

## **REFUNDING REPORT**

### **PUBLIC UTILITIES REFUNDING PROJECT ST. ROSE SEWER WEST SR-013**

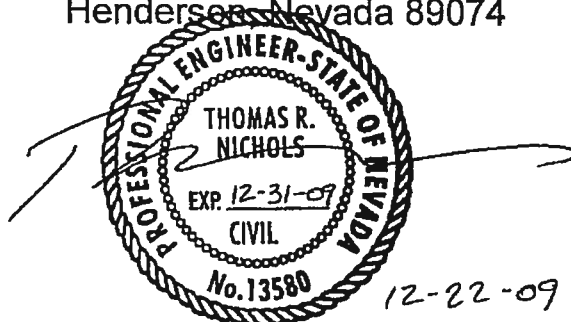
**December 22, 2009**

**Prepared For:**

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## EXECUTIVE SUMMARY

"St. Rose Sewer West" was constructed to provide sewer service to those designated areas generally located south of St. Rose Parkway, west of Executive Airport Drive, and east of Las Vegas Boulevard, encompassing approximately 6,700 acres. It consists of three sections of sewer line, each of different size, either 42 inch, 36 inch or 30 inch diameter, with an average daily flow capacity of 11.2 million gallons per day; and is generally located within the public right of ways of St. Rose Boulevard, Bowes Avenue, Gillespie Street, and Dale Avenue.

Based on our evaluation of the work described in this report, we conclude that these improvements provide sewer service capacity equal to 44,745 ERU'S and that service is now available within the areas described herein. The best un-audited information currently available as to the constructed value of the "St. Rose Sewer West" facility for beneficial use in this refunding program is \$5,240,580.20. Based on application of the procedures provided in H.M.C. 14.16, we recommend that each property located within the refunding area be assessed the same benefit charge of \$117.12 per ERU, regardless of property location or point of connection, subject to audit of project costs. These fees should be computed and collected in accordance with H.M.C. 14.16.050.

## INTRODUCTION

This report is presented to discuss a proposed refunding program organized under Henderson Municipal Code, Title 14, Chapter 16 (H.M.C. 14.16) that will manage the refunding of design, administration and construction costs associated with the construction of a three sections of sewer line, each of different size, either 42 inch, 36 inch or 30 inch diameter, hereafter referenced as "St. Rose Sewer West". This facility is located generally in the southwest portion of the City within the alignments of St. Rose Boulevard, Bowes Avenue, Giles pie Street, and Dale Avenue. Generally this pipeline connects to the existing Executive Airport Drive interceptor and extends sewer service to Las Vegas Boulevard along this route.

The City of Henderson adopted Ordinance No. 1440 (Special Refunding and Sewer Infrastructure) in October, 1993. At that time its contemplated use was to establish procedures for refunding costs of simple water and sewer main extensions. Historically, developers and builders built only the capacity required for their respective projects. This did not always provide timely or cost effective projects, and in the case of major water and sewer infrastructure, this sometimes resulted in periods of inadequate levels of service and/or system redundancies and poorly planned and phased projects. This problem was especially acute when pumping stations and reservoirs were included in the program because of the complex nature of these facilities. As the building boom continued and intensified through the 1990's, the challenge City staff repeatedly faced was how to rapidly and efficiently finance the major infrastructure components, which continued to become more complex, more expensive, and required more time to build. Without the incentive to build beyond their required capacity, builders continued to build only the minimum improvements required. Each major project required intense and sometimes adversarial, ineffective negotiations between the City and private development interests. It was for these reasons that the City, through its Public Works

Department, retained Gomez Consulting Group, Inc. in 1994 to assist in creating a broader use of the existing ordinance. At that time, City staff successfully convinced the City Council to become a proactive force in the planning, design, construction and management of the construction for the major water and sewer facilities. City Council determined this procedure was necessary to help provide a funding source for the orderly design and construction of infrastructure for large undeveloped areas involving numerous developers, and created a new ordinance supporting that position. The new ordinance allowed the City to partner with private developers and participate in the design and construction of facilities at projected ultimate demand. The first project was the "Southwest Henderson Water and Sewer Refunding Program" which financed over \$27 million dollars in water and sewer improvements. This project was to become the model for the City's current refunding program. Since then the Ordinance, Henderson Municipal Code, Title 14, Chapter 16 (H.M.C. 14.16), previously Title 13, Chapter 18, was rewritten and has been used successfully many times. The program has provided a solid and logical financial incentive for builders to participate with the City in a program that blends private and public financial resources to benefit all the citizens of the community. It has resulted in a higher level of water and sewer service, more efficient and reliable facility designs, and overall lower system operating and maintenance costs. The program design was originally modeled after Assessment or Improvement Districts as defined in NRS 271. Under that well established and broadly applied program, improvement costs are shared by all properties that benefit from the constructed improvements on a proportionate share basis. Using a similar benefit theory as a basis for developing a methodology, COH Department of Utility Services staff has been using an **Equivalent Dwelling Unit (EDU)** for water improvements, and an **Equivalent Residential Unit (ERU)** for sewer improvements as a basis for allocating costs

and benefits. This methodology is generally understood by the engineering and the building community.

