

# City of Victorville

# 2009 SSMP

## 2009 Sewer System Management Plan



Public Works Department  
May 2009



## INTRODUCTION

### **Sewer System Management Plan (SSMP)**

The 2009 SSMP was prepared by the City of Victorville Public Works Department. It is a compendium of the policies, procedures, and activities that are included in the planning, management, operation, and maintenance of the City's sanitary sewer collection system.

The structure and content of this SSMP follows the General Waste Discharge Requirements (GWDR) for Wastewater Collection Agencies, State Water Resources Control Board Order No. 2006-0003-DWG dated May 2, 2006, which is attached as Appendix A.

### **Sanitary Sewer System Facilities**

The City operates a sanitary sewer collection system that serves approximately 88,788 residents in a 75 square mile service area. The system consists of about 410 miles of gravity lines and force mains with six pump stations and about 8,100 manholes.

In addition, there are approximately 28,000 sanitary sewer laterals in the City. Maintenance and repair of sanitary sewer laterals within the City are the responsibility of the property owner, however, the City provides maintenance and repair services for laterals located within the public right-of-way upon request, as a courtesy service to the residents of Victorville. The City does not own any portion of the service lateral.

**List of Abbreviations and Acronyms**

BMP	Best Management Practices
CCTV	Closed Circuit TV
CIP	Capital Improvement Program
CITY	City of Victorville
SSOERP	Sewer System Overflow Emergency Response Plan
FOG	Fats, Oils, and Grease
I/I	Inflow/Infiltration
MRP	Monitoring and Reporting Program
NPDES	National Pollution Discharge Elimination System
OES	Office of Emergency Services
PM	Preventive Maintenance
PMP	Preventive Maintenance Plan
SSMP	Sewer System Management Plan
SSO	Sewer System Overflow
SWRCB	State Water Resources Control Board
USA	Underground Service Alert
WDR	Waste Discharge Requirement



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Appendix D – Victor Valley Wastewater Reclamation Authority Joint Powers Agreement

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## **City of Victorville**

### **SSMP Element 1 Goals**

**State Water Resources Control Board Order No. 2006-0003-DWG**



## ELEMENT 1: GOALS

### 1.1 Introduction

The mission of the Sanitation Division of the City of Victorville Public Works Department is to operate the wastewater collection system in a safe, efficient, and cost effective manner, with an emphasis on protecting public health and the environment. The requirements of the SSMP are contained in Appendix A, *State Water Resources Board Order No. 2006-0003-DWQ*.

### 1.2 Goals

Consistent with the stated mission, the goals of the SSMP are to ensure that:

1. The sanitary sewer system facilities are properly operated, maintained, and managed to reduce the frequency and volume of sanitary sewer overflows (SSOs) and their potential impacts on public health and safety and on the environment.
2. When SSOs occur, prompt action is taken to identify, contain, and remove the cause; promptly report the event to appropriate regulatory agencies; and notify the public in a timely manner.
3. All SSOs and system deficiencies and remedial actions taken are well documented.
4. The sewer system operators, employees, contractors, responders, or other agents are trained and equipped to address an SSO event.
5. The sewer system is designed, constructed, and funded to provide the capacity to convey base and peak flows while meeting or exceeding applicable regulations, laws, and generally accepted practices relative to sanitary sewer system operation and maintenance.

### 1.3 Compliance with SWRCB Order No. 2006-0003-DWG

These goals are consistent with the Waste Discharge Requirements (WDR) and Sewer System Management Plan (SSMP) provisions that require proper management, operation, and maintenance of all parts of the sanitary sewer system and that require

adequate capacity to convey base and peak flows. This SSMP documents the City's plans for meeting these program goals.



## **City of Victorville**

### **SSMP Element 2 Organizational Structure**

**State Water Resources Control Board Order No. 2006-0003-DWG**



## ELEMENT 2: ORGANIZATIONAL STRUCTURE

### 2.1 Introduction

This Element of the SSMP identifies City staff responsible for implementing the SSMP, responding to SSO events, and meeting the SSO reporting requirements. This section also includes the designation of the authorized representative to meet State Water Resources Control Board (SWRCB) requirements for completing and certifying spill reports. The requirements of the SSMP are contained in Appendix A, *State Water Resources Board Order No. 2006-0003-DWQ*.

### 2.2 Authorized Representative

The Public Works Director is the City's authorized representative in all wastewater collection system matters and is responsible for the execution of the compliance actions required under the Waste Discharge Requirements (WDRs). This includes, but is not limited to, the signing and certification of all reports and correspondence as required under this order.

The Public Works Manager is authorized to act in the Director's absence. And, the Public Works Supervisor and Leadworker are authorized to submit SSO reports to the appropriate agencies.

### 2.3 Organizational Chart and Responsibilities

#### 2.3.1 Organizational Chart

The organization chart showing the structure and relationships of all administrative, management, and field positions is presented in Figure 2.1, *Sanitary Division Organizational Chart*, and the description of responsibilities is presented in Section 2.3.2, below.

#### 2.3.2 Description of Responsibilities

**Public Works Director.** Advises the City Manager and City Engineer on public works matters, including the sanitary sewer collection system. Establishes Sanitary Division policy within the scope of City Council policy and legal requirements, directs its execution, and evaluates work accomplished. Prepares and controls department budget.

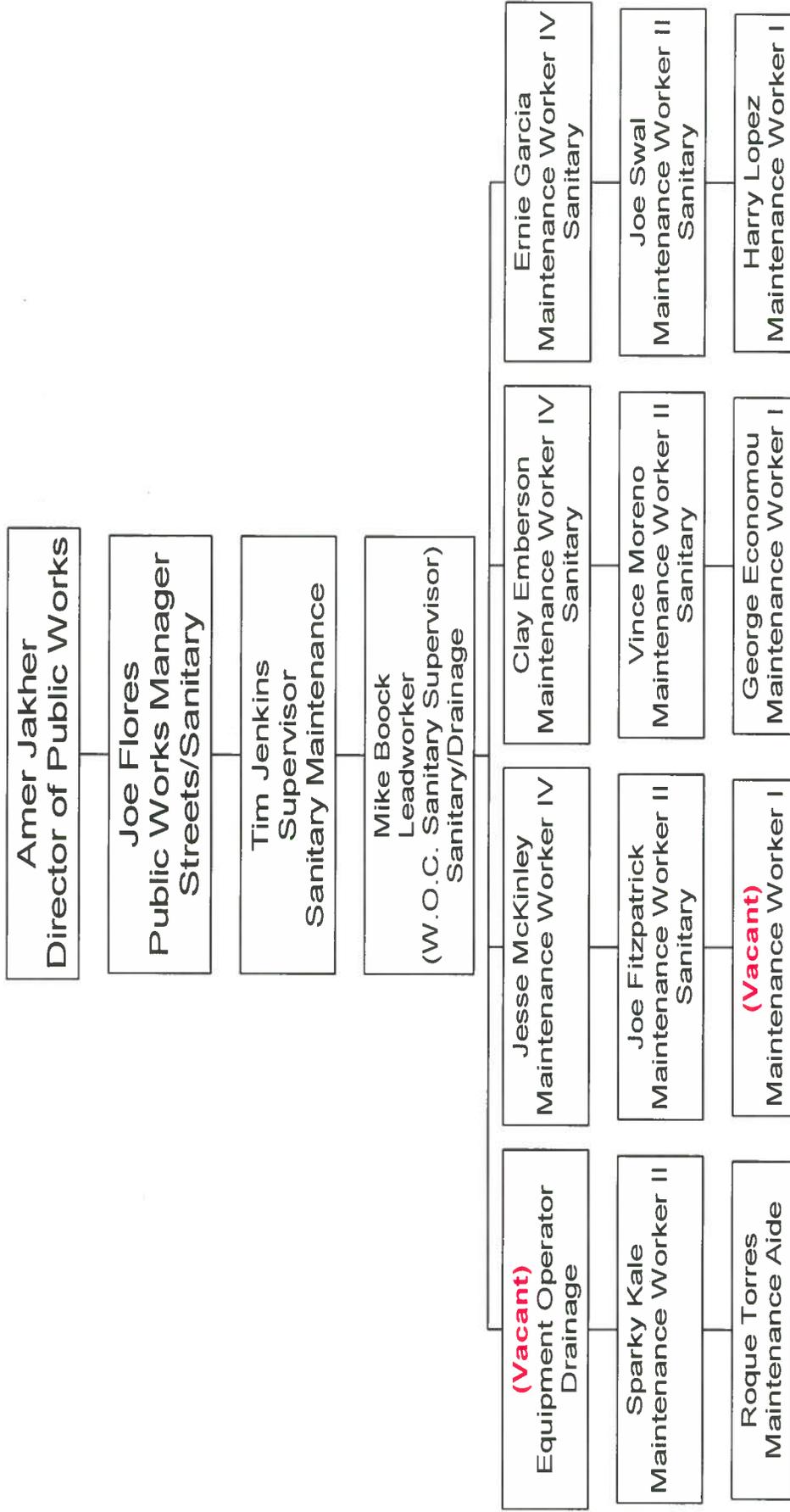
**City Engineer.** Acts as project manager on public works projects, including sewer collection system projects. Supervises the review of private project development plans for compliance with codes, regulations, and standards, adequacy of applications for permits, and compliance with approved plans. Prepares plans, specifications, and preliminary cost estimates. Coordinates and confers with maintenance department on sanitary sewer system issues. Confers with contractors, consultants, and the public on engineering and construction matters. Prepares reports on sewer and other public works projects. Manages the activities of the Public Works Inspector.

**Public Works Manager.** Plans, organizes, and supervises the maintenance and repair of City public works infrastructure, including sewers. Reviews plans and specifications for sewer and other projects, and makes recommendations regarding maintenance, construction, and operations aspects. Controls budget expenditures within the Maintenance Division. Confers with contractors, engineers, and members of the general public on construction and maintenance problems and procedures.

**Public Works Supervisor, Sanitary Division.** Supervises sewer maintenance workers. Occasionally assists in the cleaning and repair of sewer mains and lines and the locations and raising of manholes. Plans and schedules work assignments. Maintains records of projects assigned and completed, supplies and equipment used, and costs incurred. Investigates sewer related complaints from the general public. Estimates needed equipment and equipment maintenance. Trains sewer maintenance workers. Inspects completed projects and ensures that proper documentation of daily activities is accurate.

**Maintenance Leadworker.** Supervises and personally assists in the cleaning and repair of sewer mains and lines and the location and raising of manholes. Lays out and schedules work for crew. Trains crew members in specific tasks, as needed, including sewer collection system preventive maintenance and SSO response. Checks work of assigned crew and verifies documented daily activities.

**Equipment Operator.** Operates construction and maintenance equipment such as backhoes, front-end loaders, grade-all, skip loaders, graders, dozer, street sweepers, etc. Performs related field maintenance activities as required. Acts as leadworker of a construction and street maintenance crew when needed.



**Maintenance Worker IV.** Works as a crew leader of a field maintenance crew. Cleans, unplugs, and repairs sewer lines. Locates and raises manholes. Operates power equipment including hydraulic cleaning truck and sewer rodder and the CCTV pipeline/manhole inspection equipment. Trains crew members on sewer collection system maintenance requirements.

**Maintenance Worker II and I.** The Maintenance Leadworker and Maintenance Workers IV, II, and I are combined to make up three, 3-person sewer cleaning teams.

The first 3-person team, combined with a pickup and combo flush truck, is responsible for the City's high maintenance route for 1- 2- 4-, 6-, and 8-month cleaning cycles (Table 4.1).

A second 3-person team is responsible for regular cleaning as needed, zone cleaning (cyclic), follow-up cleaning, supplement cleaning, and mainline CCTV of sewer mains with the manhole inspection camera. A crew member also performs Underground Service Alerts (USAs), lift station inspections, and service request investigations.

The third 3-person team is generally assigned to storm drain maintenance; however, this team responds to sewer related service requests and emergency response situations, as required. The rotating Public Works Standby (On-Call) team is comprised of personnel who are the most qualified field maintenance crew members within the Department; from the leadworker position to the Maintenance Worker III. They are trained in the proper procedures to perform an initial investigation of a sewer service request and of the calling procedures to contact Sanitary Division team members.

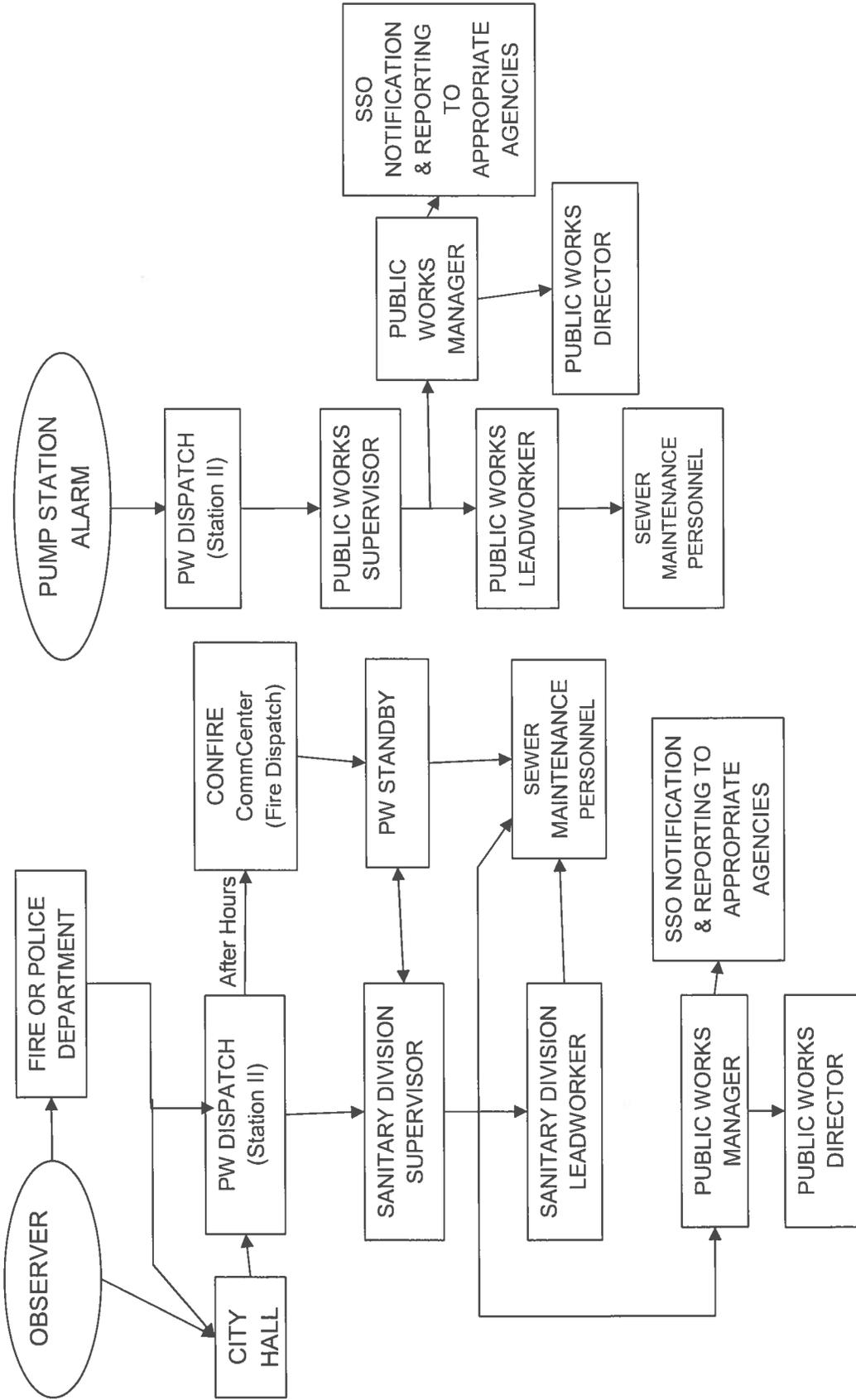
## **2.4 Chain of Communication for SSO Reporting**

The chain of communication for reporting SSOs, from receipt of a complaint or other information to reporting to appropriate regulatory agencies, is presented in Figure 2.2, *SSO Response Chain of Communication*.

Table 2.1 contains the SSO chain of communication phone numbers and Table 2.2 contains the phone numbers of Sanitary Division staff contacts.

## **2.5 Compliance with SWRCB Order No. 2006-0003-DWG**

Section 2.2 of this Element names the Authorized Representative for the City of Victorville responsible for certifying all reports and information. In addition, the City maintains organizational charts and chain of communication, Figures 2.1 and 2.2, respectively, and contact information, Tables 2.1 and 2.2, for reporting and responding to SSOs.



City of Victorville – Sewer System Management Plan **Figure 2.2 – SSO Response Chain of Communication**

**Table 2.1 Contact Phone Numbers for SSO Chain of Communication**

<b>CONTACT</b>	<b>TELEPHONE NUMBER</b>
City Hall	760-955-5000
Fire Department	760-245-5312
Police Station	760-245-4211
Public Works Dispatch (Station II)	760-241-6365
CONFIRE Communications Center	760-245-6280
Public Works Director	760-955-5201
Public Works Manager	760-243-6380
Public Works Supervisor	760-243-6387
Public Works Leadworker	760-241-6365
Public Works Standby (On-Call) Personnel	760-559-3934

**Table 2.2 Names and Phone Numbers of Sanitary Division Contacts**

<b>Position</b>	<b>Name</b>	<b>Telephone Number</b>
Public Works Director	Amer Jakher	760-955-5201
City Engineer	Sean McGlade	760-955-5155
Public Works Manager	Joe Flores	760-243-6380
Public Works Supervisor	Tim Jenkins	760-241-6365
Public Works Leadworker	Mike Boock	760-243-6387
Public Works Maintenance Workers	Various Crew Members	760-241-6365



## **City of Victorville**

### **SSMP Element 3 Legal Authority**

**State Water Resources Control Board Order No. 2006-0003-DWG**



## ELEMENT 3: LEGAL AUTHORITY

### 3.1 Introduction

This Element of the SSMP discusses the City's legal authority, including Government Codes, the City's Municipal Code, and agreements with other agencies such as the Victor Valley Wastewater Reclamation Authority Joint Powers Authority, to regulate the discharge of wastewater into the City's sanitary sewer collection system.

### 3.2 Municipal Code and Government Codes

The *Victorville Municipal Code*, Title 6, *Health and Sanitation*, Chapters 6.48, 6.52, and 6.56, and Title 10, *Water and Sewers*, describe the City's current legal authorities and are attached as Appendices B and C, respectively.

#### 3.2.1 Title 6

Title 6 regulates, in pertinent part, septic tank pumping units, the construction and maintenance of privies, and sanitary facilities.

In addition, the statutory provisions authorizing cities to take such measures as are necessary to preserve and protect the public health are contained in California Health and Safety Code §101450 et seq. The authority of health officers to take preventative measures during any disaster or extreme emergency is contained in California Health and Safety Code §101475.

#### 3.2.2 Title 10

Title 10, Chapter 10.04, provides the City's authority for connection to the sewer system, maintenance, correction of violations, and abatement of a public nuisance with respect to sewer connections.

Chapter 10.06 provides the City's authority to regulate food establishment grease disposal by requiring permits, use and maintenance requirements, maintenance reports, and correction of violations.

For statutory provisions pertaining to the construction and location of drains and sewers, see Gov. C. A. § 38660. As to the authority of a city to construct, establish and maintain drains and sewers, see Gov. C. A. §38900. For statutory provisions authorizing mandatory sewer connection and declaring other means of sewage

disposal to be a nuisance, see Gov. C. A. §54352. For statutory provisions authorizing cities to prescribe, revise and collect charges, see Gov. C. A. §§54344 – 54348 and 54354 – 54356. For statutory provisions relating to the issuance of sewer revenue bonds, see Health and Safety Code §4950 et seq.

Also, the City of Victorville enforces the California Plumbing Code governing the requirements, sizing and locations of grease traps and interceptors, damage to sewer systems, and legal aspects of depositing grease into public sewers.

### **3.3 Joint Powers Agreement**

Victorville is party to a joint powers agreement with the adjacent jurisdictions of the City Hesperia, the Town of Apple Valley, and San Bernardino County which formed the Victor Valley Wastewater Reclamation Authority (VWVRA). The purpose of the VWVRA is the planning, construction, operation, and maintenance of the works and facilities for the collection, transmission, treatment, disposal, and/or reclamation of sewage, wastes, and waste waters to meet the requirements of the National Pollution Discharge Elimination System (NPDES) within the boundaries of the Agency. The Agreement is attached as Appendix D.

