

# HARRISVILLE CITY CORPORATION

## *Storm Drain Capital Facilities Plan & Impact Fee Study*



*Prepared by*

**JONES & ASSOCIATES**  
*Consulting Engineers*

**March 2011**



---

**STORM DRAIN CAPITAL  
FACILITIES PLAN  
&  
IMPACT FEE STUDY**

**for**

**HARRISVILLE CITY CORPORATION**

**March 2011**

**Prepared By:**

**Jones and Associates  
Consulting Engineers**

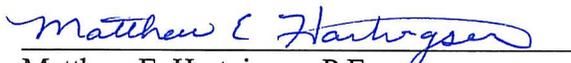
**1716 East 5600 South  
South Ogden, Utah 84403  
(801) 476-9767**

---

**IMPACT FEE CERTIFICATION**

**(Required by Utah Code 11-36-201(6)(b))**

I certify that the following impact fee analysis includes only the costs for qualifying public facilities that are allowed under the Impact Fees Act; that these costs are projected to be incurred or encumbered within six years after each impact fee is paid; that it contains no cost for operation and maintenance of public facilities; that it offsets costs with any known grants or other alternate sources of payment; that it does not include costs for qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is supported by existing residents; and complies in each and every relevant respect with the Impact Fees Act.

  
Matthew E. Hartvigsen, P.E.  
Jones & Associates Consulting Engineers



---

# Table of Contents

## HARRISVILLE CITY

### Storm Drain Capital Facilities Plan & Impact Fee Study

---

1.0	INTRODUCTION	1.1
1.1	Background	1.1
1.2	System Overview	1.1
1.3	Service Area	1.2
1.4	Capital Facilities Plan and Impact Fee Study Summary	1.2
2.0	ERU AND POPULATION ESTIMATES	2.1
2.1	Introduction	2.1
2.2	Growth Rate Estimates	2.1
	Table 1 - ERU Summary	
	Figure 1 - ERU Map	
3.0	COLLECTION SYSTEM	3.1
3.1	Analysis Background and Existing System	3.1
3.2	Capital Facilities Plan	3.1
	Table 2 - Summary of Capital Improvement Projects	
	Figure 2 - Storm Drain Capital Facilities Plan	
4.0	IMPACT FEE	4.1
4.1	Introduction	4.1
4.2	Calculation	4.1
4.2.1	Marginal Impact Fee	4.1
	Equation 1 - Marginal Impact Fee	
4.2.2	Full Recoupment Impact Fee	4.1
	Table 3 - Existing Storm Drain System Value for Impact Fee Calculation	
	Equation 2 - Full Recoupment Impact Fee	
4.2.3	Credit for Bond Debt	4.3
4.2.4	Proportionate Share Analysis	4.3
	Equation 3 - Proportionate Share	
4.3	Impact Fee Summary	4.3
	Table 4 - Impact Fee Summary	
	Table 5 - Recommended Impact Fee By Development Type	
4.3.1	Charging Impact Fees on New Construction	4.5
4.3.2	Charging Impact Fees on Residential Development - Post Construction	4.5
4.3.3	Charging Impact Fees on Commercial Development - Post Construction	4.6
4.4	Spending and Encumbering Impact Fees	4.6
4.5	Hookup Fees	4.7
4.6	Impact Fee Escalation	4.7
APPENDIX A	Capital Facilities Projects Cost Estimate Details	
APPENDIX B	Calculations	
APPENDIX C	Impact Fee Laws	

Introduction

---

# SECTION 1

---

## 1.0 INTRODUCTION

### 1.1 Background

In the 1995 regular session of the Utah State Legislature a Bill was passed which established procedures and requirements for imposing and challenging impact fees in the State of Utah. Because the bill was primarily influenced by homebuilder's associations, real estate interests, and developers, it contained many features that were objected to by municipalities and special service districts throughout the state. Governor Leavitt ultimately vetoed the bill and called a special session of the Utah State Legislature to have the matter reconsidered. During the special session S.B. 4 was approved which was entitled the "Impact Fees Act". The new law is found in Section 11-36 of the Utah Code.

The Act requires jurisdictions, which desire to charge impact fees, to adopt a Capital Facilities Plan (CFP) and perform an Impact Fee Analysis. The analysis must serve as a basis for justification of any impact fees currently in place or to be imposed in the future.

In response to this legislation, Harrisville City has requested that Jones and Associates Consulting Engineers develop a Capital Facilities Plan for their storm drain collection system, and to perform an impact fee analysis based upon the findings of the plan.

This report will not identify projects needed to correct existing problems within the system. According to the Impact Fees Act, impact fees are to be used for expanding existing facilities or constructing new facilities to serve growth. Impact fees cannot be used to correct deficiencies because they are not a consequence of future growth. The deficiencies identified must use other sources of revenue if they are to be corrected.

### 1.2 System Overview

The Harrisville City storm drain system consists of a series of storm drain pipes and detention basins. Storm water runoff is collected at catch points and conveyed through these storm water components to storm drain detention facilities where the outflow rates can be regulated, thus preventing regular flooding during storm events. The storm drain pipes range in size from 8" to 54" in diameter. At the present time there are approximately 68,010 lineal feet of storm drain pipe, 240 catch basins, and 252 manholes within the City. The majority of the existing storm drain lines are 15" , 18" , 24" and 36" diameter pipes.

Main lines which are larger than 18" in diameter are generally those which serve as collector main lines. As a general rule, developer participation is limited to storm drain pipes that are 18" in diameter or smaller with their associated catch basins and manholes. This can be explained by the fact that most subdivisions will require a minimum amount of infrastructure just to service themselves. They are commonly referred to as project improvements.

---

Pipes larger than 18" in diameter and their related boxes and manholes generally serve as major outfall facilities. These improvements are considered to be of greater importance to the complete system and benefit more than just a small area or development. They are commonly referred to as capital improvements and are intended to service areas within the community at large.

Storm drain and outfall lines eventually drain into Dixon Creek, Fourmile Creek, Six Mile Creek and the Western Canal. Harrisville City, Weber County, UDOT and private property owners operate and maintain the storm drain lines within the corporate limits of the City. The capacity of the existing lines was not analyzed as part of this study. There are several future projects that have been identified which will help eliminate problems where existing or future capacity is not sufficient. It is recommended that the City carefully monitor storm drain outfall locations during heavy rainfall events and notify the City Engineer if problems are noticed.

### **1.3 Service Area**

Harrisville City's Annexation Declaration was used to estimate the future service area. The entire area was reviewed with City officials and a likely development plan assumed according to the General Plan Map and other assumed development factors. These growth areas can be seen on Figure 1. It is important to realize that projects identified in the annexation area are schematic in nature and may change as road patterns and development continues to become more clear.

Projects identified in this capital facilities plan and the impact fees calculated in this report are based on the service areas and proposed land uses assumed at this time. Any changes to land use or service area may influence the projects required to provide storm drain utility services within the City. Consequently, we recommend that this report be reviewed as growth occurs and land uses change to ensure that the proposed projects remain valid and their associated costs are fair and reasonable for the calculation of impact fees. We suspect that it may be feasible and prudent to update the report about every five to six years.

### **1.4 Capital Facilities Plan and Impact Fee Study Summary**

This bound document contains a general evaluation of the Harrisville storm drain system and includes the anticipated capital facilities projects needed for the system at build-out. In summary, it appears that Harrisville City's storm drain infrastructure has been adequately constructed and maintained to service the existing residents.

The population at build-out is expected to be somewhere between 8,000 and 9,000. According to City data there are approximately 6,217 residents living in the City. There is currently capacity to service some but not all of the additional 2,000 to 3,000 residents expected from growth. The City may decide to recoup the money that has been spent on excess storm drain capacity needed for growth if they choose. If the City does not wish to recover these costs then a lower impact fee can be adopted.

---

Both fees have been calculated and are discussed in the main body of this report.

New projects have been identified that will need to be addressed during the years leading to build-out. Many future storm drain projects are eligible to be paid for through impact fee monies. The remaining projects are either existing deficiencies or should be paid for by development under standard development requirements. The cost of the capital facilities plan and impact fee study can also be paid for with money collected from impact fees. Projects to correct existing deficiencies cannot be paid for using impact fees.

A new impact fee schedule has been developed based on the cost of the qualifying projects and is included in Section 4. The recommended impact fee is given by a range that represents the minimum and maximum recommended dollar amount that can be assessed to any proposed development as a direct result of their impact on the Harrisville City storm drain system. The lower end of this cost range represents the minimum amount that the City should charge to future development in order to finance just the projects necessary for future growth. The upper end of this cost range represents the maximum allowable amount Harrisville can charge to future development in order to finance all qualified future projects and recover the portion of past project expenses that have added benefit to future growth. Therefore, we recommend that a fee of **\$1,702.81** to **\$2,137.48** be charged for a typical single family residential unit.

**Based on the findings of this report the City Council has decided to adopt a storm water impact fee of \$2,137.48 for a single family residential unit and \$0.71 per square foot of hard surfacing for all other development.**

ERU and Population  
Estimates

---

**SECTION 2**

---

## 2.0 ERU AND POPULATION ESTIMATES

### 2.1 Introduction

Storm drain impact (or runoff) is primarily related to the amount of hard surfacing (or impermeable surface) within a development. Every development will have unique characteristics related to the amount of hard surfacing. In order to avoid the complexity of analyzing the impact of each type of development on the storm drain system a simplified basic unit of impact can be defined for the purposes of comparison. This basic unit is called an Equivalent Residential Unit or ERU. An ERU quantifies the typical impact of one single family residential unit within the system. This is the most common type of development within the City. The amount of storm water runoff generated by a typical residence is related to the amount of its hard surfacing that is connected to the storm drain system. The previous storm drain impact study indicated that this amount is 3,000 square feet. After analyzing many residential properties within the city we have verified that a typical residential property contains approximately 3,000 square feet of impermeable surface, including roadway, that is directly connected to the storm water collection system. The average square footage was estimated by measuring impervious surfaces from aerial photography from a sample of homes in Harrisville City. Calculations can be found in Appendix B. This resultant hard surface area will be used for the purposes of developing the impact fee in this report.

Once defined, an ERU can be applied to various types of developments within the system. Non-residential developments such as commercial and manufacturing sites generally have a higher storm drain impact than single family residential developments. These type of developments typically have a higher percentage impermeable surfacing. As a result, commercial projects generally have higher impact fees for comparable size developments. The hard surface area for existing commercial and other non-residential developments was also measured. Impact from future growth was estimated based on the City's Land Use Map.

The results from all the hard surface measurements and calculations are shown in Figure 1. Rather than giving the actual square footage of hard surface for commercial development we have show the hard surfacing in terms of equivalent residential units (ERU's). The figure contains a summary table of the existing ERU's within the City as well as a projected value for undeveloped property. These existing and projected values will serve as the basis for calculating a new storm drain impact fee.

### 2.2 Growth Rate Estimate

An effort to estimate the future population in Harrisville City year by year and an approximate build-out date has not been made. Population records show that the growth rate has varied greatly over the past two decades. For example, the population from 1990 to 2000 grew at an average rate of 2%. The average growth rate from 2000 to 2010 was 6%. It is expected that with the current economic downturn and the additional restrictions on credit, the future growth rate will be much lower than the rate experienced over the past ten years. However, when the ultimate population is reached we

---

expect that there will be approximately 6,489 storm water ERU's in the City. Table 1 contains a summary of the equivalent residential units for Harrisville City.

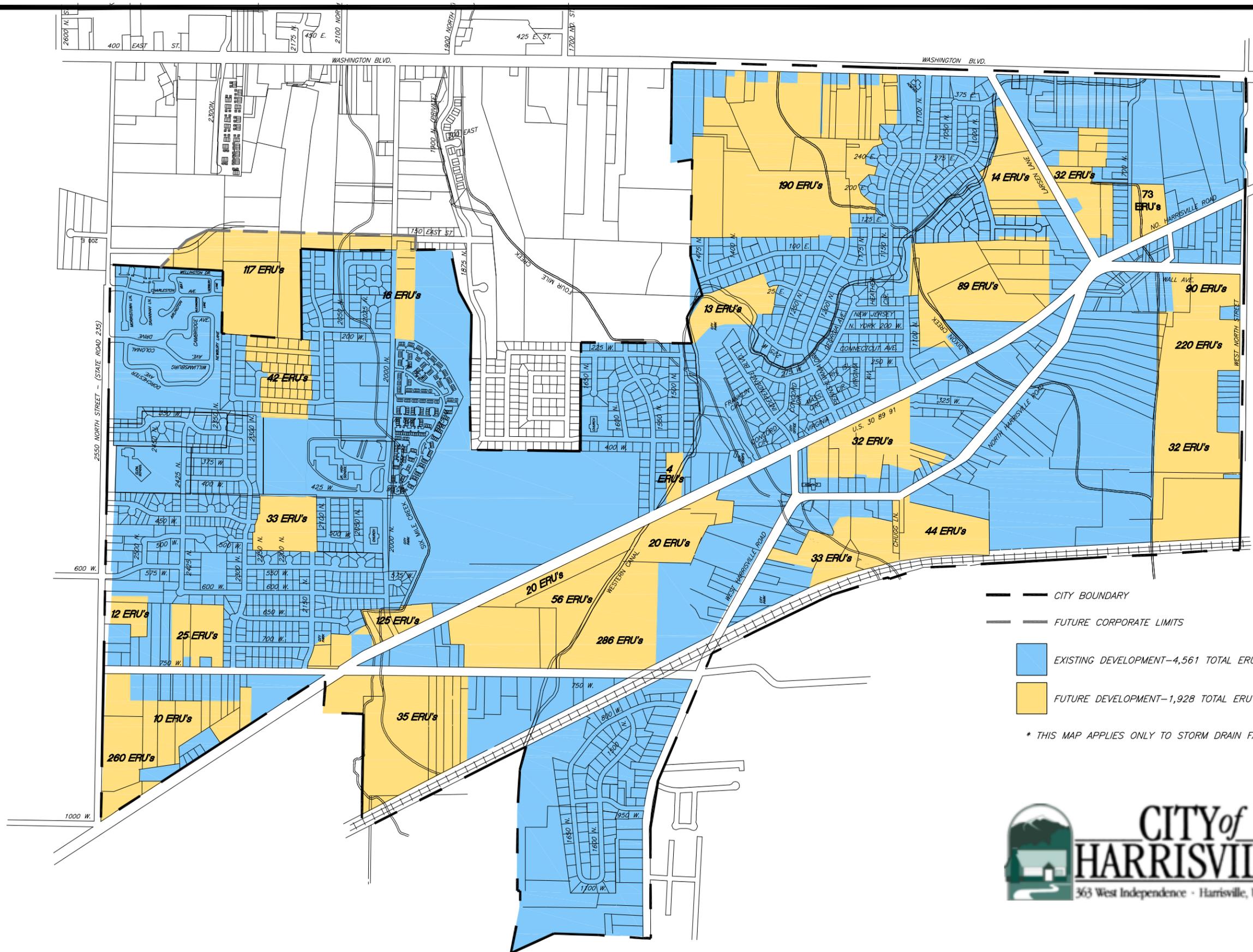
**Table 1**  
**Summary of ERU's**

<b>Development</b>	<b>ERU's</b>
Existing Single Family Residential	1,425
Existing Commercial and Industrial	2,309
Existing Multi-Family Residential	827
Subtotal Existing ERU's	4,561
Future ERU's	1,928
<b>Total</b>	<b>6,489</b>

It is important to understand that in any given time frame the City will collect less impact fee money when the growth rate is lower and more as the growth rate increases. Because of the possibility of wide swings in growth rate it is difficult to know when the projects on the capital facilities plan will need to be built. It is also difficult to estimate how much money in any given year the City will collect from impact fees to fund the projects on the list.