Simply stated, an EDU or an ERU is a level of utility consumption or service that is based on established and quantifiable utility planning and design data. Using this method allows for the conversion of any type of differing land uses, commercial or residential, and varying densities to a standard basis. Water and sewer improvements have a finite service capacity and service life; therefore, a relatively simple calculation will yield the cost per service unit for each improvement.

This Refunding Report will set forth the methodology used to equitably allocate the costs for "St. Rose Sewer West, SR-013". The amounts eligible for refunding will be determined and collected based on the methodology presented herein. When approved by City Council a "Special Refunding Agreement" will be drafted between the City and the developer (in this case the developer is the City of Henderson Department of Utility Services). That agreement will identify and confirm the final cost of all improvements included in the special refunding area as well as the area boundary.

H.M.C. 14.16 provides direction and outlines terms and conditions required for reimbursement to developers/landowners and/or the City (if the City acts as a developer) for the construction of major water and/or sewer facilities. A copy of H.M.C. 14.16 is provided in Appendix A for reference.

The Ordinance requires that a Refunding Report is prepared for each Special Refunding Area and submitted to City Council for review and approval. Also, the Ordinance

requires that each Refunding Report includes the following information:

- 1.) Clearly defined boundaries of the special refunding area.
- 2.) The specific type and route of major water/sewer infrastructure to be included.
- 3.) The specific methods of cost sharing and refunding amounts.
- 4.) Depreciation schedules.
- 5.) Any other information City Council deems necessary to enact an ordinance creating the refunding district.

## **BACKGROUND & PROJECT BOUNDARY**

The current refunding process provides a method for project cost refunding when developers/landowners and/or the City build infrastructure at a size and capacity in excess of the current demands; or in the case of the City, improve levels of service or system operations. The Developer building the oversized facilities (City of Henderson Department of Utility Services) will be eligible for refunding subsequent to City acceptance (in this case, completion) of the constructed facilities when developers/landowners utilize these facilities. The concept of refunding was discussed in the previous chapter and implementation of these procedures is now an established practice within the City.

This report provides the information necessary for the City to equitably assess the benefits and collect over-sizing costs for the "St. Rose Sewer West" project. Our professional opinion is that the method used herein is fair and equitable and distributes the cost of the infrastructure among the benefiting properties based on the proportionate benefit of each improvement. Information used in preparation of this report was collected from utility master plans and other available resources, including Utility Services Division staff.

"St. Rose Sewer West" was built to provide sewer service to an area of approximately 6,700 acres, generally located south of St. Rose Parkway, west of Executive Airport Drive, and east of Las Vegas Boulevard. The potential service area (Project Boundary) extends southward approximately two miles south of the Sloan area. The Project Boundary, schematics of project improvements and general locations of features are presented on Figure 1 titled "Special Sewer Refunding Agreement - St. Rose Parkway –



(Sub-Area) D – Agreement Pending”.

“*St. Rose Sewer West*” consists of three sections of sewer line, each of different size, either 42 inch, 36 inch or 30 inch diameter, with an average daily flow capacity of 11.2 million gallons per day. It is located within the alignments of St. Rose Boulevard, Bowes Avenue, Giles pie Street, and Dale Avenue. The facility connects to the existing Executive Airport Drive interceptor sewer and extends sewer service to the area generally located south of St. Rose Parkway, west of Executive Airport Drive, and east of Las Vegas Boulevard. The “*St. Rose Sewer West*” facility was constructed by the City of Henderson Department of Utility Services as two separate projects under two different contracts for which costs were tracked separately. These two projects are identified as “*West Henderson Sewer (S-197)*” and “*St. Rose Sewer (S-163)*”.