### **3.4 Compliance with SWRCB Order No. 2006-0003-DWG**

Through the California Plumbing Code, Government Code sections cited herein, ordinances, resolutions, and the VWVRA agreement, enacted and/or adopted by the City Council, the City possesses the necessary legal authority to adopt and enforce the provisions of the SSMP including; provisions to prevent illicit discharges into the sewer system, to require the proper design and construction of sewer pipelines and connections, to ensure access for maintenance, inspection or repairs of laterals, to limit the discharge of FOG and other debris, and to enforce any violations.



## **City of Victorville**

### **SSMP Element 4 Operation and Maintenance Program**

**State Water Resources Control Board Order No. 2006-0003-DWG**



## **ELEMENT 4: OPERATION AND MAINTENANCE PROGRAM**

### **4.1 Introduction**

This Element of the SSMP provides an overview of the City's sanitary sewer collection system operations and maintenance program.

### **4.2 Collection System Maps**

The City maintains a *Geographical Information System* (GIS) that includes mapping information for the wastewater collection system including force mains, gravity mains, and pump stations. In addition, the City has developed a *Sewer Atlas* (Appendix E) which maps the location of the City's entire sanitary sewer collection system, including the sizing and location of all sewer main segments, manholes, laterals, and pump stations.

The Engineering Department has also completed the *Sewer Master Plan Final Draft* (Appendix F) which contains information on the condition and flow rates of the entire system and recommends areas for inclusion in the capital improvement program for the base year (2006) and out to year 2014 and year 2030.

These documents are available to field crews and updated as needed to document field work, changes to the system, and new facilities.

### **4.3 Preventative Operation and Maintenance**

The elements of the City's sewer system operation and maintenance program include:

#### **4.3.1 Proactive, Preventative, and Corrective Inspection and Maintenance of Gravity Sewers**

The City proactively inspects and cleans segments of the sewer system every month with a goal of inspection and cleaning of the entire system on a 7-year cycle. Preventative maintenance is performed on high maintenance sewer segments every 1, 2, 4, 6, or 8 months, depending on the severity of the problem. Table 4.1 contains the *List of Sewer High Maintenance Areas for March 2009*, and Appendix G, *Location Maps of High Maintenance Areas*, contains maps of the locations. These sewer segments are improved, repaired, removed, or replaced, as needed.

**LIST OF SEWER HIGH MAINTENANCE AREAS FOR MARCH 2009**

1 Month	2 Months	4 Months	6 Months	8 Months	Location	Due	Next Flush Date
					<i>Location Note: Most "Early a.m." locations require additional traffic control</i>		
				8-7-08	1. Borego Rd. from south of A American Self Storage yard north to Seneca. (Changed to monthly 10/30/08 surcharge)	3/4/09	
			1/26/09		2. Park Ave. from Cholame Rd to M/H @ wash to M/H east of Park next to wash (EARLY A.M.)		4-7-09
					3. Park Ave., east of Restaurant Row (along I-15) to MH west of I-15 @ sewer crossing		7/26/09
				12/2/08	4. Kingswood Dr. @ I-15 to Burning Tree Dr.		8/2/09
	2/19/09				5. Burning Tree Dr. second M/H northwest of Candlewood Dr.		4/19/09
					6. Yates Rd. first M/H east of Cypress Ave.	3/17/09	
					7. Valley Center Dr. M/H @ Outer Seventh St. to Sand St.	3/20/09	
					8. Lorene Dr. @ Atstar to Sand St. to Outer Seventh St. north to sewer crossing M/H.	3-8-09	
					9. Alley E/O Seventh St. from Sage St. to sewer crossing M/H then El Dorado Dr. to Molino Dr. to Burning Tree Dr.	3/25/09	
	3/2/09				10. Burning Tree Dr. 5-way M/H S/O Indian Creek Pl. Consult Lead worker first ! HAZARDOUS FLUSH !		5/2/09
					11. La Paz Dr. S/O Hughes @ sewer crossing M/H north to M/H flowing east toward easement to M/H (Changed to monthly 11/12/08 due to SSO) <b>Make sure to flush to M/H in easement!</b>	3/24/09	
					12. Camelback Dr. @ Arrowhead Dr	3/20/09	
	2/3/09				13. Pebble Beach Dr. @ Arrowhead Dr. north to M/H @ wash ( S/O Hughes Rd.) RESEAL WASH M/H PICKHOLES.		4/3/09
		2/3/09			14. Hughes Rd. @ Austin Rd. to Pebble Beach Park M/H thru easement to Molino Dr. to Avalon Rd. to Midway.		6/3/09
					15. Mesa Dr. N/O Seneca to Cabrillo to wash M/H Mesa N/O Cabrillo Dr. 1000PSI <b>Do NOT flush 16325Cabrillo.</b>	3/20/09	
					16. Seneca Rd. first M/H W/O Harmony Ln. to M/H @ Harmony Ln. to M/H @ Lorene Dr.	3-29-09	
	2/12/09				17. Rodeo Dr. @ Lariat Rd. to M/H N/O City View Dr Used Root cutter 12/11/08) (EARLY A.M.)		4/12/09
			10/6/08		18. Rodeo Dr. M/H @ wash -east thru easement to Lorene Dr. M/H (in resident's driveway) - to Seneca M/H-(shoulder)		4/6/09
					19. Seneca Rd. @ Navarro Dr. to M/H in bridge to M/H in center of Seneca Rd. -east to 90 M/H flowing north	2-26-09	
					20. Seneca Rd. @ Mojave Ln. to M/H @ Outer Hesperia Rd. to M/H @ Hesperia Rd. (EARLY A.M.)	3-24-09	

Element 4: Operation and Maintenance Program

1 Month	2 Months	4 Months	6 Months	8 Months	Location Note: Most "Early a.m." locations require additional traffic control	Due	Next Flush Date
				8-6-08	21. Hesperia Rd. & Oro Grande wash @ the Old Bus Barn crossing		4-6-09
				11/17/08	22. Cherry Hill Dr. @ Apple Creek Dr.		7/17/09
3/3/09					23. S. Mojave Dr. @ northwest corner of Irwin School to Center St.		4/3/09
		1/12/09			24. Easement W/O Culley St. Apts. to 90 M/H- east thru 2 easements between Lacy, Joshua, & Zenda- to Center St.		5/12/09
			10/23/08		25. Greentree Blvd. @ Hesperia Rd. south to Coad Rd. M/H		4/23/09
3/3/09					26. Del Rey Dr. @ Del Norte Dr. to Tatum Dr. Use Root cutter as needed to remove grease		4/3/09
					27. Victor St. @ Las Piedras Dr. & Del Rey Dr. to Tatum Ct.-then Tatum Rd. from Del Norte Dr. to Tatum Ct.	3/25/09	
		12/11/08			28. Seventh St. @ Tatum Rd.-north to M/H @ Del Taco just S/O Lacy St.		4/11/09
				2/12/09	29. Forrest Ave. @ Seventh St. to drop-M/H @ alleyway		10/12/09
				8-7-08	30. LaPaz Dr. @ LaCubre Dr.		4-7-09
		2/19/09			31 Del Rey Dr. @ Del Rey Ct. north to La Paz Dr.- north to Avalon Dr.- east to La Verida Dr.- south to Forrest St.		6/19/09
					32. B.St. alleyway north to D St. @ Eighth St. to Seventh St. to E.St. @ Sixth St.	11/25/08	
	2/24/09				33. Alley between Sixth St. and Fifth St. from A St. to C St.		4/24/09
				2/3/09	34. Allen St. south of A St. , north to B St. through alleyway		10/3/09
				2/3/09	35. 6 <sup>th</sup> , 5 <sup>th</sup> , 4 <sup>th</sup> , 3 <sup>rd</sup> , & 2 <sup>nd</sup> , Streets between C St. and D St		10/3/09
					36. Condor Rd. @ La Cubre Dr. to wash crossing south of Tern Rd	3/17/09	
		1/15/09			37. Mojave Dr. W/O Condor (north side Mojave) east to junction M/H (south side Mojave), east to Village (EARLY AM)		5/15/09
					38. Barranca Way sewer crossing north of Sueno Ln. under wash to alleyway M/H behind 15647 Village Dr. (2 PIPES)	3/24/09	
			1/29/09		39. Puesta Del Sol Dr. E/O Cazadero Rd. @ wash		7/29/09
					40. N. Culver Rd. @ Burwood Rd. & M/H E/O wash, thru easement south to Condor, north thru easement to Village Dr.	3/26/09	
				1/26/09	41. El Grande Way @ Foothill Rd. east to El Evado Rd.		9/26/09

Element 4: Operation and Maintenance Program

1 Month	2 Months	4 Months	6 Months	8 Months	Location Note: Most "Early a.m." locations require additional traffic control	Due	Next Flush Date
				8-26-08	42. Highlander Dr. @ Newcastle Way thru to Loch Lomond Court N/O Hook Blvd.		4-26-09
		12/4/08			43. Mojave Dr. @ Ashley Glen Dr., east to Jeraldo Dr. (EARLY A.M.)		4/4/09
					44. Amargosa Rd. @ Chapparral St. north to Tawney Ridge Ln. east to Topango Rd.	3/21/09	
				8-5-08	45. Mesa Verde Dr. @ Madera St., -Via Posada Dr. @ Mesa Verde Dr.,-Redrock Rd. @ Via Posada Dr. to Topaz Rd.		4-5-09
					46. 1 <sup>st</sup> M/H W/O Topaz Rd. on La Mesa Rd., west to Shearwater Rd.	3/18/09	
				9-15-08	47. Luna Rd. @ Snowview Rd. to second M/H E/O Topaz Rd.		5-15-09
			11/17/08		48. Cobalt Rd. @ High Desert Rd.		5/17/09
		12/11/08			49. Amethyst Rd. N/O Mica Ave. north to La Mesa Rd. <b>Ran Root cutter 12/11/08 (@ LA MESA EARLY A.M.)</b>		4/11/09
	2/3/09			12/1/08	50. La Mesa Rd. @ Cobalt Rd., also LaMesa Rd. @ Jade Rd. east to Sundown Rd.		8/1/09
					51. Wrangler Ln. @ Sundown Rd. east to 2 <sup>nd</sup> M/H @ driveway S/O Wrangler Ct., also Luna Rd. @ Wrangler Ln.		4/3/09
				9-25-08	52. North Star Ave. @ Jade Rd. east to Northgate Dr. <b>CHG'D TO 8 MONTHS. 12-21-05 (M/H @ JADE EARLY A.M.)</b>		5-25-09
					53. <b>Shooting Star Dr. @ Mt. Baldy Way north to North Star Ave. and North Star Ave. @ Galaxy St</b>	3/25/09	
				9-22-08	54. Galaxy St. @ Wagon Wheel Dr. north to Stagecoach Dr.		5-22-09
					55. La Mesa Rd. @ Stagecoach Dr.	3-22-09	
				1/14/09	56. Pacoima Rd. @ Rogers Ln. (on the west) and Manzano Rd. (on the east)		9/14/09
					57. El Evado Rd. @ Hillsborough Dr. and La Mesa Rd. @ El Evado Rd. <b>(LA MESA @ EL EVADO EARLY A.M.)</b>	3-25-09	
				9-11-08	58. Luna Rd. @ Aurora Ave. east to El Evado Rd. <b>(EL EVADO RD. @ LUNA RD. EARLY A.M.)</b>		5-11-09
				9-11-08	59. Amargosa Rd. from V.V.Mall entrance south past Olive Garden <b>(EARLY AM)</b>		5-11-09
		3/2/09			60. 2 M/Hs on King Ranch Rd. W/O Amargosa Rd. to Snake River Dr. to Choke Cherry Dr. to La Mesa Rd. E/O El Rio		7/2/09
				2/12/09	61. Mariposa Rd. N/O Bear Valley Rd. north to Monarch Blvd. then east to 1 <sup>st</sup> M/H <b>(EARLY A.M.)</b>		10/12/09
		2/26/09			62. 11 <sup>th</sup> Ave. @ Winona St.		6/26/09

Element 4: Operation and Maintenance Program

1 Month	2 Months	4 Months	6 Months	8 Months	Location Note: Most "Early a.m." locations require additional traffic control	Due	Next Flush Date
			2/19/09		63. 5 <sup>th</sup> Ave. N/O Bear Valley Rd. @ Food 4 Less tie-in M/H, north to 1 <sup>st</sup> M/H N/O Tokay St.		8/19/09
		2/26/09			64. 5 <sup>th</sup> Ave. @ Red Cloud Ln. to Squaw Valley Ln. to Softwind Dr. to Silica Dr. to 3 <sup>rd</sup> Ave. (3 <sup>rd</sup> Ave M/H EARLY A.M.)		6/26/09
	2/5/09				65. Hesperia Rd. @ Silica Rd. to M/H in front of Los Robertos Restaurant (EARLY A.M.)		4/5/09
					66. Hesperia Rd. @ Comanche St. north to 90 M/H (on outer roadway)	3/20/09	
		1/5/09			67. Nisqualli Rd. from 1 <sup>st</sup> Ave. east to Hesperia Rd		5/5/09
					68. Sewer easement W/O Landis St., E/O railroad /W/O Ridgecrest N/O Bear Valley Rd CHECK-USE 4 WHEELDRIVE	2-24-09	
					69. Ottawa St. @ Forrest Meadow St. east to Ottawa Place	3/25/09	
	2/3/09				70. Dakota St. @ Chuparosa St. east to 1 <sup>st</sup> M/H W/O Amargosa Rd.	3/19/09	
					71. Fern Pine @ Dos Palmas 4-way manhole		4/3/09
					72. Arrowhead Rd. @ Greyrock south to Ottawa St. Used Root cutter 12/11/08 (Traffic Control Recommended)	2/14/09	
					73. 9 <sup>th</sup> Ave. from Winona St. to Choctaw	3/26/09	
			10/28/08		74. Navarro Dr. @ 3 <sup>rd</sup> M/H w/o Cactus Dr. flush 2 M/Hs upstream to Navarro Ct. M/H		4/28/09
			1/26/09		75. Estate Way to Mojave Dr		7/26/09
		3/4/09			76. E St east of 6 <sup>th</sup> St.		7/4/09
			1/21/09		77. Seneca Rd. E/O Park Ave to Park Ave, South in Alley to 1 <sup>st</sup> Manhole		7/21/09
				9-9-08	78. Bear Valley Rd. @ Amethyst Rd. (Dump Water into TOL Manhole)		5-9-09
					79. Nisqualli Rd. @ Apts. East of Hesperia Rd. (Both laterals)	4/4/09	
				3/3/09	80. Woodbine west from Beauville		11/3/09
				1/7/09	81. Alpine Circle n/o Kirkwood Dr. to Sun Valley Circle		9/7/09

Element 4: Operation and Maintenance Program

1 Month	2 Months	4 Months	6 Months	8 Months		Due	Next Flush Date
					<i>Location Note: Most "Early a.m." locations require additional traffic control.</i>		
				1/28/09	82. Seneca Rd @ Newporter Apts. Driveway M/H Flush into Apt M/H then west to McArt Rd.		9/28/09
				1/28/09	83. Alta Mesa Rd. from Via Rosa Rd. to Via Puente Rd. to Del Amo Dr. M/H.		9/28/09

Public Works and Engineering Staff are currently developing a capital improvement program to address these high maintenance areas and perform the improvements necessary to remove them from the high maintenance list as budgets allow.

In addition, to augment the preventive maintenance program and reduce the potential for a root caused SSO, the Sanitary Division has implemented a proactive root abatement program.

#### **4.3.2 Closed Circuit TV Inspections**

CCTV inspections of the system are performed both for periodic condition assessment and for follow-up on SSO events.

Repair crews correct problems that are identified by CCTV and sewer cleaning crews. Repairs are completed in priority order. Repair and replacement projects are coordinated with the City's street surfacing program and water main replacement projects.

#### **4.3.3 Rehabilitation and Replacement of Sewers in Poor Condition.**

Significant structural defects are repaired as they are identified. Gravity sewer maintenance is scheduled using maps and lists and the maintenance is recorded on field crew daily reports as completed.

#### **4.3.4 Periodic Inspection and Preventative Maintenance of Pump Stations.**

The operation of pump stations is monitored and inspections and maintenance are performed on a regular schedule. The inspections and maintenance are recorded on field crew daily reports as completed.

### **4.4 Rehabilitation and Replacement Program**

The City inspects the condition of portions of its gravity sewer system on a monthly basis with a goal of a 7-year inspection and cleaning cycle of the entire system. The information collected is used as the basis for the City's rehabilitation and replacement program. The information is processed and reviewed as it is obtained and the condition of the system is continuously assessed. Individual segments are then selected for inclusion in the capital improvement program for replacement or rehabilitation. Table 4.2 contains the City's current 10-year Sanitary Capital Improvement Program.

**Table 4.2 City of Victorville  
TEN-YEAR SANITARY CIP**

PROJECT DESCRIPTION	FUNDING SOURCE	ESTIMATED TOTAL COST
OLD TOWN AREA 31,000 LF SEWER REHAB	25100	\$2,000,000
AMETHYST RD SEWER TRENCH LINE REPAIR PROJECT	25100	900,000
SCLA WET WELL PUMP REPLACEMENT	25100	150,000
SEWER ROOT TREATMENT	25100	100,000
SOUTH MOJAVE PIPE REPLACEMENT	25100	28,000
REPLACEMENT VACTOR	25100	400,000
SANITARY EQUIPMENT	25100	75,000
SEWER MASTER PLAN	25100	150,000
CITYWIDE RECLAIMED WATER PROJECTS (Planning/Design/Construction)	25100	1,700,000
RODEO DRIVE PARALLEL RELIEF SEWER (8")	25100	1,000,000
LA PAZ/ARROWHEAD PARALLEL RELIEF SEWER	25100	1,000,000
LA MESA/MESA LINDA DIVERSION	25100	500,000
AMETHYST/LA MESA DIVERSION	25100	500,000
SCLA WEST TRUNK MASTER PLAN UPDATE – DR PEPPER (Design/Construction)	25100	750,000
EVALUATION OF EXISTING SEWER FLOWS	25100	200,000
LUNA/MESA LINDA DIVERSION	25100	500,000
AMETHYST/NORTHSTAR DIVERSION	25100	750,000
SCLA PHASE 1A THROUGH 1C SEWER LINES	25100	2,000,000
CABRILLO/SENECA REPAIR CONSTRUCTION	25100	25,000
TREATMENT PLANT (Design/Construction)	25100	15,000,000
SLUDGE PONDS & DRYING BEDS	25100	2,000,000
		<b>TOTAL FOR FISCAL YEAR 2008/2009</b>
		<b>\$29,728,000</b>
PROJECT DESCRIPTION	FUNDING SOURCE	ESTIMATED TOTAL COST
OLD TOWN AREA REHAB (34,000 LF)	25100	\$3,000,000
TREATMENT PLANT (Construction)	25100	15,000,000
SURCHARGE MANHOLE – SEWER INSPECTIONS	25100	120,000
EL EVADO 12" DIVERSION	25100	250,000
SEWER ROOT TREATMENT	25100	100,000
FOXBOROUGH NORTH	25100	200,000
CITYWIDE RECLAIMED WATER PROJECTS	25100	1,700,000
SCLA FUTURE PHASES	25100	930,000
SCLA SLUDGE PONDS & DRYING BEDS	25100	8,000,000
		<b>TOTAL FOR FISCAL YEAR 2009/2010</b>
		<b>\$29,300,000</b>

**Table 4.2 (cont) City of Victorville  
TEN-YEAR SANITARY CIP**

PROJECT DESCRIPTION	FUNDING SOURCE		ESTIMATED TOTAL COST
SEWER FLOW EVALUATION	25100		\$20,000
AMARGOSA/DUNIA TO MESA ST NEW SEWER	25100		2,550,000
HESPERIA RD SEWER RELIEF - HESPERIA/CENTER ST	25100		200,000
NISQUALLI RD/ARROWHEAD TO BALSAM NEW SEWER	25100		650,000
MOJAVE RD/JERALDO DIVERSION LINE	25100		600,000
SEWER ROOT TREATMENT	25100		100,000
VALLEY PARK 900' MAINLINE	25100		200,000
SCLA FUTURE PHASES SEWER LINES	25100		930,000
LIFT STATION - SCLA	25100		1,500,000
CITYWIDE RECLAIMED WATER PROJECTS	25100		500,000
		<b>TOTAL FOR FISCAL YEAR 2010/2011</b>	<b>\$7,250,000</b>
PROJECT DESCRIPTION	FUNDING SOURCE		ESTIMATED TOTAL COST
CITYWIDE RECLAIMED WATER PROJECTS	25100		\$10,000,000
TRUNK LINE ENHANCEMENT & EXTENSION	25100		6,400,000
REPLACEMENT VACTOR	25100		500,000
SEWER ROOT TREATMENT	25100		700,000
SCLA FUTURE PHASES SEWER LINES	25100		8,370,000
LIFT STATION - NORTHERN TRIANGLE	25100		1,500,000
SCLA NORTH SEWER LINE	25100		2,000,000
		<b>TOTAL FOR FISCAL YEAR 2011/2018</b>	<b>\$29,470,000</b>
		<b>TOTAL FOR FISCAL YEARS 2008 thru 2018</b>	<b>\$95,748,000</b>

Public Works and Engineering Staff are currently developing a separate capital improvement program to address identified areas of high maintenance and perform the replacement or rehabilitation necessary to remove them from the high maintenance list.

