a test. The purpose of the fireflow test fee is to compensate the utility for its expenses in performing such a test. The fee shall be due and payable to the utility at the time the request for a fireflow test is filed with the utility.

8.9.8 Fee for Flushing, Testing, and Chlorinating Water Mains

The fee for flushing, testing, and chlorinating water mains shall apply to all persons who request the utility to perform such work.

The purpose of the fee is to compensate the utility for its expense in flushing a water main and performing a bacteriological test and a chorine residual test on the water contained therein. The fee shall be due and payable to the utility at the time the request for such work is filed with the utility. The amount of the fee shall be dependent upon the extent of the work involved.

8.9.9 Fee for Disposal of Septage

The fee for disposal of septage by the utility shall apply to any authorized septage hauler that requests a permit from the utility to discharge septage collected in County into the municipal wastewater system. The purpose of the fee for disposal of septage is to compensate the utility for treating and disposing of such wastes. The fee shall be due and payable to the utility at the time the request for a septage disposal permit is filed with the utility.

8.10 STATE FEES

Any water supply fees, pollution control fees, taxes, and so on lawfully adopted/changed by the State of Montana and levied against the utility shall apply to all customers of the utility.

Applicable provisions of Section 7 shall apply to these State fees. The utility shall pay all money collected from such fees to the State as required under State law.

8.11 CHARGES FOR MISCELLANEOUS WORK/SERVICE

The utility may require service agreements to be executed by a prospective customer prior to performing any work and/or service for the customer. All charges for work performed by the utility for a customer shall be adequate to cover the utility's expenses, including but not limited to application, license, construction, permit, administration, and legal fees as well as overhead, but shall not include any profit for the utility. The utility may revise the charges from time to time to reflect current costs, and the utility may estimate such charges and require the prospective customer to deposit an amount equal to such estimated charges with the utility prior to performing such work or service. In the event the utility has overestimated the cost of performing such work, the utility shall refund to the customer any overpayment upon completion of the work by the utility. In addition, the customer shall pay to the utility an amount equal to the difference between the estimated cost and the actual cost in the event the utility has underestimated the cost of the work performed by the utility. The charges shall be due and payable to the utility upon completion of the work performed.

8.12 LATE PAYMENT INTEREST CHARGE

The utility shall require delinquent customers to pay a late-payment interest charge on any monthly account balances that are not paid in full before the next billing period, which is approximately 30 days. The late payment interest charge shall be applied on the full past due amount, including any special fees or charges.

8.13 OTHER FEES

Reserved

9 RATES, CHARGES, AND FEES - CURRENT

The rates, charges, and fees currently in force are attached to these Rules and Regulations as Appendix A.

10 METERING

10.1 GENERAL

Except for firelines, all water service lines connected with the municipal water supply system shall be metered by the City. The City shall normally read all municipal water meters for commercial accounts monthly and all municipal water meters for domestic accounts at least bi-monthly to determine customer water usage and/or customer wastewater contributions for billing purposes. In months where the municipal water meter cannot be read, the utility may estimate the meter reading and use the calculated water usage/wastewater contribution to render the bill for the customer involved. The utility shall not estimate a meter reading for a customer more than four consecutive months without first making every effort to read the meter in question.

10.2 UTILITY'S RESPONSIBILITY

It shall be the utility's responsibility to:

10.2.1 Furnish, install, and maintain a municipal water meter up to 1 inch, and any required remote-reading equipment on every water service line connected with the municipal water supply system;

10.2.2 Approve the size of the municipal water meter to be installed on any water service line connected with the municipal water supply system;

10.2.3 Inspect or cause to be tested all municipal water meters prior to installation on water service lines to ensure that such meters meet or exceed the standards of the American Water Works Association for such type meters.

10.2.4 Test all 5/8-inch through 1-inch municipal water meters, if need.

10.2.5 Test, or cause to be tested, if needed, all 2-inch and larger municipal water meters;

10.2.6 Ensure that all municipal water meters are properly sealed prior to installation on water service lines and before changing any customer account to a new party; and

10.2.7 Periodically check all municipal water meters that are in service for tampering, bypassing, or any other acts of water theft.

10.3 CUSTOMER'S RESPONSIBILITY

It shall be the customer's responsibility to:

10.3.1 Provide a location for installation of the municipal water meter that is readable and that is properly protected from damage due to freezing or other adverse access conditions. Provide proper access of sufficient size to work or maintain water meter as determined by the Public Works Director;

10.3.2 Furnish, install, and maintain an approved outside meter box/vault, if approved by the Public Works Director, as well as any pipe, fittings, meter loops, valves. expansion tanks, backflow prevention devices and surge protection devices on commercial accounts, pressure reducing devices, telephone lines/jacks, and other appurtenances required to meet the standards of the utility for the type metering facility involved;

10.3.3 Obtain the written approval of the utility in advance of installing the plumbing for a large municipal water meter (1½" and larger), whether it be set inside or outside the building to be served; and

10.3.4 Protect the municipal water meter from tampering, bypassing, or any other acts of water theft.

10.4 INSIDE METERING FACILITIES

An inside municipal water metering facility shall be approved by the utility prior to its installation, meet the standards and specifications of the utility, and meet the following requirements:

10.4.1 The municipal water meter and backflow prevention shall be installed in a horizontal position, not over 2 feet above the floor, and shall be located as close as possible to the point where the water service line enters the building;

10.4.2 The municipal water meter shall be located near a floor drain if at all possible;

10.4.3 Valves shall be installed before and after the municipal water meter to allow removal and replacement of the meter without first draining the entire service-line and building plumbing;

10.4.4 A municipal water meter having the size of 1½ inches or larger shall have a valved bypass installed around the meter to provide continuous service when the meter is out for repair.

10.5 OUTSIDE METERING FACILITIES

An outside meter box/vault shall be approved by the utility prior to construction, meet the standards and specifications of the utility, and meet the following requirements:

10.5.1 The meter box/vault shall be located on private property at or near the point where the water service line enters the property to be served and outside any driveway or roadway.

10.5.2 The meter box/vault shall be located near a driveway or turnout and shall be readily accessible to utility vehicles without causing damage to public or private property or endangering the public or utility personnel.

10.5.3 The meter box/vault shall be waterproof and shall be large enough to safely and easily install, maintain, and replace the municipal water meter, backflow prevention device, if required, and other appurtenances.

10.5.4 The municipal water meter and backflow prevention device shall be installed within the meter box/vault in a horizontal position, not over 2 feet above the floor.

10.5.5 A valve shall be located before and after the municipal water meter to allow removal of the meter without first draining the water service line and the yard and building plumbing.

10.5.6 A municipal water meter having a 1 to 1½-inches or larger shall have a valved bypass installed around the meter to provide continuous service when the meter is out for repair.

10.6 USE OF INSIDE/OUTSIDE METERING FACILITIES

As a condition of service, a customer shall normally provide inside metering facilities meeting all the requirement of Section 10.5. The Public Works Director may, however, require any customer to install an outside meter box/vault meeting the requirements of Section 10.5, as a condition of providing/continuing utility service to the property involved. Conversely, the Public Works Director may require a customer to replace defective outside metering facilities with inside metering facilities meeting the requirements of Section 10.5 as a condition of continuing utility service to the property involved.

10.7 PERMANENT AND TEMPORARY METER INSTALLATIONS

When a municipal water meter is installed at the request of a customer, its installation is deemed to be permanent unless the customer discontinues service entirely. Service on a municipal water meter for a shorter period than 6 months shall be considered temporary. The customer shall be required to reimburse the utility for the cost of installing and removing a temporary water meter.

10.8 SUBMETERS

Customers desiring one or more submeters for various tenants shall furnish, install, maintain, and read such meters at their own expense. The utility shall not furnish, install, maintain, read, or bill on such meters. Further, all municipal utility charges for a single water service line shall be billed to and shall be paid by the person named on the water service application for the property involved.

10.9 STANDARD METER AND SERVICE LINE SIZES

The following table shows the size of meter that will normally be used on various size water service lines. Standards of the Uniform Plumbing Code shall be used when sizing water meters and lines.

SERVICE LINE DIAMETER - INCHES	MINIMUM SIZE OF METER - INCHES
¾	5/8 or ¾
1	¾ or 1
1½	1
2	1½
4	3
6	4
8	6

A customer requiring a municipal water meter larger than 6 inches shall install meters sized as determined by the utility. Meters and water service lines to be installed to serve water filling stations shall be limited to a size of 2 inches or less unless otherwise authorized in writing by the Public Works Director.

10.10 SINGLE METER PER SERVICE LINE

The utility will provide only one municipal water meter for a single residential water service line 5/8 or ¾ inch.

10.11 INTERCONNECTED WATER SERVICE LINES

A customer served by two or more water service lines which are interconnected shall have a check valve located on each water service line at its metering facility to prevent circulation of the water through the customer's meter and water service lines and back into the municipal water supply system.

10.12 SPECIAL METER ACCURACY TESTS

When a customer makes a complaint that the municipal utility charges for any particular billing period are excessive, the utility shall, upon request, have the municipal water meter for the customer involved reread and inspect the customer's plumbing for leaks. Should the customer then desire that the municipal water meter be tested, the customer shall make a deposit with the City to cover the cost of making the test. The utility will then test the meter in question. Should the meter test show a registration in excess of 5 percent in favor of the utility, the City shall make an adjustment for the estimated excess consumption on the bill immediately preceding and/or the current bill. The excess registration on the reading for the previous and/or current month shall be credited to the customer's account. Where no such error is found in favor of the City, the amount deposited will be retained by the City to cover the expense of performing the test.

10.13 REPLACEMENT OF METERS

Whenever a customer requests the replacement of the municipal water meter, such request shall be treated as a request for a test of the meter. As such, it shall be handled by the utility in the manner set forth in Section 10.12.

10.14 STANDARD OF METER ACCURACY

The utility shall not place in service or allow to remain in service without adjustment any municipal water meter that has a known error in registration of more than plus or minus 3 percent.

10.15 NON-REGISTERING METER

When the municipal water meter fails to register for any period, and the reason for the malfunction is beyond the reasonable control of the utility, the utility may estimate the charge for municipal utility service during the period in question. The malfunctioning meter must be repaired/replaced by the utility within one month of the date that the meter was discovered by the utility to be malfunctioning.

10.16 TESTING AND REPAIRING METERS

The utility may test and/or repair a municipal water meter at any time, and for this purpose the utility may temporarily shut off the water to a customer.

10.17 DAMAGED METERS AND EQUIPMENT

Whenever a municipal water meter, meter horn, check valve, cable, remote read device, or any other equipment owned by the utility is damaged by the carelessness or negligence of the customer, the utility shall repair/replace the damaged equipment and charge the cost of doing so against the customer's account. Failure to pay this charge shall be just cause for the utility to discontinue utility to the property involved until the total amount is paid plus payment of any applicable charges for discontinuance and/or reestablishment of service.

10.18 PROHIBITED TAPS/CONNECTIONS

It is prohibited for any customer to make a tap to or maintain a connection with the customer's water service line at a point located upstream of the municipal water meter. Such taps/connections shall be treated as a bypass around the meter and subject to the provisions of Section 10.19.

10.19 METER TAMPERING/BYPASSING

It is prohibited for any person to bypass or tamper with a municipal water meter. It is also prohibited for any person to receive municipal utility service knowing that the measurement of such services is being affected by bypassing, or tampering. In case a meter seal is broken or the working parts of the meter have been tampered with or the meter damaged or bypassed, the City will, in addition to any other penalties provided by law, estimate the time period the tampering took place and will render an estimated bill for that time period to the customer involved. The City will also bill the customer for the full cost of repairing such damage to the meter, and may refuse to furnish water until the customer's account is paid in full plus payment of any applicable charges for discontinuance and/or reestablishment of service.

10.20 RELOCATION OF METERS

A customer requesting relocation of the municipal water meter after its initial installation will bear all costs associated with relocating the meter.

10.21 MAINTENANCE OF OUTSIDE METER BOXES/VAULTS

A customer shall at his/her expense keep his/her outside meter box/vault and appurtenances in good repair, readily accessible, and in a safe and useable condition at all times. Failure to do so shall be deemed just cause to discontinue municipal utility service to the customer involved as provided in Section 3.8.3.

10.22 FIRE HYDRANT METERS

The following provisions and conditions shall govern the setting, use, and removal of municipal fire hydrant meters for the purpose of obtaining water for public works construction:

10.22.1 Only fire hydrants owned by the utility shall be used for this purpose. Privately owned hydrants and those fire hydrants situated outside the City and owned by the County shall not be used for this purpose. The utility reserves the right in all cases to determine upon which particular fire hydrant a municipal fire hydrant meter shall be installed.

10.22.2 The applicant for a meter shall sign the application for such service, shall be responsible for the payment of all fees and charges for such service, shall submit a deposit for anticipated water use, and shall be responsible for the protection and care of the meter while it is in use. In addition, any damages to public or private property, including the municipal fire hydrant meter and the municipal water supply system, caused by the applicant's use of the municipal fire hydrant meter shall be immediately repaired by the applicant at the applicant's expense. Further, it shall be the applicant's responsibility to secure the operating valve on the municipal fire hydrant meter whenever the applicant is not using the meter so as to preclude unauthorized use of water through the meter.