The law requires that the money collected through impact fees be spent within a six year time frame. Many projects on the capital facilities plan are very expensive. During slow growth periods it is possible that the money collected in the six year time frame will not be sufficient to pay for any of the qualified projects on the capital facilities plan. The law requires that impact fees that are not spent or encumbered within the six year time frame be returned. In order to avoid losing these funds the City may have to use money from other sources to pay for some projects. Another option would be to only construct a portion of a project on the list. These methods may be required during time periods of slow growth. In order to ensure that the City complies with the law it must track each impact fee to ensure it is spent or otherwise encumbered within six years or returned to the person who paid it. As we understand it, the term encumbered means that the money is under contract to be spent, not just set aside for future use. Any money borrowed, even from the City itself, may encumber impact fees, even those not yet collected. However, strict accounting practices will need to be followed in order to show how and when the impact fee money is used.

Because of the uncertainty associated with development and growth it may be necessary to review the storm drain projects yearly to determine if there are adequate funds to cover upcoming projects. This will help the City budget appropriately and to make the best use of impact fee money that is collected from new development.



- CITY BOUNDARY
  - FUTURE CORPORATE LIMITS
  - EXISTING DEVELOPMENT—4,561 TOTAL ERU'S
  - FUTURE DEVELOPMENT—1,928 TOTAL ERU'S
- \* THIS MAP APPLIES ONLY TO STORM DRAIN FACILITIES



PROJECT ENGINEER			
DATE	REV.	DATE	APPR.

SCALE:  
1" = 1200'

DESIGNED DDA  
DRAWN DDA  
CHECKED KLJ

**J&A** CONSULTING ENGINEERS  
 1716 East 5600 South  
 South Ogden, Utah 84403 (801) 476-9767

HARRISVILLE CITY CORPORATION  
 2011 STORM DRAIN CAPITAL FACILITIES & IMPACT FEE STUDY  
**EXISTING AND FUTURE LAND DEVELOPMENT**

Collection System

---

**SECTION 3**

---

## 3.0 COLLECTION SYSTEM

### 3.1 Analysis Background and Existing System

The existing system consists of several detention basins connected together with piping. All of the flow is diverted to the major natural drainage channels throughout the City. These channels consists of the 1100 North Channel, Dixon Creek, Four Mile Creek and Six Mile Creek. The Western Irrigation Canal has carried some flow in the past, however, this practice should cease. For the most part, the City is in good condition.

It appears that the storm drain infrastructure can convey most peak flows that the system may experience as long as the basin control structures are managed skillfully. There are some areas where the storm drain lines and manholes are aging and will need to be replaced. Several projects on the Capital Facilities Plan have been identified by the City to address capacity problems that are anticipated in the future. At the present time the City Engineer and City employees are not aware of any capacity problems that have not been addressed by this plan.

### 3.2 Capital Facilities Plan

This report does not attempt to identify when storm drain lines will need to be replaced or to estimate the life expectancy of other system infrastructure. Ongoing facility replacement projects and operation and maintenance projects are not identified or covered by the capital facilities plan. Replacement, operation and maintenance costs should be considered as part of a storm water utility fee study.

To determine what infrastructure would be needed as growth occurs, the storm drain system was analyzed based on land use projections and ground slope information. The future storm drainage system was sized based on typical runoff flows for specific land use types as derived from a simplified and conservative calculation known as the Rational Equation. Storm drain piping is sized based on a 10 year return frequency storm and detention basins are sized based on a 100 year storm.

Cost estimates for the storm drainage projects are included in Appendix A. Table 2 summarizes the projects and their associated costs. The costs are allocated into three areas: 1) Upgrade of Existing Infrastructure to take care of existing deficiencies; 2) Developer Base Cost, meaning the cost to install the minimum facilities that a developer would have to install in an area where the City requires a major facility (also known as project improvements); and 3) Capital Improvement Costs for new development which may be funded or reimbursed through the collection of Impact Fees to support new development. These projects are also referred to as system improvements.

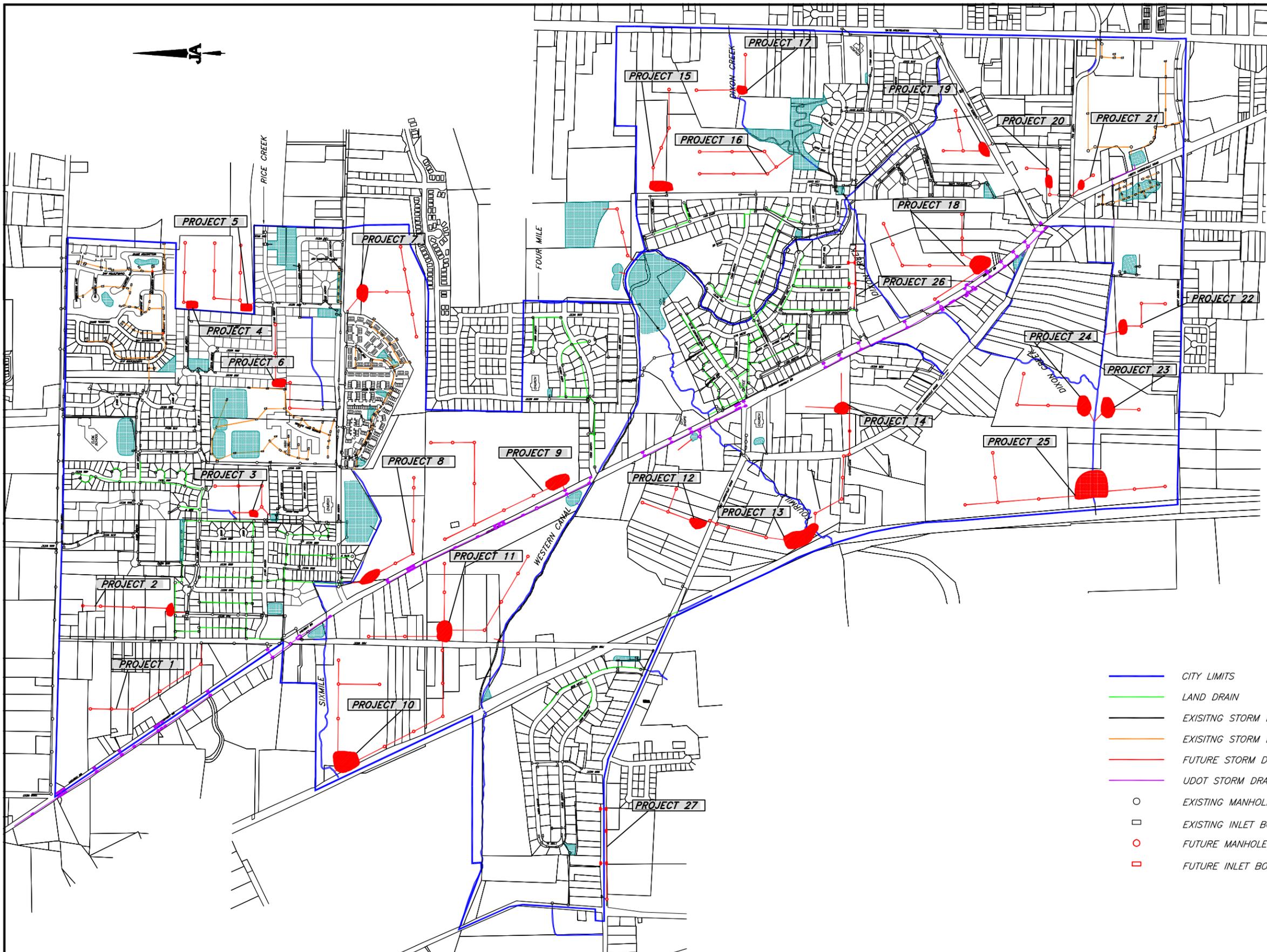
Harrisville City's policy is to purchase property and construct detention basins for large, regional storm water control. The costs for detention basin property acquisition and construction is therefore included in the column for Capital Improvement Costs which will be funded by Impact Fees for new development. The minimum pipe size to be paid by the developers is 18 inches.

---

Capital facilities projects have been identified in Figure 2 called Project Location Map - Storm Drain found on page 3.4. The projects identified are intended to serve as guidance to the City when making storm drain capital improvements.

**Table 2**  
**Summary of Capital Improvement Projects**

No.	Project Location	Developer Participation	Capital Improvement	<i>Total</i>
1	Skeen Property	\$90,275.00		<b><i>\$90,275.00</i></b>
2	700 W: 2350 N to 2500 N	\$189,600.50		<b><i>\$189,600.50</i></b>
3	McCormick - Paradise Ranch	\$181,826.50		<b><i>\$181,826.50</i></b>
4	2300 N: 100 W to 200 W	\$115,270.25		<b><i>\$115,270.25</i></b>
5	North of Hidden Willows West	\$208,650.25		<b><i>\$208,650.25</i></b>
6	Val Barrett Property	\$76,906.25	\$124,297.75	<b><i>\$201,204.00</i></b>
7	Golf Course - East End	\$258,002.50		<b><i>\$258,002.50</i></b>
8	Golf course - Northwest End	\$252,453.75		<b><i>\$252,453.75</i></b>
9	Golf Course - Southwest End	\$379,212.50		<b><i>\$379,212.50</i></b>
10	Farrell - West end by Sixmile	\$183,005.25	\$280,526.40	<b><i>\$463,531.65</i></b>
11	750 W - City Property	\$165,559.75	\$201,117.75	<b><i>\$366,677.50</i></b>
12	Brickyard	\$197,179.00		<b><i>\$197,179.00</i></b>
13	Cabin - Terrace Village Area	\$57,413.75	\$639,152.75	<b><i>\$696,566.50</i></b>
14	Milne - West of HWY 89 & 325 W	\$250,366.50		<b><i>\$250,366.50</i></b>
15	Walters - East of Pheasant Farms	\$66,728.75	\$190,670.00	<b><i>\$257,398.75</i></b>
16	McCormick - NW of Dixon Basin	\$64,434.50	\$3,415.50	<b><i>\$67,850.00</i></b>
17	Washington Blvd. & Dixon Creek	\$51,002.50	\$112,240.00	<b><i>\$163,242.50</i></b>
18	HWY 89: N of Old Stone's Meats	\$128,386.00	\$275,597.50	<b><i>\$403,983.50</i></b>
19	Larsen Ln: Dineen Property	\$53,894.75	\$86,997.50	<b><i>\$140,892.25</i></b>
20	North Harrisville Rd: Satterthwaite	\$30,981.00	\$71,357.50	<b><i>\$102,338.50</i></b>
21	N Harrisville Rd & 700 N: Boyer	\$15,962.00	\$65,837.50	<b><i>\$81,799.50</i></b>
22	5 T Property	\$52,854.00	\$100,843.50	<b><i>\$153,697.50</i></b>
23	Taylor Property South	\$142,807.00		<b><i>\$142,807.00</i></b>
24	Taylor Property North	\$196,420.00		<b><i>\$196,420.00</i></b>
25	Dixon Creek & North Street	\$145,130.00	\$962,239.50	<b><i>\$1,107,369.50</i></b>
26	1100 North & Connecticut Ave		\$75,727.50	<b><i>\$75,727.50</i></b>
27	West Harrisville Rd & 1100 W		\$93,006.25	<b><i>\$93,006.25</i></b>
<b>Totals</b>		<b><i>\$3,554,322.25</i></b>	<b><i>\$3,283,026.90</i></b>	<b><i>\$6,837,349.15</i></b>



PROJECT	100 YR VOLUME	OUTLET
1	REQUIRED IF DEVELOPMENT OCCURS	
2	1.1 AC-FT	2.0 CFS
3	0.5 AC-FT	1.0 CFS
4	0.4 AC-FT	0.8 CFS
5	1.2 AC-FT	1.0 CFS
6	1.4 AC-FT	2.5 CFS
7	REQUIRED IF DEVELOPMENT OCCURS	
8	REQUIRED IF DEVELOPMENT OCCURS	
9	REQUIRED IF DEVELOPMENT OCCURS	
10	2.1 AC-FT	5.4 CFS
11	3.0 AC-FT	4.0 CFS
12	1.7 AC-FT	3.0 CFS
13	10 AC-FT	20 CFS
14	0.7 AC-FT	1.3 CFS
15	2.1 AC-FT	4.0 CFS
16	PIPING PROJECT	
17	1.1 AC-FT	2.0 CFS
18	3.0 AC-FT	4.5 CFS
19	0.6 AC-FT	1.0 CFS
20	0.5 AC-FT	1.0 CFS
21	0.5 AC-FT	0.5 CFS
22	0.8 AC-FT	1.5 CFS
23	0.6 AC-FT	1.2 CFS
24	0.8 AC-FT	1.4 CFS
25	15 AC-FT	20 CFS
26	PIPING PROJECT	
27	PIPING PROJECT	

**LEGEND**

- CITY LIMITS
- LAND DRAIN
- EXISTING STORM DRAIN
- EXISTING STORM DRAIN (PRIVATE)
- FUTURE STORM DRAIN
- UDOT STORM DRAIN
- EXISTING MANHOLE
- EXISTING INLET BOX
- FUTURE MANHOLE
- FUTURE INLET BOX
- OPEN CHANNEL DRAINAGE
- EXISTING DETENTION BASIN
- FUTURE DETENTION BASIN



PROJECT ENGINEER	REV.	DATE	APPR.
DATE			

SCALE:  
1" = 1200'

DESIGNED MEH  
DRAWN SLS  
CHECKED MEH

**J&A CONSULTING ENGINEERS**

1716 East 5600 South  
South Ogden, Utah 84403 (801) 476-9767

HARRISVILLE CITY CORPORATION  
2011 STORM DRAIN CAPITAL FACILITIES & IMPACT FEE STUDY

**CAPITAL FACILITIES PROJECTS**

Impact Fee

---

**SECTION 4**

---

## 4.0 IMPACT FEE

### 4.1 Introduction

The impact fee is given by a dollar range. The lower end of the range is the Marginal Impact Fee. This portion of the fee represents the minimum amount necessary for the new connections to completely pay for the capital improvement (system) projects. These are the projects that are necessary to accommodate the extra demand put on the system by the new connections. The Full Recoupment Impact Fee represents the amount that new connections must pay to buy into current oversizing in the current storm drain system and to pay for the capital improvement projects. This calculated fee is compared with a Proportionate Share amount. The Proportionate Share Analysis calculates the amount per ERU that existing connections have paid into the current system. The Proportionate Share is compared with the Full Recoupment Impact Fee and the smaller of the two amounts is the maximum allowable impact fee. This is a requirement of the law that prevents future growth from carrying a greater burden than past growth has paid for system improvements.