## **4.5 Training**

A combination of in-house classes, on-the-job training, conferences, seminars, and other training opportunities are utilized by the City to train its sanitary sewer collection system maintenance and repair crews on a regular basis.

In addition, only contractors with trained and experienced staff are considered for either sewer construction and rehabilitation work or emergency SSO mitigation.

## **4.6 Replacement Parts**

The Public Works Department has a comprehensive equipment repair and maintenance program. All equipment and vehicles are regularly checked, adjusted, repaired, or replaced as necessary. Major fixed assets are replaced based on age of the equipment or vehicle, mileage, hours of use, repair history, etc. An inventory of replacement parts is maintained by the Fleet Maintenance Division.

Equipment can also be replaced if its reliability and safety of operation becomes questionable. New equipment is acquired when fully justified based on increased workload, new activity, additional personnel, technological improvements, time and cost savings, employee or public safety requirements, etc. Table 4.3 contains a list of equipment and vehicles available for sanitary sewer inspection, cleaning, and repair.

## **4.7 Compliance with SWRCB Order No. 2006-0003-DWG**

The City cleans and inspects segments of the sewer system on a monthly basis with a goal of inspection and cleaning of the entire system on a 7-year cycle. In addition, the City maintains a log of high maintenance areas, Table 4.1, and their locations, Appendix G, and Table 4.2 contains the City's 10-year Sanitary Capital Improvement Program.

The City provides training to Public Works staff on a regular basis through in-house seminars, on-the-job training and seminars provided by the sewer maintenance and operation industry. City outside contractors are required to be trained and experienced.

The Public Works Department has a comprehensive fleet maintenance program for all City vehicles and equipment and maintains an inventory of replacement parts including critical replacement parts.

**Table 4.3 Sanitary Division List of Equipment and Vehicles**

<b>Type of Vehicle/Equipment</b>	<b>Year</b>
INTERNATIONAL 2100 SERIES VACTOR	2009
FORD F250 UTILITY TRUCK	2008
STERLING 10-YARD DUMP TRUCK	2007
DODGE 2500 CREW CAB	2006
FORD EXPEDITION	2006
FORD F350 FLAT BED	2004
DODGE 2500 EXTENDED CAB 4-WHEEL DRIVE PICK UP	2001
GMC CCTV EQUIPMENT VAN	1999
8-INCH TRASH PUMP	2008
MULTIQUIP 3-INCH TRASH PUMP	2006
STIHL CUTOFF SAW	2006
GRADALL EXCAVATOR	2005
INTERNATIONAL VACTOR	2004
HYDRO 6- & 8-INCH HOSE REEL TRAILER	2002
STERLING VACTOR	2000
GENERAC POWER SUPPLY FOR CCTV EQUIPMENT	2000
CAT EMERGENCY SEWER PUMP STATION GENERATOR	1995
PELSUE VENTILATOR/CONFINED SPACE BLOWER	1991
WACKER 6-INCH TRASH PUMP	1991
BIG TEX DUMP TRAILER	1990

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## **City of Victorville**

### **SSMP Element 5 Design and Performance Provisions**

**State Water Resources Control Board Order No. 2006-0003-DWG**



## **ELEMENT 5: DESIGN AND PERFORMANCE PROVISIONS**

### **5.1 Introduction**

The City's design and construction standards are used by City staff and are provided to consulting engineers and developers at the start of a design process or proposed development.

### **5.2 Design and Construction Standards and Specifications**

The City's design criteria for new and rehabilitated sewer lines or facilities are specified in the *City of Victorville Draft Final Sewer Master Plan* (Appendix F) and in the *City of Victorville Standard Specifications for Public Improvements* (Appendix H).

### **5.3 Procedures and Standards for Inspection and Testing New and Rehabilitated Sewer Collection Facilities**

The Public Works Sanitation Division and Engineering Department provide inspections and testing for the installation of new and the rehabilitation of deteriorated sewer collection facilities within the City. Inspectors are trained in sewer line and pumping station construction and operation and attend training classes and seminars to become familiar with advancements in the industry. In addition to inspection and testing, the City requires the submission of "As Built" plans of all completed projects prior to final acceptance by the City of completed projects as public infrastructure.

The City's *Draft Final Sewer Master Plan* (Appendix F) and the *Sanitary Sewer System Preventive Maintenance Program* (Appendix J) contain procedures for inspection and testing the sewer system.

### **5.4 Compliance with SWRCB Order No. 2006-0003-DWG**

The City requires that all new and rehabilitated or repaired sanitary sewer system pipes, connections, pump stations, and other appurtenances be designed and constructed in conformance with Appendix F, *Draft Final Sewer Master Plan* and Appendix H, *City of Victorville Standard Specifications for Public Improvements*.

Inspection and testing of the system is required pursuant to the provisions of the City's *Draft Final Sewer Master Plan* (Appendix F) and the *Sanitary Sewer System Preventive Maintenance Program* (Appendix J).



## **City of Victorville**

### **SSMP Element 6 Sanitary Sewer Overflow Emergency Response Plan**

**State Water Resources Control Board Order No. 2006-0003-DWG**



## **ELEMENT 6: SANITARY SEWER OVERFLOW EMERGENCY RESPONSE PLAN**

### **6.1 General**

The City of Victorville Public Works Department is responsible for the operation and maintenance of the sanitary sewer collection system. Victorville's system consists of gravity fed, pump stations, and force mains and flows to the Victor Valley Wastewater Reclamation Authority (VWRA) at eight connection points. This system sends an average of 9.6 million gallons per day (MGD) to the VWRA Wastewater Treatment Plant. Victorville is a partner in the VWRA Joint Powers Authority (Appendix D contains the VWRA Joint Powers Agreement) along with five other agencies including, Apple Valley, Hesperia, San Bernardino County, and VWRA.

And, although no MOU is currently in place, City staff frequently work with other agencies crews, if needed, from surrounding communities. This cooperation allows us (and them) the ability to have the quickest response time to SSOs or other sewer system issues as is possible. The quick response time facilitates the timely removal of a blockage which, in turn, reduces or eliminates the amount of sewage that could otherwise enter the storm drain system.

Appendix I contains a draft MOU titled, *Emergency Response Assistance Agreement*, which is currently under review by the member agencies to the VWRA JPA. Once it is finalized, it will be adopted by the member agencies to govern cross-jurisdictional events.

### **6.2 Authority**

On May 2, 2006, the State of California, Water Resources Control Board (SWRCB), issued Order No. 2006-0003-DWQ (commonly referred to as the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems or WDR) to all owners and operators of sanitary sewer collection systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California. All such owners and operators are required to comply with the terms of this Order.

The Order is intended to ensure that all collection agencies within the State provide adequate and appropriate wastewater collection system capacity, maintenance,

operation, emergency sewer spill response, and the legal responsibility to reduce or eliminate sewage discharges from entering the waters of the U.S.

As the owner of the sanitary sewer collection system within its City limits, the City of Victorville has the right and responsibility to ensure that the collection system is properly funded, operated and maintained, including the appropriate response to sewer system overflows (SSOs) as prescribed in Order No. 2006-0003-DWQ.

## **6.3 Types of Overflows**

### **6.3.1 Private Property SSO**

This is an overflow that occurs on private property and is contained within that property. A private property SSO does not encroach on public property, such as a street, and does not enter the storm drain, flood channel, or any other storm water conveyance or waters of the U.S. These SSOs are the responsibility of the property owner although the City may offer assistance, however, the city may request compensation from the property owner for such assistance.

An example of a private SSO is the backup of a private sewer lateral where the entire overflow of sewage is contained within the property.

### **6.3.2 Public Property SSO**

This is an overflow that occurs on public property or occurs on private property and migrates to public property. Once an SSO occurs on public property, it is the responsibility of the City to determine the cause and initiate corrective action including the cleanup and recovery of all recoverable sewage regardless of its source. The City may request compensation for an SSO that originates on private property and migrates to public property.

An example of a public property SSO is the overflow of a manhole on a City owned collection system line. All public property SSOs must be reported in accordance with the reporting procedures outlined in the *Sanitary Sewer Overflow Emergency Response Plan*, in Section 6.4.

Regardless of the source of an SSO, every effort must be made to ensure that sewage does not reach the receiving waters of the U.S.; that is, every effort must be made to prevent sewage from reaching storm drains, flood channels, drainage ditches, or any other storm water conveyance. Should an SSO reach a storm water conveyance, every effort must be made to remove the sewage as rapidly and completely as possible. This includes all storm water conveyances whether owned by the City or not.

## 6.4 City of Victorville Emergency Response Plan

Refer to *Figure 2.1 – Sanitary Division Organizational Chart* on page 4 for the Sanitary Division of Public Works personnel, and *Figure 2.2 – SSO Response Chain of Communication* on page 6 for the flow chart for SSO reporting.

### 6.4.1 Procedures

The purpose of this response plan is to:

- 1) protect personnel and public health, the environment, and property from sewage spill events and restore the area back to normal as soon as possible after a spill;
- 2) safely and competently respond with available resources and capabilities within the City of Victorville;
- 3) establish perimeters and control zones using appropriate measures and directing traffic as needed;
- 4) promptly notify the San Bernardino County Public Works Environmental Management Division, the San Bernardino County Flood Control Operations Division, the SWRCB, the Lahontan Regional Water Quality Control Board, and any other agencies as may be required relevant to the location of the spill; and,
- 5) contain the sewage discharge as quickly and efficiently as possible – with every effort being made to prevent the discharge of sewage into the surface waters of the U.S.

#### 6.4.1.1 First Responders' Duties:

- a. Identify and assess the area and extent of the discharge. Determine if there is a need for additional support from City maintenance personnel or other jurisdictions.
- b. Identify the need for traffic or crowd control and notify the appropriate personnel.
- c. Notify supervisor of the location and condition of the discharge. Off-duty hour phone numbers are identified on the standby list for additional personnel to be contacted.
- d. Divert spill by building a small berm to change direction of flow away from any storm drain system. If possible, retain spill by letting it collect in a natural low area and recover sewage when time permits. Use all available means to prevent discharge from entering storm drain system or flowing into waterways.
- e. Notify Sanitary Division personnel. Contact phone numbers are listed in Tables 2.1 and 2.2 on page 7.

- f. Area shall be flushed and disinfected as required with all wash water being captured and returned to the sewer system.

6.4.1.2 Duties of Supervisory Personnel:

- a. Assess discharge rate and duration of discharge.
- b. Contact RWQCB and the San Bernardino County Health Department and provide them with the required information regarding the spill. State OES must be notified if the discharge has the potential to be a Category 1 spill.
- c. Take photos of the discharge. Photos need to show the spill, the area affected and the area after the cleanup. Copies of these photos are to accompany the report to the RWQCB.
- d. Ensure expedient arrival of sewer cleaning equipment. Supervise containment methods used by the first responder.
- e. Document all actions taken during the spill: location of spill; flow rate; time of flow; when flow was stopped; type of containment; cause of discharge; time clean-up was completed; method used to clean area; and agencies contacted with names of personnel contacted.
- f. Fill out appropriate form for RWQCB and send the information to the RWQCB Reporting Section. File copies of the information in the Department file system for sewer discharges.

6.4.1.3 Storm Drain System:

Every effort must be made to keep an SSO out of the storm drain system. The storm drain system includes catch basins, drainage ditches, flood control channels, waterways or any other conveyance utilized for storm water drainage. Earthen berms or sand bags can be constructed to divert and contain the sewage flow. Rubber sheeting can be used to prevent sewage from entering the storm drain system. Even if sewage has already entered the storm drain system the above methods should be utilized to prevent additional sewage from continuing to enter the storm drain system.

If the SSO has entered the storm drain system, first take steps to prevent additional sewage from entering the storm drain. Determine the direction of flow and where the closest location is where the storm drain system can be inspected to determine the extent of sewage contamination within the storm drain system. If the SSO has entered the County's flood control system, notify the San Bernardino County Flood Control District for assistance or access to their facilities. Cleanup of the storm drain system is to begin as soon as equipment and personnel are available. To the extent that access permits, a vacuum truck should be utilized to remove the sewage from the storm drain and return it to the sanitary collection system. If this is not possible, whatever

means are available should be used to clean up the storm drain and prevent the SSO from reaching the waters of the U.S.

#### **6.4.2 Overflow Detection**

Detection of an SSO may occur in numerous ways:

- 1) In the event that an outside party reports an SSO through the Public Works Department during business hours; station 2 dispatch will contact the Sanitary Division supervisor, leadworker, manager, or Director to advise of the report. Sanitary Division maintenance personnel will be dispatched immediately to investigate the report. The Station 2 dispatcher will complete a departmental Service Request to record the nature of the event.
- 2) If the report is provided during non-business hours to the Public Works telephone line; a message directing the reporting party to contact Desert Communications is provided. Desert Communications will immediately contact the Public Works Emergency Standby crew member on duty to advise him/her of the report. The Emergency Standby crew member will respond to investigate the report. The Emergency Standby crew member will contact Sanitary Division personnel if the report is verified as an SSO event.

#### **6.4.3 Reporting Procedures**

To remain in compliance with the California Regional Water Quality Control Board, **ALL** public property SSOs must be reported through California Integrated Water Quality System (CIWQS). The method for reporting varies depending upon the circumstances surrounding the SSO. Depending upon the type and location of the SSO, up to three basic reports are required. These reports are an initial telephone report, and a written SSO report to be submitted within five days of the SSO. Photographs must be taken of each SSO within the City's jurisdiction to be included with the monthly report.

The initial telephone report to Lahontan is required for all SSOs that occur in the City's collection system and requires specific information. The telephone report is not required (for SWQCB) if the SSO is totally contained, totally cleaned up and returned to the sewer system, has not caused a nuisance and/or has not entered the storm drain system, and is not a Category 1 event.

A written report of an SSO must be submitted to the RWQCB within five days. This report contains most of the information required on the initial telephone report plus some additional information. Like the initial telephone report, the written report is required for all SSOs except those that are totally contained, totally cleaned up and returned to the sewer system, has not caused a nuisance and/or has not entered the storm drain system. The written report is required even if the sewage can be recaptured in an enclosed storm drain. In this situation, the discharger is required to demonstrate that no sewage was discharged to surface waters.

All reports submitted to the Regional Board must be signed by the Director of Public Works and include the following statement:

*I certify under penalty of law that this document and all attachments were prepared under my direct supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.*

All SSOs that may affect public health, within the City's collection system must be reported to the San Bernardino County Health Department at 1-800-782-4264, and to the Lahontan Regional Water Quality Control Board 760-241-6583.

In addition, All SSOs over one thousand (1,000) gallons must be reported to the California Office of Emergency Services, phone number 1-800-852-7550. The fax number for follow up is 1-916-845-8910.

Table 6.1 is a summary of how SSOs are to be reported.

<b>Type of SSO</b>	<b>Type of Report</b>
Private property SSO that is not contained and flows to public property and/or enters the storm drain system.	Reports are contingent upon the City being made aware of the overflow. Initial telephone report. Written report. San Bernardino County Health Department. Office of Emergency Services if over 1,000 gallons.
Public property within the City’s collection system, totally contained, does not enter the storm drain system.	Initial telephone report and written report to Lahontan Regional Water Quality Control Board.
Public property within the City’s collection system, is not totally contained, and/or enters the storm drain system.	Initial telephone report. Written report. San Bernardino County Health Department. Office of Emergency Services if over 1,000 gallons.
No SSOs occurred nor does the City have any knowledge of SSOs occurring.	Monthly CIWQS online report.

**6.4.4 Reporting Contacts:**

1. Lahontan Regional Water Quality Control Board 760-241-6583  
 15428 Civic Drive fax: 760-241-7308  
 Victorville, CA 92392 website: swrcb.ca.gov/rwqcb6
2. San Bernardino County Health Department 800-782-4264  
 351 N. Mt. View Avenue 909-387-6280  
 San Bernardino, CA 92415-0010 website: sbcounty.gov/pubhlth
3. State of California Office of Emergency Services 800-852-7550  
 3650 Schriever Avenue fax: 916-845-8910  
 Mather, CA 95655 website: oes.ca.gov  
 Contact: Randy Schulley, Chief randy.schulley@oes.ca.gov  
 (**NOTE:** You must record the case number given to you for future use.)
4. San Bernardino County Flood Control District 909-387-8104  
 385 East Third Street fax: 909-387-8130  
 San Bernardino, CA 92415 website: sbcounty.gov/dpw  
 Contact: Naresh Varma, Chief 909-387-8109

#### **6.4.5 SSO Flow Estimation**

Accurate flow estimation is essential to determine the impact of an SSO. In addition, accurate flow estimation is important to determine the extent of the cleanup and its effectiveness. Flow estimation is basically the flow rate times the amount of time the flow has occurred. Table 6.2 (low flow rates) and Table 6.3 (higher flow rates) have been included to assist in the estimation of flow rates to determine the flow volume of an SSO.

Table 6.2, *Low Flow Rates*, assists in determining the estimated flow from the vent and pick holes in manhole covers. To use the chart, determine the diameter of the vent or pick hole(s) and the height of the water column coming out of the hole(s). For any given size hole and water column the chart will provide the flow rates in cubic foot seconds (CFS), gallons per minute (GPM) or gallons per hour (GPH). The flow rate times the number of holes generating flow times the elapsed time of the SSO will determine the estimated volume of the SSO.

Table 6.3, *Various Flow Rates for Manholes*, is a series of illustrations depicting what an overflowing manhole looks like at various flow rates. Table 6.3 can be used to give an approximate determination of the flow rate for manholes that are overflowing at a rate substantially higher than through only the vent and pick holes. To use Table 6.3 pick the illustration that most closely matches the actual overflow. Use that GPM rate times the elapsed time the manhole has been overflowing to determine the estimated SSO volume.

### **6.5 Compliance with SWRCB Order No. 2006-0003-DWG**

Through this SSMP, the City has developed and implemented a sanitary sewer overflow emergency response plan (SSOERP) that identifies measures to protect public health and the environment.

The SSMP identifies the duties of the first responders to an SSO event and the duties of supervisors. Element 2 contains the list of personnel and contact information. This Element also provides reporting procedures and timing of reports along with a list of responsible agencies, and methods for estimating the amount of overflow.

The first responders assess the area and extent of the discharge and determine if there is a need for additional support from City maintenance personnel or other jurisdictions, or for traffic or crowd control, and notify the appropriate personnel or agencies.

**Table 6.2 Low Flow Rates**

<b>Hole Diameter in Inches</b>	<b>Water Height in Inches</b>	<b>Q Cubic Foot Seconds</b>	<b>Q Gallons per Minute</b>	<b>Q Gallons per Hour</b>
<b>Vent Hole</b>				
0.50	1/16	0.0005	0.23	14
0.50	1/8	0.0007	0.33	20
0.50	1/4	0.0010	0.47	28
0.50	1/2	0.0015	0.66	40
0.50	3/4	0.0018	0.81	49
0.50	1-inch	0.0021	0.94	56
<b>Vent Hole</b>				
0.75	1/16	0.0011	0.51	31
0.75	1/8	0.0016	0.72	43
0.75	1/4	0.0023	1.02	61
0.75	1/2	0.0032	1.44	87
0.75	3/4	0.0039	1.77	106
0.75	1-inch	0.0045	2.04	122
<b>Vent Hole</b>				
1.00	1/16	0.0020	0.88	53
1.00	1/8	0.0028	1.25	75
1.00	1/4	0.0039	1.77	106
1.00	1/2	0.0056	2.50	150
1.00	3/4	0.0068	3.06	184
1.00	1-inch	0.0079	3.54	212
<b>Pick Hole Semi-Circular Area</b>				
1.00	1/16	0.0010	0.44	27
1.00	1/8	0.0014	0.63	38
1.00	1/4	0.0020	0.89	53
1.00	1/2	0.0028	1.25	75
1.00	3/4	0.0034	1.53	92
1.00	1-inch	0.0039	1.77	106
1.00	1 1/2-inch	0.0048	2.17	130
1.00	2-inch	0.0056	2.51	150

Table 6.3 Various Flow Rates for Manholes





## **City of Victorville**

### **SSMP Element 7 Fats, Oils and Grease (FOG) Control Program**

**State Water Resources Control Board Order No. 2006-0003-DWG**



## **ELEMENT 7: FATS, OILS AND GREASE (FOG) CONTROL PROGRAM**

### **7.1 Introduction**

This Element of the SSMP evaluates the City's SSOs related to fats, oils and grease and the need for a FOG Control Program.