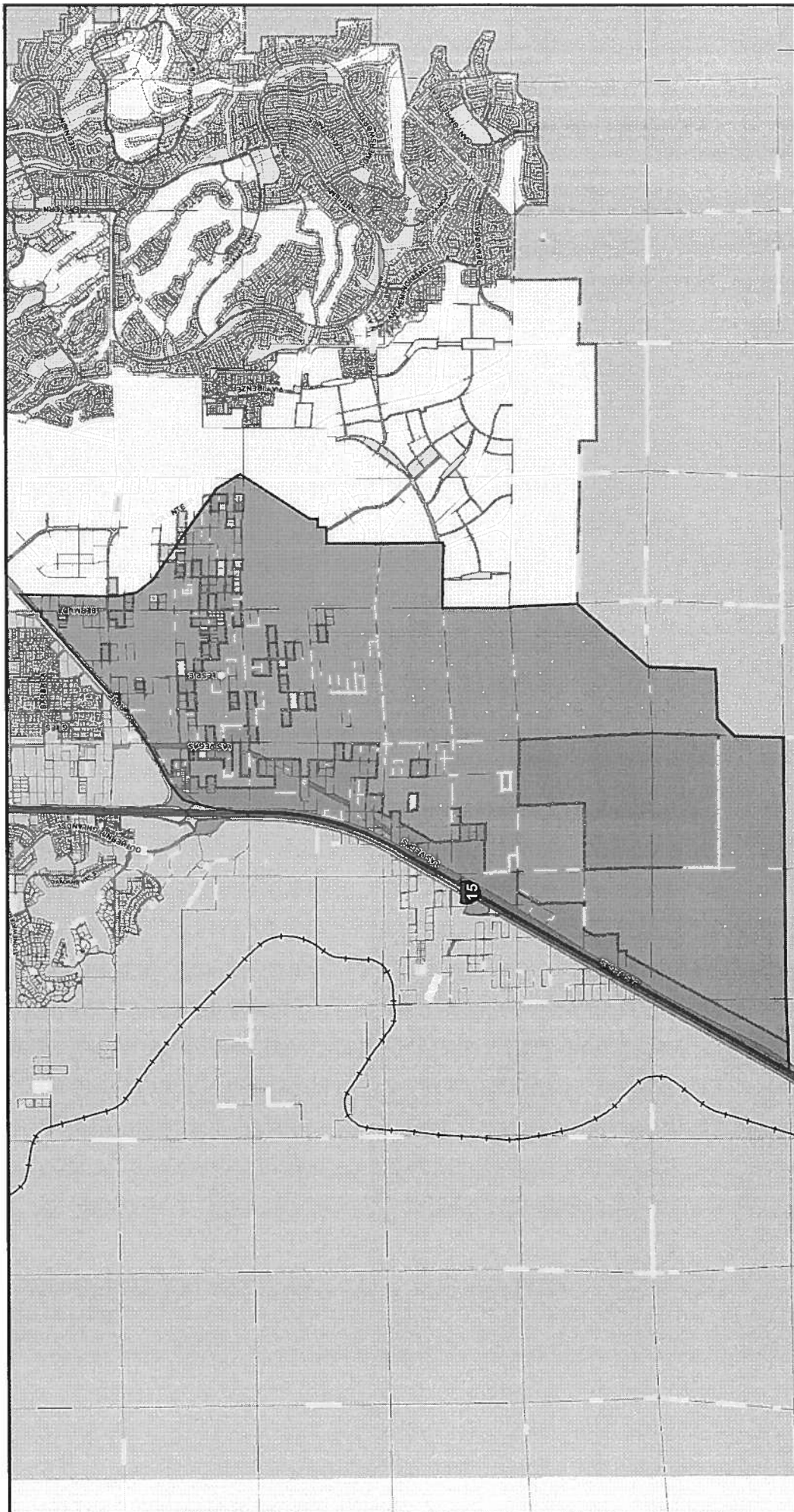
For the purpose of distributing benefit and calculating a cost per ERU, the capacity of “*St. Rose Sewer West*” is converted into annual average day flow expressed as a unit of benefit (ERU). For accounting purposes, the service capacity of the facility is limited to 44,745 (forty-four thousand seven hundred forty-five) ERU’S. Said capacity will be the basis for allocating benefits and costs within the refunding program for this project.

It is important for the participants in this program to understand that any new development projects assessed for “*St. Rose Sewer West*” will likely also be assessed for “*St. Rose Sewer*” as described in the “Refunding Report for St. Rose Sewer Special Refunding Area SR-0007” dated April 29, 2008, prepared by G.C. Wallace, Inc. And it is important for owners of land located in the project boundary to understand that any new development projects contributing flows to “*St. Rose Sewer West*” will be assessed this refunding, regardless of whether it is located within the Project Boundary or within

the corporate limits of the City. It is also important for the participants in this program to understand that a subsequent phase or phases may become necessary to accommodate sewer flows that exceed the capacity of the facilities included in this refunding report.

## **FIGURE 1**

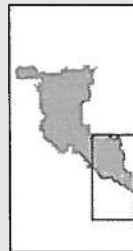
Figure 1 – Project Boundary Exhibit (1 page)



**SPECIAL  
SEWER  
REFUNDING  
AGREEMENT**



AGREEMENT NAME: ST. ROSE PKWY  
SUB AREA: D  
EXPIRATION CRITERIA: AGREEMENT PENDING  
ASSESSMENT PRIORITY:



1 inch equals 4,400 feet

MAP-ID special_refunding_series	AUTHOR: PMT2
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## PROJECT COST

### St. Rose Sewer - West Unaudited Facility Costs

TYPE OF PROJECT COST	WEST HEND. (S-197)	ST. ROSE (S-163)	TOTAL COST
TOTAL PROJECT COSTS <i>(Note 1)</i>	\$1,670,028.81	\$3,570,551.39	\$5,240,580.20

*(Note 1)* Actual construction costs will be provided to Gomez Consulting Group, Inc. by City of Henderson Department of Utility Services for auditing.

Refunding and proportionate cost sharing is based on estimated sewer flows from available development areas in the benefited area as shown on Figure 1.