10.22.3 Only utility personnel shall install and/or relocate a municipal fire hydrant meter. Further, such a meter shall not be installed on a fire hydrant in a manner which will interfere with the fire department's use of the 4-inch pumper nozzle.

10.22.4 The utility shall not relocate a fire hydrant meter for an applicant without the applicant first having obtained a new permit and having again paid to the City the appropriate fire hydrant meter setting/removal fee and usage deposit. Such relocations shall be limited to a maximum of one per day for each applicant.

10.22.5 Municipal fire hydrant meters shall normally be set on the basis of permit dates, with the earliest date having first priority.

10.22.6 Applicants shall give the municipal utility at least 48 hours notice of their need to have a municipal fire hydrant meter installed.

10.22.7 A fire hydrant meter shall not be installed during months when the weather may subject it to freezing. Further, since service from a municipal fire hydrant meter is considered temporary, such a meter shall not be installed at any one location for a period greater than 6 months nor less than one day.

10.22.8 Applicants for a municipal fire hydrant meter shall ensure that their filling operations do not cause a cross connection or excessive pressure surges. Failure to do so shall be deemed just cause to immediately remove the municipal fire hydrant meter from service. Such service shall not be restored until the applicant takes corrective action, takes out another municipal fire hydrant meter permit, and pays the appropriate permit fees to the utility.

10.22.9 Any person tampering with or bypassing a municipal fire hydrant meter shall be punished as provided in Section 10.19.

10.23 SECONDARY WASTEWATER METERS

Secondary wastewater meters that are to be installed under the provisions of Section 7.11 shall be furnished, installed, and maintained by the owners of the property to be served by such meters. In addition, such meters shall be of a size, type, and make and set at such place as shall be designated by the Public Works Director. Such meters shall meet or exceed the standards of the American Water Works Association for such type meters.

10.24 SPRINKLING METERS

Sprinkling meters are used to measure the amount of water delivered by the utility to a customer exclusively for lawn and garden irrigation. Said meters shall only be installed on water service lines serving property situated within the corporate City limits. Further, said meters shall either be installed on separate, independent water service lines or else be installed on branch water service lines which are connected to the customer's main water service lines at a point located upstream of the regular municipal water meters. If the sprinkling meter is not located inside a heated building it must be installed in an approved, engineered meter pit to protect it from freezing and/or tampering.

11 USE OF WATER SERVICE

11.1 WASTE OF WATER

Waste of water is prohibited. Customers shall keep all waterways closed when not in use. Further, customers must keep their water service lines, valves, fixtures, appliances, and other equipment in good order at all times and at their own expense. Leaking water service lines, valves, fixtures, appliances, and other equipment shall be repaired at once by the customer without waiting for notice from the utility.

11.2 CROSS CONNECTIONS

Furnishing of water service to any customer or prospective customer shall be contingent upon the customer furnishing a type of connection which is approved by the utility. When required by the utility, the connection must be capable of protecting the utility's water supply from contamination due to backflow and back siphonage. It shall be prohibited for the owner or occupant of any premise using water supplied by the utility to cross-connect such water supply with a foreign source of water or with any appliance, appurtenance, hose, pipe, or other fixture in such a manner that there is a possibility that water or other substances from such foreign source may flow, be siphoned, or be forced into the municipal water system.

If contamination of the municipal water supply occurs, the utility, or a plumber hired by the utility, shall be allowed to inspect the water system to determine the cause and source of contamination. All costs associated with the inspection and corrective measures to remove contamination from the system shall be charged to the owner of the property which is determined to be the source of said contamination.

11.3 RESALE OF WATER

The City's water rate schedules cover the sale of water for the sole and exclusive use of the customer. Water service shall be used by customer only for the purposes specified in the service agreement, contract, or applicable rate schedules. Customer shall not re-meter, sell, or permit any other individual to use such service or secure water through customer's service line by hose or other devices for the purpose of supplying water to the individual's property without first obtaining written permission to do so from the City.

11.4 WATER USE RESTRICTIONS

The Public Works Director is authorized and empowered to determine and establish the times and hours when water may be used for watering and sprinkling lawns and gardens and may set and fix times when no water may be used for such purposes. Further, he/she may make such rules and regulations regarding the use of water as he/she may find necessary to maintain an adequate supply of water in the reservoirs for fire protection of the City or for other public health and safety reasons.

11.5 UNLAWFUL SPRINKLING OF LAWNS AND GARDENS

Any person using water for the purpose of watering or sprinkling of any lawn and/or garden at a time prohibited by the rules and regulations established by the Public Works Director shall be subject to discontinuance of utility service as well as any punishment and penalties available under law.

12 USE OF WASTEWATER SERVICE

12.1 DISCHARGING CERTAIN MATTER INTO SEWERS PROHIBITED

Except as hereinafter provided, no person shall discharge or cause to be discharged any of the following described waters or wastes into any public sanitary sewer:

12.1.1 Any liquid or vapor having a temperature higher than (a) 140 degrees Fahrenheit or (b) that which, alone or in conjunction with other discharges, causes the influent at the wastewater treatment plant to exceed 104 degrees Fahrenheit;

12.1.2 Any water or waste which may contain more than 100 milligrams per liter of fat, oil or grease;

12.1.3 Any gasoline, benzene, naphtha, fuel oil, or other pollutants which create a fire or explosion hazard in the wastewater system, including, but not limited to, wastewaters with a closed cup flash-point of less than 140 degrees Fahrenheit or 60 degrees Centigrade, using the test methods specified in 40 CFR 261.21;

12.1.4 Any garbage that has not been properly shredded;

12.1.5 Any ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, or any other solid or viscous substance capable of causing obstruction to the flow in the public sanitary sewers or otherwise interferes with the proper operation of the municipal wastewater system;

12.1.6 Any waters or wastes having a pH lower than 5.5 or higher than 9.0 or having any other corrosive property capable of causing damage or hazard to structures, equipment, personnel or biological life of the utility;

12.1.7 Any waters or wastes containing a toxic, poisonous, or infectious substance in sufficient quantity to (a) injure or interfere with any wastewater treatment process, (b) constitute a hazard to humans or animals, (c) cause the presence of toxic gasses, vapors, or fumes within the municipal wastewater system in a quantity that may result in worker health and safety problems, or (d) create any hazard in the receiving waters of the municipal wastewater treatment plant;

12.1.8 Any waters or wastes containing suspended solids of such character and quantity that unusual attention or expense is required to handle such materials at the municipal wastewater treatment plant;

12.1.9 Any noxious or malodorous gas or substance capable of creating a public nuisance;

12.1.10 Any pollutant, including oxygen demanding pollutants (BOD, etc.), released in a discharge of such volume or strength as to cause interference in the municipal wastewater system unless such discharge is first approved by the City;

12..1.11 Any petroleum oil, solvents, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;

12.1.12 Any trucked or hauled pollutants, except for septage which is permitted to be discharged at the approved location;

12.1.13 Any storm water, surface water, ground water, roof runoff, subsurface drainage, cooling water or unpolluted industrial process waters. Storm water and all other unpolluted drainage shall be discharged to such sewers as are specifically designated as combined sewers or storm sewers, or to a natural outlet approved by the Public Works Director. Industrial cooling water or unpolluted process waters may be discharged upon approval of the Public Works Director, to a storm sewer, combined sewer or natural outlet.

12.2 GREASE, OIL, AND SAND INTERCEPTORS

Grease, oil, and sand interceptors shall be provided when, in the opinion of the Public Works Director or any governmental agency with jurisdiction, they are necessary for the proper handling of liquid wastes containing (a) grease in excessive amounts, (b) any flammable wastes, (c) sand, or (d) any other harmful ingredients. Such interceptors shall not be required for private living quarters or dwelling units.

All interceptors shall be of a type and capacity, as approved by the Public Works Director or any governmental agency with jurisdiction, shall be approved and stamped by a licensed Professional Engineer or Architect in the State of Montana and shall be located so as to be readily and easily accessible for cleaning and inspection. The cost of said interceptors shall be at the expense of the user.

Grease and oil interceptors shall be constructed of impervious materials capable of withstanding abrupt and extreme changes in temperature. They shall be of substantial construction, watertight, and be equipped with easily removable covers which, when bolted in placed, shall be gastight and watertight.

12.3 MAINTENANCE OF INTERCEPTORS

Where installed, all grease, oil, and sand interceptors shall be maintained by the owner, at his/her expense, in continuously efficient and effective operation.

12.4 APPROVAL REQUIRED FOR DISCHARGE OF CERTAIN WATERS OR WASTES

The Public Works Director's approval shall be required for the admission into the public sanitary sewers of any waters or wastes having the following characteristics:

12.4.1 A five-day biochemical oxygen demand greater than 250 milligrams per liter;

12.4.2 More than 250 milligrams per liter of total suspended solids;

12.4.3 Containing any quantity of substances described in Section 12.1; and/or

12.4.4 Having an average daily flow greater than two percent of the average daily wastewater flow entering the municipal wastewater treatment plant.

12.5 PRELIMINARY TREATMENT FACILITIES

The owner shall provide facilities meeting the requirements set forth in these rules and regulations at his/her own expense where it is necessary, in the opinion of the Public Works Director, to provide preliminary treatment of any waters or wastes to:

12.5.1 Reduce the 5-day biochemical oxygen demand in such waters or wastes to at least 250 milligrams per liter;

12.5.2 Reduce the total suspended solids in such waters or wastes to at least 250 milligrams per liter;

12.5.3 Reduce objectionable characteristics or constituents in such waters or wastes to within the maximum limits provided by this section; and/or

12.5.4 Control the quantities and rates of discharge of such waters or wastes.

Plans, specifications, and other pertinent information concerning the proposed facilities shall be submitted for the approval of the Public Works Director and the State Department of Environmental Quality. No construction shall be commenced until such approvals are obtained in writing.

12.6 MAINTENANCE OF PRELIMINARY TREATMENT FACILITIES

Where preliminary treatment facilities are provided for any waters or wastes, they shall be maintained continuously in satisfactory and effective operation by the owner at his/her expense.

12.7 CONTROL MANHOLES AND TEST LOCATIONS

When required by the Public Works Director, the owner of any property served by a building sewer carrying industrial wastes shall install a suitable control manhole or other suitable sampling point, with measuring and sampling devices included, in the building sewer to facilitate observation, sampling, and measurement of the waters or wastes. Such sampling point and appurtenances, when required, shall be readily accessible and safely located and shall be constructed in accordance with plans engineered and stamped by a licensed Montana Professional Engineer and approved by the Public Works Director. The sampling point and appurtenances shall be installed by the owner at his/her expense and shall be maintained by him/her so as to be readily and safely accessible at all times, with all equipment maintained in continuously satisfactory and accurate operational condition.

12.8 WASTEWATER TESTING AND ANALYSES

All measurements, tests and analyses of the characteristics of the waters and wastes to which reference is made in Sections 12.1 and 12.4 shall be determined in accordance with 40 CFR Part B6, Guidelines Establishing Test Procedures for the Analysis of Pollutants, unless otherwise specified, and shall be determined at the sampling point provided for in Section 12.7 upon suitable samples taken at such sampling point. In the event that no sampling point has been required, the sampling point shall be considered to be the nearest manhole downstream to a point in the public sanitary sewer at which the building sewer is connected. All sampling and testing will be done by an agency approved by the Public Works Director and at the expense of the owner of the property generating the need to sample.

13 PRETREATMENT OF INDUSTRIAL WASTES

13.1 METHODOLOGY

Unless otherwise specified, all measurements, tests, and analyses of the characteristics of waters and wastes to which reference is made in this section shall be determined in accordance with either (a) the latest edition of the "Standard Methods for the Examination of Water and Wastewater," as published by the American Public Health Association, (b) the ASTM Annual Book of Standards, or (c) the "Methods for Chemical Analysis of Waters and Wastes," as published by the EPA.

13.2 ACTIONS OF THE DIRECTOR

Whenever the Public Works Director determines that a significant industrial user is contributing to the municipal wastewater system any of the substances referred to in Section 12 in such amounts as to interfere with the operation of the municipal wastewater system or to constitute a harmful contribution to the municipal wastewater system, the Public Works Director shall:

13.2.1 Notify or cite the significant industrial user in accordance with Section 13.10 and develop and apply specific effluent limitations and pretreatment requirements for the significant industrial user to correct the interference with or harm to the municipal wastewater system.

13.2.2 Take any actions as deemed necessary, including immediate severance of the sewer connection, to prevent or minimize damage to the municipal wastewater system and/or endangerment to any individuals.

13.3 PREEMPTION BY NATIONAL CATEGORICAL PRETREATMENT STANDARDS

Upon the promulgation of the National Categorical Pretreatment Standards for a particular industrial sub-category, the National Standard, if more stringent than limitations imposed under Section 12 for sources in that sub-category, shall immediately supersede the limitations imposed under Section 12. The Public Works Director shall notify all affected significant industrial users of the applicable reporting requirements under CFR Section 403.12. Failure to notify shall not relieve a significant industrial user from any requirements under the law.

13.4 MODIFICATION OF NATIONAL CATEGORICAL PRETREATMENT STANDARDS

When the municipal wastewater treatment plant has achieved consistent removal of pollutants limited by National Pretreatment Standards, the City may apply to the approval authority for modification of or exemption from specific limits in the National Pretreatment Standards.