### **7.2 Public Education and Outreach**

The City currently does not have a formal public outreach program for the control of FOG. However, the Public Works Department routinely disseminates material to the public through participation in local fairs and other events, newsletters and the City's website. And, the Department stages the annual Public Works Day where staff interacts with the public informing them of the duties and responsibilities of the Department, including the Sanitary Division.

The City will continue these and other public outreach efforts as the opportunities arise, however, staff believes that the expense of additional public outreach is not warranted at this time due to the low number and volume of FOG related SSOs. Only one SSO event in each of the last two years was attributable to FOG; a 1,480 gallon spill in 2007 was attributed to grease and other debris and a 500 gallon spill in 2008 was attributed to grease. No spills were attributed to FOG in 2006, see Table 9.2. The City will continue to monitor the cause of future SSOs and, should those attributable to FOG increase in number or volume, additional public outreach efforts will be a component of future updates to this SSMP.

### **7.3 Preventive Maintenance**

The Sanitary Division of the City's Public Works Department is responsible for maintaining the sanitary sewer collection system. As discussed in Element 4, Sanitation has developed an aggressive preventive maintenance program with respect to high maintenance sewer areas (Table 4.1), some of which can be attributed to FOG. Maintenance is performed on these areas on a 1-, 2-, 4-, 6-, or 8-month schedule depending on the type of problem, which has served to reduce the number and volume of SSOs caused by FOG. The City's routine monthly sewer maintenance program, with a goal of maintenance of the entire system in 7-year cycles, also serves to prevent FOG related SSOs. In addition, the City's *Sanitary Sewer System Preventive Maintenance*

Program, Appendix J, provides procedures for routine cleaning and inspection of the system.

#### **7.4 Disposal of FOG**

Currently, FOG or other solids removed from the sewer collection system are taken to the Victor Valley Wastewater Reclamation Authority (VWVRA) Wastewater Treatment Facility for processing. The City is a member of the VWVRA Joint Powers Authority (Appendix D).

#### **7.5 Legal Authority to Prohibit FOG Discharges to the System**

The City's legal authority to prohibit illicit discharges into the sanitary sewer system is the Municipal Code, specifically Chapter 10.06, Section 10.06.040 titled *Permit Conditions* (Appendix C).

The purpose of Chapter 10.06 titled *Food Establishment Grease Disposal*, is to establish a permit procedure for the maintenance and inspection of interceptors for grease and other insoluble waste discharge from restaurants and other food preparation establishments within the City.

Section 10.06.040 allows the City to require pretreatment of wastewater before discharge, discharge of certain wastewater only to specified sewers of the City, relocation of point of discharge, prohibition of discharge of certain wastewater components, restriction of discharge during certain hours of the day, payment of additional charges to defray increased costs of the City relating to the discharge of grease, and such other conditions as may be required.

Chapter 10.06 requires the permittee to maintain records of grease interceptor cleaning in accordance with the permit and to allow staff access to the premises for sampling and inspection purposes. Chapter 10.06 also provides penalties for violations of the permit.

#### **7.6 Compliance with SWRCB Order No. 2006-0003-DWG**

The City will continue its preventive maintenance program as outlined in Element 4, Table 4.1, *List of High Maintenance Areas for March 2009*, some of which are attributable to FOG; and as presented in Appendix J, *Sanitary Sewer System Preventive Maintenance Program*. Only one SSO event in each of the last two years was attributable to FOG. The City does not have a formal FOG related public outreach program at this time but will continue its efforts to educate the public as opportunities arise, at fairs, home shows, Public Works Day, and at other local events. The City will also evaluate the need for such a program in the future, during the audit process for this SSMP, and will update it accordingly. Building and Safety Division inspectors regularly visit and inspect food

service establishments for compliance with Chapter 10.06 of the Victorville Municipal Code titled *Food Establishment Grease Disposal*, Appendix C.

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## **City of Victorville**

### **SSMP Element 8 System Evaluation and Capacity Assurance Plan**

**State Water Resources Control Board Order No. 2006-0003-DWG**



## **ELEMENT 8: SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN**

### **8.1 Introduction**

This Element of the SSMP outlines the City's programs and activities for system evaluation and to provide adequate capacity.

### **8.2 Evaluation of the System**

As discussed in Element 4, the City recently completed the *Draft Final Sewer Master Plan* (Appendix F). Chapter 5 of the Plan provides a hydraulic evaluation of the City's entire sanitary sewer collection system. A hydraulic model was used to simulate year 2006 conditions, year 2014 conditions, and year 2030 conditions. These simulations were performed to identify system deficiencies based on d/D criteria for existing and future demands, and to propose a Capital Improvement Program (Chapter 7 of Appendix F).

The methodology for evaluating system deficiencies and determination of associated improvements is illustrated in the flow chart provided as Figure 8.1.

### **8.3 Projected Capital Improvement Program**

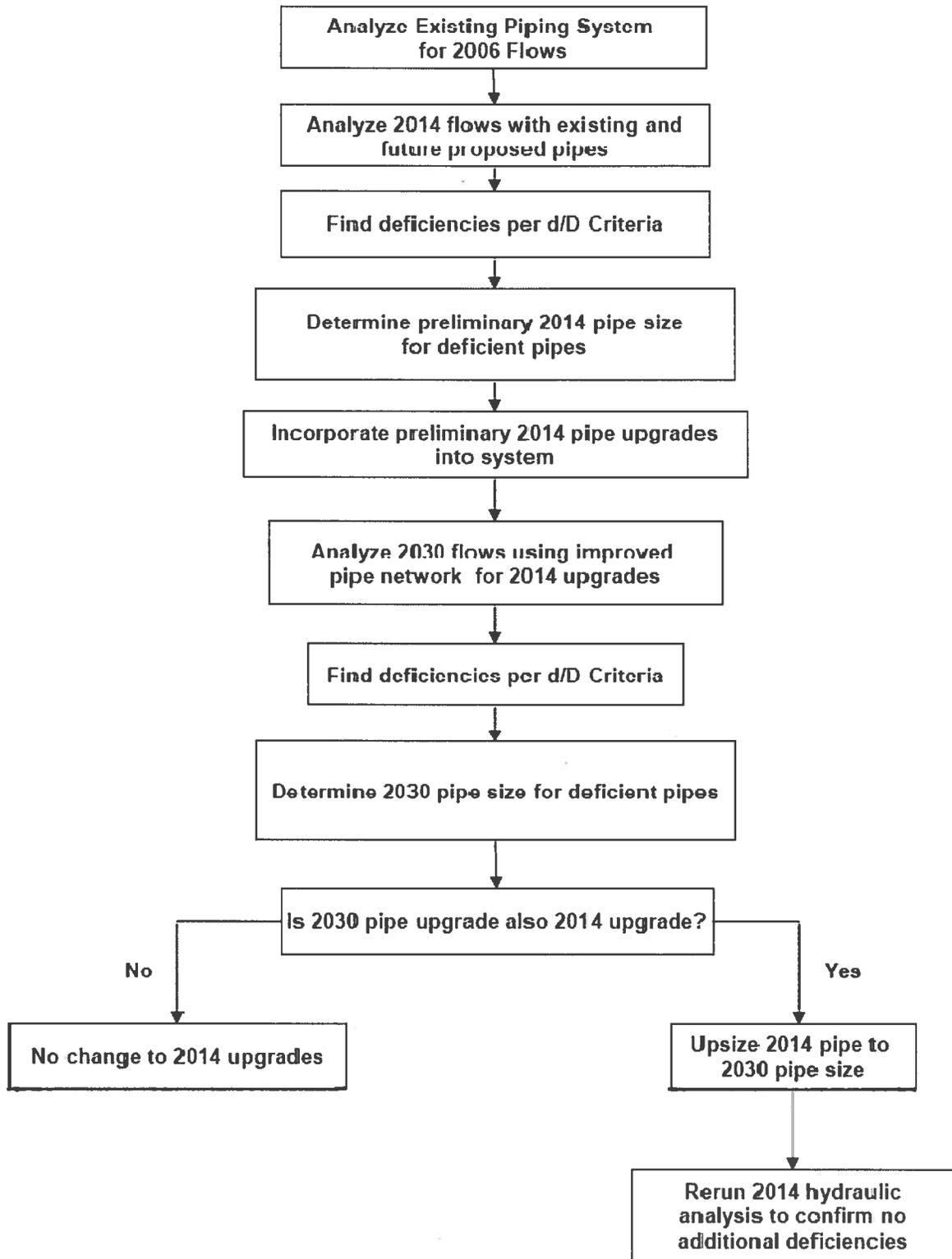
Deficient pipes identified in Chapter 5 of the *Draft Final Sewer Master Plan* (DFSMP) were used as the basis for the Capital Improvement Program (CIP) for the years 2014 and 2030. Deficient pipes identified in 2006 are included in the year 2014 CIP. The projected CIP for the year 2014 is summarized in Figure 7.1 and Table 7.1 of the DFSMP and the projected CIP for the year 2030 is summarized in Figure 7.2 and Table 7.2 of the DFSMP.

### **8.4 Compliance with SWRCB Order No. 2006-0003-DWG**

A hydraulic model was developed for the recently completed *Draft Final Sewer Master Plan* (Appendix F) to analyze system capacity and identify deficient segments out to year 2030, Chapter 5. Based on this analysis of the system a capital improvement program (CIP) is proposed in Chapter 7 of the document. The DFSMP also provides system design criteria and capacity enhancement measures for specific identified

segments. The methodology for evaluating system deficiencies and determination of associated improvements is illustrated in Figure 8.1.

**Figure 8.1**  
**Flow Chart for Evaluation of d/D Deficiencies and**  
**Determination of Improvements**



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## **City of Victorville**

### **SSMP Element 9 Monitoring, Measurement and Program Modifications**

**State Water Resources Control Board Order No. 2006-0003-DWG**

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## **ELEMENT 9: MONITORING, MEASUREMENT AND PROGRAM MODIFICATIONS**

### **9.1 Introduction**

This Element of the SSMP outlines the process that the City will follow to evaluate the effectiveness of the SSMP and to identify updates that may be needed for a more effective program.

### **9.2 Performance Measures**

The following measures will be used by the City to measure the performance of the sanitary sewer collection system and the effectiveness of the SSMP:

1. The total number of SSOs each year.
2. The number of SSOs by each cause, such as, FOG, roots, vandalism, debris, pipe failure, pump station failure, capacity, or other causes.
3. The amount of overflow contained as compared to the total volume of the overflow.
4. The volume of any overflow amount that is discharged to surface water.
5. Compare the planned to actual performance of preventive maintenance measures.

### **9.3 Baseline Performance**

The City has limited historical, or baseline, performance data for the selected performance measures. The data that is available will be the baseline, and trends will be added when the quantity of data is adequate. Table 9.1, *Gravity sewer, Pump Station, and Force Main SSOs by Calendar Year (2006-2008)*, and Table 9.2, *Calendar Year Totals for SSOs by Cause (2006-2008)*, provide some baseline data.

**Table 9.1 Gravity Sewer, Pump Station, and Force Main SSOs (2006 – 2008)**

Calendar Year	Gravity Sewer SSOs	Pump Station SSOs	Force Main SSOs
2006	9	1	
2007	4		
2008	7		

**Table 9.2 Totals for SSOs by Cause (2006 – 2008)**

Calendar Year	Roots	Vandalism Caused Debris	Other Debris	Grease	Capacity	Pump Station Failure	Pipe Failure	Other	Total
2006	1	8				1			10
2007		3		1					4
2008		4		1			1	1	7

### 9.4 Performance Monitoring and Program Changes

The City will continually evaluate the performance of its sewer collection system using the performance measures identified in section 9.2, *Performance Measures*, above, and will update the data and analysis as necessary.

The City may also use other performance measures in its evaluation of the system and will prioritize and initiate changes to the SSMP and related programs based on the results of those evaluations.

### 9.5 SSO Location Mapping and Trends

The SSO events are plotted on the City map and the causes are also recorded. The SSO map and the maps of high maintenance areas (Appendix G) are used to establish SSO patterns and trends, and for scheduling work assignments.

## **9.6 Compliance with SWRCB Order No. 2006-0003-DWG**

The City will utilize the SSMP along with the *Draft Final Sewer Master Plan* and the *Sanitary Sewer System Preventive Maintenance Program* and any other appropriate procedures to continually monitor the sanitary sewer system and the effectiveness of the SSMP. The City tracks the locations and causes of all SSOs and the sewer system high maintenance areas. The City also logs all cleaning activity which details the size, material and location of each pipe cleaned, the equipment utilized, and any relevant observations made during the cleaning.

The information gathered will be used to assess the success of the preventive maintenance program and the emergency response plan, and to update those documents and the SSMP accordingly. A staff member will be assigned to monitor the implementation of the SSMP, assess the preventive maintenance program, identify SSO trends, and propose updates to program elements as appropriate.

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## **City of Victorville**

### **SSMP Element 10 Program Audits**

**State Water Resources Control Board Order No. 2006-0003-DWG**



## ELEMENT 10: PROGRAM AUDITS

### 10.1 Introduction

Periodic audits, focusing on evaluating the effectiveness of the SSMP, at a minimum of every two years, are required. The audits shall also evaluate compliance with the SSMP requirements pursuant to SWQCB Order No. 2006-0003-DWG, identify any deficiencies in the SSMP, and develop steps to correct deficiencies. A written report of the audit must be made and kept on file.

### 10.2 Audits

The City will continuously monitor the effectiveness of the provisions of the SSMP. However, because of the relatively few SSOs the City has experienced (71.4% or 15 of 21 SSOs in the last three years were attributed to vandalism and not system failure or FOG) and its preventive maintenance program, including the ongoing review of high maintenance areas, and in order to provide the most comprehensive first audit, the City will conduct its first audit of the SSMP in calendar year 2011, within two years after its adoption by the City Council. Since the City has relatively little recorded historical data about the operation of the sewer system, this time frame will allow the City to add to and build its data base relative to the system prior to and while performing the audit.

### 10.3 SSMP Updates

Based on the results of the audit and the performance of the sewer collection system, the City, per Element 9 of the SSMP, *Monitoring, Measurement, and Program Modifications*, will determine if an update is warranted. If an update to the SSMP is shown by the audit to be warranted, the process will be identified and the update of the SSMP will be completed within one year of the completion of the audit.

Table 10.1, *SSMP Audit Checklist*, provides a checklist for evaluation of the effectiveness of the SSMP.

#### **10.4 Compliance with SWRCB Order No. 2006-0003-DWG**

Pursuant to the provisions of Order No. 2006-0003-DWG, an audit of the SSMP is required at least every two years, appropriate to the size of the system and the number of SSOs. From 2006 to 2008, 21 SSO events occurred in the City system, of those, 15 or 71.4% were the result of vandalism. The vast majority of recent SSOs occurring in the City's system were the result of vandalism rather than system failure or FOG. Therefore, in compliance with the SSMP requirements, the first audit of the City's SSMP will be performed within two years after the adoption of the SSMP by the Victorville City Council. If an update to the SSMP is shown by the audit to be warranted, the process will be identified and the update of the SSMP will be completed within one year of the completion of the audit.

Table 10.1 SSMP Audit Checklist

Element	Title	Requirement	Is SSMP Current?	Has SSMP Been Implemented?
1	Goals	Reduce, prevent, and mitigate SSOs		
2	Organization	Authorized representative		
		Names and phone numbers of management, administrative, and maintenance personnel		
		Organizational chart		
		Chain of Communications for reporting SSOs		
3	Legal Authority	Prevent illicit discharges to sewer system		
		Require sewers and connections be properly designed and constructed		
		Ensure access for inspection, maintenance, and repairs (includes public portion of lateral)		
		Limit discharge of FOG and debris that may cause blockages		
		Require the installation of grease removal devices		
		Ability to inspect FOG producing facilities		
		Enforce violations of the City's sewer ordinances		
4	Operation and Maintenance Program	Maintain up-to-date maps of the sanitary sewer collection system		
		Describe routine preventive maintenance program		
		Document completed preventive maintenance using system such as work orders		
		Rehabilitation and replacement plan that identifies and prioritizes sanitary sewer system defects		

Element	Title	Requirement	Is SSMP Current?	Has SSMP Been Implemented?
4 (Cont)		Provide regular technical training for City sanitary sewer system staff		
		Require contractors to provide training for their workers who work in the City's sanitary sewer system facilities		
		Maintain equipment inventory		
		Maintain critical spare part inventory		
5	<b>Design and Performance Provisions</b>	Design and construction standards for new sanitary sewer facilities		
		Design and construction standards for repair and rehabilitation of existing sanitary sewer system facilities		
		Procedures for the inspection and acceptance of new sanitary sewer system facilities		
		Procedures for the inspection and acceptance of repaired and rehabilitated sanitary sewer system facilities		
6	<b>Overflow Emergency Response Plan</b>	Procedures for the notification of primary responders		
		Procedures for the notification of regulatory agencies		
		Program to insure appropriate response to all SSOs		
		Proper reporting of all SSOs		
		Procedure to insure City staff are aware of and follow the Emergency Response Plan		
		Procedure to ensure City staff are trained in the Emergency Response Plan procedures		
		Procedure to ensure contractor personnel are aware of and follow the Emergency Response Plan		

Element	Title	Requirement	Is SSMP Current?	Has SSMP Been Implemented?
6 (cont)		Procedure to ensure contractor personnel are trained in the Emergency Response Plan procedures		
		Procedures to address emergency operations such as traffic and crowd control		
		Program to prevent the discharge of sewage to surface waters		
		Program to minimize or correct the impacts of any SSOs that occur		
		Program of accelerated monitoring to determine the impacts of any SSOs that occur		
7	<b>FOG Control Program</b>	Public outreach program that promotes the proper disposal of FOG		
		Plan for the disposal of FOG generated within the City's service area		
		Demonstrate that the City has allocated adequate resources for FOG control		
		Identification of sanitary sewer system facilities that have FOG-related problems		
		Program of preventive maintenance for sanitary sewer system facilities that have FOG-related problems		
8	<b>System Evaluation and Capacity Assurance Plan</b>	Identification of elements of the sanitary sewer system that experience or contribute to SSOs caused by hydraulic deficiencies		
		Established design criteria that provide adequate capacity		
		Short-term CIP that address known hydraulic deficiencies		
		Long-term CIP that address known hydraulic deficiencies		

Element	Title	Requirement	Is SSMP Current?	Has SSMP Been Implemented?
8 (cont)		Procedures that provide for the analysis, evaluation, and prioritization of hydraulic deficiencies		
		The short- and long-term CIPs include schedules for the correction of each identified hydraulic deficiency		
9	<b>Monitoring, Measurement, and Program Modifications</b>	Maintain relevant information to establish, evaluate, and prioritize SSMP activities		
		Monitor implementation of the SSMP		
		Measure, where appropriate, performance of the elements of the SSMP		
		Assess success of the preventive maintenance program		
		Update SSMP program elements based on monitoring or performance		
		Identify and illustrate SSO trends		
10	<b>SSMP Program Audits</b>	Conduct periodic audits		
		Record the results of each audit in a report		
		Record the changes made and/or corrective actions taken		
11	<b>Communication Program</b>	Communicate with the public regarding the preparation of the SSMP		
		Communicate with the public regarding the performance of the SSMP		
		Communicate with adjacent jurisdictions (VWVRA JPA)		



## **City of Victorville**

### **SSMP Element 11 Communication Program**

**State Water Resources Control Board Order No. 2006-0003-DWG**



## **ELEMENT 11: COMMUNICATION PROGRAM**

### **11.1 Introduction**

This Element of the SSMP outlines the process involved in communicating with interested members of the public regarding development, implementation, and performance of this plan.

### **11.2 Communication**

The City communicates regularly with the public and other interested parties on the development, implementation, and performance of the SSMP. Appropriate media such as press releases, public hearings, newspapers, newsletters, brochures, reports, and the City's website are used to convey information to the public.

City staff is a member of the Board of the VVWRA Joint Powers Authority where the SSMPs of the VVWRA and the member jurisdictions are discussed in public meetings. In addition, a technical committee of the JPA also meets regularly to discuss the SSMP and other issues. Also, the SSMP was adopted by the Victorville City Council at a public hearing on July 21, 2009, with input from the public.