### 4.2 Calculation

#### 4.2.1 Marginal Impact Fee

The marginal impact fee is calculated by summing the capital improvement projects and dividing by the undeveloped ERU's (i.e.: Total future ERU's less existing ERU's). The capital improvement project costs are located in Table 2. Only the *Capital Improvement* column from this table may be used in the calculation of the Marginal Impact Fee. In the Marginal Impact Fee, there is no cost recovery of existing over sizing in the system.

#### Equation 1

#### Marginal Impact Fee

$$\frac{\text{Capital Improvement Projects}}{\text{Undeveloped ERU's}} = \frac{\$3,283,026.90}{1,928} = \$1,702.81$$

With 3,000 square feet of hard surface per ERU, this calculates to be \$0.568 / square foot of hard surface for the Marginal Impact Fee.

#### 4.2.2 Full Recoupment Impact Fee

The Full Recoupment Impact Fee is calculated by estimating the value of the entire storm drain system at build-out and dividing by total future ERU's. The estimate does not include values for 18" local storm drain lines and below. These are not considered to have any oversizing value in the system and only have a local benefit. Engineering judgement was used to determine which lines qualify as collector or trunk lines. The local lines are not

considered to have value to the overall system and only have a local benefit. Future local lines constructed to serve new developments are also not considered. The future storm drain system will also include the value of the planned capital improvements. The total cost of the future improvements is summarized in Table 2. The existing system value must be divided between those lines that make up the Harrisville City collection network of piping and those that make up the smaller local system of 18" and smaller pipes . That division of value is shown in Table 3.

**Table 3  
Existing Storm Drain System Value for Impact Fee Calculation**

No	Description	Quantity	Pipe % by Length	Unit	Unit Price	Total
1	8" storm drain pipe (not included)	1,300	1.9%	lf		
2	10" storm drain pipe (not included)	67	0.1%	lf		
3	12" storm drain pipe (not included)	2,610	3.8%	lf		
4	15" storm drain pipe (not included)	11,947	17.6%	lf		
5	18" storm drain pipe (not included)	17,196	25.3%	lf		
6	21" storm drain pipe	2,835	4.2%	lf	\$40	\$113,400
7	24" storm drain pipe	11,369	16.7%	lf	\$42	\$477,498
8	27" storm drain pipe	1,423	2.1%	lf	\$52	\$73,996
9	30" storm drain pipe	6,566	9.7%	lf	\$60	\$393,960
10	36" storm drain pipe	11,870	17.5%	lf	\$72	\$854,640
11	42" storm drain pipe	120	0.2%	lf	\$120	\$14,400
12	48" storm drain pipe	54	0.1%	lf	\$150	\$8,100
13	54" storm drain pipe	653	1.0%	lf	\$180	\$117,540
14	Single grate catch basins	240		Ea	\$2,000	\$480,000
15	Manhole/Cleanout (252 manholes, 129 are system improvements).	129		Ea	\$3,000	\$387,000
16	Detention: (15 total basins)	156.07		Ac-ft	\$20,000	\$4,682,100
17	Inlet/outlet structure	16		Ea	\$15,000	\$240,000
18	Land	35.07		Ac	\$78,000	\$2,735,460
<b>TOTAL</b>						<b>\$10,578,094</b>

NOTE: It is assumed that the pipes 18" in diameter or less were put in by Developers and not by the City. Only the improvements that service the community at large are considered above.

---

**Equation 2**  
**Full Recoupment Impact Fee**

$$\frac{2010 \text{ Collection System Value} + \text{Capital Improvements}}{\text{Total Future ERU's}} =$$

$$\frac{\$10,578,094 + \$3,283,026.90}{6,489} = \$2,137.48$$

With 3,000 square feet of hard surface per ERU, this calculates to be \$0.712 / square foot of hard surface for the Full Recoupment Impact Fee.

**4.2.3 Credit for Bond Debt**

The City currently has no debt on the storm drain system. If there was debt this amount would be used in calculating the proportionate share amount in section 4.2.4.

**4.2.4 Proportionate Share Analysis**

New connections cannot be charged more than the existing connections have contributed to the existing system. This amount represents the largest dollar amount chargeable in the storm drain impact fee.

**Equation 3**  
**Proportionate Share**

$$\frac{2010 \text{ Collection System Value} - \text{Bond Debt}}{\text{Existing ERU's}} =$$

$$\frac{\$10,578,094 - \$0}{4,561} = \$2,319.25$$

With 3,000 square feet of hard surface per average ERU, this calculates to be \$0.773 / square foot of hard surface paid by the existing residents.

---

### 4.3 Impact Fee Summary

As stated at the beginning of this report, the Marginal Impact Fee represents the amount necessary for the new connections to completely pay for future capital improvement projects. These are the projects that are necessary to accommodate the extra demand put on the system by the new connections. The Full Recoupment Impact Fee represents the amount that new connections must pay to buy into current oversizing in the current storm drain system and to pay for the capital improvement projects. The Proportionate Share Analysis indicates that future users will not pay more than the past users have already paid. This indicates that the maximum allowable fee can be the full recoupment amount. The fees are summarized below.

**Table 4**  
**Impact Fee Summary**

	Impact Fee Per ERU	Impact Fee Per Square Foot
Marginal Impact Fee	\$1,702.81	\$0.568
Full Recoupment Impact Fee	\$2,137.48	\$0.712
Proportionate Share Analysis	\$2,319.25	\$0.773

The Impact Fee charged for the storm drain system must not exceed the Full Recoupment Impact Fee or the Proportionate Share Analysis, whichever is less. Since the Proportionate Share Analysis figure is greater than the Full Recoupment Impact Fee, the allowable Impact Fee for the storm drain system is as follows:

**Minimum (Marginal) Impact Fee**                      **\$1,702.81 per ERU or \$0.568 / s.f.**  
**Maximum (Full Recoupment) Impact Fee**        **\$2,137.48 per ERU or \$0.712 / s.f.**

The Impact Fee that is actually charged to a typical residential connection can be any amount so long as it does not exceed \$2,137.48 per ERU or \$0.712 per square foot as justified by the full recoupment amount. The difference between the marginal and full recoupment impact fee is often referred to as the buy-in value. This is the portion of the existing improvements that benefits future growth.

**The City has decided to adopt an impact fee equal to the Full Recoupment Fee or \$2,137.48.** In order to simplify the building permit process for residential uses we recommend that the City not calculate hard surfacing for each lot. Storm water impact fees for commercial users and all others would be calculated on an individual basis based on the amount of hard surface square footage at a fee rate of \$0.712 per square foot for all areas of the City. The following table summarizes the recommended fee breakdown assuming the Full Recoupment Impact Fee is adopted by the City.

**Table 5**  
**Recommended Impact Fee By Development Type**

Lot Size or Land Use Description	Estimated Directly Connected Impervious Area (square feet)	Maximum Fee**
All Single Family Residential Lots*	3,000	\$2,137.48
Unique Residential - Condominiums, Town homes, Apartments, TOD, etc. per square foot of impervious area		\$0.71
Manufacturing / Commercial (including office and retail) per square foot of impervious area		\$0.71

\* The average square footage was estimated by calculating impervious surfaces from aerial photography of homes in various locations in the City.

\*\* The maximum fee has been rounded down so as not to exceed the maximum allowable fee per ERU.

**4.3.1 Charging Impact Fees on New Construction**

The impact fee assessed to a development or construction activity should be proportionate to the effect it has upon the City’s infrastructure. The foregoing analysis and summary are based on typical developments that follow common construction practices. Adjustments, up or down, in the fee charged should be allowed to reflect the actual impact on the system.

By law, standard impact fees can be adjusted at the time the fee is charged to respond to unusual circumstances and specific cases; or a request for a prompt and individualized impact fee review for the development activity of the state, a school district, or a charter school. Adopted impact fees should include a provision that permits an adjustment to the amount of impact fee charged based upon studies and data submitted by the developer and allows a developer to receive a credit or proportionate reimbursement if the developer dedicates land for a system improvement, builds and dedicates some or all of a system improvement, or dedicates a public facility that the City and the developer agree will reduce the need for a system improvement. The City may also include a provision that provides an impact fee exemption for development activity attributable to low income housing.

Impact fees collected cannot be used to fix existing deficiencies or raise the level of service within the system. Impact fees cannot be collected for areas of redevelopment except that portion of the development that exceeds the previous impact.

**4.3.2 Charging Impact Fees on Residential Development - Post Construction**

Some communities have found that it takes too much effort to calculate the hard surface area of each residential lot at the time of construction in order to calculate a storm water impact fee. Some of the communities that do make the effort have found that builders and home

---

owners do not include all the hard surfacing on the application in order to save money when taking out the original building permit. When additional permits are taken out it can be difficult to track what hard surfacing has been assessed to a property. From the home owner's perspective it can feel like they are being penalized for improving their property. Because of these challenges most cities have elected to charge residential impact fees based on the impact of a typical home rather than on a square foot basis.

The impact fee calculated in this study is based on the average impact of a single family residence. The contribution that a single family residence makes to the storm drain system was calculated by sampling residential construction in various parts of the city. Any given new residential construction site may have slightly more or less impact on the system than what has been assumed to be typical. Consequently the City has decided not to charge additional storm water impact fees to a typical residential lot when additional hard surfacing is added subsequent to the original building permit. These additional hard surfaces may include additions, parking pads, patios, sport courts or accessory buildings.

#### **4.3.3 Charging Impact Fees on Commercial Development - Post Construction**

Because commercial sites are assessed a storm water impact fee on a square foot basis we recommend that additional hard surfacing or expansion be charged even after the initial construction. For sites that are redeveloped, the fee should be calculated based on the increase in hard surfacing when compared to the previous hard surfacing. This is allowed under the current rules. We do not recommend credits for redevelopment that reduces the hard surface area because the associated infrastructure will already have been constructed and paid for.

#### **4.4 Spending and Encumbering Impact Fees**

According to state code the City must spend (or somehow commit to spend) impact fees within six years of being collected. To ensure that this happens, the law mandates that the impact fee analysis "includes only the costs for qualifying public facilities that are projected to be incurred or encumbered within six years after each impact fee is paid" (Title 11-36-201-6(b)). The impact fee adopted by the City must be collected and spent (or encumbered) within the six year horizon as required by the law or refunded to the individual who paid the fee. The intent of the law as we understand it is to ensure that impact fees are put to use (encumbered) within a reasonable time frame and used for projects needed specifically for growth. This practice will also help those paying impact fees feel the satisfaction of seeing the fees put to beneficial use or be given the opportunity to use the facilities which they are paying for.

The use of bonds or loans for qualifying projects is a safe way to encumber impact fees. Currently Harrisville City does not have any debt on the storm drain system. If there was debt that was acquired to provide excess capacity in the system the City could use impact fees to pay that debt.

---

The process of collecting and expending impact fees will be complicated by the new law because each impact fee will need to be spent within the six year time frame. Additional book-keeping procedures will likely be needed to show that the impact fees have been spent or encumbered before they essentially "expire". Currently the City does not have the option of using debt payments to encumber the impact fees collected. Projects should be constructed in a way to continually encumber fees before they must be returned.

#### **4.5 Hookup Fees**

It is also possible for Harrisville City to assess a fee associated with the actual connection, inspections and administrative fees of the storm drain hookup. These items do not fit under the scope of the impact fee and would need to be assessed as a hookup fee. The Impact fees Act Section 11-36-102 defines 'Hookup fees" as:

*"(6)...reasonable fees, not in excess of the approximate average costs to the political subdivision, for services proved for and directly attributable to the connection to utility services, including gas, water, sewer, power, or other municipal, country or independent special district utility services."*

It is advisable for the City to re-evaluate and update their hookup fees with the adoption of the new impact fees.

#### **4.6 Impact Fee Escalation**

The above impact fee should be escalated on an annual basis. This escalation factor should be taken from the Engineering News Record showing the inflation (deflation) for the past year based on Building Cost Index. The entire report should also be reviewed to check for any major changes that may have occurred. These changes may include but not be limited to changes to land use, changes in service area, unexpected deficiencies in the system, etc.

Capital Facilities Projects  
Detail

---

# Appendix A

---

**Harrisville City - Storm Drainage Master Plan**

Project No.: 1

Location: Skeen Property &amp; US 89

Description: Storm Drain Pipe

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 18" R.C.P. CI III	1350	LF	\$45.00	\$60,750.00
2	Manhole/Cleanout	6	Ea	\$2,750.00	\$16,500.00
3	Connect to existing storm drain line	1	Ea	\$1,250.00	\$1,250.00
<b>SUBTOTAL</b>					<b>\$78,500.00</b>
<b>15%± Contingency and Engineering</b>					<b>\$11,775.00</b>
<b>TOTAL</b>					<b>\$90,275.00</b>

**DEVELOPER'S ESTIMATED COST:**

1	Furnish & Install 18" R.C.P. CI-III	1350	LF	\$45.00	\$60,750.00
2	Manhole/Cleanout	6	Ea	\$2,750.00	\$16,500.00
3	Connect to existing storm drain line	1	Ea	\$1,250.00	\$1,250.00
15%±Contingencies and Engineering					\$11,775.00
TOTAL DEVELOPER'S COST (Portion of above Total)					\$90,275.00
DIFFERENCE(New Development)					\$0.00

**Harrisville City - Storm Drainage Master Plan**

Project No.: 2

Location: Property - South at 2550 N. East to 750 W.