13.5 STATE REQUIREMENTS

State requirements and limitations on discharges shall apply in any case where they are more stringent than federal requirements and limitations or those in Section 12.

13.6 CITY'S RIGHT OF REVISION

Notwithstanding the provisions of Section 13.3 the City reserves the right to establish by ordinance, resolution, rules and regulations, or permit more stringent specific pollutant limitations or pretreatment requirements for discharges to the municipal wastewater system, if deemed necessary.

13.7 INDUSTRIAL DISCHARGE PERMITS

13.7.1 Permit Application

Significant industrial users may be required to obtain an Industrial Discharge Permit and shall complete and file with the City an application in the form prescribed by the Public Works Director and accompanied by the permit application fee. The significant industrial user shall submit, in units and terms suitable for evaluation, all information required by the permit application, a State approved and Montana registered engineer stamp, and any supplemental information requested. All significant industrial users connected to or discharging to the municipal wastewater system who are determined to be subject to Industrial Discharge Permit requirements shall apply immediately. Other significant users proposing to connect to the system who are determined to be subject to Industrial Discharge Permit requirements shall apply at least 30 days prior to commencing discharge. When a significant industrial user becomes subject to a National Categorical Pretreatment Standard and has not previously submitted an application for an Industrial Discharge Permit, the significant industrial user shall apply for an Industrial Discharge Permit within 60 days after the promulgation of the applicable National Categorical Pretreatment Standard.

13.7.2 Issuance

After evaluation of the permit application, the Public Works Director may issue an Industrial Discharge Permit subject to terms and conditions provided herein. In determining whether a permit shall be issued and/or what conditions shall be applied, the Public Works Director shall consider all applicable National Categorical and Local Pretreatment Standards.

13.7.3 Permit Conditions

Industrial Discharge Permits and significant industrial user permittees shall be subject to all applicable City laws, user charges, and fees. Permits shall contain, but shall not be limited to, the following requirements or terms and conditions:

13.7.3.1 Notice of the general and specific prohibitions required.

13.7.3.2 Prohibitions on discharge of any specific materials.

13.7.3.3 Notice of applicable National Categorical Pretreatment Standards.

13.7.3.4 Limits equal to or more stringent than the Specific Pollutant Limitations as established pursuant to Section 12, concerning average and maximum wastewater constituents, and on characteristics of either the individual industrial process wastes or combined industrial wastewater discharge.

13.7.3.5 Limits on average and maximum rate and time of discharge, or requirements for flow regulations and equalization.

13.7.3.6 Monitoring facilities.

13.7.3.7 Monitoring programs, which may include sampling locations; frequency of sampling; number, types, and standards for tests; reporting schedules; and pollutants to be monitored.

13.7.3.8 Installation, maintenance, and cleaning of any pretreatment facilities that are necessary to achieve compliance with the requirements including filtration; chemical treatment; grease, oil, and sand traps; and other necessary equipment.

13.7.3.9 Compliance schedules and any periodic progress or compliance reports required by federal pretreatment regulations, including 40 CFR 403.12. Submission of technical reports or discharge reports, as provided for in Section 13.8;

13.7.3.10 Maintenance and retention of plant records relating to wastewater discharge for a minimum of 3 years or as specified by the Public Works Director.

13.7.3.11 Notification of any discharge or new wastewater constituents or of any substantial change in the volume or character of the wastewater constituents being introduced into the municipal wastewater system.

13.7.3.12 Notification of any slug or accidental discharge.

13.7.3.13 Agreement of the industrial user to (a) allow reasonable access by the City to ensure compliance with permit conditions, (b) agree to perform and comply with all permit conditions, and (c) submit to the remedy of specific performance for breach of contract.

13.7.3.14 Permit duration and conditions of transfer.

13.7.3.15 Penalties for violations.

13.7.3.16 Other appropriate conditions, in the judgment of the Public Works Director, necessary to ensure compliance with regulations.

13.7.4 Permit Duration

Industrial Discharge Permits are valid for a specified time period not to exceed 3 years from the date of issuance or modification. Each significant industrial user shall apply for permit renewal at least 90 days prior to the expiration date of the existing permit.

13.7.5 Permit Modifications

The terms and conditions of any permit may be subject to modification (a) by the Public Works Director during the term of the permit, (b) by the modification of Rules and Regulations set forth herein, or (c) as other just cause exists. The significant industrial user shall be notified of any proposed changes in his/her permit at least 30 days prior to the effective date of change. Any chances or new conditions in the permit shall include a reasonable time schedule for compliance.

13.7.6 Permit Transfer

Industrial Discharge Permits are issued to a specific significant industrial user for a specific operation. An Industrial Discharge Permit is not transferable and is void if reassigned, transferred, or sold to a new owner, new user, different premises, or a new or changed operation without written approval by the Public Works Director.

13.8 REPORTING REQUIREMENTS

The compliance reports shall indicate the average and maximum daily flow or predicted flow for the process units in the significant industrial user facility subject to the federal, State, or City standards and requirements, whether these standards are being met on a consistent basis and, if not, what additional operations, maintenance, or pretreatment is or will be necessary to bring the significant industrial user into compliance with the applicable pretreatment standards or requirements. This statement shall be signed by an authorized representative of the significant industrial user and shall be certified by a qualified professional engineer or a person with adequate wastewater discharge experience as determined by the Public Works Director.

The Public Works Director may impose mass limitations in addition to concentration limitations on significant industrial users which are expressly authorized by an applicable categorical pretreatment standard to use dilution to meet applicable pretreatment standards or requirements or upon other significant industrial users when deemed necessary. In such cases, the records and reports shall also indicate the mass of pollutants regulated by pretreatment standards in the effluent of the significant industrial user. These reports shall contain the results of sampling and analysis of the discharge including the flow, nature, concentration, production, and mass of pollutants which are limited by the applicable pretreatment standards. The frequency of monitoring shall be prescribed in the Industrial Discharge Permit.

13.9 AVAILABILITY OF RECORDS

All records relating to compliance with pretreatment standards or requirements shall be made available to officials of the EPA or the State Department of Environmental Quality upon request of the Public Works Director.

13.10 NOTIFICATION OF VIOLATION

Whenever the City finds that any significant industrial user has violated or is violating their Industrial Discharge Permit, or any prohibition, limitation, condition, or requirements contained therein, the Public Works Director, at his/her discretion, may either immediately cite the violator or may serve upon such person a written notice stating the nature of the violation, corrective action necessary, and the time limit for its satisfactory correction. Within the time limit stated in said notice, the significant industrial user shall submit to the Public Works Director evidence of the satisfactory correction of the violation or a plan to correct the same.

14 WATER AND/OR WASTEWATER SERVICE AREAS

14.1 ADOPTION OF SERVICE AREA

The official water and/or wastewater service areas for the City are those areas within the boundaries of the City, any areas presently served outside the City, and any subsequently approved amendments thereto. A map depicting the water and/or wastewater service areas adopted herein, and any enlargements that may be from time to time approved by the City Council, shall be made available at all times for public inspection during regular working hours at the City Hall, City of Laurel, Montana.

14.2 PROHIBITED ACT

It is prohibited for any person to extend, or cause to be extended, beyond the water and/or wastewater service area boundaries any public or private water or sanitary sewer system facilities which are, in turn, either directly or indirectly connected with the municipal water or wastewater systems.

14.3 ANNEXATION REQUIREMENTS

14.3.1 All properties to be included within the water and/or wastewater service areas shall be annexed or an attempt at annexation shall be made first and before any area enlargement applications may be considered. Further, that whenever possible, the property being considered for inclusion in the service areas shall be annexed to the City rather than accepting waivers of the property owner's right to prevent annexation of said property to the City. Waivers may be accepted by the City in its sole discretion only in those particular cases where good and sufficient cause is shown and a hardship would result if waivers were not accepted. Any waivers must be in legal form as approved by the City Attorney, be recorded with the County Clerk and Recorder; run with the land; and shall be signed by owners of the majority of the land area and by a majority of the land owners of the area to be considered for inclusion in the service areas.

14.3.2 A prospective applicant shall first petition the City to annex the property involved prior to submission of a water and/or wastewater service area enlargement application. The City Council shall then consider such petition.

14.3.3 The City shall notify in writing the prospective applicant of denial of annexation or right to file waivers or both, and approval or denial of enlargement of the service area. If approved, the applicant shall be notified as to when the requirements set forth in this section have been satisfactorily completed and when said applicant is authorized to proceed with the service area enlargement application.

14.4 ENLARGEMENT APPLICATION AND FEE

Persons desiring water and/or wastewater service to serve properties located either partially or entirely outside the service areas shall make application to the City on a special form furnished for this purpose by the City. Such application shall be supplemented by any plans, reports, or other information considered pertinent. The appropriate application fee set forth in Section

8.9.1, or as same may be amended from time to time by the City Council, shall be paid by the applicant to the City Clerk at the time the application for enlargement of the service area is filed.

14.5 PREREQUISITES TO APPLICATION

The following conditions shall be met prior to making application for enlargement of the water and/or wastewater service areas:

14.5.1 The property at the time the application is filed:

14.5.1.1 Shall be contiguous to the boundary of the water and/or wastewater service areas as same exists;

14.5.1.2 Shall entirely fall under the City's Master Plans.

14.5.2 Applicant shall complete annexation requirements.

14.5.3 Provided that, should a state or federal Governmental entity as a condition of providing funds or grants, require that service be extended to other areas outside the scope of this section, the City Council may, upon receipt of application for waiver and upon a proper showing, waive the requirements of this section.

Information concerning the prerequisite conditions set forth in this section may be obtained from the City Clerk during normal working hours at the City of Laurel City Hall, City of Laurel, Montana.

14.6 APPLICATION REVIEWS AND RECOMMENDATIONS

The City shall review all water and/or wastewater service area enlargement applications so filed, and upon completion of said review, shall submit to the City Council for their review and consideration such applications with recommendations and comments attached hereto. Any applications which are filed with the City at least 2 weeks prior to the next regularly scheduled council meeting, shall be submitted to the City Council at the next regularly scheduled meeting. Applications filed less than 2 weeks prior to the next regularly scheduled City Council meeting, need not be submitted until the next regularly scheduled meeting following the date of submission of the application.

The City shall review each water and/or wastewater service area enlargement application filed for the purpose of determining compliance with the following specific conditions:

14.6.1 Each application for enlargement of the water and/or wastewater service area so filed shall be accompanied with a legally binding, and lawfully recorded special agreement wherein 100 percent of the owners-of-record of the property under consideration for inclusion in the service area shall have agreed to the following:

14.6.1.1 To waive their right to protest any future water and sanitary sewer special improvement districts that may be created by the City Council for the purpose of providing water and/or wastewater service to the property in question,

14.6.1.2 Agree to fully comply with all rules, regulations, resolutions, ordinances, and laws governing the providing of water and wastewater service by the City, or as same may be lawfully changed from time to time,

14.6.1.3 Make commitment to construct all the necessary water and/or wastewater system facilities and to begin development of the entire parcel of property to be included in the water and/or wastewater service area within 2 years from the date of the City Council's approval of the enlargement application. In the event the applicant fails to comply with this particular commitment, the property in question shall automatically be excluded from the service area; and,

14.6.1.4 Agree to fully comply with any such other conditions and/or requirements as the City Council may establish from time to time.

14.6.2 Under no circumstances shall the City Council grant approval to any applicant for enlargement of the water and/or wastewater service areas which would include property in the service area that is beyond the service capabilities of the municipal systems.

14.6.3 The Public Works Director, in his/her recommendations and comments to be submitted to the City Council, shall address each of the aforementioned conditions and specifically set forth in writing whether or not the application under consideration fully complies, partially complies, or fails to comply with each of said conditions.

14.7 PUBLIC HEARING

At the time of completion of annexation, the annexed territory shall automatically be included in the service area; however, before officially acting upon any application for enlargement of the service area into an unannexed area, the City Council shall hold a public hearing thereon and shall give public notice of hearing upon each such application published once each week for 2 consecutive weeks in a newspaper of general circulation in the County. Said notice shall set forth the time and place of the public hearing and shall be published not less than 15 nor more than 30 days prior to the date of the hearing.

14.8 CITY COUNCIL ACTION

The City Council shall approve, conditionally approve, or deny an application for enlargement of a service area within 30 days after the date of the public hearing. The approval or conditional approval shall be in force for the period of time set forth in the approval. A denial of an application shall be in force for one year after the date of such denial unless stipulations are identified in such denial, in which case the application may be resubmitted with deficiencies corrected.

15 WATER AND WASTEWATER EXTENSIONS

15.1 INTENT AND PURPOSE

The intent and purpose of the rules and regulations set forth in this section are to:

15.1.1 Provide for an orderly, planned, and cost-effective method of extending the municipal water and/or wastewater systems within their service areas;

15.1.2 Ensure that extensions to the municipal water and/or wastewater systems are properly designed, inspected, and constructed in accordance with appropriate health, utility, and fire suppression standards; and

15.1.3 Facilitate the administering and documenting of all activities relating to extensions of the municipal water and/or wastewater systems.

15.2 PROHIBITED ACT

Any unauthorized person is prohibited from extending or causing to be extended, either directly or indirectly, any portion of the water and/or wastewater systems without first obtaining in writing the necessary approvals and paying the appropriate fees and charges as required and set forth herein.