### **11.3 SSMP Availability**

Copies of the SSMP will be maintained in the City of Victorville Public Works Department and will be available for review.

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## **ELEMENT 11: COMMUNICATION PROGRAM**

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**APPENDIX A**

**STATE WATER RESOURCES CONTROL BOARD  
ORDER NO. 2006-0003-DWG**

**STATE WATER RESOURCES CONTROL BOARD  
ORDER NO. 2006-0003-DWQ**

**STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS  
FOR  
SANITARY SEWER SYSTEMS**

The State Water Resources Control Board, hereinafter referred to as "State Water Board", finds that:

1. All federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California are required to comply with the terms of this Order. Such entities are hereinafter referred to as "Enrollees".
2. Sanitary sewer overflows (SSOs) are overflows from sanitary sewer systems of domestic wastewater, as well as industrial and commercial wastewater, depending on the pattern of land uses in the area served by the sanitary sewer system. SSOs often contain high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oxygen-demanding organic compounds, oil and grease and other pollutants. SSOs may cause a public nuisance, particularly when raw untreated wastewater is discharged to areas with high public exposure, such as streets or surface waters used for drinking, fishing, or body contact recreation. SSOs may pollute surface or ground waters, threaten public health, adversely affect aquatic life, and impair the recreational use and aesthetic enjoyment of surface waters.
3. Sanitary sewer systems experience periodic failures resulting in discharges that may affect waters of the state. There are many factors (including factors related to geology, design, construction methods and materials, age of the system, population growth, and system operation and maintenance), which affect the likelihood of an SSO. A proactive approach that requires Enrollees to ensure a system-wide operation, maintenance, and management plan is in place will reduce the number and frequency of SSOs within the state. This approach will in turn decrease the risk to human health and the environment caused by SSOs.
4. Major causes of SSOs include: grease blockages, root blockages, sewer line flood damage, manhole structure failures, vandalism, pump station mechanical failures, power outages, excessive storm or ground water inflow/infiltration, debris blockages, sanitary sewer system age and construction material failures, lack of proper operation and maintenance, insufficient capacity and contractor-caused damages. Many SSOs are preventable with adequate and appropriate facilities, source control measures and operation and maintenance of the sanitary sewer system.

### **SEWER SYSTEM MANAGEMENT PLANS**

5. To facilitate proper funding and management of sanitary sewer systems, each Enrollee must develop and implement a system-specific Sewer System Management Plan (SSMP). To be effective, SSMPs must include provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis. Additionally, an SSMP must contain a spill response plan that establishes standard procedures for immediate response to an SSO in a manner designed to minimize water quality impacts and potential nuisance conditions.
6. Many local public agencies in California have already developed SSMPs and implemented measures to reduce SSOs. These entities can build upon their existing efforts to establish a comprehensive SSMP consistent with this Order. Others, however, still require technical assistance and, in some cases, funding to improve sanitary sewer system operation and maintenance in order to reduce SSOs.
7. SSMP certification by technically qualified and experienced persons can provide a useful and cost-effective means for ensuring that SSMPs are developed and implemented appropriately.
8. It is the State Water Board's intent to gather additional information on the causes and sources of SSOs to augment existing information and to determine the full extent of SSOs and consequent public health and/or environmental impacts occurring in the State.
9. Both uniform SSO reporting and a centralized statewide electronic database are needed to collect information to allow the State Water Board and Regional Water Quality Control Boards (Regional Water Boards) to effectively analyze the extent of SSOs statewide and their potential impacts on beneficial uses and public health. The monitoring and reporting program required by this Order and the attached Monitoring and Reporting Program No. 2006-0003-DWQ, are necessary to assure compliance with these waste discharge requirements (WDRs).
10. Information regarding SSOs must be provided to Regional Water Boards and other regulatory agencies in a timely manner and be made available to the public in a complete, concise, and timely fashion.
11. Some Regional Water Boards have issued WDRs or WDRs that serve as National Pollution Discharge Elimination System (NPDES) permits to sanitary sewer system owners/operators within their jurisdictions. This Order establishes minimum requirements to prevent SSOs. Although it is the State Water Board's intent that this Order be the primary regulatory mechanism for sanitary sewer systems statewide, Regional Water Boards may issue more stringent or more

prescriptive WDRs for sanitary sewer systems. Upon issuance or reissuance of a Regional Water Board's WDRs for a system subject to this Order, the Regional Water Board shall coordinate its requirements with stated requirements within this Order, to identify requirements that are more stringent, to remove requirements that are less stringent than this Order, and to provide consistency in reporting.

## REGULATORY CONSIDERATIONS

12. California Water Code section 13263 provides that the State Water Board may prescribe general WDRs for a category of discharges if the State Water Board finds or determines that:

- The discharges are produced by the same or similar operations;
- The discharges involve the same or similar types of waste;
- The discharges require the same or similar treatment standards; and
- The discharges are more appropriately regulated under general discharge requirements than individual discharge requirements.

This Order establishes requirements for a class of operations, facilities, and discharges that are similar throughout the state.

13. The issuance of general WDRs to the Enrollees will:

- a) Reduce the administrative burden of issuing individual WDRs to each Enrollee;
- b) Provide for a unified statewide approach for the reporting and database tracking of SSOs;
- c) Establish consistent and uniform requirements for SSMP development and implementation;
- d) Provide statewide consistency in reporting; and
- e) Facilitate consistent enforcement for violations.

14. The beneficial uses of surface waters that can be impaired by SSOs include, but are not limited to, aquatic life, drinking water supply, body contact and non-contact recreation, and aesthetics. The beneficial uses of ground water that can be impaired include, but are not limited to, drinking water and agricultural supply. Surface and ground waters throughout the state support these uses to varying degrees.

15. The implementation of requirements set forth in this Order will ensure the reasonable protection of past, present, and probable future beneficial uses of water and the prevention of nuisance. The requirements implement the water quality control plans (Basin Plans) for each region and take into account the environmental characteristics of hydrographic units within the state. Additionally, the State Water Board has considered water quality conditions that could reasonably be achieved through the coordinated control of all factors that affect

water quality in the area, costs associated with compliance with these requirements, the need for developing housing within California, and the need to develop and use recycled water.

16. The Federal Clean Water Act largely prohibits any discharge of pollutants from a point source to waters of the United States except as authorized under an NPDES permit. In general, any point source discharge of sewage effluent to waters of the United States must comply with technology-based, secondary treatment standards, at a minimum, and any more stringent requirements necessary to meet applicable water quality standards and other requirements. Hence, the unpermitted discharge of wastewater from a sanitary sewer system to waters of the United States is illegal under the Clean Water Act. In addition, many Basin Plans adopted by the Regional Water Boards contain discharge prohibitions that apply to the discharge of untreated or partially treated wastewater. Finally, the California Water Code generally prohibits the discharge of waste to land prior to the filing of any required report of waste discharge and the subsequent issuance of either WDRs or a waiver of WDRs.
17. California Water Code section 13263 requires a water board to, after any necessary hearing, prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge. The requirements shall, among other things, take into consideration the need to prevent nuisance.
18. California Water Code section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:
  - a. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
  - b. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
  - c. Occurs during, or as a result of, the treatment or disposal of wastes.
19. This Order is consistent with State Water Board Resolution No. 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California) in that the Order imposes conditions to prevent impacts to water quality, does not allow the degradation of water quality, will not unreasonably affect beneficial uses of water, and will not result in water quality less than prescribed in State Water Board or Regional Water Board plans and policies.
20. The action to adopt this General Order is exempt from the California Environmental Quality Act (Public Resources Code §21000 et seq.) because it is an action taken by a regulatory agency to assure the protection of the environment and the regulatory process involves procedures for protection of the environment. (Cal. Code Regs., tit. 14, §15308). In addition, the action to adopt

this Order is exempt from CEQA pursuant to Cal.Code Regs., title 14, §15301 to the extent that it applies to existing sanitary sewer collection systems that constitute "existing facilities" as that term is used in Section 15301, and §15302, to the extent that it results in the repair or replacement of existing systems involving negligible or no expansion of capacity.

21. The Fact Sheet, which is incorporated by reference in the Order, contains supplemental information that was also considered in establishing these requirements.
22. The State Water Board has notified all affected public agencies and all known interested persons of the intent to prescribe general WDRs that require Enrollees to develop SSMPs and to report all SSOs.
23. The State Water Board conducted a public hearing on February 8, 2006, to receive oral and written comments on the draft order. The State Water Board received and considered, at its May 2, 2006, meeting, additional public comments on substantial changes made to the proposed general WDRs following the February 8, 2006, public hearing. The State Water Board has considered all comments pertaining to the proposed general WDRs.

**IT IS HEREBY ORDERED**, that pursuant to California Water Code section 13263, the Enrollees, their agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted hereunder, shall comply with the following:

**A. DEFINITIONS**

1. **Sanitary sewer overflow (SSO)** - Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:
  - (i) Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;
  - (ii) Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and
  - (iii) Wastewater backups into buildings and on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.
2. **Sanitary sewer system** – Any system of pipes, pump stations, sewer lines, or other conveyances, upstream of a wastewater treatment plant headworks used to collect and convey wastewater to the publicly owned treatment facility. Temporary storage and conveyance facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.

For purposes of this Order, sanitary sewer systems include only those systems owned by public agencies that are comprised of more than one mile of pipes or sewer lines.

3. **Enrollee** - A federal or state agency, municipality, county, district, and other public entity that owns or operates a sanitary sewer system, as defined in the general WDRs, and that has submitted a complete and approved application for coverage under this Order.
4. **SSO Reporting System** – Online spill reporting system that is hosted, controlled, and maintained by the State Water Board. The web address for this site is <http://ciwqs.waterboards.ca.gov>. This online database is maintained on a secure site and is controlled by unique usernames and passwords.
5. **Untreated or partially treated wastewater** – Any volume of waste discharged from the sanitary sewer system upstream of a wastewater treatment plant headworks.
6. **Satellite collection system** – The portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility to which the sanitary sewer system is tributary.
7. **Nuisance** - California Water Code section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:
  - a. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
  - b. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
  - c. Occurs during, or as a result of, the treatment or disposal of wastes.

## **B. APPLICATION REQUIREMENTS**

1. **Deadlines for Application** – All public agencies that currently own or operate sanitary sewer systems within the State of California must apply for coverage under the general WDRs within six (6) months of the date of adoption of the general WDRs. Additionally, public agencies that acquire or assume responsibility for operating sanitary sewer systems after the date of adoption of this Order must apply for coverage under the general WDRs at least three (3) months prior to operation of those facilities.
2. **Applications under the general WDRs** – In order to apply for coverage pursuant to the general WDRs, a legally authorized representative for each agency must submit a complete application package. Within sixty (60) days of adoption of the general WDRs, State Water Board staff will send specific instructions on how to

apply for coverage under the general WDRs to all known public agencies that own sanitary sewer systems. Agencies that do not receive notice may obtain applications and instructions online on the Water Board's website.

3. Coverage under the general WDRs – Permit coverage will be in effect once a complete application package has been submitted and approved by the State Water Board's Division of Water Quality.

### **C. PROHIBITIONS**

1. Any SSO that results in a discharge of untreated or partially treated wastewater to waters of the United States is prohibited.
2. Any SSO that results in a discharge of untreated or partially treated wastewater that creates a nuisance as defined in California Water Code Section 13050(m) is prohibited.

### **D. PROVISIONS**

1. The Enrollee must comply with all conditions of this Order. Any noncompliance with this Order constitutes a violation of the California Water Code and is grounds for enforcement action.
2. It is the intent of the State Water Board that sanitary sewer systems be regulated in a manner consistent with the general WDRs. Nothing in the general WDRs shall be:
  - (i) Interpreted or applied in a manner inconsistent with the Federal Clean Water Act, or supersede a more specific or more stringent state or federal requirement in an existing permit, regulation, or administrative/judicial order or Consent Decree;
  - (ii) Interpreted or applied to authorize an SSO that is illegal under either the Clean Water Act, an applicable Basin Plan prohibition or water quality standard, or the California Water Code;
  - (iii) Interpreted or applied to prohibit a Regional Water Board from issuing an individual NPDES permit or WDR, superseding this general WDR, for a sanitary sewer system, authorized under the Clean Water Act or California Water Code; or
  - (iv) Interpreted or applied to supersede any more specific or more stringent WDRs or enforcement order issued by a Regional Water Board.
3. The Enrollee shall take all feasible steps to eliminate SSOs. In the event that an SSO does occur, the Enrollee shall take all feasible steps to contain and mitigate the impacts of an SSO.
4. In the event of an SSO, the Enrollee shall take all feasible steps to prevent untreated or partially treated wastewater from discharging from storm drains into

flood control channels or waters of the United States by blocking the storm drainage system and by removing the wastewater from the storm drains.

5. All SSOs must be reported in accordance with Section G of the general WDRs.
6. In any enforcement action, the State and/or Regional Water Boards will consider the appropriate factors under the duly adopted State Water Board Enforcement Policy. And, consistent with the Enforcement Policy, the State and/or Regional Water Boards must consider the Enrollee's efforts to contain, control, and mitigate SSOs when considering the California Water Code Section 13327 factors. In assessing these factors, the State and/or Regional Water Boards will also consider whether:
  - (i) The Enrollee has complied with the requirements of this Order, including requirements for reporting and developing and implementing a SSMP;
  - (ii) The Enrollee can identify the cause or likely cause of the discharge event;
  - (iii) There were no feasible alternatives to the discharge, such as temporary storage or retention of untreated wastewater, reduction of inflow and infiltration, use of adequate backup equipment, collecting and hauling of untreated wastewater to a treatment facility, or an increase in the capacity of the system as necessary to contain the design storm event identified in the SSMP. It is inappropriate to consider the lack of feasible alternatives, if the Enrollee does not implement a periodic or continuing process to identify and correct problems.
  - (iv) The discharge was exceptional, unintentional, temporary, and caused by factors beyond the reasonable control of the Enrollee;
  - (v) The discharge could have been prevented by the exercise of reasonable control described in a certified SSMP for:
    - Proper management, operation and maintenance;
    - Adequate treatment facilities, sanitary sewer system facilities, and/or components with an appropriate design capacity, to reasonably prevent SSOs (e.g., adequately enlarging treatment or collection facilities to accommodate growth, infiltration and inflow (I/I), etc.);
    - Preventive maintenance (including cleaning and fats, oils, and grease (FOG) control);
    - Installation of adequate backup equipment; and
    - Inflow and infiltration prevention and control to the extent practicable.
  - (vi) The sanitary sewer system design capacity is appropriate to reasonably prevent SSOs.

(vii) The Enrollee took all reasonable steps to stop and mitigate the impact of the discharge as soon as possible.

7. When a sanitary sewer overflow occurs, the Enrollee shall take all feasible steps and necessary remedial actions to 1) control or limit the volume of untreated or partially treated wastewater discharged, 2) terminate the discharge, and 3) recover as much of the wastewater discharged as possible for proper disposal, including any wash down water.

The Enrollee shall implement all remedial actions to the extent they may be applicable to the discharge and not inconsistent with an emergency response plan, including the following:

- (i) Interception and rerouting of untreated or partially treated wastewater flows around the wastewater line failure;
  - (ii) Vacuum truck recovery of sanitary sewer overflows and wash down water;
  - (iii) Cleanup of debris at the overflow site;
  - (iv) System modifications to prevent another SSO at the same location;
  - (v) Adequate sampling to determine the nature and impact of the release; and
  - (vi) Adequate public notification to protect the public from exposure to the SSO.
8. The Enrollee shall properly, manage, operate, and maintain all parts of the sanitary sewer system owned or operated by the Enrollee, and shall ensure that the system operators (including employees, contractors, or other agents) are adequately trained and possess adequate knowledge, skills, and abilities.
  9. The Enrollee shall allocate adequate resources for the operation, maintenance, and repair of its sanitary sewer system, by establishing a proper rate structure, accounting mechanisms, and auditing procedures to ensure an adequate measure of revenues and expenditures. These procedures must be in compliance with applicable laws and regulations and comply with generally acceptable accounting practices.
  10. The Enrollee shall provide adequate capacity to convey base flows and peak flows, including flows related to wet weather events. Capacity shall meet or exceed the design criteria as defined in the Enrollee's System Evaluation and Capacity Assurance Plan for all parts of the sanitary sewer system owned or operated by the Enrollee.
  11. The Enrollee shall develop and implement a written Sewer System Management Plan (SSMP) and make it available to the State and/or Regional Water Board upon request. A copy of this document must be publicly available at the Enrollee's office and/or available on the Internet. This SSMP must be approved by the Enrollee's governing board at a public meeting.

12. In accordance with the California Business and Professions Code sections 6735, 7835, and 7835.1, all engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. Specific elements of the SSMP that require professional evaluation and judgments shall be prepared by or under the direction of appropriately qualified professionals, and shall bear the professional(s)' signature and stamp.
13. The mandatory elements of the SSMP are specified below. However, if the Enrollee believes that any element of this section is not appropriate or applicable to the Enrollee's sanitary sewer system, the SSMP program does not need to address that element. The Enrollee must justify why that element is not applicable. The SSMP must be approved by the deadlines listed in the SSMP Time Schedule below.

### **Sewer System Management Plan (SSMP)**

- (i) **Goal:** The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent SSOs, as well as mitigate any SSOs that do occur.
- (ii) **Organization:** The SSMP must identify:
- (a) The name of the responsible or authorized representative as described in Section J of this Order.
  - (b) The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and
  - (c) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services (OES)).
- (iii) **Legal Authority:** Each Enrollee must demonstrate, through sanitary sewer system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:
- (a) Prevent illicit discharges into its sanitary sewer system (examples may include I/I, stormwater, chemical dumping, unauthorized debris and cut roots, etc.);

- (b) Require that sewers and connections be properly designed and constructed;
  - (c) Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;
  - (d) Limit the discharge of fats, oils, and grease and other debris that may cause blockages, and
  - (e) Enforce any violation of its sewer ordinances.
- (iv) **Operation and Maintenance Program.** The SSMP must include those elements listed below that are appropriate and applicable to the Enrollee's system:
- (a) Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable stormwater conveyance facilities;
  - (b) Describe routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders;
  - (c) Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan;
  - (d) Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained; and

- (e) Provide equipment and replacement part inventories, including identification of critical replacement parts.

(v) **Design and Performance Provisions:**

- (a) Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems; and
- (b) Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.

(vi) **Overflow Emergency Response Plan** - Each Enrollee shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:

- (a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;
- (b) A program to ensure an appropriate response to all overflows;
- (c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, Regional Water Boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;
- (d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;
- (e) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and
- (f) A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

(vii) **FOG Control Program:** Each Enrollee shall evaluate its service area to determine whether a FOG control program is needed. If an Enrollee determines that a FOG program is not needed, the Enrollee must provide justification for why it is not needed. If FOG is found to be a problem, the Enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. This plan shall include the following as appropriate:

- (a) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;
- (b) A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;
- (c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;
- (d) Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;
- (e) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;
- (f) An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and
- (g) Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (f) above.

(viii) **System Evaluation and Capacity Assurance Plan:** The Enrollee shall prepare and implement a capital improvement plan (CIP) that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. At a minimum, the plan must include:

- (a) **Evaluation:** Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs

that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events;

- (b) **Design Criteria:** Where design criteria do not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria; and
  - (c) **Capacity Enhancement Measures:** The steps needed to establish a short- and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.
  - (d) **Schedule:** The Enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a)-(c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D. 14.
- (ix) **Monitoring, Measurement, and Program Modifications:** The Enrollee shall:
- (a) Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;
  - (b) Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;
  - (c) Assess the success of the preventative maintenance program;
  - (d) Update program elements, as appropriate, based on monitoring or performance evaluations; and
  - (e) Identify and illustrate SSO trends, including: frequency, location, and volume.
- (x) **SSMP Program Audits** - As part of the SSMP, the Enrollee shall conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the

Enrollee's compliance with the SSMP requirements identified in this subsection (D.13), including identification of any deficiencies in the SSMP and steps to correct them.

- (xi) **Communication Program** – The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.

The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system.

14. Both the SSMP and the Enrollee's program to implement the SSMP must be certified by the Enrollee to be in compliance with the requirements set forth above and must be presented to the Enrollee's governing board for approval at a public meeting. The Enrollee shall certify that the SSMP, and subparts thereof, are in compliance with the general WDRs within the time frames identified in the time schedule provided in subsection D.15, below.