Description: Storm Drainage and Detention

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 18" R.C.P. CI III	530	LF	\$45.00	\$23,850.00
2	Furnish & Install 15" R.C.P. CI III	560	LF	\$42.00	\$23,520.00
3	Manhole/Cleanout	3	Ea	\$2,750.00	\$8,250.00
4	Construct detention basin	1.10	Aft	\$40,000.00	\$44,000.00
5	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
6	Property Acquisition	0.5	Ac	\$80,000.00	\$40,000.00
7	Connect to existing storm drain line	1	EA	\$1,250.00	\$1,250.00
<b>SUBTOTAL</b>					<b>\$164,870.00</b>
<b>15%± Contingency and Engineering</b>					<b>\$24,730.50</b>
<b>TOTAL</b>					<b>\$189,600.50</b>

## DEVELOPER'S ESTIMATED COST:

1	Furnish & Install 18" R.C.P. CI III	530	LF	\$45.00	\$23,850.00
2	Furnish & Install 15" R.C.P. CI III	560	LF	\$42.00	\$23,520.00
3	Manhole/Cleanout	3	Ea	\$2,750.00	\$8,250.00
4	Construct detention basin	1.10	Aft	\$40,000.00	\$44,000.00
5	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
6	Property Acquisition	0.5	Ac	\$80,000.00	\$40,000.00
7	Connect to existing storm drain line	1	EA	\$1,250.00	\$1,250.00

15%±Contingencies and Engineering \$24,730.50

TOTAL DEVELOPER'S COST (Portion of above Total) \$189,600.50

DIFFERENCE(New Development) \$0.00

---

**Harrisville City - Storm Drainage Master Plan**

Project No.: 3

Location: McCormick's - Paradise Ranch

Description: Storm Drainage and detention

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 18" R.C.P. CI III	440	LF	\$45.00	\$19,800.00
2	Furnish & Install 15" R.C.P. CI III	680	LF	\$42.00	\$28,560.00
3	Manhole/Cleanout	5	Ea	\$2,750.00	\$13,750.00
4	Construct detention basin	0.5	Aft	\$40,000.00	\$20,000.00
5	Construct inlet/outlet structure	3	Ea	\$12,000.00	\$36,000.00
6	Property Acquisition	0.5	Ac	\$80,000.00	\$40,000.00
				<b>SUBTOTAL</b>	<b>\$158,110.00</b>
				<b>15%± Contingency and Engineering</b>	<b>\$23,716.50</b>
				<b>TOTAL</b>	<b>\$181,826.50</b>

## DEVELOPER'S ESTIMATED COST:

1	Furnish & Install 18" R.C.P. CI III	440	LF	\$45.00	\$19,800.00
2	Furnish & Install 15" R.C.P. CI III	680	LF	\$42.00	\$28,560.00
3	Manhole/Cleanout	5	Ea	\$2,750.00	\$13,750.00
4	Construct detention basin	0.5	Aft	\$40,000.00	\$20,000.00
5	Construct inlet/outlet structure	3	Ea	\$12,000.00	\$36,000.00
6	Property Acquisition	0.5	Ac	\$80,000.00	\$40,000.00

15%±Contingencies and Engineering \$23,716.50

TOTAL DEVELOPER'S COST (Portion of above Total) \$181,826.50

DIFFERENCE(New Development) \$0.00

**Harrisville City - Storm Drainage Master Plan**

Project No.: 4

Location: McCormick's - East to W.F. #2

Description: Storm Drainage and detention

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 18" R.C.P. CI III	375	LF	\$45.00	\$16,875.00
2	Furnish & Install 15" R.C.P. CI III	330	LF	\$42.00	\$13,860.00
3	Manhole/Cleanout	3	Ea	\$2,750.00	\$8,250.00
4	Construct detention basin	0.4	Aft	\$40,000.00	\$16,000.00
5	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
6	Property Acquisition	0.25	Ac	\$80,000.00	\$20,000.00
7	Connect to existing storm drain line	1	Ea	\$1,250.00	\$1,250.00
<b>SUBTOTAL</b>					<b>\$100,235.00</b>
<b>15%± Contingency and Engineering</b>					<b>\$15,035.25</b>
<b>TOTAL</b>					<b>\$115,270.25</b>

## DEVELOPER'S ESTIMATED COST:

1	Furnish & Install 18" R.C.P. CI III	375	LF	\$45.00	\$16,875.00
2	Furnish & Install 15" R.C.P. CI III	330	LF	\$42.00	\$13,860.00
3	Manhole/Cleanout	3	Ea	\$2,750.00	\$8,250.00
4	Construct detention basin	0.4	Aft	\$40,000.00	\$16,000.00
5	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
6	Property Acquisition	0.25	Ac	\$80,000.00	\$20,000.00
7	Connect to existing storm drain line	1	Ea	\$1,250.00	\$1,250.00
15%±Contingencies and Engineering					\$15,035.25
TOTAL DEVELOPER'S COST (Portion of above Total)					\$115,270.25
DIFFERENCE(New Development)					\$0.00

---

**Harrisville City - Storm Drainage Master Plan**

Project No.: 5

Location: North at Hidden Willows West

Description: Storm Drainage and detention

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 24" R.C.P. CI III	325	LF	\$56.00	\$18,200.00
2	Furnish & Install 18" R.C.P. CI III	605	LF	\$45.00	\$27,225.00
3	Furnish & Install 15" R.C.P. CI III	655	LF	\$42.00	\$27,510.00
4	Manhole/Cleanout	6	Ea	\$2,750.00	\$16,500.00
5	Construct detention basin	1.2	Aft	\$40,000.00	\$48,000.00
6	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
7	Property Acquisition	.25	Ac	\$80,000.00	\$20,000.00
<b>SUBTOTAL</b>					<b>\$181,435.00</b>
<b>15%± Contingency and Engineering</b>					<b>\$27,215.25</b>
<b>TOTAL</b>					<b>\$208,650.25</b>

**DEVELOPER'S ESTIMATED COST:**

1	Furnish & Install 24" R.C.P. CI III	325	LF	\$56.00	\$18,200.00
2	Furnish & Install 18" R.C.P. CI III	605	LF	\$45.00	\$27,225.00
3	Furnish & Install 15" R.C.P. CI III	655	LF	\$42.00	\$27,510.00
4	Manhole/Cleanout	6	Ea	\$2,750.00	\$16,500.00
5	Construct detention basin	1.2	Aft	\$40,000.00	\$48,000.00
6	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
7	Property Acquisition	.25	Ac	\$80,000.00	\$20,000.00

15%±Contingencies and Engineering \$27,215.25

TOTAL DEVELOPER'S COST (Portion of above Total) \$208,650.25

DIFFERENCE(New Development) \$0.00

---

**Harrisville City - Storm Drainage Master Plan**

Project No.: 6

Location: Val Barrett Property

Description: Storm Drainage and detention

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 21" R.C.P. CI III	315	LF	\$54.00	\$17,010.00
2	Furnish & Install 18" R.C.P. CI III	320	LF	\$45.00	\$14,400.00
3	Furnish & Install 15" R.C.P. CI III	650	LF	\$42.00	\$27,300.00
4	Manhole/Cleanout	4	Ea	\$2,750.00	\$11,000.00
5	Construct detention basin	1.4	Aft	\$40,000.00	\$56,000.00
6	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
7	Property Acquisition	0.30	Ac	\$80,000.00	\$24,000.00
8	Connect to existing storm drain line	1	Ea	\$1,250.00	\$1,250.00
<b>SUBTOTAL</b>					<b>\$174,960.00</b>
<b>15%± Contingency and Engineering</b>					<b>\$26,244.00</b>
<b>TOTAL</b>					<b>\$201,204.00</b>

**DEVELOPER'S ESTIMATED COST:**

1	Furnish & Install 18" R.C.P. CI III	635	LF	\$45.00	\$28,575.00
2	Furnish & Install 15" R.C.P. CI III	650	LF	\$42.00	\$27,300.00
3	Manhole/Cleanout	4	Ea	\$2,750.00	\$11,000.00
15%±Contingencies and Engineering					\$10,031.25
TOTAL DEVELOPER'S COST (Portion of above Total)					\$76,906.25
DIFFERENCE(New Development)					\$124,297.75

---

**Harrisville City - Storm Drainage Master Plan**

Project No: 7

Location: Golf Course East End

Description: Storm Drainage and detention

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 18" R.C.P. CI III	1640	LF	\$45.00	\$73,800.00
2	Manhole/Cleanout	6	Ea	\$2,750.00	\$16,500.00
3	Construct detention basin	1.5	Aft	\$40,000.00	\$60,000.00
4	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
5	Property Acquisition	0.5	Ac	\$80,000.00	\$48,800.00
6	Connect to existing storm drain line	1	Ea	\$1,250.00	\$1,250.00
<b>SUBTOTAL</b>					<b>\$224,350.00</b>
<b>15%± Contingency and Engineering</b>					<b>\$33,652.50</b>
<b>TOTAL</b>					<b>\$258,002.50</b>

**DEVELOPER'S ESTIMATED COST:**

1	Furnish & Install 18" R.C.P. CI III	1640	LF	\$45.00	\$73,800.00
2	Manhole/Cleanout	6	Ea	\$2,750.00	\$16,500.00
3	Construct detention basin	1.5	Aft	\$40,000.00	\$60,000.00
4	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
5	Property Acquisition	0.5	Ac	\$80,000.00	\$48,800.00
6	Connect to existing storm drain line	1	Ea	\$1,250.00	\$1,250.00
15%±Contingencies and Engineering					\$33,652.50
TOTAL DEVELOPER'S COST (Portion of above Total)					\$258,002.50
DIFFERENCE(New Development)					\$0.00

---

**Harrisville City - Storm Drainage Master Plan**

Project No.: 8

Location: Golf Course Northwest End

Description: Storm Drainage and detention

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 18" R.C.P. CI III	1345	LF	\$45.00	\$60,525.00
2	Manhole/Cleanout	5	Ea	\$2,750.00	\$13,750.00
3	Construct detention basin	1.8	Aft	\$40,000.00	\$72,000.00
4	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
5	Property Acquisition	0.6	Ac	\$80,000.00	\$48,000.00
6	Connect to existing storm drain line	1	Ea	\$1,250.00	\$1,250.00
				<b>SUBTOTAL</b>	<b>\$219,525.00</b>
				<b>15%± Contingency and Engineering</b>	<b>\$32,928.75</b>
				<b>TOTAL</b>	<b>\$252,453.75</b>

## DEVELOPER'S ESTIMATED COST:

1	Furnish & Install 18" R.C.P. CI III	1345	LF	\$45.00	\$60,525.00
2	Manhole/Cleanout	5	Ea	\$2,750.00	\$13,750.00
3	Construct detention basin	1.8	Aft	\$40,000.00	\$72,000.00
4	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
5	Property Acquisition	0.6	Ac	\$80,000.00	\$48,000.00
6	Connect to existing storm drain line	1	Ea	\$1,250.00	\$1,250.00
				15%±Contingencies and Engineering	\$32,928.75
				TOTAL DEVELOPER'S COST (Portion of above Total)	\$252,453.75
				DIFFERENCE(New Development)	\$0.00

---

**Harrisville City - Storm Drainage Master Plan**

Project No.: 9

Location: Golf Course West End (Middle)

Description: Storm Drainage and detention

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 18" R.C.P. CI III	2750	LF	\$45.00	\$123,750.00
2	Manhole/Cleanout	8	Ea	\$2,750.00	\$22,000.00
3	Construct detention basin	2.4	Aft	\$40,000.00	\$96,000.00
4	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
5	Property Acquisition	0.8	Ac	\$80,000.00	\$64,000.00
				<b>SUBTOTAL</b>	<b>\$329,750.00</b>
				<b>15%± Contingency and Engineering</b>	<b>\$49,462.50</b>
				<b>TOTAL</b>	<b>\$379,212.50</b>

## DEVELOPER'S ESTIMATED COST:

1	Furnish & Install 18" R.C.P. CI III	2750	LF	\$45.00	\$123,750.00
2	Manhole/Cleanout	8	Ea	\$2,750.00	\$22,000.00
3	Construct detention basin	2.4	Aft	\$40,000.00	\$96,000.00
4	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
5	Property Acquisition	0.8	Ac	\$80,000.00	\$64,000.00
				15%±Contingencies and Engineering	\$49,462.50
				TOTAL DEVELOPER'S COST (Portion of above Total)	\$379,212.50
				DIFFERENCE(New Development)	\$0.00

---

**Harrisville City - Storm Drainage Master Plan**

Project No.: 10

Location: Bottom at Farrell Property on Sixmile

Description: Storm Drainage and detention

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 24" R.C.P. CI III	340	LF	\$56.00	\$29,376.00
2	Furnish & Install 21" R.C.P. CI III	740	LF	\$54.00	\$39,960.00
3	Furnish & Install 18" R.C.P. CI III	1225	LF	\$45.00	\$55,125.00
4	Furnish & Install 15" R.C.P. CI III	730	LF	\$42.00	\$30,660.00
5	Manhole/Cleanout	9	Ea	\$2,750.00	\$24,750.00
6	Construct detention basin	2.1	Ac-ft	\$40,000.00	\$84,000.00
7	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
8	Property Acquisition	1.44	Ac	\$80,000.00	\$115,200.00
				<b>SUBTOTAL</b>	<b>\$403,071.00</b>
				<b>15%± Contingency and Engineering</b>	<b>\$60,460.65</b>
				<b>TOTAL</b>	<b>\$463,531.65</b>

**DEVELOPER'S ESTIMATED COST**

1	Furnish & Install 18" R.C.P. CI III	2305	LF	\$45.00	\$103,725.00
2	Furnish & Install 15" R.C.P. CI III	730	LF	\$42.00	\$30,660.00
3	Manhole/Cleanout	9	EA	\$2,750.00	\$24,750.00
				15%±Contingencies and Engineering	\$23,870.25
				<b>TOTAL DEVELOPER'S COST (Portion of above Total)</b>	<b>\$183,005.25</b>
				<b>DIFFERENCE(New Development)</b>	<b>\$280,526.40</b>

---

**Harrisville City - Storm Drainage Master Plan**

Project No.: 11

Location: City Property on 750 W.