15.3 APPLICATION AND FEE

A prospective customer, or a group of prospective customers, desiring water and/or wastewater service to serve property which is situated within the water and/or wastewater service area, and which does not front or abut a right-of-way containing a public water main or sanitary sewer, shall make application in writing to the City Clerk on a special form furnished for this specific purpose by the City. Said extension application shall be supplemented by engineered plans, reports, or other information considered pertinent. The appropriate application fee adopted under Section 8.9.2, or as such may be lawfully changed from time to time, shall be paid by the prospective customer, or group of prospective customers, to the City at the time the water and/or wastewater extension application is filed. All such extension applications shall be signed by the owners of record of the property to be served by the extension involved, or their legally designated representative, and shall be properly witnessed by a notary public.

15.4 WATER AND WASTEWATER SERVICE AREAS

The City Council shall not accept for consideration a water and/or wastewater extension application which is intended to provide municipal service to property, or any portion thereof, which is situated outside the service area. Prior to acceptance for consideration of an extension application for such property, the property shall be included in its entirety within the service area in accordance with the provisions set forth in Section 14.

15.5 APPROVAL OF EXTENSIONS

Subject to all the requirements and conditions set forth in this section, the City is hereby authorized to grant approval of water and/or wastewater extension applications submitted to the Public Works Director under the provisions of Section 15.3. All such approvals granted by the

City shall be in writing. The City shall be responsible for maintaining a permanent file of all such extension applications so approved.

The City shall grant approvals of water and/or wastewater extension applications in a nondiscriminatory manner. In addition, all such extensions so granted by the City shall be non-assignable to other property. Further, if the construction of the extension has not commenced within 2 years from the date of the City Council's written approval of the extension application involved, the City Council's approval shall automatically be deemed void and no longer in force and effect. No refund of fees will be made to the applicant construction has not commenced within 2 years of the approval.

15.6 WATER AND WASTEWATER SYSTEM DISTRICT WAIVERS

First and before an extension application is approved by the City, 100 percent of the owners of record of the property included in said extension application shall have legally waived their right to protest any water or sewer system special improvement districts which may be created in the future for the purpose of providing municipal water and/or wastewater service to such property.

15.7 CHARGES AND REGULATIONS

A prospective customer, or group of prospective customers, granted permission to extend the municipal water and/or wastewater system in accordance with the provisions set forth in this section shall be deemed to have contracted with the City for the service of the municipal water supply and/or wastewater system and thereby to have agreed to pay all charges and to comply with all the City's regulations in regard to said service, or as such may be lawfully changed from time to time.

15.8 SYSTEM DEVELOPMENT FEES AND CHARGES

Any applicable municipal water and/or wastewater system construction fees and charges to be assessed against the property included within an extension application pursuant to provisions of ordinances and/or resolutions approved by the City Council shall be paid to the City Clerk at the time the extension application is filed. If the extension application is subsequently denied, then in that event the construction fees and charges so collected from the applicant shall be refunded without interest.

15.9 INTRODUCTION OF MUNICIPAL SERVICE APPLICATIONS

Applications for introduction of water and/or wastewater service to service previously unserved property which fronts and abuts a right-of-way containing a public water main or sanitary sewer, but which has never been assessed for the cost of constructing an extension of the system, shall be subject to all applicable provisions, requirements, and conditions stated in this section for extensions. The application fee to be paid to the City Clerk at the time an application for introduction of service for such type property is filed with the City shall be that adopted under Sections 8 and 9, or as same may be lawfully changed from time to time. In addition, any special system construction or development fees and charges to be assessed against the property involved shall be paid in full to the City Clerk at the time the application for introduction of service is filed. Subject to all applicable requirements and conditions set forth in this section, the City is hereby authorized to approve in writing such type

applications. The City shall be responsible for maintaining a permanent file of all such applications so approved.

15.10 METHODS AND FINANCING OF EXTENSIONS

Extensions of the municipal water and/or wastewater system shall be accomplished by means of either special improvement districts as provided for by law or by private contract. Prospective applicants desiring to extend the municipal water and/or wastewater system shall first, and prior to creation of such a district or entering into such a contract, have made application to the City for extension of the system and have obtained the approvals and have paid the fees and charges required. All costs of extending the system shall be borne by the owners of the property to be served from the extension in question, except as may be otherwise set forth in this section. The City shall not grant and/or construct free extensions to serve any property with municipal water or wastewater service.

15.11 OWNERSHIP OF EXTENSIONS

The ownership of all extensions of the municipal water and/or wastewater system constructed within the corporate City limits shall be vested in the City whether same are constructed by special improvement district or by private contract. The ownership of all extensions constructed by the City at its expense shall be vested in the City regardless of whether or not such facilities are located within or outside the boundaries of the corporate City limits.

An applicant constructing an extension within the corporate City limits by means of a private contract or special improvement district shall be deemed to have conveyed the ownership of such an extension to the City upon acceptance of the extension by the City. In addition, the City shall at that time have assumed complete control over the facilities so extended, including the right to connect additional customers to the extended facilities as well as the right to further extend said facilities.

15.12 MAINTENANCE OF EXTENSIONS

The City shall be responsible for the maintenance of extensions only when the ownership and control of said extensions are vested in the City. The responsibility for installation, operation, maintenance, repair, enlargement, or replacement of facilities that are privately owned and/or controlled by persons other than the City shall rest solely with the owners of facilities.

15.13 WATER SERVICE LINES AND FIRELINES

During the course of constructing an extension to the municipal water supply system, a water service line and/or a fireline, whatever is deemed appropriate, shall be stubbed to the property line of each lot and/or parcel of property included in the extension application. All water service lines and firelines so installed shall be subject to and fully comply with the provisions set forth in Section 16. The cost of installing each such water service line and fireline shall be borne by the owner of the property benefitted by said water pipes. The Public Works Director shall be notified of the date construction is to commence so as to facilitate inspection of construction activities.

All water service lines and firelines installed during the course of constructing extensions to the municipal water supply system shall be individually and appropriately marked in the field in a

manner acceptable to the Public Works Director. Also, the location of each such water service line and fireline so installed shall be accurately depicted on the as-built drawings for the extension involved, with the appropriate offset distances measured from respective property lines set forth and shown for each such water service line and fireline. In addition, the invert elevation at the end of each such stubbed water service line and fireline shall be legibly noted on the as-built drawings.

15.14 FIRE HYDRANTS, VALVES, AND OTHER APPURTENANCES

Fire hydrants, valves, and other appurtenances shall be designed and installed as a necessary and basic part of an extension to the municipal water supply system, and the cost of same shall be borne by the prospective customer, or group of prospective customers, to be provided municipal water service from the water extension involved. The operation, maintenance, repair, enlargement, and replacement responsibilities for such type facilities shall be vested in the persons having ownership and control of the facilities so extended.

15.15 WASTEWATER SERVICE LINES

During the course of constructing an extension to the wastewater system, a wastewater service line shall be stubbed to the property line of each lot and/or parcel of property included in the extension application. All wastewater lines so installed shall be subject to and fully comply with the provisions set forth in Section 16. The cost of installing each such wastewater service line shall be borne by the owner of the property benefitted by the wastewater service line involved. The Public Works Director shall be notified of the date construction is to commence so as to facilitate inspection of construction activities.

All wastewater service lines installed during the course of constructing extensions to the municipal wastewater system shall be individually and appropriately marked in the field in a manner acceptable to the Public Works Director. Also, the specific location of each such wastewater line so installed shall be accurately depicted on the as-built drawings for the extension involved, with the appropriate off-set distances measured from respective property lines set forth and shown for each such wastewater service line. In addition, the invert elevation at the end of each such stubbed wastewater service line shall be legibly noted on the as-built drawings.

15.16 MANHOLES, WASTEWATER PUMPING STATIONS, FORCE MAINS, AND OTHER APPURTENANCES

Manholes, wastewater pumping stations, force mains, and other appurtenances shall be designed and installed as a necessary and basic part of an extension to the municipal wastewater system, and the cost of same shall be borne by the prospective customer, or group of prospective customers, to be provided wastewater service from the wastewater extension involved. The operation, maintenance, repair, enlargement, and replacement responsibilities for such type facilities shall be vested in the persons having owners and control of the facilities so extended.

15.17 RIGHTS-OF-WAY, LICENSES, AND PERMITS

An applicant requesting an extension of the municipal water and/or wastewater system shall at applicant's expense be responsible for securing all rights-of-way, licenses, and

permits that may be required in order to construct, operate, maintain, repair, and replace the facilities to be extended.

Whenever possible extensions of the municipal water and/or wastewater system shall be installed entirely within public rights-of-way. However, if proven to be impractical to do so, and if the City Council's approval is first obtained, extensions may be installed within utility easements granted to the City by the owners of record of the property involved.

Public rights-of-way and utility easements shall be brought to official and final grade prior to or immediately after construction of extensions and shall be a minimum of 20 feet in width. The City may require additional widths where unusual maintenance problems exist.

All utility rights-of-way and easements shall remain open and unobstructed to permit ready access of any vehicles and other equipment needed to operate, maintain, repair, enlarge, and replace facilities situated within said rights-of-way and easements. Installation of surface obstructions within such rights-of-way and easements shall be at the risk of the owners of said obstructions. Replacement of such obstructions that are removed to permit access to municipal water and wastewater system facilities shall not be the responsibility of the City.

All dedicated rights-of-way and utility easements within a subdivision shall be shown and identified on the dedicated plat and on the extension contract drawings. All utility easement agreements shall be subject to the City Attorney's approval, shall meet the City's standards for such type agreements and be in legal form, shall be recorded with the County Clerk and Recorder's office, and shall run with the land. A copy of the final recorded utility easement agreement shall be provided to the City Council prior to granting approval of the plans and specifications or the extension involved.

15.18 FACILITY PLAN

All extensions to the water and wastewater systems shall be designed and constructed in such a manner and in such a way so as to comply with applicable provisions of the City's latest, adopted facility plan for that system. The City shall not grant approval of extensions which are in non-compliance with said facility plan.

15.19 SUBDIVISION EXTENSIONS OF WATER SUPPLY/WASTEWATER FACILITIES

All public water supply, necessary off-site public water and sewer mains, and wastewater system facilities required to serve a subdivision, including connecting and cross-tie water mains, as well as the water and sewer mains in, to, around, and through said subdivision, shall be installed by and at the expense of the applicants requesting an extension of the municipal water supply and wastewater system to serve the subdivision in question. Said applicants shall also extend the municipal water supply and wastewater system to the farthest point or points of their subdivision at their expense.

15.20 INDIVIDUAL EXTENSIONS

Extensions of the municipal water and wastewater supply system to serve a single customer shall be subject to all conditions and requirements set forth in this section. However, in unusual and exceptional cases where the property line of the customer requesting service is determined by the Public Works Director to be an excessive distance from the existing municipal water

supply system, and the cost to be borne by the prospective customer under the provisions of this section is determined by the Public Works Director to be prohibitive, and there is no reasonable prospect of further growth and development in the area, and no water main is needed to provide fire suppression water to the area in question, or for any one of the above reasons, the Public Works Director, with the written concurrence of the City Council, may serve the customer by installing a corporation stop in the public right-of-way.

The customer shall comply with all appropriate provisions set forth in Section 16 when installing the privately-owned water service line to the public water main. In addition, the customer shall not permit others to connect their water lines or receive water service from said customer's privately-owned water service line. Further, in the event the municipal water supply system is later extended to the customer's property, the customer shall at the customer's expense discontinue the use of said customer's privately-owned water service line and shall pay all costs and charges for municipal water service from such extension, the same as if the customer had not previously laid and received municipal water service through a privately-owned water service line. The Public Works Director shall require the customer to waive said customer's right to protest the creation of any future special improvement district which may be created for the purpose of constructing a public water main to serve the area in question, first and before the Public Works Director grants his/her permission to serve the customer's property by means of a privately owned water service line.

15.21 OVERSIZING EXTENSIONS

The City reserves the right to direct a prospective customer, or a group of prospective customers, requesting an extension to the water and/or wastewater system to install larger system facilities than that required to serve the area included in said customer's extension application and/or agreement. Any increase in pipe size up to and including I2-inch pipe shall be borne by the customer. If sufficient funds are available at that time, and the oversized facilities to be constructed qualify as general benefit facilities, the City may, at the City's sole discretion, pay the additional material cost generated by an increase in pipe size over and above 12 inches or the size actually required for the extension. In the event sufficient funds are not available for participation in the extension project by the City, or in the event the oversized facilities fail to qualify as general benefit facilities, the customer shall at his/her expense install all such water and/or wastewater system facilities required under the provisions set forth in this section regarding extensions, including but not limited to Section 15.19.

15.22 STAGED CONSTRUCTION OF EXTENSIONS

Whenever public streets and extensions to the municipal water and wastewater system are proposed to be constructed in stages to serve a new subdivision or other type development, the public sanitary sewers, water mains, fire hydrants, and other municipal and wastewater system facilities shall be extended and installed beyond the proposed paving limits of the public street in question so as to preclude unnecessary excavations in said paved public streets when a future extension is to be constructed. The cost of designing and installing said stubbed-out facilities shall be borne by the prospective customers initiating the extension involved, and said facilities shall be made a part of and constructed with the extension project in question.