Procedures established by the Refunding Ordinance and the following criteria were used to prepare this Refunding Report:

- A. Costs of infrastructure necessary to bring sewer service to the refunding area boundary are allocated equally to all potential users based upon an Equivalent Residential Unit (ERU). Ultimate build-out flows are estimated and used as a basis of design for the project (see Appendix B for definition of ERU and supporting calculations).

- B. Regardless of whether a property is included in a master planned development or not, each property that benefits from the project is charged the specified unit benefit amount (per ERU). Benefit cost per ERU can vary from project to project depending on the type of facilities constructed. That determination is unique for each refunding area, and should be made on a case by case basis for each Refunding Report as is the case herein.
- C. It is our opinion that the most equitable method for allocation of costs to the properties participating in this refunding area is to distribute the cost using the same base unit of benefit (ERU) without regard to location of the parcel, likely connection points, or status of currently approved plans, if any.
- D. The City will collect the total refunding amount from respective developers/ homeowners at the time the first connection for each property or development is made to the system. Funds collected from these users are refunded back to the City of Henderson Department of Utility Services in accordance with H.M.C. 14.16 (See Appendix A).
- E. The total facility cost will be indexed to reflect inflation. Depreciation will be based on a 50 year replacement schedule for the facilities. A Sample Depreciation Schedule, in accordance with H.M.C. 14.16, is contained in Appendix C.
- F. Final audited facility cost will be grouped into the following three categories:
  - 1) Construction cost;
  - 2) Pre-design and design cost; and

- 3) Related soft costs including permits, plan checking, City inspection fees, construction management and administration, tortoise surveys, land acquisition fees, legal and financial costs, performance bonds, processing fees, and fees associated with audit of construction costs.

Typically, as determined by the City Council and Director of Utility Services (H.M.C. 14.16.050), the combined design cost (category 2) and related soft costs (category 3) are limited to a maximum of 15% of the final audited construction cost.

Total cost per share is determined by dividing the actual project cost by the net total number of ERU'S that represent the service capacity of the facility. All costs will be indexed in accordance with H.M.C. 14.16.050.

**Equivalent Residential Unit (ERU) Cost Share Summary**

<b>ST. ROSE SEWER - WEST PROJECT CONSTRUCTED</b>	<b>COST (UNAUDITED)</b>	<b>COST SHARE PER ERU (Capacity = 44,745 ERU's)</b>
42-inch, 36-inch and 30-inch Sewer Interceptor	\$5,240,580.20	\$117.12
<b>Total Cost Per ERU</b>		<b>\$117.12</b>

These fees will be computed and collected in accordance with H.M.C. 14.16.050 and will be in addition to standard system development fees and other connection charges normally levied by the City in the course of development.

New development projects assessed for "St. Rose Sewer West" will likely also be assessed for "St. Rose Sewer" as described in the Refunding Report for "St. Rose Sewer Special Refunding Area SR-0007" dated April 29, 2008, prepared by G.C. Wallace, Inc. There may also be additional refunding charges collected on behalf of other parties who have constructed localized water and/or sewer lines as connection is made to those lines to complete a developer's system.



## **APPENDIXES**

### **Appendix A -**

Ordinance 1440 - Henderson Municipal Code 14.16 Refunding Regulations  
(3 pages)

### **Appendix B -**

Wastewater System Development Charges (2 pages)

### **Appendix C -**

Sample Depreciation and Appreciation Table (1 page)

### **Appendix D -**

Bibliography (1 page)

## **APPENDIX A**

Appendix A -

Ordinance 1440 - Henderson Municipal Code 14.16 Refunding Regulations  
(3 pages)

## Chapter 14.16 REFUNDING REGULATIONS

### Title 14 UTILITY SERVICES

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## Chapter 14.16 REFUNDING REGULATIONS

### 14.16.010 General provisions.

### 14.16.020 Cost for infrastructure.

### 14.16.030 Construction specifications.

### 14.16.040 Standard refunding.

### 14.16.050 Special refunding.

### 14.16.060 Violations.

### **14.16.010 General provisions.**

A. Purpose and Policy. This chapter sets forth responsibility, authority, and provisions to provide a mechanism for the orderly development of the utility system through refunding of costs associated with the design and construction of utility infrastructure.

B. Scope. The provisions of this chapter shall apply to all residents of the city, a responsible party operating, maintaining, repairing, relocating, removing, and/or disconnecting the public water system and/or publicly owned treatment works, and/or users of city provided utilities.

C. Administration. Except as otherwise provided herein, the director shall administer, implement, and enforce the provisions of this chapter. Any powers granted or duties imposed upon the director may be delegated by the director to persons acting in the beneficial interest of the city.