Description: Storm Drainage and Detention

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 21" R.C.P. CI III	765	LF	\$54.00	\$41,310.00
2	Furnish & Install 18" R.C.P. CI III	1110	LF	\$45.00	\$49,950.00
3	Furnish & Install 15" R.C.P. CI III	895	LF	\$42.00	\$37,590.00
4	Manhole/Cleanout	8	EA	\$2,750.00	\$22,000.00
5	Construct detention basin	3.0	Aft	\$40,000.00	\$120,000.00
6	Construct inlet/outlet structure	4	EA	\$12,000.00	\$48,000.00
<b>SUBTOTAL</b>					<b>\$318,850.00</b>
<b>15%± Contingency and Engineering</b>					<b>\$47,827.50</b>
<b>TOTAL</b>					<b>\$366,677.50</b>

**DEVELOPER'S ESTIMATED COST**

1	Furnish & Install 18" R.C.P. CI III	1875	LF	\$45.00	\$84,375.00
2	Furnish & Install 15" R.C.P. CI III	895	LF	\$42.00	\$37,590.00
3	Manhole/Cleanout	8	EA	\$2,750.00	\$22,000.00
15% ± Contingencies and Engineering					\$21,594.75
TOTAL DEVELOPER'S COST (Portion of above total)					\$165,559.75
DIFFERENCE (New Development)					\$201,117.75

**Harrisville City - Storm Drainage Master Plan**

Project No.: 12

Location: Brickyard

Description: Storm Drainage and detention

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 21" R.C.P. CI-III	270	LF	\$54.00	\$14,580.00
2	Furnish & Install 18" R.C.P. CI-III	300	LF	\$45.00	\$13,500.00
3	Furnish & Install 15" R.C.P. CI-III	265	LF	\$42.00	\$11,130.00
4	Manhole/Cleanout	3	Ea	\$2,750.00	\$8,250.00
5	Construct detention basin	1.7	Aft	\$40,000.00	\$68,000.00
6	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
7	Property Acquisition	0.40	Ac	\$80,000.00	\$32,000.00
<b>SUBTOTAL</b>					<b>\$171,460.00</b>
<b>15%± Contingency and Engineering</b>					<b>\$25,719.00</b>
<b>TOTAL</b>					<b>\$197,179.00</b>

**DEVELOPER'S ESTIMATED COST**

1	Furnish & Install 21" R.C.P. CI-III	270	LF	\$54.00	\$14,580.00
2	Furnish & Install 18" R.C.P. CI-III	300	LF	\$45.00	\$13,500.00
3	Furnish & Install 15" R.C.P. CI-III	265	LF	\$42.00	\$11,130.00
4	Manhole/Cleanout	3	Ea	\$2,750.00	\$8,250.00
5	Construct detention basin	1.7	Aft	\$40,000.00	\$68,000.00
6	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
7	Property Acquisition	0.40	Ac	\$80,000.00	\$32,000.00

15% ± Contingencies and Engineering \$25,719.00

TOTAL DEVELOPER'S COST (Portion of above total) \$197,179.00

DIFFERENCE (New Development) \$0.00

---

**Harrisville City - Storm Drainage Master Plan**

Project No.: 13

Location: Cabin / Terrace Village Area

Description: Storm Drainage and detention

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 21" R.C.P. CI-III	865	LF	\$54.00	\$46,710.00
2	Manhole/Cleanout	4	Ea	\$2,750.00	\$11,000.00
3	Construct detention basin	10	Aft	\$40,000.00	\$400,000.00
4	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
5	Property Acquisition	1.55	Ac	\$80,000.00	\$124,000.00
<b>SUBTOTAL</b>					<b>\$605,710.00</b>
<b>15%± Contingency and Engineering</b>					<b>\$90,856.50</b>
<b>TOTAL</b>					<b>\$696,566.50</b>

## DEVELOPER'S ESTIMATED COST

1	Furnish & Install 18" R.C.P. CI III	865	LF	\$45.00	\$38,925.00
2	Manhole/Cleanout	4	EA	\$2,750.00	\$11,000.00

15% ± Contingencies and Engineering \$7,488.75

TOTAL DEVELOPER'S COST (Portion of above total) \$57,413.75

DIFFERENCE (New Development) \$639,152.75

**Harrisville City - Storm Drainage Master Plan**

Project No.: 14

Location: Milne Property West at US 89 North of 325 W.

Description: Storm Drainage and detention

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 21" R.C.P. CI-III	450	LF	\$54.00	\$24,300.00
2	Furnish & Install 18" R.C.P. CI-III	460	LF	\$45.00	\$20,700.00
3	Furnish & Install 15" R.C.P. CI-III	1330	LF	\$42.00	\$55,860.00
4	Manhole/Cleanout	7	Ea	\$2,750.00	\$19,250.00
5	Construct detention basin	0.7	Aft	\$40,000.00	\$28,000.00
6	Construct inlet/outlet structure	3	Ea	\$12,000.00	\$36,000.00
7	Property Acquisition	0.42	Ac	\$80,000.00	\$33,600.00
<b>SUBTOTAL</b>					<b>\$217,710.00</b>
<b>15%± Contingency and Engineering</b>					<b>\$32,656.50</b>
<b>TOTAL</b>					<b>\$250,366.50</b>

**DEVELOPER'S ESTIMATED COST**

1	Furnish & Install 21" R.C.P. CI-III	450	LF	\$54.00	\$24,300.00
2	Furnish & Install 18" R.C.P. CI-III	460	LF	\$45.00	\$20,700.00
3	Furnish & Install 15" R.C.P. CI-III	1330	LF	\$42.00	\$55,860.00
4	Manhole/Cleanout	7	Ea	\$2,750.00	\$19,250.00
5	Construct detention basin	0.7	Aft	\$40,000.00	\$28,000.00
6	Construct inlet/outlet structure	3	Ea	\$12,000.00	\$36,000.00
7	Property Acquisition	0.42	Ac	\$80,000.00	\$33,600.00

15% ± Contingencies and Engineering \$32,656.50

TOTAL DEVELOPER'S COST (Portion of above total) \$250,366.50

DIFFERENCE (New Development) \$0.00

---

**Harrisville City - Storm Drainage Master Plan**

Project No.: 15

Location: Bottom at Walters Property East of Pheasant Farms  
North End

Description: Storm Drainage and detention

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 24" R.C.P. CI-III	155	LF	\$56.00	\$8,680.00
2	Furnish & Install 21" R.C.P. CI-III	455	LF	\$54.00	\$24,570.00
3	Furnish & Install 18" R.C.P. CI-III	435	LF	\$45.00	\$19,575.00
4	Manhole/Cleanout	4	Ea	\$2,750.00	\$11,000.00
5	Construct detention basin	2.1	Aft	\$40,000.00	\$84,000.00
6	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
7	Property Acquisition	0.65	Ac	\$80,000.00	\$52,000.00
<b>SUBTOTAL</b>					<b>\$223,825.00</b>
<b>15%± Contingency and Engineering</b>					<b>\$33,573.75</b>
<b>TOTAL</b>					<b>\$257,398.75</b>

**DEVELOPER'S ESTIMATED COST**

1	Furnish & Install 18" R.C.P. CI III	1045	LF	\$45.00	\$47,025.00
2	Manhole/Cleanout	4	EA	\$2,750.00	\$11,000.00

15% ± Contingencies and Engineering \$8,703.75

TOTAL DEVELOPER'S COST (Portion of above total) \$66,728.75

DIFFERENCE (New Development) \$190,670.00

---

**Harrisville City - Storm Drainage Master Plan**

Project No.: 16

Location: McCormick Property Into Dixon Creek Basin

Description: Storm Drain Pipes

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 24" R.C.P. CI-III	270	LF	\$56.00	\$15,120.00
2	Furnish & Install 18" R.C.P. CI-III	300	LF	\$45.00	\$13,500.00
3	Furnish & Install 15" R.C.P. CI-III	265	LF	\$42.00	\$11,130.00
4	Manhole/Cleanout	7	Ea	\$2,750.00	\$19,250.00
<b>SUBTOTAL</b>					<b>\$59,000.00</b>
<b>15%± Contingency and Engineering</b>					<b>\$8,850.00</b>
<b>TOTAL</b>					<b>\$67,850.00</b>

**DEVELOPER'S ESTIMATED COST**

1	Furnish & Install 18" R.C.P. CI III	570	LF	\$45.00	\$25,650.00
2	Furnish & Install 15" R.C.P. CI III	265	LF	\$42.00	\$11,130.00
3	Manhole/Cleanout	7	EA	\$2,750.00	\$19,250.00

15% ± Contingencies and Engineering      \$8,404.50

TOTAL DEVELOPER'S COST (Portion of above total)      \$64,434.50

DIFFERENCE (New Development)      \$3,415.50

---

**Harrisville City - Storm Drainage Master Plan**

Project No.: 17

Location: Dixon Creek Below Washington

Description: Storm Drainage and detention

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 15" R.C.P. CI-III	925	LF	\$42.00	\$38,850.00
2	Manhole/Cleanout	2	Ea	\$2,750.00	\$5,500.00
3	Construct detention basin	1.1	Aft	\$40,000.00	\$44,000.00
4	Construct inlet/outlet structure	3	Ea	\$12,000.00	\$36,000.00
5	Property Acquisition	0.22	Ac	\$80,000.00	\$17,600.00
				<b>SUBTOTAL</b>	<b>\$141,950.00</b>
				<b>15%± Contingency and Engineering</b>	<b>\$21,292.50</b>
				<b>TOTAL</b>	<b>\$163,242.50</b>

## DEVELOPER'S ESTIMATED COST

1	Furnish & Install 15" R.C.P. CI III	925	LF	\$42.00	\$38,850.00
2	Manhole/Cleanout	2	EA	\$2,750.00	\$5,500.00
				15% ± Contingencies and Engineering	\$6,652.50
				TOTAL DEVELOPER'S COST (Portion of above total)	\$51,002.50
				DIFFERENCE (New Development)	\$112,240.00

---

**Harrisville City - Storm Drainage Master Plan**

Project No.: 18

Location: North of Old Stone's Meats and US 89

Description: Storm Drainage and detention

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 18" R.C.P. CI-III	760	LF	\$45.00	\$34,200.00
2	Furnish & Install 15" R.C.P. CI-III	1320	LF	\$42.00	\$55,440.00
3	Manhole/Cleanout	8	Ea	\$2,750.00	\$22,000.00
4	Construct detention basin	3.0	Aft	\$40,000.00	\$120,000.00
5	Construct inlet/outlet structure	4	Ea	\$12,000.00	\$48,000.00
6	Property Acquisition	0.88	Ac	\$80,000.00	\$70,400.00
7	Connect to existing storm drain line	1	Ea	\$1,250.00	\$1,250.00
<b>SUBTOTAL</b>					<b>\$351,290.00</b>
<b>15%± Contingency and Engineering</b>					<b>\$52,693.50</b>
<b>TOTAL</b>					<b>\$403,983.50</b>

**DEVELOPER'S ESTIMATED COST**

1	Furnish & Install 18" R.C.P. CI III	760	LF	\$45.00	\$34,200.00
2	Furnish & Install 15" R.C.P. CI III	1320	LF	\$42.00	\$55,440.00
3	Manhole/Cleanout	8	EA	\$2,750.00	\$22,000.00
15% ± Contingencies and Engineering					\$16,746.00
TOTAL DEVELOPER'S COST (Portion of above total)					\$128,386.00
DIFFERENCE (New Development)					\$275,597.50

---

**Harrisville City - Storm Drainage Master Plan**

Project No.: 19

Location: Dineen Property

Description: Storm Drainage and detention

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 18" R.C.P. CI-III	195	LF	\$45.00	\$8,775.00
2	Furnish & Install 15" R.C.P. CI-III	645	LF	\$42.00	\$27,090.00
3	Manhole/Cleanout	4	Ea	\$2,750.00	\$11,000.00
4	Construct detention basin	0.6	Aft	\$40,000.00	\$24,000.00
5	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
6	Property Acquisition	0.33	Ac	\$80,000.00	\$26,400.00
7	Connect to existing storm drain line	1	Ea	\$1,250.00	\$1,250.00
<b>SUBTOTAL</b>					<b>\$122,515.00</b>
<b>15%± Contingency and Engineering</b>					<b>\$18,377.25</b>
<b>TOTAL</b>					<b>\$140,892.25</b>

**DEVELOPER'S ESTIMATED COST**

1	Furnish & Install 18" R.C.P. CI III	195	LF	\$45.00	\$8,775.00
2	Furnish & Install 15" R.C.P. CI III	645	LF	\$42.00	\$27,090.00
3	Manhole/Cleanout	4	EA	\$2,750.00	\$11,000.00
15% ± Contingencies and Engineering					\$7,029.75
TOTAL DEVELOPER'S COST (Portion of above total)					\$53,894.75
DIFFERENCE (New Development)					\$86,997.50

---

**Harrisville City - Storm Drainage Master Plan**

Project No.: 20

Location: Satterthwaite Property

Description: Storm Drainage and detention

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 15" R.C.P. CI-III	445	LF	\$42.00	\$18,690.00
2	Manhole/Cleanout	3	Ea	\$2,750.00	\$8,250.00
3	Construct detention basin	0.5	Aft	\$40,000.00	\$20,000.00
4	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
5	Property Acquisition	0.21	Ac	\$80,000.00	\$16,800.00
6	Connect to existing storm drain line	1	Ea	\$1,250.00	\$1,250.00
				<b>SUBTOTAL</b>	<b>\$88,990.00</b>
				<b>15%± Contingency and Engineering</b>	<b>\$13,348.50</b>
				<b>TOTAL</b>	<b>\$102,338.50</b>

**DEVELOPER'S ESTIMATED COST**

1	Furnish & Install 15" R.C.P. CI III	445	LF	\$42.00	\$18,690.00
2	Manhole/Cleanout	3	EA	\$2,750.00	\$8,250.00
				15% ± Contingencies and Engineering	\$4,041.00
				TOTAL DEVELOPER'S COST (Portion of above total)	\$30,981.00
				DIFFERENCE (New Development)	\$71,357.50

---

**Harrisville City - Storm Drainage Master Plan**

Project No.: 21

Location: Northwest Corner of Boyer Property

Description: Storm Drainage and detention

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 15" R.C.P. CI-III	265	LF	\$42.00	\$11,130.00
2	Manhole/Cleanout	1	Ea	\$2,750.00	\$2,750.00
3	Construct detention basin	0.5	Aft	\$40,000.00	\$20,000.00
4	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
5	Property Acquisition	0.15	Ac	\$80,000.00	\$12,000.00
6	Connect to existing storm drain line	1	Ea	\$1,250.00	\$1,250.00
				<b>SUBTOTAL</b>	<b>\$71,130.00</b>
				<b>15%± Contingency and Engineering</b>	<b>\$10,669.50</b>
				<b>TOTAL</b>	<b>\$81,799.50</b>

**DEVELOPER'S ESTIMATED COST**

1	Furnish & Install 15" R.C.P. CI III	265	LF	\$42.00	\$11,130.00
2	Manhole/Cleanout	1	EA	\$2,750.00	\$2,750.00
				15% ± Contingencies and Engineering	\$2,082.00
				<b>TOTAL DEVELOPER'S COST (Portion of above total)</b>	<b>\$15,962.00</b>
				<b>DIFFERENCE (New Development)</b>	<b>\$65,837.50</b>

---

**Harrisville City - Storm Drainage Master Plan**

Project No.: 22

Location: 5T Property

Description: Storm Drainage and detention

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 21" R.C.P. CI-III	410	LF	\$54.00	\$22,140.00
2	Furnish & Install 18" R.C.P. CI-III	260	LF	\$45.00	\$11,700.00
3	Furnish & Install 15" R.C.P. CI-III	180	LF	\$42.00	\$7,560.00
4	Manhole/Cleanout	3	Ea	\$2,750.00	\$8,250.00
5	Construct detention basin	0.8	Aft	\$40,000.00	\$32,000.00
6	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
7	Property Acquisition	0.35	Ac	\$80,000.00	\$28,000.00
<b>SUBTOTAL</b>					<b>\$133,650.00</b>
<b>15%± Contingency and Engineering</b>					<b>\$20,047.50</b>
<b>TOTAL</b>					<b>\$153,697.50</b>