15.23 UNDERGROUND UTILITY INFORMATION

MCA 69-4-501 through MCA 69-4-506 set forth certain procedures for obtaining information concerning underground utilities prior to making or beginning any excavation in any public street, alley, utility easement, or right-of-way dedicated to public use. Said sections also set forth penalties for failure to comply with the provisions set forth therein. The engineer designing an extension of the municipal water or wastewater systems and any person contracting to construct such an extension, whether said extension is within or the boundaries of the corporate City limits, shall comply with these State statutes as required by law. A plan of all utilities in the area to be extended shall be submitted to the City by the customer requesting an extension during the application process.

15.24 EXCAVATIONS

Persons opening up, digging into, excavating, or tunneling in any public right-of-way or utility easement for the purpose of constructing extensions or making connections with the water and/or wastewater systems, whether same be situated within or outside the boundaries of the corporate City limits, shall, prior to performing such work, obtain in writing at their expense all necessary approvals, permits, licenses, surety bonds, and/or public liability insurance certificates that may be required by the agency or person having jurisdiction and control over such public right-of-way and utility easements.

Permits for excavating within public rights-of-way under the jurisdiction and control of the City of Laurel may be obtained from the City. Information concerning permits for excavating within public rights-of-way under the jurisdiction and control of the county or the State may be obtained by contacting the county surveyor's office or the highway department, respectively. In any case, streets, sidewalks, park-ways, alleys, and other public property disturbed in the course of the work by a person contracting to construct an extension to the municipal water and/or wastewater systems, or a connection therewith, shall be restored at said person's expense in a manner satisfactory to the public authority having jurisdiction and control over such public property.

Any privately-owned property which may be disturbed and/or damaged by a person contracting to construct extensions to the municipal water and/or wastewater systems or a connection therewith, shall be restored at said contractors expense to a condition equal to or better than the condition existing prior to such construction.

15.25 TRAFFIC CONTROL AND CONSTRUCTION SIGNING

When working within public rights-of-way or utility easements, whether same be situated within or outside the boundaries of the corporate City limits, shall comply with the traffic control and construction signing standards of the agency having control over the right-of-way or utility easements involved. In any case, all excavations for the construction of extensions or making connections with the water and/or wastewater systems shall be adequately guarded with barricades and lights on a continuous basis so as to protect the public from hazard.

15.26 PROFESSIONAL ENGINEER

Pursuant to and in accordance with MCA 18-2-121, all extensions of the water and/or wastewater systems shall be under the direct charge and supervision of a professional

engineer licensed in the State of Montana. The City is prohibited under the provisions of MCA 18-2-122 from accepting any plans and specifications for extensions of the water or wastewater systems unless they bear the seal and signature of such a professional engineer.

15.27 CONTRACT PLANS AND SPECIFICATIONS

The contract plans and specifications for an extension of the water and/or wastewater system shall be approved in writing by the City Council and the State Department of Environmental Quality prior to commencement of any construction of a water and/or wastewater extension. MCA 75-6-112(4) specifically prohibits the construction, alteration, or extension of any system of water supply, water distribution, sewer, drainage, wastewater, or sewage disposal without first submitting necessary maps and plans and specifications to the State Department of Environmental Quality for their advice and approval.

Final construction plans for extensions of the wastewater system shall be engineering design drawings on standard plan-profile sheets. All elevations depicted on the plans shall be based upon United States Geological Survey (USGS) datum. Contract specifications shall be in a format suitable to the City Attorney.

15.28 DESIGN STANDARDS

All extensions of the water and/or wastewater systems shall be designed in compliance with the standards for such work that may be adopted from time to time by the City and the State Department of Environmental Quality.

15.29 MATERIALS AND METHODS OF CONSTRUCTION

The materials and methods of construction used in the installation of extensions to the water and/or wastewater systems, or the making of connections to these systems, shall conform to the requirements of the latest version of the Montana Public Works Standard Specifications and the City of Laurel standards.

15.30 CONSTRUCTION AND FINAL INSPECTION

The professional engineer having direct charge of and supervision over a water and/or wastewater extension project shall provide at his/her expense full-time, on-site inspection during the construction of the extension project so as to ensure that such construction work is being performed in accordance with the approved contract plans and specifications for the project.

15.31 SIZE AND SPACING CRITERIA FOR WATER SYSTEMS

The following minimum size and spacing criteria shall govern the design of extensions to the municipal water supply system:

15.31.1 Main Size. In a high value area a 12-inch diameter water main shall be the minimum standard diameter of public water main installed. An 8-inch diameter water main may be used in a high-value area only where it completes a closed gridiron and where the water main is of short distance and closely interconnected with other mains.

In a residential area an 8-inch diameter water main shall be the minimum standard diameter of public water main installed.

Certain public water mains that are not required to provide water for fire suppression, and which may never be extended, may be reduced in size to meet customer demands provided the written approval of the City is first obtained. If larger public water mains are required to serve a new development, the prospective customer, or group of prospective customers requesting the water extension involved shall install such larger water mains at their expense.

15.31.2 Water Main Valves. Valves shall be situated on public water mains so that the maximum shut-off lengths do not exceed 500 feet in high-value areas and one block, or 800 feet, whichever is less, in residential areas. All such valves so required shall be of the same diameter as the public water mains they are appended to.

15.31.3 Fire Hydrants and Branches. Whenever possible, gridironing of public water mains shall be planned so that not more than one fire hydrant will be installed on a 6-inch diameter water main between intersecting mains, and not more than 2 fire hydrants installed on an 8-inch diameter water main between intersecting mains.

In industrial, warehouse, institutional, shopping center, or other high-value areas within or outside the principal business district, there shall be 1 or 2 fire hydrants at each street intersection, depending upon the character of the area, with intermediate fire hydrants placed so that they are not over 500 feet apart. In general, depending upon the area's characteristics, the average area to be served by each fire hydrant shall be from 80,000 to 90,000 square feet.

In residential areas there shall be 1 fire hydrant installed at each street intersection with intermediate fire hydrants located so that said fire hydrants are spaced not over 500 feet apart. In general, depending upon the area's characteristics, the average area to be served by each fire hydrant shall not exceed 110,000 square feet.

Fire hydrant branches shall have a minimum diameter of 6 inches. In all cases a valve shall be installed on each fire hydrant branch and in no case shall the valve be of smaller diameter than the fire hydrant branch. Branch valves shall be situated not less than 18 inches or more than 24 inches from the branch feeder main.

15.31.4 Dead-ends. Dead-end water mains shall be avoided by looping of all water mains whenever practical.

15.31.5 Blowoffs. A standard fire hydrant shall be installed at the end of each dead-end public water main to facilitate flushing the water main.

15.32 DEPTH OF WATER MAINS AND APPURTENANCES

Public water mains and appurtenances shall be installed in rights-of-way at a depth to prevent freezing during the winter months. The minimum depth of bury for public water mains and appurtenances shall be 6 feet, as measured perpendicularly from the right-of-way surface, or a design grade approved in writing by the Public Works Director, to the top of the public water main. The Public Works Department may permit installation of public water mains and appurtenances at a lesser depth provided special construction methods are utilized to prevent freezing.

15.33 MINIMUM CAPACITY, SIZE, ARRANGEMENT, AND SPACING CRITERIA FOR WASTEWATER SYSTEMS

The following minimum capacity, size, arrangement, and spacing criteria shall govern the design of extensions to the municipal wastewater system:

15.33.1 Capacity of Sewers. Public sanitary sewers and appurtenances shall be designed to accommodate peak hourly flows, including an allowance for infiltration, when flowing one half full.

15.33.2 Per Capita Wastewater Contributions. Per capita wastewater contributions used in the design of new public sanitary sewers and appurtenance shall be as follows:

Average Daily Flow	100 gpcd*
Peak Hourly Flow	400 gpcd
Minimum Daily Flow	30 gpcd

*gpcd = gallons per capita per day

15.33.3 Minimum Size of Sewers. No public sanitary sewers having gravity flow shall be less than 8 inches in diameter.

15.33.4 Slope of Sewers. Public sanitary sewers shall be designed and constructed with slopes that produce mean wastewater velocities at ½ flow depth of not less than 2 feet per second, based on Manning's formula using an "n" value of 0.013. Slopes greater than the minimum set forth herein shall be used in the design of public sanitary sewers whenever possible.

15.33.5 Arrangement of Sewers. Public sanitary sewers shall be arranged in such a manner and in such a way so as to serve by gravity flow the total tributary area of the wastewater extension project in question. The use of wastewater pumping stations to provide wastewater service for said area, or portions thereof, shall be avoided whenever it can be feasibly accomplished.

Municipal wastewater system facilities shall be arranged so that all such facilities are readily accessible for maintenance and repair. In addition, such facilities shall be situated so as to preclude the entrance of surface water into said facilities.

15.33.6 Manhole Location. Unless otherwise approved in advance, manholes shall be installed at the end of each public sanitary sewer; at all changes in grade, size or alignment; at all intersections; and at specified maximum distances. Cleanouts shall not be substituted for manholes nor installed at the end of public sanitary sewers.

15.33.7 Drop Manholes. Drop manholes shall be avoided whenever possible during the design and construction of wastewater extensions. They shall only be used when it is proven impractical to steepen the incoming sewer. Drop manholes permitted by the City shall be constructed with an outside drop connection whenever possible.

15.33.8 Manhole Dimensions and Slopes. Manhole diameters for public sanitary sewers shall be as specified by the City.

15.33.9 Manhole Channels and Benches. The completed channel cross-section installed in manholes on public sanitary sewers shall be U-shaped.

15.33.10 Watertightness of Manholes. Manholes installed on public sanitary sewers shall be of the pre-cast concrete or poured-in-place concrete type. All manholes shall be waterproofed on the exterior when such are to be installed in areas known to have high groundwater tables.

15.33.11 Wastewater Pumping Stations and Force Mains. Wastewater pumping stations and force mains installed during the construction of wastewater extensions shall be as specified by the City.

15.34 DEPTH OF PUBLIC SANITARY SEWERS AND APPURTENANCES

Public sanitary sewers and appurtenances shall be installed at such depths that they can receive by gravity the contributed wastewater flows from the entire tributary area of the wastewater extension involved. Sufficient depth shall also be provided to prevent freezing and backflow of wastewater through building sewers. In addition, consideration must be given to the prevention of undue interference with other underground structures and utilities when determining the depth of public sanitary sewers.

15.35 STANDARD UTILITY SITING

Whenever possible and practical public water supply systems and sanitary sewers constructed in public rights-of-way in new subdivisions shall be situated and installed in such a manner and in such a way so as to conform to the latest Standard Utility Location Plan adopted by the City for such types of right-of-way. Non-standard location of water and sewer lines in public rights-of-way in new subdivisions must be approved in writing by the City prior to their construction.

15.36 POINT OF CONNECTION OF EXTENSION

The location of the point of connection of water and wastewater extensions to the municipal systems shall be as determined by the City. Such determination shall be based upon

findings that reasonable utility standards are followed in fixing the point of connection and that no substantial deterioration of the overall quality of service to existing customers will result from permitting such a connection. In addition, fire suppression water in sufficient quantities, pressure, and reliability to serve the water extension in question shall be considered in determining the location of the point of connection of water extensions to the municipal water supply system.

15.37 CONNECTION TO WATER SUPPLY SYSTEM

During the course of constructing water extensions and/or making connections to the municipal water supply system, taps to public water mains that are presently in service shall be authorized only by representatives of the City. All expenses associated with the making of such taps by City shall be borne by the person requesting the water extension in question.

All other work such as, but not limited to, any traffic control and construction signing work, any excavating work, and any surface restoration work shall be performed by and at the expense of the person installing the water extension in question. Fittings for tapping public water mains and any other materials needed to tap the public water main shall be provided by and at the expense of the person installing the water extension and/or connection in question.

The person installing the water extension shall be responsible for providing safe trench conditions at all times when the employees of the City are making a tap to the public water main. Failure to provide such safe trench conditions shall be cause for immediate refusal by the City to perform any such tapping work.

Persons desiring a tap made to a public water main shall notify the Public Works Department at least 48 hours in advance of when the tap is needed. No taps to a public water main will be made after regular working hours or on Saturdays, Sundays, or City holidays. Persons requesting such taps shall have the public water main uncovered, have the tapping sleeve installed and pressure tested, and be ready for the tap to be made at the time designated by the Public Works Department.

15.38 PROJECT NOTICES AND OTHER CORRESPONDENCE

The professional engineer in charge of a water or wastewater extension project shall submit on a timely basis to the City a copy of the advertisement for bids for the extension project, a copy of the bid summary, a copy of the executed contract documents, a copy of all notices to the installing contractor, a copy of all shop drawing submittals for the project, a copy of all change orders for the project, and a copy of any other pertinent project correspondence between the engineer and the installing contractor.

15.39 TESTING, FLUSHING, AND DISINFECTING EXTENSIONS OF WATER SYSTEM

An extension of the municipal water supply system shall be properly and satisfactorily pressure tested, flushed, and disinfected by the person constructing such an extension in accordance with the approved contract documents for said extension prior to acceptance of the extension in question by the City. All costs of performing such testing, flushing, and disinfecting shall be borne by, and at the expense of, the person constructing the extension involved. The professional engineer in charge of a water extension project shall provide for the inspection and

supervision of all flushing, testing, and disinfection operations of the person constructing the extension in question.