In order to complete this certification, the Enrollee's authorized representative must complete the certification portion in the Online SSO Database Questionnaire by checking the appropriate milestone box, printing and signing the automated form, and sending the form to:

State Water Resources Control Board  
Division of Water Quality  
Attn: SSO Program Manager  
P.O. Box 100  
Sacramento, CA 95812

The SSMP must be updated every five (5) years, and must include any significant program changes. Re-certification by the governing board of the Enrollee is required in accordance with D.14 when significant updates to the SSMP are made. To complete the re-certification process, the Enrollee shall enter the data in the Online SSO Database and mail the form to the State Water Board, as described above.

15. The Enrollee shall comply with these requirements according to the following schedule. This time schedule does not supersede existing requirements or time schedules associated with other permits or regulatory requirements.

**Sewer System Management Plan Time Schedule**

<u>Task and Associated Section</u>	<b>Completion Date</b>			
	Population > 100,000	Population between 100,000 and 10,000	Population between 10,000 and 2,500	Population < 2,500
Application for Permit Coverage <b>Section C</b>	6 months after WDRs Adoption			
Reporting Program <b>Section G</b>	6 months after WDRs Adoption <sup>1</sup>			
SSMP Development Plan and Schedule <b>No specific Section</b>	9 months after WDRs Adoption <sup>2</sup>	12 months after WDRs Adoption <sup>2</sup>	15 months after WDRs Adoption <sup>2</sup>	18 months after WDRs Adoption <sup>2</sup>
Goals and Organization Structure <b>Section D 13 (i) &amp; (ii)</b>	12 months after WDRs Adoption <sup>2</sup>		18 months after WDRs Adoption <sup>2</sup>	
Overflow Emergency Response Program <b>Section D 13 (vi)</b>	24 months after WDRs Adoption <sup>2</sup>	30 months after WDRs Adoption <sup>2</sup>	36 months after WDRs Adoption <sup>2</sup>	39 months after WDRs Adoption <sup>2</sup>
Legal Authority <b>Section D 13 (iii)</b>				
Operation and Maintenance Program <b>Section D 13 (iv)</b>				
Grease Control Program <b>Section D 13 (vii)</b>	36 months after WDRs Adoption	39 months after WDRs Adoption	48 months after WDRs Adoption	51 months after WDRs Adoption
Design and Performance <b>Section D 13 (v)</b>				
System Evaluation and Capacity Assurance Plan <b>Section D 13 (viii)</b>				
Final SSMP, incorporating all of the SSMP requirements <b>Section D 13</b>				

1. In the event that by July 1, 2006 the Executive Director is able to execute a memorandum of agreement (MOA) with the California Water Environment Association (CWEA) or discharger representatives outlining a strategy and time schedule for CWEA or another entity to provide statewide training on the adopted monitoring program, SSO database electronic reporting, and SSMP development, consistent with this Order, then the schedule of Reporting Program Section G shall be replaced with the following schedule:

Reporting Program <b>Section G</b>	
Regional Boards 4, 8, and 9	8 months after WDRs Adoption
Regional Boards 1, 2, and 3	12 months after WDRs Adoption
Regional Boards 5, 6, and 7	16 months after WDRs Adoption

If this MOU is not executed by July 1, 2006, the reporting program time schedule will remain six (6) months for all regions and agency size categories.

2. In the event that the Executive Director executes the MOA identified in note 1 by July 1, 2006, then the deadline for this task shall be extended by six (6) months. The time schedule identified in the MOA must be consistent with the extended time schedule provided by this note. If the MOA is not executed by July 1, 2006, the six (6) month time extension will not be granted.

#### **E. WDRs and SSMP AVAILABILITY**

1. A copy of the general WDRs and the certified SSMP shall be maintained at appropriate locations (such as the Enrollee's offices, facilities, and/or Internet homepage) and shall be available to sanitary sewer system operating and maintenance personnel at all times.

#### **F. ENTRY AND INSPECTION**

1. The Enrollee shall allow the State or Regional Water Boards or their authorized representative, upon presentation of credentials and other documents as may be required by law, to:
  - a. Enter upon the Enrollee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;

- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
- d. Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order or as otherwise authorized by the California Water Code, any substances or parameters at any location.

#### **G. GENERAL MONITORING AND REPORTING REQUIREMENTS**

1. The Enrollee shall furnish to the State or Regional Water Board, within a reasonable time, any information that the State or Regional Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Enrollee shall also furnish to the Executive Director of the State Water Board or Executive Officer of the applicable Regional Water Board, upon request, copies of records required to be kept by this Order.
2. The Enrollee shall comply with the attached Monitoring and Reporting Program No. 2006-0003 and future revisions thereto, as specified by the Executive Director. Monitoring results shall be reported at the intervals specified in Monitoring and Reporting Program No. 2006-0003. Unless superseded by a specific enforcement Order for a specific Enrollee, these reporting requirements are intended to replace other mandatory routine written reports associated with SSOs.
3. All Enrollees must obtain SSO Database accounts and receive a "Username" and "Password" by registering through the California Integrated Water Quality System (CIWQS). These accounts will allow controlled and secure entry into the SSO Database. Additionally, within 30 days of receiving an account and prior to recording spills into the SSO Database, all Enrollees must complete the "Collection System Questionnaire", which collects pertinent information regarding a Enrollee's collection system. The "Collection System Questionnaire" must be updated at least every 12 months.
4. Pursuant to Health and Safety Code section 5411.5, any person who, without regard to intent or negligence, causes or permits any untreated wastewater or other waste to be discharged in or on any waters of the State, or discharged in or deposited where it is, or probably will be, discharged in or on any surface waters of the State, as soon as that person has knowledge of the discharge, shall immediately notify the local health officer of the discharge. Discharges of untreated or partially treated wastewater to storm drains and drainage channels, whether man-made or natural or concrete-lined, shall be reported as required above.

Any SSO greater than 1,000 gallons discharged in or on any waters of the State, or discharged in or deposited where it is, or probably will be, discharged in or on any surface waters of the State shall also be reported to the Office of Emergency Services pursuant to California Water Code section 13271.

#### **H. CHANGE IN OWNERSHIP**

1. This Order is not transferable to any person or party, except after notice to the Executive Director. The Enrollee shall submit this notice in writing at least 30 days in advance of any proposed transfer. The notice must include a written agreement between the existing and new Enrollee containing a specific date for the transfer of this Order's responsibility and coverage between the existing Enrollee and the new Enrollee. This agreement shall include an acknowledgement that the existing Enrollee is liable for violations up to the transfer date and that the new Enrollee is liable from the transfer date forward.

#### **I. INCOMPLETE REPORTS**

1. If an Enrollee becomes aware that it failed to submit any relevant facts in any report required under this Order, the Enrollee shall promptly submit such facts or information by formally amending the report in the Online SSO Database.

#### **J. REPORT DECLARATION**

1. All applications, reports, or information shall be signed and certified as follows:
  - (i) All reports required by this Order and other information required by the State or Regional Water Board shall be signed and certified by a person designated, for a municipality, state, federal or other public agency, as either a principal executive officer or ranking elected official, or by a duly authorized representative of that person, as described in paragraph (ii) of this provision. (For purposes of electronic reporting, an electronic signature and accompanying certification, which is in compliance with the Online SSO database procedures, meet this certification requirement.)
  - (ii) An individual is a duly authorized representative only if:
    - (a) The authorization is made in writing by a person described in paragraph (i) of this provision; and
    - (b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.

#### **K. CIVIL MONETARY REMEDIES FOR DISCHARGE VIOLATIONS**

1. The California Water Code provides various enforcement options, including civil monetary remedies, for violations of this Order.
2. The California Water Code also provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this Order, or

falsifying any information provided in the technical or monitoring reports is subject to civil monetary penalties.

**L. SEVERABILITY**

1. The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.
2. This order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the Enrollee from liability under federal, state or local laws, nor create a vested right for the Enrollee to continue the waste discharge.

**CERTIFICATION**

The undersigned Clerk to the State Water Board does hereby certify that the foregoing is a full, true, and correct copy of general WDRs duly and regularly adopted at a meeting of the State Water Resources Control Board held on May 2, 2006.

AYE: Tam M. Doduc  
Gerald D. Secundy

NO: Arthur G. Baggett

ABSENT: None

ABSTAIN: None



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Song Her  
Clerk to the Board

**APPENDIX B**

**VICTORVILLE MUNICIPAL CODE**

**TITLE 6 – HEALTH AND SANITATION**

## **Title 6**

### **HEALTH AND SANITATION\***

#### **Chapters:**

- 6.04 Administration and Enforcement**
- 6.08 Permits**
- 6.12 Food Handling and Public Eating Places**
- 6.14 Smoking**
- 6.16 Milk and Milk Products**
- 6.20 Hospitals and Rest Homes**
- 6.24 Camps and Boarding Schools**
- 6.28 Riding Academies**
- 6.30 Storm Drainage Fees**
- 6.32 Trailer Houses and Campers**
- 6.36 Garbage Regulations**
- 6.44 Refuse**
- 6.48 Cesspool Septic Tank Pumping Units**
- 6.49 Hazardous Materials Release**
- 6.50 Underground Storage of Hazardous Substances**
- 6.52 Privies**
- 6.56 Sanitary Facilities**
- 6.60 Domestic Water Supply Systems**
- 6.64 Public Swimming Pools**
- 6.76 Castor Beans**

\* For statutory provisions authorizing cities to take such measures as are necessary to preserve and protect the public health, see Cal Health & Saf Code § 101450 et seq. As to the authority of the health officer to take preventive measures during any disaster or extreme emergency, see Cal Health & Saf Code § 101475.

**Chapter 6.48****CESSPOOL SEPTIC TANK PUMPING  
UNITS****Sections:**

- 6.48.010**     **Definition.**
- 6.48.020**     **Permit required.**
- 6.48.030**     **Transportation.**
- 6.48.040**     **Compliance with rules and regulations.**
- 6.48.050**     **Revocation of permit.**

**6.48.010**     **Definition.**

For the purpose of this code "cesspool septic tank pumping units" means and includes any vehicle or vehicles used or operated for the purpose of pumping out chemical toilets, cesspools, septic tanks and any other subterranean vault or excavation used for the disposal of any offensive liquid, semiliquid, solid substance or substances. (Ord. 32 § 3 (part), 1968: prior code § 5108.1)

**6.48.020**     **Permit required.**

It is unlawful to operate or permit to be operated any cesspool septic tank pumping unit in the city without an unrevoked permit so to do, issued in accordance with the provisions of this code. (Ord. 32 § 3 (part), 1968: prior code § 5108.2)

**6.48.030**     **Transportation.**

All liquids, semiliquids or solids transported hereunder must be in a watertight metal tank or contained with a close-fitting cover in place so as to prevent any liquid, semiliquid or solid substance or substances contained therein from leaking, spilling or overflowing therefrom. (Ord. 32 § 3 (part), 1968: prior code § 5108.3)

**6.48.040**     **Compliance with rules and regulations.**

No such permit shall be issued unless the applicant agrees in writing to comply with such rules and regulations as may be promulgated by the health officer for the location, operation, maintenance and

care of such pumping units and the disposal of the waste therefrom in a manner which shall not create a menace to human or animal health, or be or become a public nuisance. (Ord. 32 § 3 (part), 1968: prior code § 5108.4)

**6.48.050**     **Revocation of permit.**

Such permit may be revoked by the health officer for failure to comply with such rules and regulations, or if at any time such pumping units or the disposal of waste therefrom becomes a menace to human or animal health, or a public nuisance. (Ord. 32 § 3 (part) 1968: prior code § 5108.5)

**Chapter 6.52****PRIVIES****Sections:****6.52.010 Construction and maintenance.****6.52.020 Toilets.****6.52.010 Construction and maintenance.**

It is unlawful to erect or maintain a privy or outhouse unless a suitable shelter be provided to afford privacy and protection from the elements. The door thereof shall be so constructed as to close automatically by means of a spring or other device. The construction shall be such as to exclude all flies from the pit. Such privy, vault

and shelter shall be maintained in good repair. The vault shall not be permitted to become filled with excreta nearer than two feet from the surface of the ground and such excreta shall be regularly and thoroughly disinfected. No such privy shall be located within forty feet of any dwelling, residence, school, church, hospital or public place or business, except with the permission of the occupants or operators of such dwelling, residence, school, church, hospital, or public place of business. (Ord. 32 § 3 (part), 1968: prior code § 5109.9 (part))

**6.52.020 Toilets.**

On any premises upon which domestic water under pressure is available, water flush toilets shall be provided. (Ord. 32 § 3 (part), 1968: prior code § 5109.9 (part))

## Chapter 6.56

### SANITARY FACILITIES

#### Sections:

- 6.56.010** Sanitary requirements.
- 6.56.020** Toilets.
- 6.56.030** Places of public assemblage.
- 6.56.040** Violations.

#### **6.56.010** Sanitary requirements.

Every person maintaining any toilet, wash room, or bath or shower room for the use of employees, patrons, or the public shall at all times keep the floors, walls, ceilings, lavatory, urinal, and toilet bowl free from any accumulation of dirt, filth or corrosion. All lavatories shall be supplied with soap and individual towels with a receptacle for their disposal. All such toilet rooms shall be provided with toilet paper. All plumbing and plumbing fixtures shall be kept in good repair. (Ord. 1180 § 1, 1987; Ord. 32 § 3 (part), 1968; prior code § 5101.11 (part))

#### **6.56.020** Toilets.

No building, room, or place shall be hereafter established as a restaurant, cafe, bar, tea room, or other place where food, beer, or alcoholic liquor is sold for consumption on the premises unless there shall be maintained by the operator thereof, within the enclosure walls of the building, room or place, not less than one toilet for each sex, and one lavatory for each sex adjacent to such toilets, for the use of the patrons and

employees of such establishment. All lavatories shall be supplied with hot and cold running water under pressure. All establishments serving alcoholic beverages for consumption on the premises shall provide a minimum of one urinal in each men's toilet room. All plumbing and plumbing fixtures shall be kept in good repair. (Ord. 32 § 3 (part), 1968; prior code § 5101.11 (part))

#### **6.56.030** Places of public assemblage.

All places of public assemblage and places open to the public or soliciting public use, except those specifically mentioned in the Uniform Building Code or Uniform Plumbing Code, shall be provided with sanitary facilities for each sex. Such sanitary facilities shall be adequate and shall be conveniently located. The number of such sanitary facilities shall be based upon the maximum expected attendance. One toilet unit for each two hundred seventy-five women and one for each three hundred men is considered adequate. If, in the opinion of the health officer, based upon the duration of the public event, or from actual observation, the minimum number of units is not adequate, additional facilities may be required. (Ord. 32 § 3 (part), 1968; prior code § 5101.11 (part))

#### **6.56.040** Violations.

All persons subject to the regulations of Chapter 6.56 found in noncompliance with said chapter shall be guilty of an infraction, pursuant to Section 1.04.010(b). (Ord. 1180 § 2, 1987)

**APPENDIX C**  
**VICTORVILLE MUNICIPAL CODE**  
**TITLE 10 – WATER AND SEWERS**

## **Title 10**

### **WATER AND SEWERS\***

#### **Chapters:**

**10.04 Sewer Connections**

**10.06 Food Establishment Grease Disposal**

- \* For statutory provisions pertaining to the regulation of the construction and location of drains and sewers, see Gov. C.A. § 38660. As to the authority of a city to construct, establish and maintain drains and sewers, see Gov. C.A. § 38900. For statutory provisions authorizing mandatory sewer connection and declaring other means of sewage disposal to be a nuisance, see Gov. C.A. § 54352. For statutory provisions authorizing cities to prescribe, revise and collect charges, see Gov. C.A. §§ 54344 — 54348 and 54354 — 54356. For statutory provisions relating to the issuance of sewer revenue bonds, see Health § S. C.A. § 4950 et seq.

## Chapter 10.04

### SEWER CONNECTIONS\*

#### Sections:

- 10.04.010** Definitions.
- 10.04.020** Connection to sewer.
- 10.04.030** Commercial, industrial and public buildings.
- 10.04.040** Failure of private sewage disposal system.
- 10.04.050** New construction.
- 10.04.060** New construction—Rural subdivisions.
- 10.04.070** Communal sewer systems.
- 10.04.080** Sewer availability charge.
- 10.04.085** Maintenance of sewer lateral.
- 10.04.090** Permits—Fees.
- 10.04.100** Variance procedure.
- 10.04.110** Violation unlawful.
- 10.04.120** Public nuisance—Abatement.
- 10.04.130** Penalty.
- 10.04.140** Uniform Plumbing Code.

\* Prior history: Ordinance 125, prior code Sections 5160, 5161, 5162, 5163, 5164, 5165, 5166.

#### **10.04.010** Definitions.

(a) “Building” means any structure used for human habitation or a place for business, industry, recreation or any other purpose containing sanitary plumbing facilities.

(b) “City” means the city of Victorville, San Bernardino County, California.

(c) “District” means the Victorville sanitary district, a subsidiary district of the city of Victorville.

(d) “Owner” means the person having legal title to a property or the person having an interest in a property through a contract of sale, long-term lease or similar agreement.

(e) “Public sewer” means a sewer lying within a street and which is controlled by or under the jurisdiction of the city.

(f) “Street” means any public highway, road, street, avenue, alley, way, public place, public easement or right-of-way.

(g) “Rural subdivision” means any single family residential subdivision with a gross density of not more than two units per acre (eighteen thousand square foot lot) with off-site improvements developed in accordance with the standard street specifications for rural subdivisions.

(h) “Private sewage disposal system” means and consists of a septic tank with effluent discharging into a subsurface disposal field into one or more seepage pits or into a combination of subsurface disposal field and seepage pits. (Ord. 864 § 1 (part), 1983)

#### **10.04.020** Connection to sewer.

The owner of any building occupied or used by humans situated within the city and abutting on any street in which there is now located or may in the future be located a public sewer which will serve the building is required at his expense to connect the building directly with the proper public sewer in accordance with the provisions of this chapter within three years from the date of the availability of such public sewer. This provision shall not apply to rural subdivisions as defined in Section 10.04.010. (Ord. 864 § 1 (part), 1983)

#### **10.04.030** Commercial, industrial and public buildings.

Commercial, industrial and public buildings or institutions as well as residential buildings not in a rural subdivision are also required to connect to the sewer system as provided in this chapter. (Ord. 864 § 1 (part), 1983)

#### **10.04.040** Failure of private sewage disposal system.

Notwithstanding the provisions of Sections 10.04.020 and 10.04.030, the owner of any building occupied or used by humans situated within the city and abutting on any street on which there is now located or may in the future be located a public sewer which will serve the building and which building is,

at the effective date of the ordinance codified in this chapter, being served by a privy, privy vault, septic tank, cesspool, seepage pit, or other private sewage disposal system intended or used for the disposal of sewage shall, upon the failure of such disposal system, at his own expense, connect said building directly with the proper public sewer within ten days from the date of such failure, and it is unlawful, thereafter, to construct or repair, reactivate or maintain any such facility. This section shall not apply to new construction within rural subdivisions if in compliance with Section 10.04.060(2) unless said failure causes concern for the health and safety of the citizens of the city. (Ord. 2216 § 1 (part), 2007; Ord. 864 § 1 (part), 1983)

**10.04.050 New construction.**

All buildings constructed after the effective date of the ordinance codified in this chapter upon property within the city abutting on any street in which there is now located or may in the future be located a public sewer which will serve the building shall, during the course of construction, be connected to the proper public sewer in accordance with the provisions of this section, and no such building shall become occupied or used until the provisions of this chapter have been complied with. This section shall not apply to new construction in rural subdivisions. (Ord. 880 § 1, 1983; Ord. 864 § 1 (part), 1983)

**10.04.060 New construction—Rural subdivisions.**

Individual private sewage disposal systems are considered appropriate for rural subdivisions provided there is adequate depth to groundwater and acceptable soil permeability. Where a determination is made to allow private sewage disposal systems, the following are required:

- (1) Private sewage disposal systems are to be located in the front yard;
- (2) All private sewage disposal systems shall be so designed that additional seepage pits or subsurface drain fields, equivalent to at least one hundred percent of the required original system, may be installed if the original system cannot absorb all the sewage.

(3) The septic tank lid or covering shall be marked appropriately with a disc or other metal sensing device.

(4) Methodology of Percolation Tests:

(A) Locations of borings and trenchings: If not random (grid method), state the specific reasons for choosing the selected locations. Plot and give coordinates for each location (distances from property lines). Locations may be plotted on plot plan.