**DEVELOPER'S ESTIMATED COST**

1	Furnish & Install 18" R.C.P. CI III	670	LF	\$45.00	\$30,150.00
2	Furnish & Install 15" R.C.P. CI III	180	LF	\$42.00	\$7,560.00
3	Manhole/Cleanout	3	EA	\$2,750.00	\$8,250.00
15% ± Contingencies and Engineering					\$6,894.00
TOTAL DEVELOPER'S COST (Portion of above total)					\$52,854.00
DIFFERENCE (New Development)					\$100,843.50

---

**Harrisville City - Storm Drainage Master Plan**

Project No.: 23

Location: Taylor Property

Description: Storm Drainage and detention

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 15" R.C.P. CI-III	415	LF	\$42.00	\$17,430.00
2	Manhole/Cleanout	1	Ea	\$2,750.00	\$2,750.00
3	Construct detention basin	0.6	Aft	\$40,000.00	\$24,000.00
4	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
5	Property Acquisition	0.70	Ac	\$80,000.00	\$56,000.00
<b>SUBTOTAL</b>					<b>\$124,180.00</b>
<b>15%± Contingency and Engineering</b>					<b>\$18,627.00</b>
<b>TOTAL</b>					<b>\$142,807.00</b>

## DEVELOPER'S ESTIMATED COST

1	Furnish & Install 15" R.C.P. CI-III	415	LF	\$42.00	\$17,430.00
2	Manhole/Cleanout	1	Ea	\$2,750.00	\$2,750.00
3	Construct detention basin	0.6	Aft	\$40,000.00	\$24,000.00
4	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
5	Property Acquisition	0.70	Ac	\$80,000.00	\$56,000.00
15% ± Contingencies and Engineering					\$18,627.00
TOTAL DEVELOPER'S COST (Portion of above total)					\$142,807.00
DIFFERENCE (New Development)					\$0.00

---

**Harrisville City - Storm Drainage Master Plan**

Project No.: 24

Location: Taylor Property

Description: Storm Drainage and detention

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 18" R.C.P. CI-III	470	LF	\$45.00	\$21,150.00
2	Furnish & Install 15" R.C.P. CI-III	700	LF	\$42.00	\$29,400.00
3	Manhole/Cleanout	3	Ea	\$2,750.00	\$8,250.00
4	Construct detention basin	0.8	Aft	\$40,000.00	\$32,000.00
5	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
6	Property Acquisition	0.70	Ac	\$80,000.00	\$56,000.00
				<b>SUBTOTAL</b>	<b>\$170,800.00</b>
				<b>15%± Contingency and Engineering</b>	<b>\$25,620.00</b>
				<b>TOTAL</b>	<b>\$196,420.00</b>

**DEVELOPER'S ESTIMATED COST**

1	Furnish & Install 18" R.C.P. CI-III	470	LF	\$45.00	\$21,150.00
2	Furnish & Install 15" R.C.P. CI-III	700	LF	\$42.00	\$29,400.00
3	Manhole/Cleanout	3	Ea	\$2,750.00	\$8,250.00
4	Construct detention basin	0.8	Aft	\$40,000.00	\$32,000.00
5	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
6	Property Acquisition	0.70	Ac	\$80,000.00	\$56,000.00
				15% ± Contingencies and Engineering	\$25,620.00
				TOTAL DEVELOPER'S COST (Portion of above total)	\$196,420.00
				DIFFERENCE (New Development)	\$0.00

---

**Harrisville City - Storm Drainage Master Plan**

Project No.: 25

Location: Bottom at Dixon Creek / 1100 N. Drainage on North St  
by Tracks

Description: Storm Drainage and detention

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 24" R.C.P. CI-III	430	LF	\$56.00	\$24,080.00
2	Furnish & Install 18" R.C.P. CI-III	780	LF	\$45.00	\$35,100.00
3	Furnish & Install 15" R.C.P. CI-III	1250	LF	\$42.00	\$52,500.00
4	Manhole/Cleanout	7	Ea	\$2,750.00	\$19,250.00
5	Construct detention basin	15.0	Aft	\$40,000.00	\$600,000.00
6	Construct inlet/outlet structure	2	Ea	\$12,000.00	\$24,000.00
7	Property Acquisition	2.60	Ac	\$80,000.00	\$208,000.00
<b>SUBTOTAL</b>					<b>\$962,930.00</b>
<b>15%± Contingency and Engineering</b>					<b>\$144,439.50</b>
<b>TOTAL</b>					<b>\$1,107,369.50</b>

**DEVELOPER'S ESTIMATED COST**

1	Furnish & Install 18" R.C.P. CI III	1210	LF	\$45.00	\$54,450.00
2	Furnish & Install 15" R.C.P. CI III	1250	LF	\$42.00	\$52,500.00
3	Manhole/Cleanout	7	EA	\$2,750.00	\$19,250.00

15% ± Contingencies and Engineering \$18,930.00

TOTAL DEVELOPER'S COST (Portion of above total) \$145,130.00

DIFFERENCE (New Development) \$962,239.50

---

**Harrisville City - Storm Drainage Master Plan**

Project No.: 26

Location: 1100 N: Connecticut Ave to East End of Road Stub

Description: New Storm Drain Pipe

Item	Description	Quantity	Unit	Unit Price	Total Amount
1	Furnish & Install 18" R.C.P. CI-III	760	l.f.	\$35.00	\$26,600.00
3	Asphalt Patch (8" UTBC, 3" AC)	506	s.y.	\$50.00	\$25,300.00
4	Furnish & Install Import Granular Fill Material for Pipe Trench	930	ton	\$15.00	\$13,950.00
				<b>SUBTOTAL</b>	<b>\$65,850.00</b>
				<b>15%± Contingency and Engineering</b>	<b>\$9,877.50</b>
				<b>TOTAL</b>	<b>\$75,727.50</b>

Note: The City may want to install catch basins on 1100 North and eliminate the existing waterways. This can be done but impact fees should not be used to pay for the additional work because it isn't required for future growth.

---

**Harrisville City - Storm Drainage Master Plan**

Project No.: 27

Location: West Harrisville Road from 1000 West to 1200 West

Description: New Storm Drain Pipe and Road Widening

<b>Item</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Total Amount</b>
1	Furnish & Install 18" R.C.P. CI-III	1,130	l.f.	\$35.00	\$39,550.00
2	Furnish & Install Type-II Catch Basin	6	Ea	\$2,300.00	\$13,800.00
3	Furnish & Install Import Granular Fill Material for Pipe Trench	1,835	ton	\$15.00	\$27,525.00
<b>SUBTOTAL</b>					<b>\$80,875.00</b>
<b>15%± Contingency and Engineering</b>					<b>\$12,131.25</b>
<b>TOTAL</b>					<b>\$93,006.25</b>

Calculations

---

## Appendix B

# HARRISVILLE CITY

Jan 2011

## STORM DRAIN HARD SURFACE CALCULATIONS: SINGLE FAMILY RESIDENTIAL LOTS

Lot	Roof (Sq. Ft.)	Driveway (Sq. Ft.)	Directly Connected Hard Surface: 1/4 Roof + Driveway (Sq. Ft.)*
1	2,295	692	1,266
2	1,557	1,222	1,611
3	1,235	1,076	1,385
4	1,450	778	1,141
5	1,432	1,120	1,478
6	1,832	685	1,143
7	2,141	896	1,431
8	1,812	872	1,325
9	1,235	1,921	2,230
10	1,208	1,289	1,591
11	1,637	1,069	1,478
12	1,364	562	903
13	1,296	933	1,257
14	1,280	1,139	1,459
15	1,715	938	1,367
16	2,092	1,347	1,870
17	1,950	1,550	2,038
18	1,066	1,431	1,698
19	1,741	2,331	2,766
20	1,075	1,741	2,010
21	1,658	1,076	1,491
22	1,643	1,658	2,069
23	1,726	1,642	2,074
24	1,636	1,726	2,135
25	1,906	1,636	2,113
26	1,720	1,720	2,150
27	2,475	1,198	1,817
28	1,560	1,246	1,636
29	2,137	862	1,396
30	2,260	780	1,345
31	2,569	1,126	1,768
32	2,371	1,494	2,087
33	1,692	1,432	1,855
34	2,295	1,023	1,597
35	2,118	1,037	1,567
36	3,904	2,478	3,454
37	4,098	1,847	2,872
38	2,680	1,648	2,318
39	1,930	1,216	1,699
40	2,380	1,120	1,715

**Average (Sq. Ft.):      1,904                  1,289                  1,765**  
**Total Developed Lots:                  1,425**

*\* It is assumed that the majority of the storm water from rooftops will be discharged to lawn or other pervious areas in single family residential areas.*

# HARRISVILLE CITY

Jan 2011

## STORM DRAIN HARD SURFACE CALCULATIONS: COMMERCIAL PROPERTY

Area	Roof (Sq. Ft.)	Parking (Sq. Ft.)	Total** (Sq. Ft.)	ERU	
1	413	3,066	3,479	2.0	
2	8,440	36,621	45,061	25.5	
3	9,482	15,443	24,925	14.1	
4	16,786	28,712	45,498	25.8	
5	33,692	52,901	86,593	49.1	
6	18,002	58,287	76,289	43.2	
7	129,346	173,876	303,222	171.8	Junior High
8	77,375	121,834	199,209	112.9	
9	25,636	42,221	67,857	38.4	
10	16,632	12,565	29,197	16.5	
11	92,671	132,741	225,412	127.7	Interpace
12	74,862	147,320	222,182	125.9	Elementary
13	9,905	35,729	45,634	25.9	
14	16,739	45,535	62,274	35.3	
15	27,924	95,555	123,479	70.0	
16	14,315	49,252	63,567	36.0	
17	20,316	60,023	80,339	45.5	
18	8,996	15,938	24,934	14.1	
19	3,060	32,905	35,965	20.4	
20	7,248	30,257	37,505	21.2	
21	2,015	5,510	7,525	4.3	
22	1,488	14,796	16,284	9.2	
23	2,758	8,397	11,155	6.3	
24	2,064	2,909	4,973	2.8	
25	341,089	985,618	1,326,707	751.7	Walmart Cmplx
26	60,010	206,250	266,260	150.9	Des. Industries
27	8,661	34,817	43,478	24.6	
28	15,565	50,150	65,715	37.2	
29	10,793	39,072	49,865	28.3	
30	45,949	65,150	111,099	62.9	
31	38,614	48,658	87,272	49.4	
32	20,592	27,573	48,165	27.3	
33	2,170	17,658	19,828	11.2	
34	30,061	51,066	81,127	46.0	
35	7,336	29,587	36,923	20.9	
36	22,270	74,605	96,875	54.9	
<b>Total</b>	<b>1,223,275</b>	<b>2,852,597</b>	<b>4,075,872</b>	<b>2,309</b>	

\*\* *It is assumed that the majority of the storm water from rooftops will be discharged to non-pervious areas in commercial zones.*

# HARRISVILLE CITY

Jan 2011

## STORM DRAIN HARD SURFACE CALCULATIONS: MULTI-FAMILY PROPERTY

Development	Roof (Sq. Ft.)	Parking (Sq. Ft.)	Total (Sq. Ft.)	ERU	
Golf Crest	99,056	159,163	258,219	146.3	164 units
Golf View	121,488	121,818	243,306	137.9	136 units
Colonial Springs	432,058	526,186	958,244	542.9	371 units
<b>Total</b>	<b>652,602</b>	<b>807,167</b>	<b>1,459,769</b>	<b>827</b>	

## HARD SURFACE SUMMARY

Single Family Residential ERU's	1,425
Commercial / Industrial ERU's	2,309
Multi-Family Residential ERU's	827
<b>TOTAL ERU'S</b>	<b>4,561</b>

## ROAD SURFACE SUMMARY

Roadway Class	Width (Ft.)	Length (Ft.)	Area (Sq. Ft.)	
Major Arterial	81	3,105	251,505	Storm Drain by UDOT
Minor Arterial	65	2,693	175,045	Storm Drain by UDOT
Collector	47	53,398	2,509,706	Storm Drain by Harrisville
Local	41	82,812	3,395,292	Storm Drain by Harrisville
<b>Total</b>			<b>5,904,998</b>	Storm Drain by Harrisville

Roadway Contribution per ERU:

$$5,904,998 \quad / \quad 4,561 \quad = \quad 1,295 \text{ Sq. Ft.}$$

Typical ERU Hard Surfacing with Roadway:

$$1,765 \quad + \quad 1,295 \quad = \quad 3,060 \text{ Sq. Ft.}$$



**11-36-101. Title.**

This chapter is known as the "Impact Fees Act."

**11-36-102 (Superseded 05/11/11). Definitions.**

As used in this chapter:

(1) "Building permit fee" means the fees charged to enforce the uniform codes adopted pursuant to Title 58, Chapter 56, Utah Uniform Building Standards Act, that are not greater than the fees indicated in the appendix to the International Building Code.

(2) "Capital facilities plan" means the plan required by Section 11-36-201.

(3) "Charter school" includes:

- (a) an operating charter school;
- (b) an applicant for a charter school whose application has been approved by a chartering entity as provided in Title 53A, Chapter 1a, Part 5, The Utah Charter Schools Act; and
- (c) an entity that is working on behalf of a charter school or approved charter applicant to develop or construct a charter school building.

(4) "Development activity" means any construction or expansion of a building, structure, or use, any change in use of a building or structure, or any changes in the use of land that creates additional demand and need for public facilities.

(5) "Development approval" means:

- (a) except as provided in Subsection (5)(b), any written authorization from a local political subdivision that authorizes the commencement of development activity; or
- (b) development activity, for a public entity that may develop without written authorization from a local political subdivision.

(6) "Enactment" means:

- (a) a municipal ordinance, for a municipality;
- (b) a county ordinance, for a county; and
- (c) a governing board resolution, for a local district, special service district, or private entity.

(7) "Hookup fee" means a fee for the installation and inspection of any pipe, line, meter, or appurtenance to connect to a gas, water, sewer, storm water, power, or other utility system of a municipality, county, local district, special service district, or private entity.

(8) (a) "Impact fee" means a payment of money imposed upon new development activity as a condition of development approval to mitigate the impact of the new development on public facilities.

(b) "Impact fee" does not mean a tax, a special assessment, a building permit fee, a hookup fee, a fee for project improvements, or other reasonable permit or application fee.