D. Compliance. All provisions of this chapter are subject to compliance procedures as outlined in this title and the department service rules. (Ord. 2676 § 11 (part), 2008; Ord. 2536 § 84, 2006)

### **14.16.020 Cost for infrastructure.**

The cost to design and construct any water, sewer, and/or reclaimed infrastructure required in connection with the extension of the public utility system to serve the customer shall be advanced by the customer requesting such service. (Ord. 2536 § 85, 2006)

### **14.16.030 Construction specifications.**

All utility extensions, facilities and/or infrastructure to be constructed by the customer shall conform to adopted standards. (Ord. 2536 § 86, 2006)

### **14.16.040 Standard refunding.**

#### **A. Standard Refunding Agreements.**

1. The city may enter into an agreement which provides for repayment of a portion of the cost of the main extension lying between the original point of supply and the customer's property from main frontage fees collected from other properties frontage to the main extension covered by such agreement during the term provided in the agreement or until the amount advanced by the customer has been satisfied, as determined in accordance with the provisions of this title and/or the department's service rules.

2. The following items may be eligible for standard refunding:

## Chapter 14.16 REFUNDING REGULATIONS

- a. Water, sewer, and reclaimed water main extensions to a project;
  - b. Water, sewer, and reclaimed water main extensions adjacent to a project; and/or
  - c. Water, sewer, and reclaimed water mains replacing existing mains.
3. The period during which refunds are due shall be twenty years, commencing on the date when the infrastructure covered by the agreement is completed, tested, and accepted by the city.
  4. Construction shall be deemed to be complete when the utility infrastructure is constructed according to the approved plans and satisfies all applicable testing and acceptance criteria.
  5. The city council shall grant the director the authority to enter into and execute any standard refunding agreement in which the city is not a participant. Should the city be a participant in a standard refunding agreement, such agreement must be approved according to city standard operating procedures and policies.

### B. Standard Refunding Conditions.

1. Application for standard refunding agreement shall be submitted to the department in writing accompanied by documentation as required by the city from customer(s) constructing such infrastructure covered by the agreement. This application shall be submitted within ninety days of date of acceptance by the city of the infrastructure to be covered by such agreement.
2. All customers entering into any refunding agreement with the city shall pay all fees as outlined in this title and/or the department service rules. These fees are due and payable at the time of the execution of the agreement.
3. Customers may be eligible for a refund of main frontage fees collected by the city from other properties in accordance with this title.
4. All standard refunding calculations shall be rounded to the nearest foot and shall be assessed based on the frontage of the applicant's property, as indicated by the most current data in the Clark County assessor office records, adjacent to the right-of-way or easement where the existing water, sewer, or reclaimed water main is located in accordance with this title and/or the department's service rules.
5. After execution of a valid standard refunding agreement, all main frontage fees collected in accordance with this title and/or department service rules shall be paid within sixty days from the date of collection.
6. In the event any expense is incurred by the city within a period of one year after acceptance of the infrastructure installed by the customer covered by a standard refunding agreement due to defective materials or workmanship the amount of such expense shall be deducted from any refund(s) that may become due to the customer thereafter. (Ord. 2536 § 87, 2006)

### 14.16.050 Special refunding.

#### A. Special Refunding Agreements.

1. The city may enter into a special refunding agreement which provides for repayment of a portion of the cost of that backbone infrastructure lying between the original point of supply and the customer's property from special refunding fees to be collected by the city from other customers obtaining direct or indirect service from the backbone infrastructure during the term provided in the special refunding agreement, pursuant to this title, or until the proportional cost of design and construction advanced by the customer has been repaid, whichever is earlier.
2. Any special refunding agreement entered into by the city must be based upon a refunding report completed in accordance with the department service rules and adopted by the city council.
3. The term of any special refunding agreement shall be twenty years, which will commence on the date the infrastructure covered by the special refunding agreement is completed, tested and accepted by the city.
4. Application for special refunding agreement shall be submitted to the director in writing accompanied by documentation as required by the city within ninety days of the date of acceptance of the pre-design report by the city for the infrastructure to be covered by such agreement. All final costs are subject to verification by the city.
5. The amount subject to repayment under a special refunding agreement shall be the amount of the actual cost of the work as verified by the city. The final cost of the work shall be the basis for the determination and calculation of refunds under the special refunding agreement. Final costs that are eligible for inclusion in the special refunding agreement are:
  - a. Actual construction costs (including administration and safety and traffic control measures);
  - b. Design engineering costs and inspection costs not to exceed an aggregate fifteen percent of item 5 of this section;

## Chapter 14.16 REFUNDING REGULATIONS

c. Permits and fees;

d. Performance and related bond costs to the extent not included in item 5 of this section;

e. Actual financing costs related to subsections (A)(5)(a) through (A)(5)(d) of this section. Said financing costs shall be computed through the date of final acceptance of the backbone infrastructure by the city; and

f. All fees and expenses reasonably incurred concerning the preparation of the special refunding agreement shall be added to the refunding amount.

6. Construction shall be deemed to be complete when the utility infrastructure is constructed according to the approved plans and satisfies all applicable testing and approval criteria.

B. Special Refunding Conditions.

1. Customers entering into any special refunding agreement with the city shall pay all fees as outlined in this title and/or the department service rules. These fees are due and payable upon execution of the agreement.