(B) Number of borings or trenchings and tests: Unless deviations are authorized or permitted in advance by the city, the minimum number of explorations and tests shall be as shown below:

(C) Exploratory borings:

**Individual Lot Size**

Subdivisions and parcel maps	1 acre	3 borings first 10 lots; 1 boring every 10 thereafter
	1 acre to 5 acres	7 borings first 10 lots
	5 acres or more	1 boring in area of disposal system
Individual lot, residential		1 boring in area of disposal system
Commercial lot, condominiums, or other confluent systems under one ownership		1 boring per 2,000 gallons septic tank capacity in area of disposal system

(D) Tests for leachlines:

**Individual Lot Size**

Subdivisions and parcel maps	Up to 2.5 acres	6 tests first 10 lots; 1 test every 10 thereafter
	2.5 acres to less than 5 acres	100% of all lots, minimum 6 tests
	5 acres or more	100% of all lots in area of disposal system

Individual lot, residential		Minimum 4 tests in proposed sewage disposal and expansion area
Commercial lot, condominiums, or other confluent systems under one ownership		Minimum 4 tests in proposed sewage disposal and expansion area
		4 tests/2,000 gallon septic tank capacity in sewage disposal and expansion area

(E) Tests for seepage pits:

**Individual Lot Size**

Subdivisions and parcel maps	Less than 1 acre	3 tests first 10 lots; 2 tests for every 10 lots thereafter
	1 acre to less than 5 acres	7 tests first 10 lots; 4 tests for every 10 lots thereafter
	5 acres or more	100% of all lots in area of disposal system
Individual lot, residential		Minimum 2 tests in proposed sewage disposal and expansion area
Commercial lot, condominiums, or other confluent systems under one ownership		2 tests/2,000 gallon septic tank capacity in proposed sewage disposal and expansion areas

(5) The construction and the operation of the private disposal system shall be in accordance with the Guidelines for Waste Disposal from Land Developments adopted by the California Regional Water Quality Control Board adopted July 11, 1974.

(6) Subdividers may be required to form a septic tank maintenance district if required by the city. (Ord. 880 § 2, 1983; Ord. 864 § 1 (part), 1983)

**10.04.070 Communal sewer systems.**

For subdivisions containing lots less than eighteen thousand square feet, private sewage disposal systems are not allowed and must be connected to an operating sewer line. Where sewers are not available, the subdivider must construct a communal sewer system, including holding tanks of adequate size, and must provide for the maintenance and pumping of the holding tanks until sewers are available. (Ord. 880 § 3, 1983; Ord. 864 § 1 (part), 1983)

**10.04.080 Sewer availability charge.**

Where subdivisions containing lots more than eighteen thousand square feet have been approved for septic tank systems and sewer lines are available, a standby or availability charge shall be levied on all lots within two hundred feet of the sewer lines and all houses must be connected to the sewer line when a private sewage disposal system fails unless sufficient net area in the front yard is available to install a second complete system. Said availability charge shall be ten dollars per annum per lot for parcels of one acre or less, or ten dollars per annum per acre. (Ord. 864 § 1 (part), 1983)

**10.04.085 Maintenance of sewer lateral.**

Any owner of any property connecting to the sewer system shall be required to maintain in good working order, at the property owner's sole expense, the sewer laterals from their building or structure to the city's mainline. Any and all owners shall keep the sewer lateral free of roots, grease, debris, and blockages, and shall ensure that there are no breaks, cracks or other issues as to prevent the sewer lateral from operating in an efficient manner. Prior to commencing any repairs, the owner must obtain all applicable permits from the city. Should repairs to and/or replacement of the sewer lateral require encroaching in the public right-of-way, the property owner or property owner's agent must obtain an Encroachment

Permit from the city prior to commencing any such repairs. (Ord. 2209 § 1, 2007)

**10.04.090 Permits—Fees.**

No building or property shall be connected to a public sewer until a permit for the work has been obtained from the city and all fees, costs or pro-rated assessments for any publicly constructed sewer or any privately constructed sewer installed under a valid reimbursement agreement between the property owner and the city have been paid in accordance with the requirements of this chapter and such requirement agreement. (Ord. 864 § 1 (part), 1983)

**10.04.100 Variance procedure.**

A variance from the provisions and regulations of this chapter may be obtained upon a written application therefor, directed to the city council, who shall have the power to grant a variance if it finds from the evidence presented by the applicant that there are special circumstances applicable to the individual's property, such as a building being too low to permit gravity flow to a public sewer or the topography of the land is such that said gravity flow will not occur, or that the building or proposed building is too far distant from a public sewer to make it practicable or economically feasible to connect thereto, and that strict enforcement of the provisions of this chapter would result in practical difficulty, unnecessary hardship, or results inconsistent with the general purpose and intent of this chapter, and that the granting of such a variance will not be materially detrimental to the public health, safety or welfare. (Ord. 864 § 1 (part), 1983)

**10.04.110 Violation unlawful.**

Following the effective date of the ordinance codified in this chapter, it is unlawful for any person to connect to, construct, install, provide, maintain, reactivate or use any means of sewage disposal from any building in the city other than by connection to a public sewer, except in the manner as in this chapter provided and permitted. (Ord. 864 § 1 (part), 1983)

**10.04.120 Public nuisance—Abatement.**

Continued habitation of any building in violation of the provisions of this chapter is declared to be a public nuisance, and the city may cause proceedings to be brought for the abatement of the occupancy of the building during the period of such violation. (Ord. 864 § 1 (part), 1983)

**10.04.130 Penalty.**

Any person violating any of the provisions, or failing to comply with the requirements of this chapter, is guilty of a civil penalty, punishable in accordance with Chapter 1.05. In addition, in the discretion of the city attorney and based upon the specific facts and circumstances presented to him or her, any such violation may be charged as a misdemeanor subject to the penalties contained in Section 1.04.010. (Ord. 1908 § B (part), 1999; Ord. 864 § 1 (part), 1983)

**10.04.140 Uniform Plumbing Code.**

Should any portion or portions of this chapter conflict with the Uniform Plumbing Code, the Uniform Plumbing Code shall prevail. (Ord. 864 § 1 (part), 1983)

## Chapter 10.06

### FOOD ESTABLISHMENT GREASE DISPOSAL

#### Sections:

- 10.06.010 Intent and purpose.**
- 10.06.020 Definitions.**
- 10.06.030 Waste disposal—Permit required.**
- 10.06.040 Permit conditions.**
- 10.06.050 Permit application.**
- 10.06.060 Term.**
- 10.06.070 Use and maintenance requirements.**
- 10.06.080 Maintenance reports.**
- 10.06.090 Violations.**
- 10.06.100 Penalty for violations.**
- 10.06.110 Notice and hearing procedures.**

#### **10.06.010 Intent and purpose.**

It is the intent of this chapter to establish a permit procedure for the maintenance of interceptors for grease and other insoluble waste discharge from restaurants and other food preparation establishments within the city. The city council, in enacting the ordinance codified in this chapter, intends to provide a fair and effective means to provide for the maximum beneficial public use of the city's wastewater collection system. This may be accomplished by regulation of the discharge of grease and other insoluble waste products to prevent blockages of the city wastewater system, to avoid inefficient use of city resources and to promote public health and safety. (Ord. 1593 § 1 (part), 1992)

#### **10.06.020 Definitions.**

As used in this chapter:

(1) "Food establishment" means any person doing business within the city as a restaurant, specialty food or other facility engaged in preparing and processing food for consumption by the public.

(2) "Grease" means any oil, fat or oily fatty substance such as vegetable or animal fat that turns or may turn viscous or solidifies.

(3) "Grease interceptor" means an interceptor of at least seven hundred fifty-gallon capacity to serve one or more fixtures and which is remotely located, as required by the Uniform Plumbing Code and by the director of building and safety.

(4) "Grease trap" means a device to retain grease from one to a maximum of four fixtures.

(5) "Person" means any individual, firm, corporation, partnership, association or other group or combination of individuals acting as a business unit.

(6) "Wastewater" means water containing animal or vegetable matter and water, whether treated or untreated, discharged into or permitted to enter a public sewer. (Ord. 1593 § 1 (part), 1992)

#### **10.06.030 Waste disposal—Permit required.**

Food establishments engaged in preparing food for consumption by the public desiring to discharge grease, or wastewater which might include grease, into a private or public sewer shall obtain a permit to discharge from the director of building and safety known as a food establishment grease interceptor permit. The food establishment grease interceptor permit shall be subject to all provisions of this chapter and all other regulations, user charges and fees which may be established from time to time by resolution of the city council. (Ord. 1593 § 1 (part), 1992)

#### **10.06.040 Permit conditions.**

The permit may require pretreatment of wastewater before discharge, discharge of certain wastewater only to specified sewers of the city, relocation of point of discharge, prohibition of discharge of certain wastewater components, restriction of discharge during certain hours of the day, payment of additional charges to defray increased costs of the city relating to the discharge of grease and such other conditions as may be required to effectuate the purpose of this chapter.

No person shall discharge grease in excess of any quantity or quality limitations, or in violation of conditions set by the permit. (Ord. 1593 § 1 (part), 1992)

#### **10.06.050 Permit application.**

(a) Persons seeking a food establishment grease interceptor permit shall complete and file with the director of building and safety an application on the form prescribed by the director of building and safety, accompanied by the applicable fees. The applicant shall be required to submit the following information:

- (1) The name and address of applicant;
- (2) The volume and type of wastewater to be discharged;
- (3) The time of daily food preparation and cleaning operations;
- (4) Description of food preparation, type, number of meals served, cleanup procedures, dining room capacity, number of employees and size of kitchen;
- (5) List kitchen appliances and fixtures to be used;
- (6) Any other information as may be deemed by the director of building and safety to be necessary to evaluate the permit application;
- (7) In lieu of subsections (1) through (6) above, the applicant may show appropriate permits or documentation from the city department of building and safety which confirm that an appropriate grease interceptor has been installed in the food establishment in accordance with the applicable Uniform Building and Plumbing Codes.

(b) After evaluation and acceptance of the data furnished, an on-site inspection of the waste discharge system, treatment systems or other systems relating to waste discharge may be required. The director of building and safety may then issue a permit subject to the terms and conditions provided in this chapter and this code. (Ord. 1593 § 1 (part), 1992)

#### **10.06.060 Term.**

The permit shall be issued for a two-year period. The terms and conditions of the permit may be subject to modification and change by the city during the life of the permit as limitations or requirements as identified in Section 10.06.050 are modified and changed. The permittee shall be informed of any proposed changes in the frequency of the cleaning required by the permit at least thirty days prior to the effective date of the change. Any changes or new conditions in the permit shall include a reasonable time schedule for compliance. (Ord. 1593 § 1 (part), 1992)

#### **10.06.070 Use and maintenance requirements.**

(a) The food establishment grease interceptor permit shall be issued only for the permittee's specific use and operation. Any sale, lease, transfer or assignment of the premises or operation, shall require the issuance of a new permit. Any substantial or new or changed conditions of operation shall require a new permit to be issued.

(b) All permittees shall be required to show proof of installation of a grease interceptor. Grease interceptors shall be installed to remove grease from wastewater and shall be maintained in efficient operating condition by periodic removal of the accumulated grease. The permittee shall be responsible for the proper removal and disposal by appropriate means of the captured material. No such accumulated grease shall be introduced into any sewer lateral or public sewer.

(c) Each permittee shall be required to employ appropriate service or procedures for periodic collection of accumulated grease from the grease interceptor for the purposes of physically segregating and disposing of oils, greases and greasy solids. The collection period shall be as determined appropriate by the director of building and safety, but in all cases at least three-month intervals. (Ord. 1593 § 1 (part), 1992)

**10.06.080 Maintenance reports.**

(a) The permittee shall be required to maintain, on the premises, all records of grease interceptor device cleaning, in the form of a service manifest as may be required by the department of building and safety in accordance with the conditions imposed by the permit.

(b) The permittee shall allow city representatives ready access, during normal business hours, to the premises for purposes of sampling and inspections relating to the permit. City representatives may enter the premises at any time to respond to an emergency related to grease collection facilities. (Ord. 1593 § 1 (part), 1992)

**10.06.090 Violations.**

(a) Any permittee who is found to be in violation of this chapter or who (1) fails to install grease interceptor devices as required by permit; (2) fails to fulfill reporting, maintenance and cleaning requirements as required by permit and this chapter; (3) refuses reasonable access to the permittee's premises for the purpose of inspection or monitoring; shall be assessed penalties provided in Section 10.06.100 of this chapter. The director of building and safety shall issue a quarterly report listing violations.

(b) Any wilful failure to comply with a provision of this chapter shall constitute a violation, regardless of whether the failure to comply is caused by the permittee or an employee or agent of the permittee.

(c) Where the failure to comply is continuing and intentional, each successive failure to comply shall be a separate and distinct violation. (Ord. 1593 § 1 (part), 1992)

**10.06.100 Penalty for violations.**

(a) Public Nuisance. Discharge of grease in any manner in violation of this chapter or of any order or permit issued by the director of building and safety as authorized by this chapter is declared a public nuisance and shall be corrected or abated as directed by the city manager or his designated representative.

(b) Costs of Damage. Any person violating any of the provisions of this chapter or who discharges grease in violation of any conditions of the permit,

and the discharge of grease results in blockage or obstruction of city public sewers, damage to public or private property, or any other impairment of the operation of the city's facilities, shall, in addition to any other penalties provided by this chapter, become liable to and shall indemnify the city for all expenses, loss or damage including, but not limited to, costs to repair damage or clear blockages and payment for private property damage by reason of such violation or discharge.

(c) Falsifying of Information. Any person who knowingly makes any false statements, representation, record, report, plan or other document filed with the department of building and safety, or who falsifies, tampers with, or knowingly renders inaccurate any grease interceptor or method required under this chapter, shall be guilty of a misdemeanor.

(d) Suspending Service. When deemed necessary by the city manager for the preservation of public health or safety, or for the protection of public or private property, sewer service to any person or persons using the wastewater system in a manner or way to endanger the public health or safety, or public or private property, may be suspended. In suspending service, he may sever all pertinent connections to the public sewer. If such endangerment shall be imminent, then the city manager or his authorized representative may act immediately to suspend sewer service without notice or warning to such person or persons.

(e) Penalties and Charges. The following penalties shall apply to any violation of any provision of this chapter:

(1) For the first violation within the preceding twelve calendar months, the director of building and safety shall issue a written notice of the fact of such violations;

(2) For a second violation within the preceding twelve calendar months, the director of building and safety shall impose a penalty against the permit holder for the property where the violation occurred or is occurring, in an amount of two hundred dollars.

(3) For a third violation within the preceding twelve calendar months, the director of building and safety shall impose a penalty against the permit

holder for the property where the violation occurred or is occurring, in an amount of two hundred fifty dollars. (Ord. 1593 § 1 (part), 1992)

**10.06.110 Notice and hearing procedures.**

(a) A person found to be violating any provisions of this chapter shall be served by the city with written notice stating the nature of the violation, and providing a reasonable time limit for the correction of the violation. If the violation is not corrected by timely compliance, a written notice shall be served on the person specifying the violation, the reason the action is to be taken and the proposed enforcement action. The director of building and safety may propose any enforcement action authorized by this chapter reasonably necessary to abate the violation. The city manager or his designee shall order the person to show cause before an appointed hearing officer why the enforcement action should not be taken. Based upon the evidence presented at the hearing, the city manager or the appointed hearing officer shall determine the appropriate enforcement action which should be taken, if any. The decision of the hearing officer shall be final. In the alternative, this matter may be prosecuted by the city attorney pursuant to the provisions of Section 1.04.010 of this code.

(b) Unless otherwise provided herein, any notice required under this chapter shall be in writing and served in person or by registered or certified mail. If served by mail, the notice shall be sent to the last known address. Where the address is unknown, service may be made upon the owner of record of the property involved.

(c) Notice shall be deemed to have been given at the time of deposit, postage paid, in a facility regularly serviced by the United State Postal Service. (Ord. 2216 § 1 (part), 2007; Ord. 1593 § 1 (part), 1992)

**APPENDIX D**

**VICTOR VALLEY WASTEWATER RECLAMATION  
AUTHORITY**

**JOINT POWERS AGREEMENT**

**AMENDED AND RESTATED  
JOINT EXERCISE OF POWERS AGREEMENT  
VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY**

THIS AMENDED AND RESTATED JOINT EXERCISE OF POWERS AGREEMENT (the "Agreement") is made and entered into by and between the public agencies herein designated as "eligible public agencies" to amend and restate the Joint Exercise of Powers Agreement dated December 13, 1977, and any and all amendments thereto which created the Victor Valley Wastewater Reclamation Authority.

**RECITALS**

WHEREAS, each of the parties hereto is a public agency authorized and empowered to contract for the joint exercise of powers under Article 1, Chapter 5, Division 7, Title 1 (Sections 6500, et seq.) of the Government Code of the State of California; and

WHEREAS, each of said parties has the authority and power to protect and preserve the quality of the surface and subsurface water supplies within their respective boundaries; and

WHEREAS, the parties hereto recognize the immediate and continuing necessity for planning, construction, operation, and maintenance of works and facilities for the collection, transmission, treatment, disposal, and/or reclamation of sewage, wastes, and waste waters to meet the requirements of the National Pollution Discharge Elimination System within the boundaries of the Agency; and

WHEREAS, the parties hereto and their predecessors in interest formed the Victor Valley Wastewater Reclamation Authority, a Joint Powers Authority, which assumed responsibility for the construction, ownership, operation and maintenance, financing and every other phase and

aspect of the Victor Valley Regional Wastewater Reclamation Project, all as more particularly described in the Mojave Water Agency Service Agreement dated November 23, 1976, and in Mojave Water Agency Resolution No. 282-75, dated April 22, 1975, utilizing Mojave Water Agency ID No. 1 bond and tax funds and grants received from the Federal and State government to pay for these regional wastewater facilities; and,

WHEREAS, these regional wastewater facilities are now in existence and are owned and operated by the Victor Valley Wastewater Reclamation Authority and the terms of the said Mojave Water Agency Service Agreement and Resolution No. 282-75 have been performed and have been superseded by the governing documents of the Joint Powers Authority, and by the Joint Powers Agreement between the parties; and,

WHEREAS, the parties hereto wish to amend and restate the terms of the Joint Powers Agreement to update its provisions and to reflect the current status of the structure and operations of the Joint Powers Authority;

### COVENANTS

NOW, THEREFORE, IN CONSIDERATION of the mutual promises and covenants herein contained, the parties hereto agree as follows:

#### A. GENERAL

1. Creation of Agency. On December 13, 1977, a public agency known as the VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY, herein called "Agency" was created. The Agency was formed by Agreement pursuant to the provisions of Article 1, Chapter 5, Division 7, Title 1 (Sections 6500, et seq.) of the Government Code of the State of California relating to the joint exercise of powers common to public agencies (hereinafter referred to as the "Act"). For the purposes of this Agreement, and from its inception, the Agency is and has been a public agency separate from the parties hereto.

2. Territorial Boundaries. The geographical area originally encompassed within the territorial boundaries of the Agency was coextensive with the boundaries of Mojave Water Agency Improvement District No. 1, plus all the real property owned or utilized for the construction and operation of the Victor Valley Regional Wastewater Reclamation Project. Additional land has been added by annexation. The current boundaries are more particularly described in Exhibit "A", attached hereto and incorporated herein by this reference. The territorial boundaries may be changed from time to time by the annexation of land not already within Agency boundaries to the boundaries of a member entity, followed by compliance, by the member entity and by the owners of such property, with this Agency's annexation requirements.

2.1 Annexation. Annexations to the territorial boundaries of this Agency shall be subject to the condition that the taxable property, excluding personal property, within the annexation shall be liable for payment of all costs incident to annexation as determined by this Agency. Regional Connection Fees shall be paid in annexed and newly served areas in compliance with the Connection Fee Ordinance.

2.2 Contract Service. Provided that excess capacity is determined to exist in the treatment plant and/or conveyance system, and upon the approval of three-fifths (3/5) of the members of this Agency, temporary or limited contractual service from the Regional Wastewater System may be made available to areas within or without the boundaries of this Agency, upon such terms and conditions including provision for payment of fees and charges, as this Agency may establish.