(9) (a) "Local political subdivision" means a county, a municipality, a local district under Title 17B, Limited Purpose Local Government Entities - Local Districts, or a special service district under Title 17D, Chapter 1, Special Service District Act.

(b) "Local political subdivision" does not mean a school district, whose impact fee activity is governed by Section 53A-20-100.5.

(10) "Private entity" means an entity with private ownership that provides culinary water that is required to be used as a condition of development.

(11) (a) "Project improvements" means site improvements and facilities that are:

- (i) planned and designed to provide service for development resulting from a

development activity;

(ii) necessary for the use and convenience of the occupants or users of development resulting from a development activity; and

(iii) not identified or reimbursed as a system improvement.

(b) "Project improvements" does not mean system improvements.

(12) "Proportionate share" means the cost of public facility improvements that are roughly proportionate and reasonably related to the service demands and needs of any development activity.

(13) "Public facilities" means only the following capital facilities that have a life expectancy of 10 or more years and are owned or operated by or on behalf of a local political subdivision or private entity:

(a) water rights and water supply, treatment, and distribution facilities;

(b) wastewater collection and treatment facilities;

(c) storm water, drainage, and flood control facilities;

(d) municipal power facilities;

(e) roadway facilities;

(f) parks, recreation facilities, open space, and trails; and

(g) public safety facilities.

(14) (a) "Public safety facility" means:

(i) a building constructed or leased to house police, fire, or other public safety entities; or

(ii) a fire suppression vehicle costing in excess of \$500,000.

(b) "Public safety facility" does not mean a jail, prison, or other place of involuntary incarceration.

(15) (a) "Roadway facilities" means streets or roads that have been designated on an officially adopted subdivision plat, roadway plan, or general plan of a political subdivision, together with all necessary appurtenances.

(b) "Roadway facilities" includes associated improvements to federal or state roadways only when the associated improvements:

(i) are necessitated by the new development; and

(ii) are not funded by the state or federal government.

(c) "Roadway facilities" does not mean federal or state roadways.

(16) (a) "Service area" means a geographic area designated by a local political subdivision on the basis of sound planning or engineering principles in which a defined set of public facilities provide service within the area.

(b) "Service area" may include the entire local political subdivision.

(17) "Specified public agency" means:

(a) the state;

(b) a school district; or

(c) a charter school.

(18) (a) "System improvements" means:

(i) existing public facilities that are:

(A) identified in the impact fee analysis under Section 11-36-201; and

(B) designed to provide services to service areas within the community at large; and

(ii) future public facilities identified in the impact fee analysis under Section 11-36-201 that are intended to provide services to service areas within the community at large.

(b) "System improvements" does not mean project improvements.

**11-36-201. Impact fees -- Analysis -- Capital facilities plan -- Notice of plan -- Summary -- Exemptions.**

(1) (a) (i) Each local political subdivision and private entity shall comply with the requirements of this chapter before establishing or modifying any impact fee.

(ii) A fee that meets the definition of impact fee under Section 11-36-102 is an impact fee subject to this chapter, regardless of what term the local political subdivision or private entity uses to refer to the fee.

(iii) A local political subdivision or private entity may not avoid application of this chapter to a fee that meets the definition of an impact fee under Section 11-36-102 by referring to the fee by another name.

(b) A local political subdivision may not:

(i) establish any new impact fees that are not authorized by this chapter; or

(ii) impose or charge any other fees as a condition of development approval unless those fees are a reasonable charge for the service provided.

(c) Each local political subdivision shall ensure that the impact fees comply with the requirements of this chapter.

(d) (i) Each local political subdivision and private entity shall ensure that each impact fee collected on or after May 12, 2009 complies with the provisions of this chapter, even if the impact fee was imposed but not paid before May 12, 2009.

(ii) Subsection (1)(d)(i) does not apply to an impact fee that was paid before May 12, 2009.

(2) (a) Before imposing impact fees, each local political subdivision and private entity shall, except as provided in Subsection (2)(f), prepare a capital facilities plan to determine the public facilities required to serve development resulting from new development activity.

(b) (i) As used in this Subsection (2)(b):

(A) (I) "Affected entity" means each county, municipality, local district under Title 17B, Limited Purpose Local Government Entities - Local Districts, special service district under Title 17D, Chapter 1, Special Service District Act, school district, interlocal cooperation entity established under Chapter 13, Interlocal Cooperation Act, and specified public utility:

(Aa) whose services or facilities are likely to require expansion or significant modification because of the facilities proposed in the proposed capital facilities plan; or

(Bb) that has filed with the local political subdivision or private entity a copy of the general or long-range plan of the county, municipality, local district, special service district, school district, interlocal cooperation entity, or specified public utility.

(II) "Affected entity" does not include the local political subdivision or private entity that is required under this Subsection (2) to provide notice.

(B) "Specified public utility" means an electrical corporation, gas corporation, or telephone corporation, as those terms are defined in Section 54-2-1.

(ii) Before preparing or amending a capital facilities plan, each local political subdivision and each private entity shall provide written notice, as provided in this Subsection (2)(b), of its intent to prepare or amend a capital facilities plan.

(iii) Each notice under Subsection (2)(b)(ii) shall:

(A) indicate that the local political subdivision or private entity intends to prepare or amend a capital facilities plan;

(B) describe or provide a map of the geographic area where the proposed capital facilities will be located; and

(C) subject to Subsection (2)(b)(iv), be posted on the Utah Public Notice Website created under Section 63F-1-701.

(iv) For a private entity required to post notice on the Utah Public Notice Website under Subsection (2)(b)(iii):

(A) the private entity shall give notice to the general purpose local government in which the private entity's primary business office is located; and

(B) the general purpose local government described in Subsection (2)(b)(iv)(A) shall post the notice on the Utah Public Notice Website.

(c) The capital facilities plan shall identify:

(i) demands placed upon existing public facilities by new development activity; and

(ii) the proposed means by which the local political subdivision will meet those demands.

(d) A municipality or county need not prepare a separate capital facilities plan if the general plan required by Section 10-9a-401 or 17-27a-401, respectively, contains the elements required by Subsection (2)(c).

(e) (i) If a local political subdivision chooses to prepare an independent capital facilities plan rather than include a capital facilities element in the general plan, the local political subdivision shall before adopting or amending the capital facilities plan:

(A) give public notice of the plan or amendment according to Subsection (2)(e)(ii)(A), (B), or (C), as the case may be, at least 10 days before the date of the public hearing;

(B) make a copy of the plan or amendment, together with a summary designed to be understood by a lay person, available to the public;

(C) place a copy of the plan or amendment and summary in each public library within the local political subdivision; and

(D) hold a public hearing to hear public comment on the plan or amendment.

(ii) With respect to the public notice required under Subsection (2)(e)(i)(A):

(A) each municipality shall comply with the notice and hearing requirements of, and, except as provided in Subsection 11-36-401(4)(f), receive the protections of Sections 10-9a-205 and 10-9a-801 and Subsection 10-9a-502(2);

(B) each county shall comply with the notice and hearing requirements of, and, except as provided in Subsection 11-36-401(4)(f), receive the protections of Sections 17-27a-205 and 17-27a-801 and Subsection 17-27a-502(2); and

(C) each local district, special service district, and private entity shall comply with the notice and hearing requirements of, and receive the protections of, Section 17B-1-111.

(iii) Nothing contained in this Subsection (2)(e) or in the subsections referenced in Subsections (2)(e)(ii)(A) and (B) may be construed to require involvement by a planning commission in the capital facilities planning process.

(f) (i) A local political subdivision with a population or serving a population of less than 5,000 as of the last federal census need not comply with the capital facilities plan requirements of this part, but shall ensure that:

(A) the impact fees that the local political subdivision imposes are based upon a reasonable plan; and

(B) each applicable notice required by this chapter is given.

(ii) Subsection (2)(f)(i) does not apply to private entities.

(g) (i) Subject to Subsection (2)(g)(iii), the plan shall include a public facility for which an impact fee may be charged or required for a school district or charter school if the local political subdivision is aware of the planned location of the school district facility or charter school:

(A) through the planning process; or

(B) after receiving a written request from a school district or charter school that the public facility be included in the plan.

(ii) If necessary, the plan shall be amended to reflect a public facility described in Subsection (2)(g)(i).

(iii) (A) In accordance with Subsections 10-9a-305(4) and 17-27a-305(4), a local political subdivision may not require a school district or charter school to participate in the cost of any roadway or sidewalk.

(B) Notwithstanding Subsection (2)(g)(iii)(A), if a school district or charter school agrees to build a roadway or sidewalk, the roadway or sidewalk shall be included in the plan.

(3) In preparing the plan, each local political subdivision shall generally consider all revenue sources, including impact fees and anticipated dedication of system improvements, to finance the impacts on system improvements.

(4) A local political subdivision or private entity may only impose impact fees on development activities when its plan for financing system improvements establishes that impact fees are necessary to achieve an equitable allocation to the costs borne in the past and to be borne in the future, in comparison to the benefits already received and yet to be received.

(5) (a) Subject to the notice requirement of Subsection (5)(b), each local political subdivision and private entity intending to impose an impact fee shall prepare a written analysis of each impact fee that:

(i) identifies the anticipated impact on or consumption of any existing capacity of a public facility by the anticipated development activity;

(ii) identifies the anticipated impact on system improvements required by the anticipated development activity to maintain the established level of service for each public facility;

(iii) demonstrates how those anticipated impacts are reasonably related to the anticipated development activity;

(iv) estimates the proportionate share of:

(A) the costs for existing capacity that will be recouped; and

(B) the costs of impacts on system improvements that are reasonably related to the new development activity; and

(v) based upon those factors and the requirements of this chapter, identifies how the impact fee was calculated.

(b) (i) Before preparing or contracting to prepare the written analysis required under Subsection (5)(a), each local political subdivision or private entity shall, subject to Subsection (5)(b)(ii), post a public notice on the Utah Public Notice Website created under Section 63F-1-701 indicating the local political subdivision or private entity's intent to prepare or contract to prepare a written analysis of an impact fee.

(ii) For a private entity required to post notice on the Utah Public Notice Website under Subsection (5)(b)(i):

(A) the private entity shall give notice to the general purpose local government in which the private entity's primary business office is located; and

(B) the general purpose local government described in Subsection (5)(b)(ii)(A) shall post

the notice on the Utah Public Notice Website.

(c) In analyzing whether or not the proportionate share of the costs of public facilities are reasonably related to the new development activity, the local political subdivision or private entity, as the case may be, shall identify, if applicable:

- (i) the cost of each existing public facility that has excess capacity to serve the anticipated development resulting from the new development activity;
- (ii) the cost of system improvements for each public facility;
- (iii) other than impact fees, the manner of financing each public facility, such as user charges, special assessments, bonded indebtedness, general taxes, or federal grants;
- (iv) the relative extent to which development activity will contribute to financing the excess capacity of and system improvements for each existing public facility, by such means as user charges, special assessments, or payment from the proceeds of general taxes;
- (v) the relative extent to which development activity will contribute to the cost of existing public facilities and system improvements in the future;
- (vi) the extent to which the development activity is entitled to a credit against impact fees because the development activity will dedicate system improvements or public facilities that will offset the demand for system improvements, inside or outside the proposed development;
- (vii) extraordinary costs, if any, in servicing the newly developed properties; and
- (viii) the time-price differential inherent in fair comparisons of amounts paid at different times.

(d) Each local political subdivision and private entity that prepares a written analysis under this Subsection (5) shall also prepare a summary of the written analysis, designed to be understood by a lay person.

(6) Each local political subdivision that adopts an impact fee enactment under Section 11-36-202 on or after July 1, 2000 shall, at least 10 days before adopting the enactment:

(a) submit a copy of the written analysis required by Subsection (5)(a) and a copy of the summary required by Subsection (5)(d) to each public library within the local political subdivision; and

(b) obtain a written certification from the person or entity that prepares the written analysis which states as follows:

"I certify that the attached impact fee analysis:

1. includes only the costs for qualifying public facilities that are:
  - a. allowed under the Impact Fees Act; and
  - b. projected to be incurred or encumbered within six years after each impact fee is paid;
2. contains no cost for operation and maintenance of public facilities;
3. offsets costs with grants or other alternate sources of payment;
4. does not include costs for qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is supported by existing residents; and
5. complies in each and every relevant respect with the Impact Fees Act."

(7) Nothing in this chapter may be construed to repeal or otherwise eliminate any impact fee in effect on the effective date of this chapter that is pledged as a source of revenues to pay bonded indebtedness that was incurred before the effective date of this chapter.

**11-36-202. Impact fees -- Enactment -- Required and allowed provisions --  
Limitations -- Effective date.**

(1) (a) Each local political subdivision and private entity wishing to impose impact fees shall pass an impact fee enactment.

(b) The impact fee imposed by that enactment may not exceed the highest fee justified by the impact fee analysis performed pursuant to Section 11-36-201.

(c) In calculating the impact fee, a local political subdivision or private entity may include:

- (i) the construction contract price;
- (ii) the cost of acquiring land, improvements, materials, and fixtures;
- (iii) the cost for planning, surveying, and engineering fees for services provided for and directly related to the construction of the system improvements; and
- (iv) debt service charges, if the political subdivision might use impact fees as a revenue stream to pay the principal and interest on bonds, notes, or other obligations issued to finance the costs of the system improvements.

(d) In calculating an impact fee, a local political subdivision may not include an expense for overhead unless the expense is calculated pursuant to a methodology that is consistent with:

- (i) generally accepted cost accounting practices; and
- (ii) the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement.

(e) In calculating an impact fee, each local political subdivision shall base amounts calculated under Subsection (1)(c) on realistic estimates, and the assumptions underlying those estimates shall be disclosed in the impact fee analysis.

(f) Each local political subdivision and private entity that intends to enact an impact fee enactment shall:

- (i) at least 10 days before the date of the public hearing:
  - (A) make a copy of the impact fee enactment available to the public; and
  - (B) mail a written copy of the impact fee enactment to:
    - (I) the registered agent of the Utah Home Builders Association;
    - (II) the registered agent of the Utah Association of Realtors; and
    - (III) the registered agent of the Utah Chapter of the Associated General Contractors of America; and

(ii) (A) for a municipality, comply with the notice and hearing requirements of, and, except as provided in Subsection 11-36-401(4)(f), receive the protections of Sections 10-9a-205 and 10-9a-801;

(B) for a county, comply with the notice and hearing requirements of, and, except as provided in Subsection 11-36-401(4)(f), receive the protections of Sections 17-27a-205 and 17-27a-801; and

(C) for a local district or special service district, comply with the notice and hearing requirements of, and receive the protections of, Section 17B-1-111.

(g) Nothing contained in Subsection (1)(f) may be construed to require involvement by a planning commission in the impact fee enactment process.