2. After execution of a valid special refunding agreement, special refunding fees collected in accordance with this title and/or department service rules shall be paid to the customer within thirty days from the last business day of the quarter in which such fees were collected and will be issued in accordance to the procedures outlined in the department service rules.

3. Special refunding fees collected by the city shall be computed as follows:

a. As to the portion of cost attributable to the holder of the special refunding agreement, advances shall be accrued quarterly with interest equal to one-fourth the prime rate plus two percentage points with a maximum of ten percent per year. The prime rate that is published in the Wall Street Journal or a similar publication approved by the city's finance director for utilization in the refunding report and being the prime rate published at the last business day of each calendar quarter for the subsequent quarter.

b. As to the portion of cost attributable to city, advances shall be accrued quarterly with interest equal to one-fourth the Merrill Lynch Bond Index for tax-exempt thirty-year A-rated revenue bonds as printed in the Wall Street Journal or a similar publication approved by the city's finance director for utilization in the refunding report with a maximum of ten percent per year. The rate shall be based upon the index rate published the last business day of each calendar quarter for the subsequent quarter.

c. The amount that makes up the actual final cost of work shall be depreciated annually over forty years using the straight-line method of depreciation or such time line as recommended and approved in the refunding report. The net book value of the infrastructure shall become the base for purposes of calculating amounts to be refunded and of computing the addition of accrued interest.

4. Special refunding fees, as allocated in the refunding report to a customer, will only be made for utility infrastructure that service areas not only of the customers but areas designated in the approved refunding report.

5. Special refunding fees will be made from fees collected from other customers or the city whose properties are served by the backbone infrastructure and paid prior to final issuance of a certificate of occupancy.

6. In the event two or more customers have designed the same backbone infrastructure, those eligible costs, or an applicable portion thereof, paid by the customer who has submitted a performance bond to the city for construction of the relevant system or facility and has completed said construction shall be refunded.

7. In the event any expense is incurred by the city within a period of one year after acceptance of the infrastructure installed by the customer covered by a special refunding agreement due to defective materials or workmanship on, the amount of such expense shall be deducted from any refund(s) that may become due to the customer thereafter. (Ord. 2676 § 11 (part), 2008; Ord. 2536 § 88, 2006)

### 14.16.060 Violations.

Any person who fails or refuses to comply with any provision of this chapter or department's service rules or who provides false information to the city shall be deemed to be in violation of this title and shall be subject to discontinuance of service; subject to any penalties and charges assessed in accordance with this title and/or department's service rules; and subject to all compliance procedures as proscribed within this title. (Ord. 2536 § 89, 2006)

## **APPENDIX B**

Appendix B -

Wastewater System Development Charges (2 pages)

Wastewater System Development Charges			
Customer Class/Description	ERU Percent	Billing unit	Fees
Bars/taverns (with food sales)	1.0	Each fixture	\$ 1,800
Bars/taverns (without food sales)	.65	Each fixture	\$ 1,170
Beauty/barber/nail/day spa/spa shops	.25	Each fixture	\$ 450
Car wash (with water recycling facilities)	.65	Each fixture	\$ 1,170
Car wash (without water recycling facilities)	1.0	Each fixture	\$ 1,800
Casino	1.50	Each fixture	\$ 2,700
Childcare/daycare	.10	Each student	\$ 180
Church	.50	Each fixture	\$ 900
Common areas	.45	Each fixture	\$ 810
Convalescent/assisted living facilities (rooms only)	.75	Each bed	\$ 1,350
Convalescent/assisted living facilities (fixtures outside rooms)	.75	Each fixture	\$ 1,350
Dental	.25	Each fixture	\$ 450
Dry cleaners	1.0	Each fixture	\$ 1,800
Food sales (without cooking facilities)	.65	Each fixture	\$ 1,170
Hospital (rooms only)	1.20	Each bed	\$ 2,160
Hotels/motels (fixtures outside of rooms)	1.50	Each fixture	\$ 2,700
Hotels/motels (rooms only)	.60	Each room	\$ 1,080
Laundromats	.45	Each fixture	\$ 810
Maintenance/repair	.45	Each fixture	\$ 810
Medical/dental related	.25	Each fixture	\$ 450
Miscellaneous business not separately rated	.65	Each fixture	\$ 1,170
Mobile home estates & mobile home parks	1	Each dwelling unit, lot, space	\$ 1,800
Multifamily residential	.70	Each dwelling unit	\$ 1,260
Office/warehouse	.45	Each fixture	\$ 810
Pet grooming	.25	Each fixture	\$ 450
Public facilities	.65	Each fixture	\$ 1,170
Recreational vehicle resorts	.60	Each dwelling unit, lot, space	\$ 1,080
Restaurant (sit down service) See note below	1.33	Each fixture	\$ 2,394
Restaurants (carry out only) See note below	1	Each fixture	\$ 1,800
Retail sales (including markets, shopping centers)	.65	Each fixture	\$ 1,170