15.40 TESTING AND INSPECTION OF WASTEWATER EXTENSIONS

An extension of the wastewater system shall be properly and satisfactorily tested for infiltration/exfiltration and shall be internally inspected for cleanliness utilizing a closed-circuit television camera in accordance with the approved contract documents for said extension prior to acceptance of the extension in question by the City. All costs of performing such testing and inspection shall be borne by and at the expense of the person constructing the extension involved. The professional engineer in charge of a wastewater extension project shall provide for the inspection and supervision of all infiltration/exfiltration testing, and closed-circuit television monitoring, operations of the person constructing the extension involved.

15.41 AS-BUILT DRAWINGS

Upon completion of construction of an extension to the water or wastewater system, the professional engineer for the project shall submit as-built drawings for said project to the City. The as-built drawings so submitted shall accurately depict all field changes accomplished during the course of construction and shall be certified by the professional engineer as to being an accurate depiction of the location of all facilities, including service lines, installed during the construction phase of the project.

15.42 ACCEPTANCE OF EXTENSIONS BY CITY

After an extension project has been completed and has satisfactorily passed the City's final inspection, the professional engineer in charge of the extension project shall certify in writing that the project has been constructed and completed in conformance with the approved contract documents and is now ready for acceptance by the City. The date of official acceptance shall be established in writing by the City Council and shall be used as it may apply for maintenance guarantees and other extension contract purposes. No service lines connected to the extended facilities shall be activated for customer use nor shall any building construction start until such time as the extension project has been accepted in writing by the Public Works Department.

15.43 PUBLIC CONTRACTOR'S LICENSE REQUIRED

Persons contracting to do any construction work pertaining to the municipal water and wastewater systems shall possess and have on file with the City a valid public contractor's license pursuant to and in accordance with the provisions of MCA Title 11, Section 50, Part 2.

15.44 WARRANTY AND GUARANTEE

Persons who contract to construct extensions to the municipal water and wastewater systems shall, by appropriate performance bond filed with the City, guarantee all materials and equipment furnished and work performed for a period of not less than 1 year from the date of acceptance of the work by the City. Said persons shall warrant and guarantee for a period of not less than one year from the date of acceptance of the work that said work is free from all defects due to faulty materials or workmanship, and said persons shall promptly make such corrections as may be necessary by reason of such defects. In the event the persons performing such work fail to make such repairs, adjustments or other work that may be made

necessary by such defects, the City may make arrangements for the performance of such work by others and charge said persons the cost thereby incurred. In addition to any other penalties, failure by said persons to pay to the City within a reasonable time such charge shall be just cause for the City to suspend or revoke the City business licenses of the persons involved. This express warranty and guarantee shall not be construed to deny the City or any other affected person the right to make claim on any applicable warranty implied by law.

15.45 OPERATING EXISTING VALVES, HYDRANTS, AND APPURTENANCES

Existing water supply system valves, fire hydrants, and other appurtenances shall be operated only by authorized Public Works Department employees during the course of constructing extensions to the municipal water supply system or making connections to the water supply system. It is prohibited for unauthorized persons to operate said valves, fire hydrants, and other appurtenances on the municipal water supply system.

15.46 PROTECTION OF EXISTING WATER SYSTEM

Extended water and sewer lines that are to be connected to existing water and wastewater system facilities during construction of water and sewer extensions shall not be connected to the existing water system until the extended water and sewer lines have satisfactorily passed the required tests and inspections set forth in this section and those set forth in the contract specifications for the extension involved. Under no circumstances shall any groundwater, surface water, mud, sand, rock, or other foreign material be allowed to enter the existing water and wastewater systems during the course of constructing, extensions or making connections to the existing municipal water and wastewater system. Persons installing water or sewer extensions, or making connections to the existing municipal water or wastewater systems, shall become liable to the City for any expense, loss or damage occasioned to the City by reason of their failure to prevent any foreign material from entering the existing municipal water or wastewater system.

15.47 INTERRUPTIONS OF SERVICE

A person constructing an extension to the municipal water or wastewater systems, or making a connection therewith, shall be responsible for notifying existing customers of any interruptions in their service which may result from said person's operations. The specific method of notifying such customers shall be approved by the City first and before the interruptions take place. Any such interruptions shall be held to the shortest possible duration and shall be approved by the City first and before such interruptions are effected.

15.48 FEES AND CHARGES

All fees and charges for work performed by the City in conjunction with extensions to the water and/or wastewater systems shall be paid to the City in accordance with the provisions set forth in Section 8. Any person who considers such fees and/or charges of the City to be unfair, inequitable, or unreasonable may appeal payment of such fees and/or charges as provided for in Section 2.6.

15.49 DAMAGES TO EXISTING SYSTEMS

Persons constructing extensions to the water or wastewater systems, or making connections to said system, shall be liable for any damages to existing system facilities or other public or private property occasioned by their operations.

16 WATER AND WASTEWATER SERVICE LINES, FIRELINES, AND CONNECTIONS

16.1 PERMIT REQUIRED

No unauthorized persons shall uncover, make any connection with or opening into, use, alter, repair, extend, or otherwise disturb any water or wastewater service line, fireline, any connection of a water service line, fireline, or combination thereof with a public water main; any connection of a wastewater service line with a public sanitary sewer; or any appurtenances thereto without first:

16.1.1 Having on file at the City Clerk's office a valid plumbing contractor's license or a public contractors license, however, only persons with a plumbing contractor's license may perform the above work on public property, including connection at the curb stop or property line;

16.1.2 Having on file in the office of the City Clerk a good and sufficient surety bond and certificate of public liability insurance;

16.1.3 Obtaining any required excavation permits for excavating in public rights-of-way;

16.1.4 Paying to the Clerk any applicable connection charges, construction fees, and/or system development fees;

16.1.5 Obtaining a written service line installation permit and paying to the Clerk the appropriate permit fees adopted under Sections 8 and 9; and

16.1.6 Complying with all other local, State, or Federal laws pertaining to

16.1.6.1 The installation of water or wastewater service lines, fireline and appurtenances;

16.1.6.2 The making of connections to public water mains or sanitary sewers;

16.1.6.3 The making of repairs, alterations, or extensions to such facilities; or

16.1.6.4 When appropriate, any work involved in making excavations in public rights-of-way or utility easements.

Public contractors will not be subject to the permit requirements set forth in this section when stubbing-out service lines, firelines, or combinations thereof in conjunction with public construction projects which have been previously approved in writing for construction by the City.

16.2 APPLICATIONS AND FEES

Persons desiring to obtain a service line installation permit shall make application to the City on a special form furnished for this purpose by the City. The permit application shall be supplemented by any plans, specifications, or other information considered pertinent. The appropriate permit and inspection fees adopted under Section 8 shall be paid by the applicant to the Clerk at the time the application for a service line installation permit is filed with the City.

16.3CONNECTION, CONSTRUCTION, AND DEVELOPMENT CHARGES

Any applicable connection charges, construction fees, and/or system development fees assessed against the property to be served pursuant to provisions of ordinances and/or resolutions approved by the City Council shall be paid to the City at the time the service line installation permit application or an application for Building Permit is filed with the City. Such charges are non-transferable and non-refundable.

16.4BOND AND LIABILITY INSURANCE

Persons who contract to make connections to public water mains and sanitary sewers, or to install service lines, firelines, appurtenances, or combinations thereof, or to make repairs, alterations, or extensions to such facilities, shall file with the City Clerk a bond in such amount as deemed appropriate by the City. Said bond shall be in a form approved by the City Attorney and shall indemnify and hold the City harmless from any loss or damage that may directly or indirectly be occasioned by the installation, repair, alteration, or extension of such service lines, appurtenances, firelines, or the connection of same with public utilities; and that he/she will restore the streets, sidewalks and pavements over pipe he/she may lay, and fill all excavations made by him/her so as to leave such streets, sidewalks and pavements in as good condition as he/she found them.

In addition, said persons shall file with the City Clerk a certificate of public liability insurance in an amount acceptable to the City. Said certificate shall be in a form approved by the City Attorney and shall be conditioned to hold the City harmless from any damage or injury whatsoever to any person or property of any description, however owned, by reasons of any work performed in making connections with public water mains and sanitary sewers, installing service lines, appurtenances, or firelines, or making repairs, alterations, or extensions to such facilities. Said persons may furnish a yearly bond and insurance certificate conditioned as herein above set forth.

16.5GUARANTEE

Persons who contract to make connections to public water mains and sanitary sewers or to install service lines, firelines, appurtenances, or combinations thereof, or to make repairs, alterations, or extensions to such facilities, shall guarantee all materials and equipment furnished and work performed for a period of one year from the date of completion of said work. Said persons warrant and guarantee for a period of 1 year from the date of completion of the work that said completed work is free from all defects due to faulty materials or workmanship and such persons shall promptly make such corrections as may be necessary by reason of such defects, including the repairs of any damages to the public utilities resulting from such defects. The City shall give notice of observed defects with reasonable promptness. In the event the persons performing such work should fail to make such repairs, adjustments or other work that may be made necessary by such defects, the City may make arrangements for the performance of such work by others and charge such persons the cost thereby incurred. In addition to any other penalties, failure by said persons to pay to the City within a reasonable period of time such charges shall be just cause for the City to suspend or revoke the City business licenses of the persons involved, This express warranty and guarantee shall not be construed to deny the City or any other affected person the right to make claim on any applicable warranty implied by law.

16.6 INSTALLATION, OWNERSHIP, AND MAINTENANCE

Water and wastewater service lines, appurtenances, and firelines are owned by the owner of the property served. Said owners shall keep their service lines, firelines, and appurtenances in good repair and condition at all times and, in addition to any other penalties, if not repaired within 10 days after receipt of notice by the City to do so, service to the property involved may be discontinued. Except as otherwise provided herein this document, all costs and expenses incidental to the installation of service lines, appurtenances, firelines, or making connections of same with the public utilities, or making repairs, alterations, or extensions to such facilities, shall be borne by the owners of said facilities. Service lines, firelines, and appurtenances are non-transferable and shall run with the property originally served by said facilities.

16.7 UNDERGROUND UTILITY INFORMATION

MCA 69-4-501 through 69-4-506, as amended, sets forth certain procedures for obtaining information concerning underground utilities prior to making or beginning any excavation in any public street, alley, utility easement, or right-of-way dedicated to the public use. Said sections also set forth penalties for failure to comply with the provisions of said State statutes when making connections to public water mains and sanitary sewers or installing service lines, appurtenances, firelines or making repairs, alterations, or extensions to such facilities.

16.8 EXCAVATIONS

Persons opening up, digging into, excavating, or tunneling in any public right-of-way or utility easement for the purpose of making connections to public utilities or to install service lines, firelines, or appurtenances, or to make repairs, alterations, or extensions to such facilities shall prior to performing such work obtain in writing at their expense all necessary approvals, permits, licenses, surety bonds, and/or public liability insurance certificates that may be required by the agency or person having jurisdiction and control over such public rights-of-way or utility easements.

Permits for excavating within public rights-of-way under the jurisdiction and control of the City may be obtained from the City. Information concerning permits for excavating within public rights-of-way under the jurisdiction and control of County and the State may be obtained by contacting the County Surveyor's office and the Montana Department of Transportation, respectively. In any case, streets, sidewalks, park-ways, and any other public property disturbed in the course of the work shall be restored in a manner satisfactory to the public authority having jurisdiction and control over such public property.

16.9 TRAFFIC CONTROL AND CONSTRUCTION SIGNING

When working within public rights-of-way or utility easements, persons making connections to public utilities, or installing service lines, firelines, or appurtenances, or making repairs, alterations, or extensions to such facilities shall comply with the traffic control and construction signing standards of the agency having jurisdiction and control over the rights-of-way and utility easements involved. In any case, all excavations shall be adequately guarded with barricades and lights so as to protect the public from hazard.

16.10 SERVICE LINE LOCATION

Separate and independent water and sewer service lines shall be provided for each individual building. Water and wastewater service lines shall be connected to the public utility main located within the public right-of-way abutting and fronting the property to be served and within the limits of said property's frontage on the right-of-way involved. In addition, whenever possible, the service lines shall be installed perpendicular to the public right-of-way containing the public utility main to be connected with. In any case, the location and arrangement of all service lines shall be approved by the City prior to construction of such facilities.

If a parcel of land does not front a public water main, and/or sanitary sewer then prior to the City's granting a service line installation permit to the owner of such property, said property owner shall at his/her expense extend the public utility to be connected to the required distance in accordance with the provisions of Section 15.

16.11 WATER WELLS/SEPTIC TANKS

Water wells will be allowed within the City or on property served by the City water system for the purposes of irrigation.

Septic systems will not be allowed within the City.

16.12 MULTIPLE BUILDING SERVICE AGREEMENTS

In the event it is determined by the City that it is impractical to construct an independent and separate service line, or fireline to serve each building or a group of buildings, such as mobile home courts, planned unit developments, and large commercial or industrial establishments, which are located on a single parcel of land under ownership by a single entity, then in that event the City may allow more than one separate building to be served by a single service line.