(2) The local political subdivision or private entity shall ensure that the impact fee enactment:

- (a) contains:
  - (i) a provision establishing one or more service areas within which the local political

subdivision or private entity calculates and imposes impact fees for various land use categories;

(ii) (A) a schedule of impact fees for each type of development activity that specifies the amount of the impact fee to be imposed for each type of system improvement; or

(B) the formula that the local political subdivision or private entity, as the case may be, will use to calculate each impact fee;

(iii) a provision authorizing the local political subdivision or private entity, as the case may be, to adjust the standard impact fee at the time the fee is charged to:

(A) respond to:

(I) unusual circumstances in specific cases; or

(II) a request for a prompt and individualized impact fee review for:

(Aa) the development activity of the state or a school district or charter school; and

(Bb) an offset or credit for a public facility for which an impact fee has been or will be collected; and

(B) ensure that the impact fees are imposed fairly; and

(iv) a provision governing calculation of the amount of the impact fee to be imposed on a particular development that permits adjustment of the amount of the fee based upon studies and data submitted by the developer; and

(b) allows a developer, including a school district or charter school, to receive a credit against or proportionate reimbursement of an impact fee if the developer:

(i) dedicates land for a system improvement;

(ii) builds and dedicates some or all of a system improvement; or

(iii) dedicates a public facility that the local political subdivision or private entity and the developer agree will reduce the need for a system improvement.

(3) (a) A local political subdivision or private entity may include a provision in an impact fee enactment that:

(i) provides an impact fee exemption for:

(A) development activity attributable to:

(I) low income housing;

(II) the state;

(III) a school district; or

(IV) a charter school; or

(B) other development activity with a broad public purpose; and

(ii) establishes one or more sources of funds other than impact fees to pay for that development activity.

(b) An impact fee enactment that provides an impact fee exemption for development activity attributable to a school district or charter school shall allow either a school district or a charter school to qualify for the exemption on the same basis.

(4) A local political subdivision or private entity shall include a provision in an impact fee enactment that requires a credit against impact fees for any dedication of land for, improvement to, or new construction of, any system improvements provided by the developer if the facilities:

(a) are system improvements; or

(b) (i) are dedicated to the public; and

(ii) offset the need for an identified system improvement.

(5) A local political subdivision may not:

(a) impose an impact fee to:

- (i) cure deficiencies in a public facility serving existing development; or
- (ii) raise the established level of service of a public facility serving existing development; or
- (b) delay the construction of a school or charter school because of a dispute with the school or charter school over impact fees.
- (6) Notwithstanding the requirements and prohibitions of this chapter, a local political subdivision may impose and assess an impact fee for environmental mitigation when:
  - (a) the local political subdivision has formally agreed to fund a Habitat Conservation Plan to resolve conflicts with the Endangered Species Act of 1973, 16 U.S.C. Sec 1531, et seq. or other state or federal environmental law or regulation;
  - (b) the impact fee bears a reasonable relationship to the environmental mitigation required by the Habitat Conservation Plan; and
  - (c) the legislative body of the local political subdivision adopts an ordinance or resolution:
    - (i) declaring that an impact fee is required to finance the Habitat Conservation Plan;
    - (ii) establishing periodic sunset dates for the impact fee; and
    - (iii) requiring the legislative body to:
      - (A) review the impact fee on those sunset dates;
      - (B) determine whether or not the impact fee is still required to finance the Habitat Conservation Plan; and
      - (C) affirmatively reauthorize the impact fee if the legislative body finds that the impact fee must remain in effect.
- (7) (a) Notwithstanding any other provision of this chapter:
  - (i) an impact fee to pay for a public safety facility that is a fire suppression vehicle may not be imposed on residential components of development;
  - (ii) an impact fee may not be imposed on a school district or charter school for a park, recreation facility, open space, or trail;
  - (iii) an impact fee may not be imposed on development activity that consists of the construction of a school, whether by a school district or a charter school, if:
    - (A) the school is intended to replace another school, whether on the same or a different parcel;
    - (B) the new school creates no greater demand or need for public facilities than the school or school facilities, including any portable or modular classrooms that are on the site of the replaced school at the time that the new school is proposed; and
    - (C) the new school and the school being replaced are both within:
      - (I) the boundary of the local political subdivision; or
      - (II) the jurisdiction of the private entity;
  - (iv) an impact fee may not be imposed on a school district or charter school unless:
    - (A) the development resulting from the school district or charter school's development activity directly results in a need for additional system improvements for which the impact fee is imposed; and
    - (B) the impact fee is calculated to cover only the school district or charter school's proportionate share of the cost of those additional system improvements;
  - (v) an impact fee for a road facility may be imposed on the state only if and to the extent that:
    - (A) the state's development causes an impact on the road facility; and

(B) the portion of the road facility related to an impact fee is not funded by the state or by the federal government; and

(vi) to the extent that the impact fee includes a component for a law enforcement facility, the impact fee may not be imposed on development activity for:

(A) the Utah National Guard;

(B) the Utah Highway Patrol; or

(C) a state institution of higher education that has its own police force.

(b) If the imposition of an impact fee on a new school is not prohibited under Subsection (7)(a)(iii) because the new school creates a greater demand or need for public facilities than the school being replaced, the impact fee may be based only on the demand or need that the new school creates for public facilities that exceeds the demand or need that the school being replaced creates for those public facilities.

(8) Notwithstanding any other provision of this chapter, a local political subdivision may impose and collect impact fees on behalf of a school district if authorized by Section 53A-20-100.5.

(9) An impact fee enactment may not take effect until 90 days after it is enacted.

#### **11-36-301. Impact fees -- Accounting -- Report.**

Each local political subdivision collecting impact fees shall:

(1) establish separate interest bearing ledger accounts for each type of public facility for which an impact fee is collected;

(2) deposit impact fee receipts in the appropriate ledger account;

(3) retain the interest earned on each fund or account in the fund or account; and

(4) at the end of each fiscal year, prepare a report on each fund or account showing:

(a) the source and amount of all money collected, earned, and received by the fund or account; and

(b) each expenditure from the fund or account; and

(5) establish a report that:

(a) identifies impact fee funds by the year in which they were received, the project from which the funds were collected, the capital projects for which the funds were budgeted, and the projected schedule for expenditure;

(b) is in a format developed by the state auditor;

(c) is certified by the local political subdivision's chief financial officer; and

(d) is transmitted annually to the state auditor.

#### **11-36-302. Impact fees -- Expenditure.**

(1) A local political subdivision may expend impact fees only for a system improvement:

(a) identified in the capital facilities plan; and

(b) for the specific public facility type for which the fee was collected.

(2) (a) Except as provided in Subsection (2)(b), a local political subdivision shall expend or encumber the impact fees for a permissible use within six years of their receipt.

(b) A local political subdivision may hold the fees for longer than six years if it identifies, in writing:

(i) an extraordinary and compelling reason why the fees should be held longer than six

years; and

- (ii) an absolute date by which the fees will be expended.

### **11-36-303. Refunds.**

A local political subdivision shall refund any impact fees paid by a developer, plus interest earned, when:

- (1) the developer does not proceed with the development activity and has filed a written request for a refund;
- (2) the fees have not been spent or encumbered; and
- (3) no impact has resulted.

### **11-36-401. Impact fees -- Challenges -- Appeals.**

(1) Any person or entity residing in or owning property within a service area, and any organization, association, or corporation representing the interests of persons or entities owning property within a service area, may file a declaratory judgment action challenging the validity of the fee.

(2) (a) Any person or entity required to pay an impact fee who believes the fee does not meet the requirements of law may file a written request for information with the local political subdivision who established the fee.

(b) Within two weeks after the receipt of the request for information, the local political subdivision shall provide the person or entity with the written analysis required by Section 11-36-201, the capital facilities plan, and with any other relevant information relating to the impact fee.

(3) (a) Any local political subdivision may establish, by ordinance or resolution, an administrative appeals procedure to consider and decide challenges to impact fees.

(b) If the local political subdivision establishes an administrative appeals procedure, the local political subdivision shall ensure that the procedure includes a requirement that the local political subdivision make its decision no later than 30 days after the date the challenge to the impact fee is filed.

(4) (a) In addition to the method of challenging an impact fee under Subsection (1), a person or entity that has paid an impact fee that was imposed by a local political subdivision may challenge:

- (i) if the impact fee enactment was adopted on or after July 1, 2000:

(A) whether the local political subdivision complied with the notice requirements of this chapter with respect to the imposition of the impact fee; and

(B) whether the local political subdivision complied with other procedural requirements of this chapter for imposing the impact fee; and

- (ii) except as limited by Subsection (4)(a)(i), the impact fee.

(b) A challenge under Subsection (4)(a) may not be initiated unless it is initiated within:

(i) for a challenge under Subsection (4)(a)(i)(A), 30 days after the person or entity pays the impact fee;

(ii) for a challenge under Subsection (4)(a)(i)(B), 180 days after the person or entity pays the impact fee; or

- (iii) for a challenge under Subsection (4)(a)(ii), one year after the person or entity pays

the impact fee.

(c) A challenge under Subsection (4)(a) is initiated by filing:

(i) if the local political subdivision has established an administrative appeals procedure under Subsection (3), the necessary document, under the administrative appeals procedure, for initiating the administrative appeal;

(ii) a request for arbitration as provided in Subsection 11-36-402(1); or

(iii) an action in district court.

(d) (i) The sole remedy for a challenge under Subsection (4)(a)(i)(A) is the equitable remedy of requiring the local political subdivision to correct the defective notice and repeat the process.

(ii) The sole remedy for a challenge under Subsection (4)(a)(i)(B) is the equitable remedy of requiring the local political subdivision to correct the defective process.

(iii) The sole remedy for a challenge under Subsection (4)(a)(ii) is a refund of the difference between what the person or entity paid as an impact fee and the correct impact fee amount.

(e) Nothing in this Subsection (4) may be construed as requiring a person or entity to exhaust administrative remedies with the local political subdivision before filing an action in district court under this Subsection (4).

(f) The protections given to a municipality under Section 10-9a-801 and to a county under Section 17-27a-801 do not apply in a challenge under Subsection (4)(a)(i)(A).

(5) The judge may award reasonable attorneys' fees and costs to the prevailing party in any action brought under this section.

(6) Nothing in this chapter may be construed as restricting or limiting any rights to challenge impact fees that were paid before the effective date of this chapter.

#### **11-36-401.5. Mediation.**

(1) In addition to the methods of challenging an impact fee under Section 11-36-401, a specified public agency may require a local political subdivision or private entity to participate in mediation of any applicable fee.

(2) To require mediation, the specified public agency shall submit a written request for mediation to the local political subdivision or private entity.

(3) The specified public agency may submit a request for mediation under this section at any time, but no later than 30 days after the impact fee is paid.

(4) Upon the submission of a request for mediation under this section, the local political subdivision or private entity shall:

(a) cooperate with the specified public agency in the selection of a mediator; and

(b) participate in the mediation process.

#### **11-36-402. Challenging an impact fee by arbitration -- Procedure -- Appeal -- Costs.**

(1) Each person or entity intending to challenge an impact fee under Subsection 11-36-401(4)(c)(ii) shall file a written request for arbitration with the local political subdivision within the time limitation provided in Subsection 11-36-401(4)(b) for the applicable type of challenge.

(2) If a person or entity files a written request for arbitration under Subsection (1), an arbitrator or arbitration panel shall be selected as follows:

(a) the local political subdivision and the person or entity filing the request may agree on a single arbitrator within 10 days after the day the request for arbitration is filed; or

(b) if a single arbitrator is not agreed to in accordance with Subsection (2)(a), an arbitration panel shall be created with the following members:

(i) each party shall select an arbitrator within 20 days after the date the request is filed; and

(ii) the arbitrators selected under Subsection (2)(b)(i) shall select a third arbitrator.

(3) The arbitration panel shall hold a hearing on the challenge within 30 days after the date:

(a) the single arbitrator is agreed on under Subsection (2)(a); or

(b) the two arbitrators are selected under Subsection (2)(b)(i).

(4) The arbitrator or arbitration panel shall issue a decision in writing within 10 days from the date the hearing under Subsection (3) is completed.

(5) Except as provided in this section, each arbitration shall be governed by Title 78B, Chapter 11, Utah Uniform Arbitration Act.

(6) The parties may agree to:

(a) binding arbitration;

(b) formal, nonbinding arbitration; or

(c) informal, nonbinding arbitration.

(7) If the parties agree in writing to binding arbitration:

(a) the arbitration shall be binding;

(b) the decision of the arbitration panel shall be final;

(c) neither party may appeal the decision of the arbitration panel; and

(d) notwithstanding Subsection (10), the person or entity challenging the impact fee may not also challenge the impact fee under Subsection 11-36-401(1), (4)(c)(i), or (4)(c)(iii).

(8) (a) Except as provided in Subsection (8)(b), if the parties agree to formal, nonbinding arbitration, the arbitration shall be governed by the provisions of Title 63G, Chapter 4, Administrative Procedures Act.

(b) For purposes of applying Title 63G, Chapter 4, Administrative Procedures Act, to a formal, nonbinding arbitration under this section, notwithstanding Section 63G-4-502, "agency" means a local political subdivision.

(9) (a) An appeal from a decision in an informal, nonbinding arbitration may be filed with the district court in which the local political subdivision is located.

(b) Each appeal under Subsection (9)(a) shall be filed within 30 days after the date the arbitration panel issues a decision under Subsection (4).

(c) The district court shall consider de novo each appeal filed under this Subsection (9).

(d) Notwithstanding Subsection (10), a person or entity that files an appeal under this Subsection (9) may not also challenge the impact fee under Subsection 11-36-401(1), (4)(c)(i), or (4)(c)(iii).

(10) (a) Except as provided in Subsections (7)(d) and (9)(d), this section may not be construed to prohibit a person or entity from challenging an impact fee as provided in Subsection 11-36-401(1), (4)(c)(i), or (4)(c)(iii).

(b) The filing of a written request for arbitration within the required time in accordance with Subsection (1) tolls all time limitations under Section 11-36-401 until the date the

arbitration panel issues a decision.

(11) The person or entity filing a request for arbitration and the local political subdivision shall equally share all costs of an arbitration proceeding under this section.

**11-36-501. Private entity assessment of impact fees -- Notice and hearing -- Audit.**

(1) A private entity may only impose a charge for public facilities as a condition of development approval by imposing an impact fee. A private entity shall comply with the requirements of this chapter before imposing an impact fee.

(2) Except as otherwise specified in this chapter, a private entity is subject to the same requirements of this chapter as a local political subdivision.

(3) Where notice and hearing requirements are specified, a private entity shall comply with the notice and hearing requirements for local districts.

(4) A private entity that assesses an impact fee under this chapter is subject to the audit requirements of Title 51, Chapter 2a, Accounting Reports from Political Subdivisions, Interlocal Organizations, and Other Local Entities Act.