Schools (public or private)	.10	Each student	\$ 180
Service stations	.65	Each fixture	\$ 1,170
Single family residence	1	Each dwelling unit	\$ 1,800
Tanning salons	.25	Each fixture	\$ 450
Theaters	.45	Each fixture	\$ 810
Townhouse, condominium	.70	Each dwelling unit	\$ 1,260
Veterinarian	.25	Each fixture	\$ 450

*Restaurant Categories: Sit down service shall refer to all restaurant establishments that employ waiters/waitresses to serve customers in a seating environment. Carry out service shall refer to all restaurant establishments whose primary business operation caters to take home business and that do not employ waiters/waitresses to service customers.*

*Student count figures include all full and part time students, and shall be based on the maximum enrollment anticipated for each respective school. Such figures shall be verified by the City on an annual basis. At the sole discretion of the Director, additional SDC's may be applied.*

*All fee assessments shall be based on one of the customer classifications listed in the table above. However, where shared facilities are being proposed, the rate assessed for those fixtures shall be based on the highest possible ERU percentage for that facility.*

*The Director reserves the right to determine the appropriate customer class to apply. Such determination shall be deemed final, with all SDC's assessed and collected accordingly.*

*Large commercial and/or industrial customers with estimated peak wastewater flows over one hundred thousand gallons per day (GPD) shall have the initial system development charge (SDC) based on wastewater flows for the estimated peak day times three hundred sixty-five days to determine the estimated annual peak wastewater flows. The estimated annual peak wastewater flows shall be divided by ninety thousand gallons to determine the estimated ERUs. The estimated ERUs shall be multiplied by the single-family resident ERU rate to derive the customer's initial SDS. The method of estimating peak wastewater flows shall be determined by the Director.*

**Formula:**

$$\begin{aligned}
 &\text{Estimated peak wastewater GPD} \times 365 \text{ days} = \text{Estimated annual peak wastewater flows} \\
 &\text{Estimated annual peak wastewater flows} \div 90,000 \text{ gallons} = \text{Estimated ERUs} \\
 &\text{Single-family ERU rate} \times \text{estimated ERUs} = \text{Total initial wastewater SDC}
 \end{aligned}$$

*After one year of full operation, a one-time adjustment may be made based on actual maximum month (thirty days) wastewater flows multiplied by twelve months. The annual peak wastewater flows shall be divided by ninety thousand gallons to determine the actual ERUs. The actual ERUs shall be multiplied by the single-family resident ERU rate to derive the customer's adjusted SDC. The initial SDC shall be compared to the actual. Shall a refund be due to the customer, the city will process the appropriate paper work within thirty days of the final decision or if additional SDCs are due, the customer shall be required to pay the additional charges as determined by the adjustment calculation.*



## **APPENDIX C**

Appendix C -

Sample Depreciation and Appreciation Table (1 page)

# **SAMPLE DEPRECIATION & APPRECIATION TABLE (Sample Calculation)**

Refunding Amount \$500,000  
 Facility Service Life 25 Years  
 Number of EDU'S (estimated) 2700

Year	Quarter	Straight Line Depreciation	Quarterly Interest Rate	Index	Refunding Amount	Value per EDU
0	1	\$500,000.00	1.5	1.0000	\$500,000.00	\$185.19
	2	\$495,000.00	1.5	1.0150	\$500,000.00	\$185.19
	3	\$490,000.00	1.5	1.0302	\$500,000.00	\$185.19
	4	\$485,000.00	1.5	1.0457	\$500,000.00	\$185.19
1	1	\$480,000.00	1.5	1.0614	\$509,454.50	\$188.69
	2	\$475,000.00	1.5	1.0773	\$511,709.90	\$189.52
	3	\$470,000.00	1.5	1.0934	\$513,918.33	\$190.34
	4	\$465,000.00	1.5	1.1098	\$516,077.88	\$191.14
2	1	\$460,000.00	1.5	1.1265	\$518,186.59	\$191.92
	2	\$455,000.00	1.5	1.1434	\$520,242.44	\$192.68
	3	\$450,000.00	1.5	1.1605	\$522,243.37	\$193.42
	4	\$445,000.00	1.5	1.1779	\$524,187.28	\$194.12
3	1	\$440,000.00	1.5	1.1956	\$526,072.00	\$194.84
	2	\$435,000.00	1.5	1.2136	\$527,895.31	\$195.52
	3	\$430,000.00	1.5	1.2318	\$529,654.96	\$196.17
	4	\$425,000.00	1.5	1.2502	\$531,348.63	\$196.80
4	1	\$420,000.00	1.5	1.2690	\$532,973.93	\$197.40
	2	\$415,000.00	1.5	1.2880	\$534,528.44	\$197.97
	3	\$410,000.00	1.5	1.3073	\$536,009.66	\$198.52
	4	\$405,000.00	1.5	1.3270	\$537,415.05	\$199.04
5	1	\$400,000.00	1.5	1.3469	\$538,742.00	\$199.53
	2	\$395,000.00	1.5	1.3671	\$539,987.84	\$200.00
	3	\$390,000.00	1.5	1.3876	\$541,149.84	\$200.43
	4	\$385,000.00	1.5	1.4084	\$542,225.20	\$200.82

\* Appreciation index used for City of Henderson is the Merrill Lynch Bond Index per Ordinance 1495

Appreciation/Depreciation are shown to start immediately however are not effective until year one.