16.13 ABANDONED WATER SERVICE LINES

Property owners desiring to abandon water service lines, firelines, or combinations thereof shall cause same to be disconnected by the City at the property owner's expense at the point of delivery or connection with the public water main. The corporation cock, tapping valve, or service valve at the public water main shall be sealed when same is exposed and the person disconnecting the water service line, fireline, or combination thereof involved has disconnected same. Old water service lines, firelines, or combinations thereof may be used in connection with new buildings only when they are found on examination and/or test to meet all requirements of this section.

16.14 ABANDONED SEWERS

Property owners desiring to abandon wastewater service lines and appurtenances shall at their expense have such facilities discontinued at or near the property line and shall have same properly plugged or capped in a manner approved by the City. Old wastewater service lines may be used in connection with new buildings only when they are found on examination and/or test by the Public Works Director to meet all requirements of this section.

16.15 MINIMUM DIAMETER OF WATER SERVICE LINES

The minimum diameter of water service lines to be installed to serve any property shall be ¾ inch and the minimum diameter of firelines shall be 1¼ inch. Water service lines shall be installed with a minimum number of joints and be of uniform diameter from the public water main in the public right-of-way to the municipal water meter. Firelines shall be of uniform diameter from the public water main in the public right-of-way to the property line of the property to be served. In any case, the diameter of water service lines and firelines shall be subject to the approval of the Public Works Director and shall be based on the criteria stated in Appendix A of the Uniform Plumbing Code.

16.16 SIZE AND SLOPE OF SEWER SERVICES

The size and slope of the wastewater service lines shall be subject to the approval of the City but in no event shall the diameter be less than 4 inches. The slope of the wastewater service line shall not be less 2 percent.

16.17 DEPTH OF WATER LINES

To prevent freezing, water service lines, firelines, or combinations thereof shall be laid 6 feet below the street surface or top of grade. Where existing conditions do not allow minimum cover requirements, engineered insulation may be placed above the waterline to prevent freezing.

16.18 DEPTH OF SEWER SERVICES

Whenever possible, the building sewer shall be brought to the building at an elevation below the basement floor. No building sewer shall be laid parallel to within 3 feet of a weight bearing wall. In all buildings in which any building drain is too low to permit gravity flow to the public sanitary sewer, wastewater carried by drain shall be lifted by an approved means and discharged to the building sewer. Persons installing basements with floor drains should contact the Public Works Department for information concerning the depth of the public sanitary sewer prior to commencing construction of such basements. In addition, it is recommended that users install, as well as periodically inspect and maintain, a one-way valve in their building drain for the purpose of preventing the backing-up of wastewater into their buildings in the event a stoppage occurs in the building sewer and/or the public sanitary sewer serving the user's property.

16.19 MATERIALS AND METHODS OF CONSTRUCTION

The materials and methods of construction used in the installation of water and wastewater service lines, firelines, and appurtenances, their connection with the public water main or sanitary sewer; and the repair, alteration, or extension of such facilities shall all conform to the requirements of the MPWSS. In addition, all joints and connections of the water service line or fireline, including their connection with the public water main, shall be watertight and sustain a pressure of not less than 200 pounds. All joints and connections of the wastewater service line must be gas tight and watertight. Traffic control and construction signing trench excavation, backfilling, compaction, and surface restoration shall all comply with the requirements of the MPWSS and the agency having jurisdiction and control over the rights-of-way and utility easements affected by such work.

16.20 CURB VALVE

A separate and easily accessible curb valve and cast iron curb box meeting the requirements of the MPWSS shall be installed at or near the property line on each water service line, fireline, or combination thereof at the expense of the customer requesting such water service line, fireline, or combination thereof. The specific location and arrangement of the curb valve and curb box on the water service line, fireline, or combination thereof shall be as designated and approved by the City. Customers shall keep their curb valves and curb boxes in good repair and condition at all times, and failure to do so shall be just cause to discontinue water service to the property involved, as provided for under Section 3.8. Furthermore, if the customer fails to repair the curb valve or curb box after being given 30 days written notice of its disrepair, the City may repair, or cause to be repaired, the curb valve and curb box at the customer's expense.

16.21 POINT OF CONNECTION TO PUBLIC WATER MAIN

The point of connection of a water service line, fireline, or combination thereof, with the public water main shall be determined and approved by the Public Works Department prior to making such connection. In the event a water service line, fireline, or combination thereof, has previously been stubbed to the property line of the property to be served, then in that case the connection shall be made to the stubbed-out water service line, fireline, or combination thereof, in order to provide the required service to said property.

In any event, every water service line shall have an approved corporation stop or gate valve installed on the service line at or near its connection with the public water main. The corporation stop or gate valve shall be provided at the customer's expense.

Water mains should be tapped on the top, unless the water main is shallow, in which case tapping on the side is acceptable if approved by the Public Works Director, and in no case at or within 6 inches from the hub.

16.22 POINT OF CONNECTION TO PUBLIC SANITARY SEWER

The connection of the wastewater service line with the public sanitary sewer shall be made at the wye or tee branch installed to service the property involved, if available.

16.23 INSPECTION AND TAPPING NOTIFICATION

Applicants for water and wastewater service line installation permits shall notify the City 48 hours in advance of when the facilities authorized to be installed by the permit are ready for inspection and/or connection to the public utility. Upon such notification, the City shall, whenever possible, schedule the inspection and, if necessary, the tapping of the public utility on or before the next regular working day for the City immediately following such notification. No inspections or taps will be made after regular working hours, on Saturdays, Sundays, or City holidays. Persons requesting an inspection shall be ready to have the inspection at the time designated by the Public Works Department.

16.24 DAMAGE TO PUBLIC WATER AND SEWER MAINS

The person installing water or wastewater service lines, firelines, or appurtenances, or making connections to utility mains, or making repairs, alterations, or extensions to such facilities shall cause to be immediately repaired at his/her expense any damage to the public water and sewer mains occasioned by his/her operations.

16.25 KEEPING SEWERS CLEAN

During the course of his/her operations, a person installing wastewater service lines and appurtenances, or making connections to the public sanitary sewer, or making repairs, alterations or extensions to such facilities shall not allow any ground water, surface water, mud, gravel, sand, rock, septage, or other similar type materials to enter the public sanitary sewer. Any foreign material which accidentally enters the public sanitary sewer shall be immediately removed by such person at his/her expense. In addition, said persons shall become liable to the City for any expense, loss or damage occasioned to the City by reason of his/her failure to prevent foreign material from entering the public sanitary sewer.

16.26 SERVICE LINE STUB-OUTS

Pursuant to and in accordance with the provisions of MCA 7-12-4133, as amended, the City Council hereby requires that connections from the public water main and sanitary sewer to the property line of the adjacent property shall be made prior to the permanent improvement of the streets whereon they are located. The making of such connection on streets already improved, or on unimproved streets, shall be in accordance with all applicable provisions. In case the owners of the property on such streets fail to make such connections prior to commencement of such street improvements, the Public Works Director may cause such connections to be made, and shall assess against the property in front of which said connections are made the entire cost and expense thereof. All assessments levied under the provisions of this section shall be enforced and collected in the same manner as other special assessments provided for in Title 7, Chapter 6, Part, 44, MCA.

16.27 PROTECTIVE DEVICES FOR WATER SYSTEM

When it is deemed by the Public Works Director that such protective devices are necessary to protect another customer's facilities and/or the municipal water supply system, the Public Works Director may require a customer to install, as a condition of continued water service and at the customers expense, an approved expansion tank, pressure reducing valve, backflow prevention device, pressure relief valve, or any other similar type device on customer's water service line at a location designated by the Public Works Director. Customers shall be responsible for keeping such protective devices in good repair and effective operating condition at all times, and failure to do so shall be just cause to discontinue water service to the property involved.

16.28 FIRELINES

Firelines shall be applied for and installed in compliance with the appropriate requirements of this section, and, in addition, they shall comply with the utility's standards of design and construction for firelines.

All firelines which connect to the municipal water supply system shall have approved backflow prevention devices installed on same to prevent backflow into such system. In addition, fireline loops connecting with the municipal water supply system at more than one location shall have approved check valves installed on the fireline loops to prevent circulation of water through customer's firelines into the municipal water supply system.

17 SEPTAGE DISPOSAL

17.1 PROHIBITED DISCHARGE

It is prohibited to discharge septage either directly or indirectly into any municipal wastewater system/storm sewer system, or any appurtenance thereof without paying a septage disposal fee and obtaining a septage disposal permit. Permitted septage disposal shall be performed at locations approved by the Public Works Director.

17.2 APPLICATION AND PERMIT FEE

Licensed septage haulers shall make application for septage disposal permits on a special form furnished by the City. Permits will be issued upon compliance with the provisions of this section and paying the septage disposal permit fee as required under Section 8.

The City may refuse to grant or may revoke a permit for the disposal of septage into the municipal wastewater system to any applicant. Only septage pumped from septic tanks situated within the City of Laurel area and which receive primarily segregated domestic wastes or wastes from sanitary conveniences shall be allowed to be discharged into the municipal wastewater system.

17.3 RECEIVING TICKETS

Septage disposal tickets shall be properly executed in duplicate by every licensed septage hauler. One copy of same shall be filed with the City for each load of septage discharged at the time same is discharged. One copy of the receiving ticket shall be retained by the septage hauler for his/her use and files. As a minimum, the receiving tickets shall provide the following information:

17.3.1 Name. address, and telephone number of septage hauling firm;

17.3.2 Signature of the driver of the septage hauling vehicle;

17.3.3 Point of origin of the septage, including address, name and telephone number of the property owner served by the septic tank involved;

17.3.4 Date septic tank involved was cleaned by septage hauler; and

17.3.5 Approximate amount of septage discharged, in gallons.

17.4 PERMISSION TO DISCHARGE

Discharging of septage at the approved manhole location shall be allowed only under the direction of the Public Works Director. The Public Works Director is authorized to control and/or limit the amount of septage to be discharged during any specific period of time to prevent overloading or detriment to the City's wastewater treatment plant operations. Septage haulers shall obey all traffic regulations while dumping at the approved location. In addition, such haulers shall obey all operational and clean-up regulations posted by the Public Works Director in and around the disposal site.

17.5 INADMISSABLE WASTES

It is unlawful to discharge or cause to be discharged into the wastewater system any industrial wastes; corrosive wastes; explosive mixtures; polluted waters; petroleum oils; mineral oils; non-biodegradable cutting oils; chemical wastes; toxic or poisonous substances; floatable fats, wax, and grease; solid or viscous wastes, such as but not limited to mud, sand or gravel; or any other wastes or substances prohibited from being discharged into the municipal wastewater system by existing City ordinances and regulations, or as same may be lawfully amended from time to time by the City Council.

17.6 SAMPLING AND TESTING OF SEPTAGE

The Public Works Director shall cause the septage discharged by septage haulers to be periodically tested and analyzed for the purpose of determining whether or not the provisions of this section are being complied with. When required by the Public Works Director, septage haulers shall obtain a sample of septage from each load of septage at the time same is discharged. This sample shall be appropriately identified by the septage hauler and delivered to the Public Works Director. All measurements, tests, and analyses of the characteristics of the septage to which reference is made in the City ordinance shall be determined in accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater", published by the American Public Health Association. Sampling methods, durations, and frequencies shall be subject to approval by the Public Works Director.

18 FIRE HYDRANTS

18.1 PUBLIC FIRE HYDRANTS

All public fire hydrants installed in the water service area and within the corporate limits of the City of Laurel, and which are connected directly to public water mains, shall be under the ownership of the utility. Such fire hydrants shall be installed at the expense of the property benefitted by such hydrants by means of either special improvement districts or private contracts, as required under Section 15.14. Location of all hydrants shall be as directed by the City. They shall be kept in reasonable repair by the utility and every such public fire hydrant shall be periodically tested for proper operation by the utility.

All water use from fire hydrants for purposes other than fighting fires or training of fire fighting personnel shall be metered and all costs associated with said use shall be paid for in accordance with Sections 8 and 9.

18.2 OPERATION OF PUBLIC FIRE HYDRANTS

No person, other than a member of the City Fire Department and other authorized City employees, or employees of the utility, shall open or operate any public fire hydrant without permission of the utility.

18.3 RELOCATION OF PUBLIC FIRE HYDRANTS

Fire hydrant installations shall be deemed permanent after they are installed. Requests for the utility to relocate fire hydrants shall be considered only if expenses of relocating the fire hydrants will be borne by the individual or entity requesting the relocation.

18.4 OBSTRUCTING PUBLIC FIRE HYDRANTS

No person shall obstruct access to public fire hydrants by constructing fences or other structures within 3 feet or by piling snow or parking within 15 feet of a hydrant in such a manner as to prevent ready access to the public fire hydrants. In addition, no person shall plant trees, shrubs, bushes, or other plantings in such a manner as to prevent ready access to the public fire hydrants. Further, no person shall change the ground surface level in and around a public fire hydrant so as to render the hydrant inaccessible and/or inoperable. Any person found in violation of this particular regulation shall be given written notice to remove such obstruction at his/her expense and, if such violation is not corrected by the person involved within 10 days from receipt of written notice, the water supply to said person's property shall be turned off by the utility.

18.5 DAMAGES TO PUBLIC FIRE HYDRANTS

Any person damaging or defacing a public fire hydrant shall be responsible to the utility for the repair of such damage.

18.6 PAINTING OF PUBLIC FIRE HYDRANTS

The painting of public fire hydrants shall be accomplished only by employees of the City or individuals authorized to do so by the City. All public fire hydrants shall be painted using the City's standard color scheme.

18.7 PRIVATE FIRE HYDRANTS

Private fire hydrants are owned by the customer. The costs of installing, operating, maintaining, and replacing such hydrants shall be at the expense of the customer. Customer shall pay to the City the rates in accordance with utility's approved rate schedules.

Rules and Regulations Governing Utility Services and Streets for the City of Laurel, Montana

Prepared by:

MORRISON MAIERLE, INC.

Morrison-Maierle, Inc. 2020 Grand Avenue Billings, MT 59102 (406) 656-6000 Fax (406) 656-3432

File Attachments for Item:

2. Ordinance No. O22-03: An Ordinance Amending Certain Chapters Of Title 14 Of The Laurel Municipal Code Relating To The Adoption And Enforcement Of Building Codes For The City Of Laurel As Required By The State Of Montana (PH 9.13.2022)

ORDINANCE NO. 022-03

AN ORDINANCE AMENDING CERTAIN CHAPTERS OF TITLE 14 OF THE LAUREL MUNICIPAL CODE RELATING TO THE ADOPTION AND ENFORCEMENT OF BUILDING CODES FOR THE CITY OF LAUREL AS REQUIRED BY THE STATE OF MONTANA

WHEREAS, the City Council desires to keep the Laurel Municipal Code current by modifying and updating chapters, sections and subsections to address situations and problems within the City and to remain in accordance with Montana law; and

WHEREAS, City Staff prepared, reviewed, and approved the following amendments to the existing Title 14 as noted herein and hereby recommends the same to the City Council for their full approval.

Chapter 14.16 INTERNATIONAL RESIDENTIAL BUILDING CODE, 2021~~18~~ EDITION

14.16.010 Adoption.

A. The City of Laurel hereby adopts by reference pursuant to MCA Section 50-60-301 (1)(a), MCA the International Residential Code, 2021~~18~~ Edition, as modified by the Administrative Rules of Montana (ARM) 24.301.154 (1) through (24) with Appendix Q Tiny Houses, as permitted by ARM 24.301.154 (2) (a), and as required to be adopted by the Department of Labor and Industry, Building and Commercial Measurements Bureau.

B. One full printed copy of the Code shall be available in the offices of the City Planning Department.

C. The International Residential Building Code 2021~~18~~ Edition is made a part of this chapter as fully, and for all intents and purposes, as though set forth herein at length. It shall be known and designated as the "International Residential Building Code" of the City.

(Ord. 05-15 (part), 2005)

(Admin. Order AO15-01,§ 2, 2-24-2015; Ord. No. O20-01, 1-28-2020)

This Ordinance shall become effective thirty (30) days after final passage by the City Council and approved by the Mayor.

Introduced and passed on first reading at a regular meeting of the City Council on the 23rd day of August 2022, upon Motion by Council Member _____.

PASSED and ADOPTED by the Laurel City Council on second reading on the _____ day of _____, 2022, upon Motion by Council Member _____.

APPROVED BY THE MAYOR on the _____ day of _____, 2022.

CITY OF LAUREL

_____
Dave Waggoner, Mayor

ATTEST:

_____
Kelly Strecker, Clerk-Treasurer

APPROVED AS TO FORM:

_____
Michele L. Braukmann, Civil City Attorney

File Attachments for Item:

3. Ordinance - An Ordinance Amending Section 2.20.010 Of The Laurel Municipal Code Relating To The City Court Clerk For The City Of Laurel

ORDINANCE NO. 022-_____

AN ORDINANCE AMENDING SECTION 2.20.010 OF THE LAUREL MUNICIPAL CODE RELATING TO THE CITY COURT CLERK FOR THE CITY OF LAUREL

WHEREAS, the City Council desires to keep the Laurel Municipal Code current by modifying and updating chapters, sections and subsections to address situations and problems within the City and to remain in accordance with Montana law; and

WHEREAS, City Staff prepared, reviewed, and approved the following amendments to the existing LMC § 2.20.010 (City Court Clerk – Office Created) as noted herein and hereby recommends the same to the City Council for their full approval.

2.20.010 Office Ccreated—Duties and Rrequirements.

A. There is created the position ~~office~~ of ~~city~~ Cclerk of Ccourt. The Cclerk of Ccourt shall be ~~appointed by the city judge.~~ hired, supervised, and managed by the City, subject to all terms and conditions of the City Court Clerk employment position.

B. It shall be the duty of the Cclerk of Ccourt to perform all duties as required by law and the Rrules of the Ccity Ccourt.

C. Before entering upon the duties of office, the Cclerk of Ccourt shall take the oath prescribed by Art. III, Section 3 of the Montana Constitution. ~~law for all city officers.~~

~~D. The clerk of court's term of office shall be the same as is provided by law and ordinance for the city judge, and until a successor is appointed.~~

D. The City shall set the salary of the Clerk of Court.

E. The Cclerk of Ccourt may certify any records or documents of the Ccity Ccourt. ~~and may act for the city court as permitted by law or rules of the city court.~~

F. The Clerk of Court will establish, maintain, retain, and administer all Court records by means of paper or electronic filing and storage or both. The Clerk of Court will assist the City Court Judge in the recording and signing of court proceedings as well as general operations of the Court.

~~F. The salary of the clerk of court shall be set by resolution of the city council.~~

~~G. The clerk of court is a part-time position with a thirty-hour work week.~~

(Ord. 890, 1986: Ord. 825 §§ 1—7, 1985: prior code § 2.16.130)

This Ordinance shall become effective thirty (30) days after final passage by the City Council and approved by the Mayor.

Introduced and passed on first reading at a regular meeting of the City Council on the _____ day of _____, 2022, upon Motion by Council Member _____.

PASSED and ADOPTED by the Laurel City Council on second reading on the _____ day of _____, 2022, upon Motion by Council Member _____.

APPROVED BY THE MAYOR on the _____ day of _____, 2022.

CITY OF LAUREL

_____
Dave Waggoner, Mayor

ATTEST:

_____
Kelly Strecker, Clerk-Treasurer

APPROVED AS TO FORM:

_____
Michele L. Braukmann, Civil City Attorney

File Attachments for Item:

4. Ordinance - An Ordinance Amending Chapter 1.01 (Code Adoption) Of The Laurel Municipal Code Relating To The General Provisions

ORDINANCE NO. 022-_____

AN ORDINANCE AMENDING CHAPTER 1.01 (CODE ADOPTION) OF THE LAUREL MUNICIPAL CODE RELATING TO THE GENERAL PROVISIONS

WHEREAS, the City Council desires to keep the Laurel Municipal Code current by modifying and updating chapters, sections and subsections to address situations and problems within the City and to remain in accordance with Montana law; and

WHEREAS, City Staff prepared, reviewed, and approved the following amendments to the existing Chapter 1.01 of the Laurel Municipal Code (Code Adoption) as noted herein and hereby recommends the same to the City Council for their full approval.

1.01.010 Adoption.

There is hereby adopted the Laurel Municipal Code~~, as published by Book Publishing Company, Seattle, Washington~~.

(Ord. 984 § 1, 1991)

1.01.020 ~~Title Citation Reference~~Code Designated and Cited.

This Code shall be known as the "Laurel Municipal Code" and it shall be sufficient to refer to this Code as "the LMC," in any prosecution for the violation of any provision thereof or any proceeding at law or equity. It shall also be sufficient to designate any Ordinance adding to, amending, correcting, or repealing all or any part or portion thereof as an addition to, amendment to, correction of, or repeal of the "Laurel Municipal Code." Further reference may be had to the chapters, articles, divisions, sections and subsections of the "Laurel Municipal Code" and such reference shall apply to that numbered chapter, article, division, section or subsection as it appears in this Code.

~~may be referred to as the Laurel Municipal Code in any prosecution for the violation of any provision thereof of any proceeding at law or equity. Prosecutions for violations of Laurel, Montana's ordinances and actions based thereon shall refer to the Laurel Municipal Code sections as well as the underlying ordinance upon which the prosecution or action is based. Amendments to any ordinance or portions thereof of Laurel, Montana, shall also refer to the Laurel Municipal Code sections under which such ordinances are codified.~~

(Ord. 984 § 2, 1991)

1.01.030 Provisions Cc~~c~~odified.

This code consists of all the ~~regulatory and penal ordinances and certain of the administrative ordinances or~~Ordinances of the City of Laurel, Montana.

(Ord. 984 § 3, 1991)

1.01.040 Ordinances Pp~~p~~assed Pp~~p~~rior to Aa~~a~~doption of the Cc~~c~~ode.

The last Oo~~o~~rdinance included in this Cc~~c~~ode was Ordinance 979, passed August 7, 1990. The following Oo~~o~~rdinances, passed subsequent to Ordinance 979, but prior to adoption of this Cc~~c~~ode, are adopted and made a part of this Cc~~c~~ode: Ordinances 980, 981, 982 and 983, as amended.

(Ord. 984 § 4, 1991)

1.01.050 Reference~~s~~ to Code. ~~applies to all amendments.~~

Whenever a reference is made to this Code as the "Laurel Municipal Code" or any portions thereof, or to any Ordinance of the Cc~~e~~ity of Laurel, Montana, the reference shall apply to all amendments, corrections and additions heretofore, now or hereafter made.

(Ord. 984 § 5, 1991)

1.01.060 ~~Title, chapter and section headings~~Headings.

Chapter, article, division, and section headings contained herein shall not be deemed to govern, limit, modify or in any manner affect the scope, meaning or intent of the provisions of any chapter, article, division, or section hereof. ~~Title, chapter and section headings contained herein shall not be deemed to govern, limit, modify or in any manner affect the scope, meaning or intent of the provisions of any title, chapter or section hereof.~~

(Ord. 984 § 6, 1991)

1.01.070 Reference to Ss~~s~~pecific Oo~~o~~rdinances.

The provisions of this Ceode shall not in any manner affect matters of record which refer to, or are otherwise connected with, Oordinances which are therein specifically designated by number or otherwise, and which are included within the Ceode, but such reference shall be construed to apply to the corresponding provisions contained within this Ceode.

(Ord. 984 § 7, 1991)

1.01.080 Effect of Ceode ~~on past actions and obligations~~.

~~Neither the adoption of this code nor the repeal of amendments of any ordinance or part or portion of any ordinance of the city shall in any manner affect the prosecution for violations of ordinances, which violations were committed prior to the effective date hereof, nor be construed as a waiver of any license, fee or penalty at said effective date due and unpaid under such ordinances, nor be construed as affecting any of the provisions of such ordinances relating to the collection of any such license, fee or penalty, or the penal provisions applicable to any violation thereof, nor to affect the validity of any bond or cash deposit in lieu thereof required to be posted, filed or deposited pursuant to any ordinance and all rights and obligations thereunder appertaining shall continue in full force and effect.~~

A. The provisions of this Code shall not in any manner affect deposits or otherwise any other matters of record which refer to, or otherwise be connected with Ordinances which are therein specifically designated by number or otherwise and which are included within this Code, but such reference shall be construed to apply to the corresponding provisions contained within this Code.

B. Neither the adoption of this Code nor the repeal or amendment hereby of any ordinance or part or portion of any Ordinance of the City shall in any manner affect the prosecution for violations of Ordinances, which violations were committed prior to the effective date hereof, nor be construed as a waiver of any license fee, or penalty at the effective date due and unpaid under such Ordinances, nor be construed as affecting any of the provisions of such Ordinances relating to the collection of any such license, fee or penalty, or the penal provisions applicable to any violation thereof, nor to affect the validity of any bond or cash deposit

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in lieu thereof required to be posted, filed or deposited pursuant to any Ordinance, and all rights and obligations thereunder appertaining shall continue in full force and effect.

(Ord. 984 § 8, 1991)

1.01.090 Effective Dd~~d~~ate.

This ~~code~~Code shall become effective on the date the O~~o~~rdinance adopting this ~~code~~Code as the "Laurel Municipal Code" shall become effective.

(Ord. 984 § 9, 1991)

1.01.100 Severability.

If any section, subsection, sentence, clause, phrase, portion, or part of this Code is for any reason held to be invalid or unconstitutional by any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Code. The City Council hereby declares that it would have adopted this Code and each section, subsection, sentence, clause, phrase, part, or portion thereof, irrespective of the fact that any one or more sections, subsections, clauses, phrases, parts, or portions be declared invalid or unconstitutional.

1.01.110 Continuation of Provisions.

The provisions appearing in this Code, so far as they are the same as those of Ordinances existing at the effective date of this Code, shall be considered as continuation thereof and not as new enactments.

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This Ordinance shall become effective thirty (30) days after final passage by the City Council and approved by the Mayor.

Introduced and passed on first reading at a regular meeting of the City Council on the _____ day of _____, 2022, upon Motion by Council Member _____.

PASSED and ADOPTED by the Laurel City Council on second reading on the _____ day of _____, 2022, upon Motion by Council Member _____.

APPROVED BY THE MAYOR on the _____ day of _____, 2022.

CITY OF LAUREL

_____
Dave Waggoner, Mayor

ATTEST:

_____
Kelly Strecker, Clerk-Treasurer

APPROVED AS TO FORM:

_____
Michele L. Braukmann, Civil City Attorney