## **APPENDIX D**

Appendix D -

Bibliography - (1 page)

### **BIBLIOGRAPHY**

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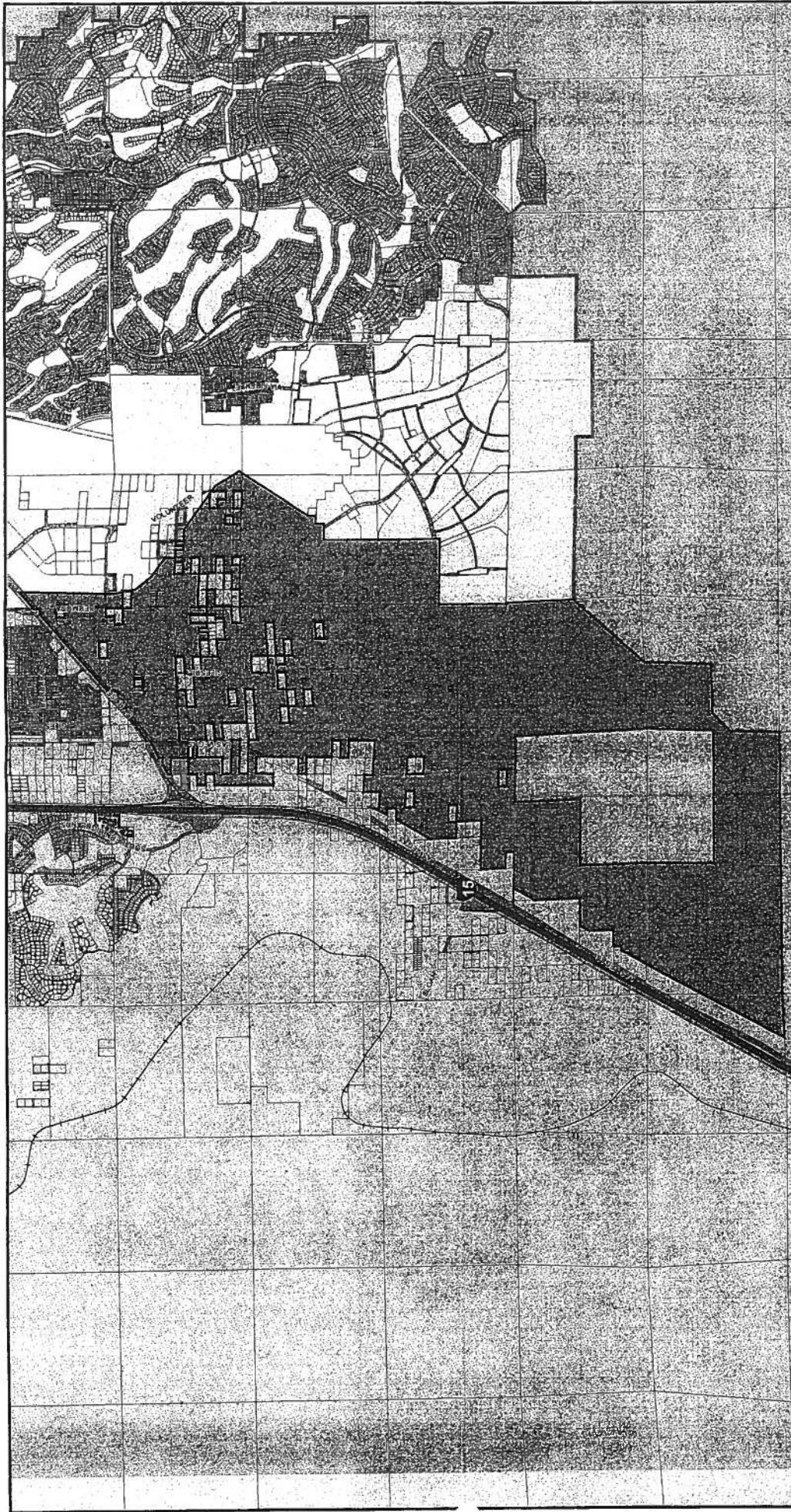
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 DEPARTMENT OF UTILITY SERVICES	<b>SPECIAL SEWER REFUNDING AGREEMENTS</b>	<b>AGREEMENT NAME: ST. ROSE PKWY</b>			 1 inch equals 4,400 feet	MAP-ID: special_refunding_011114 AUTHOR: PMT2 DATE: 9/2/2008
		<b>SUB AREA: D</b>	<b>EXPIRATION CRITERIA: AGREEMENT PENDING</b>			
		<b>ASSESSMENT PRIORITY:</b>				