3. Purpose. The purpose of this Agreement is to continue the existence and activities of this public agency to undertake and implement the common power of undertaking projects to meet the requirements of the National Pollution Discharge Elimination System within the boundaries of the Agency, including development of waste treatment management plans for the Victor Valley area within the Mojave Watershed, and construction, operation, and maintenance of works and facilities for collection, transmission, treatment, disposal, and/or reclamation of sewage, wastes, and waste waters by utilizing funds derived from connection fees, user fees, grants and/or loans received from Federal, State, or local government, funds obtained by issuing bonds, notes, warrants, and other

evidences of indebtedness to finance costs and expenses incidental to said projects, and funds derived from any other source

4. Powers. The Agency shall have the power, in its own name, to do any and all of the following:

- (a) To make and enter contracts;
- (b) To employ agents and employees;
- (c) To acquire, construct, manage, maintain, and operate any buildings, works, or improvements;
- (d) To acquire, hold, or dispose of property;
- (e) To incur debts, liabilities, or obligations;
- (f) To issue bonds, notes, warrants, and other evidence of indebtedness to finance costs and expenses incidental to the projects of the Agency;
- (g) To apply for, receive, and utilize grants and loans from the Federal, State or local government or from any other available source;
- (h) To sue and be sued in its own name;
- (i) To exercise those powers common to the parties identified in Section 5 of this Agreement;
- (j) To own and operate the Victor Valley Regional Wastewater Reclamation Project;
- (k) To enter an agreement with the United States of America, or any agency or department or successor thereof, for the purpose of including the former George Air Force Base Military Reservation as a participant in the Victor Valley Regional Wastewater Reclamation Project and providing for payment of their proportionate share of the capital and operation and maintenance costs thereof;
- (l) To have such other powers as are now, or may hereafter be, conferred by law upon Joint Powers Authorities, in general;
- (m) To exercise all powers necessary and proper to carry out the terms and provisions of this Agreement.

The powers enumerated herein shall be exercised, to the extent not herein specifically provided for, in the manner and according to the methods provided under the laws and/or charters under which the parties hereto have been created and are governed, except to the extent of any conflict therein, and in case of any such conflict, then in accordance with applicable provisions of California Law relating to Joint Powers Authorities, in general.

5. Eligible Public Agencies. The public agencies who are eligible to be and are parties to this Agreement and members of the Agency are specified as follows:

- (a) The City of Victorville, California (successor to Victorville Sanitary District);
- (b) The Town of Apple Valley, California (successor to Apple Valley County Water District);
- (c) Hesperia Water District (formerly known as Hesperia County Water District);
- (d) The City of Adelanto, California;
- (e) County Service Area #42 (Oro Grande), and County Service Area #64 (Spring Valley Lake);
- (f) Such other public agencies as may hereafter be declared eligible by unanimous vote of existing members.

Any new eligible public agencies shall become parties and members of the Agency upon execution of this Agreement and any addendum, amendment, or supplement hereto, and upon execution and compliance with the memorandum referred to in Section 6 of this Agreement.

6. Effective Date. This Amendment and Restatement of the Joint Powers Agreement shall become effective when the governing bodies of all of the eligible public agencies shall have authorized execution of this Agreement and the same has been executed by all parties.

In connection with the admission of any additional eligible public agency after formation of the Agency, each of the existing members and the prospective member or members shall execute a memorandum specifying the obligations of the prospective member for contributions toward past and present agency and project expenditures.

7. Governing Body. This Agreement and this Agency shall be administered by the governing body of the Agency which shall be known as the "Commission for the Victor Valley Wastewater Reclamation Authority" (the "Commission"). Subject to the reserved powers of the parties hereto, the powers and functions of the Agency shall be exercised by and through the Commission. Each Commissioner and alternate Commissioner must reside within the territorial boundaries of this Agency to be eligible to serve in this capacity, except if the Commissioner representing County Service Area #42 and County Service Area #64 is a Supervisor for San Bernardino.

## B. MEMBERSHIP

8. Reserve Power of Members. Except as provided hereinafter in the provisions concerning the general budget, each member of the Agency expressly possesses and reserves to itself final and absolute discretion to approve or disapprove prior to commitment, any and all expenditures or other financial obligation by the Agency which are proposed to be directly and individually chargeable against such member for a special purpose.

9. Withdrawal of Membership. Any member of the Agency shall have the right to withdraw its membership upon serving written notice of intention thereof on all other members at least one hundred and twenty (120) days before the close of any fiscal year; provided, however, that no such withdrawal shall relieve the withdrawing public agency from any financial obligations theretofore incurred by it under this Agreement.

10. Vote or Assent of Members. The vote, assent, or approval of members in any matter requiring such vote, assent, or approval hereunder shall be evidenced by a certified copy of the resolution or minute order of the governing body of such member, filed with the Agency.

11. Designation of Commissioners. Upon the effective date of this Agreement, each party who has not already done so shall designate and appoint, by resolution or minute order of its governing body, one member of its governing body, or its General Manager or his or her designee,

or in the case of County Service Area #42 and County Service Area #64, which will share a single representative between them, a designated representative to act as its Commissioner on the Commission, and one such individual to act as its alternate Commissioner. During any absence of the Commissioner, the alternate Commissioner shall act in the Commissioner's place. Commissioners and alternate Commissioners shall serve at the pleasure of the governing body of the appointing member and may be removed at any time, with or without cause, at the sole discretion of said member's governing body.

### C. COMMISSION

12. Meetings. Regular meetings of the Commission shall be held monthly. The Commission shall provide for the time and place of its regular meetings. Special meetings may be called at the request of the Chairperson or of a majority of the Commission. Notice of all meetings shall be given as required by California law then in effect.

13. Quorum. A majority of the Commissioners shall constitute a quorum for purposes of transacting business, except that less than a quorum may adjourn from time to time.

14. Majority Vote. Except as otherwise provided herein, all actions of the Commission shall be approved upon the affirmative vote of a majority of the members of the Commission. Each member of the Agency shall have one (1) equal vote, to be exercised by its designated Commissioner (or alternate as the case may be); provided, however, that, should any member merge with or assume responsibility for the services provided by another member, the votes shall also merge and shall thereafter be exercised as one vote; and, provided further, that County Service Area #42 and County Service Area #64, which share a single representative between them, shall likewise have only one (1) vote between them, to be exercised as a single unit by their designated Commissioner (or alternate, as the case may be).

15. Minutes. The Secretary of the Agency shall cause to be kept minutes of the regular, adjourned regular, special, and adjourned special meetings of the Commission and shall cause a copy

of said minutes to be kept on file for access by each member of the Agency, the Commission, and the public.

16. Compensation. Each Commissioner or alternate Commissioner shall receive compensation for each commission meeting attended in which they served as the designated representative of a member entity. The amount of compensation shall be fixed from time to time by the Commission. No Commissioner or alternate Commissioner shall receive compensation for more than two (2) meetings in any calendar month. If allowed by the Commission, a Commissioner or alternate Commissioner shall also receive travel and other expenses incurred on Agency business at the request of the Commission.

17. Public Meetings. All meetings of the Commission shall be open to the public and shall be called, noticed, held, and conducted in accordance with the provisions of the Ralph M. Brown Act as set forth in Sections 54950, et seq., of the Government Code.

18. Rules. The Commission may adopt from time to time such rules and regulations for the conduct of its affairs as may be required.

19. Committees. Committees may be formed for any purpose by majority vote of all Commission members.

20. Technical Advisory Committee. There shall be a Technical Advisory Committee which shall serve at the pleasure of the Commission (the "TAC"). Each public agency member shall appoint one person possessing an appropriate knowledge and expertise to the TAC. The time, place, and location of all meetings of the TAC shall be established by resolution of the Commission. The TAC shall meet regularly with the staff of the Agency to discuss and recommend to the Commission items coming before the Commission for consideration, as well as other issues or projects the Commission from time to time may request of TAC.

21. Powers and Limitations. All of the power and authority of the Agency shall be exercised by the Commission, subject to any expenditures or other financial obligations by the Agency which are proposed to be directly and individually chargeable against such member for a special purpose, as described in Section 8 of this Agreement.

#### D. OFFICERS

22. Officers. There shall be selected from the membership of the Commission a Chairperson and a Vice-Chairperson who shall stand for election annually at the first regular meeting of each new fiscal year.

A Treasurer and an Auditor/Controller shall be appointed by the Commission on behalf of the Agency, from those persons eligible under California Government Code sections 6505.5 and 6505.6, to be the depository and have custody of all money of the Agency from whatever source and who shall draw all warrants to pay demands against the Agency approved by the Commission. Such offices may be held by separate officers or employees, or combined and held by one officer or employee, as the Commission may elect. They shall serve at the pleasure of the Commission.

A Secretary shall be appointed by the Commission on behalf of the Agency from those persons eligible under California law. The Secretary shall serve at the pleasure of the Commission.

23. Additional Officers and Employees. The Commission shall have the power to appoint such additional officers and to employ such additional employees and assistants as may be appropriate.

24. Duties of Officers and Employees. Each and all of said officers, employees and assistants shall serve under rules established by the Commission and shall perform such duties and shall have such powers as the Commission may determine.

25. Bonds. Pursuant to Government Code section 6505.1, the public officer, officers or persons who have charge of, handle or have access to any property of the Agency shall file an official bond in an amount to be fixed by the parties to this Agreement.

## E. BUDGET PROCEDURES

26. General Budget. Annually at the May meeting of the Commission, or as soon thereafter as possible, a general budget shall be adopted for the ensuing fiscal year. The budget shall be prepared in sufficient detail to constitute an operating outline for the source and amount of funds available to the Agency and expenditures to be made during the ensuing year for those administrative and study matters and for the general project involving all members of the Agency. Said budget shall be adopted by a majority of the Commissioners in attendance, subject to the approval of a majority of the members of the Commission.

27. Approval of General Budget. Each general budget adopted by the Commission must be approved and shall be deemed effective upon the affirmative vote of a majority of the members of the Commission. Until such time as said formal approval has been received from a majority of the members of the Commission, said budget shall constitute merely a proposed budget, subject to consideration or revisions.

28. Failure to Approve General Budget. If a majority of the members of the Commission fail or refuse to approve any general budget of the Agency, said budget shall be returned to the Commission for restudy and revision. In the event a budget acceptable to a majority of the members of the Commission is not obtained prior to the start of the fiscal year, the Agency may continue to operate at the level of expenditure authorized by the last approved general budget.

29. Expenditures Within Approved Budgets. All expenditures within the designations and limitations of approved general budgets shall be made on the authorization of a majority of the Commission. No expenditures in excess of those budgeted shall be made without approval of a revised or amended budget which may from time to time be submitted.

## F. AGENCY FUNDS

30. Sources of Funds. The sources of funds available to the Agency include but are not limited to each of the following:

- (a) Funds collected as user charges or user fees for the operation and maintenance of the entire wastewater reclamation system;
- (b) Funds collected as connection fees from individuals, businesses, government organizations, and others connecting to the regional wastewater system;
- (c) Grants and loans received by the Agency from local, State, or Federal government agencies;
- (d) Funds received from State and Federal disaster relief agencies;
- (e) Funds obtained by issuing bonds, notes, warrants, and other evidences of indebtedness to finance costs and expenses incidental to the activities of the Agency;
- (f) Funds from any other source derived.

The Agency shall arrange for the receipt of such funds from the above sources as are available to the Agency and as are necessary for the conduct of Agency activities.

31. Use of Funds. All funds or revenues received or made available to the Agency shall be utilized by the Agency in accordance with the terms of the budget procedures contained in this Agreement:

- (a) Connection Fees. Connection fees assessed and collected pursuant to Victor Valley Wastewater Reclamation Authority Ordinance No. 002, and any interest earned thereon, shall be deposited in a separate account designated as the "Capital Expansion Fund," and used exclusively for capital improvements which are designed and constructed for the purpose of increasing the capacity of the sewerage system or improving the sewerage system to comply with applicable laws and regulations. "Sewerage system" means the network of wastewater collection, conveyance,

treatment, and disposal facilities which are interconnected by means of sewers either owned in whole or in part by the Agency, or as to which the Agency has a contractual right of use.

(b) All Other Funds. Any other revenues or funds received or made available to the Agency from any source whatsoever, shall be deposited into accounts that may be established by the Agency, and may be expended by the Agency in any legal manner subject to such restrictions as may be imposed by the Agency from time to time.

### G. ACCOUNTING AND AUDITS

32. Fiscal Year. The fiscal year of the Agency shall be from July 1, to and including June 30, of the following year.

33. Accounting Procedures. Full books and accounts shall be maintained by the Agency in accordance with practices established by or consistent with those utilized by the Controller of the State of California for like public agencies. In particular, the Controller and Treasurer of the Agency shall comply strictly with the requirements of the statutes governing joint powers agencies, Chapter 5, Division 7, Title 1, of the Government Code, commencing with Section 6500.

34. Audit. The records and accounts of the Agency shall be audited annually by an independent certified public accountant and copies of such audit report shall be filed with the County Auditor, State Controller, and each member of the Agency no later than fifteen (15) days after receipt of said audit by the Commission.

### H. BOND FINANCING

35. Revenue Bonds. The Agency shall have the power and authority to issue revenue bonds in accordance with the procedures and requirements specified as follows:

(a) Article 2, Chapter 5, Title 1, Division 7, of the Government Code, commencing with Sections 6540 and 6584;

(b) Chapter 6, Title 5, Division 2, of the Government Code, commencing with Section 54300;

(c) Chapter 6.5, Title 5, Division 2, of the Government Code, commencing with Section 54725.

The foregoing revenue bonds may be issued for any project which serves the purposes specified in Section 3 of this Agreement; provided, that two (2) or more members of the Agency shall participate in such project. Issuance of any such revenue bonds shall be subject to the approval of all members of the Agency and to any other approval required by law.

### I. PROPERTY RIGHTS AND LIABILITIES

36. Property Rights. Except as provided herein, the assets acquired by the Agency during the course of its operations under the terms of this Agreement shall be the assets of the Agency alone, and not of the parties to this Agreement.

37. Liabilities. Except as provided herein, the debts, liabilities, and obligations of the Agency shall be the debts, liabilities, and obligations of the Agency alone, and not of the parties to this Agreement.

### J. RESCISSION OR TERMINATION

38. Term. The Agency shall continue until this Agreement is rescinded or terminated as herein provided.

39. Rescission or Termination. This Agreement may be rescinded and the Agency terminated by written consent of a majority of the members evidenced by a certified copy of a resolution of their governing bodies. No such termination, however, shall relieve the Agency from any financial obligations theretofore incurred by it while operating under this Agreement.

40. Disposition of Assets on Termination. Upon termination, all assets of the Agency, including any charges then due, shall be transferred, subject to any outstanding Agency obligations, to whatever entity shall have been formed and is ready to perform the services of wastewater treatment disposal and wastewater reclamation for the constituent members and users of the system.

## K. MISCELLANEOUS

41. Arbitration. If a dispute arises as to the construction, interpretation, or implementation of any provision of this Agreement, the issues in dispute or matter requiring action may be submitted to binding arbitration, if all of the parties agree to do so. For such purpose, an agreed arbitrator shall be selected by all members of the Commission, or in the absence of agreement, the Commission by majority vote shall select an arbitrator and the member or members in dissent shall select an arbitrator and the arbitrators shall select a third arbitrator. The arbitrator, or three (3) arbitrators acting as a panel, shall proceed to arbitrate the matter in accordance with the provisions of Title 9 of Part 3 (Sections 1280, et seq.) of the Code of Civil Procedure.

42. Notices. All notices, statements, demands, requests, consents, approvals, authorizations, agreements, appointments, or designations hereunder shall be given in writing and addressed to the principal place of business of each member of the Agency.

43. Validity. If any one or more of the terms, provisions, promises, covenants, or conditions of this Agreement shall to any extent be adjudged invalid, unenforceable, void, or voidable for any reason whatsoever by a court of competent jurisdiction, each and all of the remaining terms, provisions, promises, covenants, and conditions of this Agreement shall not be affected thereby and shall be valid and enforceable to the fullest extent permitted by law.

44. Amendment. This Agreement shall contain all of the terms and conditions made between the parties hereto and shall not be amended except by an agreement in writing signed by all parties.

45. Successors. This Agreement shall be binding upon and shall inure to the benefit of the successors of the parties hereto.

46. Assignment. The parties hereto shall not assign any rights or obligations under this Agreement without the prior written consent of all other parties.

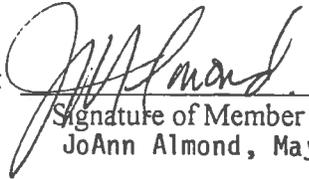
49. Additional Documents. The parties hereto agree upon request to execute, acknowledge, and deliver all additional papers and documents necessary or desirable to carry out the intent of this Agreement.

50. Law Governing. This Agreement is made in the State of California under the Constitution and Laws of such State and is to be so construed.

IN WITNESS WHEREOF, the parties hereto have executed this AMENDED AND RESTATED JOINT POWERS AGREEMENT on the day and year hereinafter indicated making the same effective upon the date signed by the last of all parties hereto.

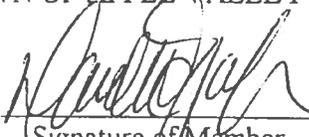
THE CITY OF VICTORVILLE

DATED: October 12, 1998

By:   
Signature of Member  
JoAnn Almond, Mayor Pro Tem

TOWN OF APPLE VALLEY

DATED: OCTOBER 8, 1998

By:   
Signature of Member  
DAVID HOLMAN, MAYOR

HESPERIA WATER DISTRICT

DATED: DEC 15 1998

By: *[Signature]*  
Signature of Member

COUNTY SERVICE AREA #42 (ORO GRANDE)  
COUNTY SERVICE AREA #64  
(SPRING VALLEY LAKE)

DATED: DEC 15 1998  
#77-844-A-4

By: *[Signature]*  
Signature of Member

SIGNED AND CERTIFIED THAT A COPY OF THIS DOCUMENT HAS BEEN DELIVERED TO THE CHAIRMAN OF THE BOARD.

By: *[Signature]*  
SARAH J. BRADY  
CLERK OF SUPERVISORS  
SAN BERNARDINO COUNTY, CA



EXHIBIT "A"

LEGAL DESCRIPTION OF BOUNDARIES

FOR

VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY

*The territory of the Victor Valley Wastewater Reclamation Authority shall be the following area:*

Beginning at the Northwest corner of Section 1, Township 6N, Range 6W, San Bernardino Base & Meridian, and continuing Easterly along the North section lines of said Section 13, T6N, R6W, SBB&M, and Sections 18, 17, 16, 15, 14 and 13 of T6N, R5W, SBB&M and Section 18 of T6N, R4W, SBB&M, to the Northeast corner of said Section 18;

Thence Southerly along the East line of Section 18 & 19 of T6N, R4W, SBB&M, to the Southeast corner of said Section 19;

Thence Easterly along the North line of Sections 29, 28, 27 & 26, T6N, R4W, SBB&M, to the Northeast corner of said Section 26;

Thence Southerly along the East line of Sections 26 & 35, T6N, R4W, SBB&M, to the Southeast corner of said Section 35;

Thence Easterly along the North line of Section 1, T5N, R4W, SBB&M, and Section 6, T5N, R3W, SBB&M, to the Northeast corner of said Section 6.

Thence Southerly along the East line of Section 6, T5N, R3W, SBB&M, to the Southeast corner of said Section 6;

Thence Easterly along the North line of Section 8, T5N, R3W, SBB&M, to the Northeast corner of said Section 8;

Thence Southerly along the East line of Section 8, T5N, R3W, SBB&M, to the half-section line of said Section 8;

Thence Easterly along the half-section line of Section 9; T5N, R3W, SBB&M, to the East section line of said Section 9;

Thence Southerly along the East line of Section 9, T5N, R3W, SBB&M, to the Southeast corner of said Section 9;

Thence Easterly along the North line of Section 15, T5N, R3W, SBB&M, to the Northeast corner of said Section 15;

Thence Southerly along the East line of Sections 15, 22, 27 & 34, T5N, R3W, SBB&M, to the Southeast corner of said Section 34;

Thence Westerly along the South line of Sections 34, 33, 32 & 31, T5N, R3W, SBB&M, and continuing along the South line of Section 36, T5N, R4W, SBB&M, to a point where it intersects with the center line of the Mojave River;

Thence South-southeasterly along the center line of the Mojave River to a point where said center line of the Mojave River meets with South line of Section 36, T4N, R4W, SBB&M

Thence Westerly along the South line of Section 36 & 35, T4N, R4W, SBB&M, to the Southwest corner of said Section 35;

Thence Southerly along the East line of Section 3, T3N, R4W, SBB&M, to the Southeast corner of said Section 3;

Thence Westerly along the South line of Sections 3, 4, 5 & 6 of T3N, R4W, SBB&M, to the Southwest corner of said Section 6;

Thence Northerly along the West line of Section 6, T3N, R4W, SBB&M, to the Northwest corner of said Section 6;

Thence Westerly along the South line of Sections 36, 35, 34 & 33, T4N, R5W, SBB&M, to the point where the South line of said Section 33 meets the center line of Interstate Highway 15;

Thence North-northeasterly along the center line of Interstate Highway 15 to a point where said center line meets the South line of Section 31, T5N, R4W, SBB&M;

Thence Westerly along the South line of Section 31, T5N, R4W, SBB&M, and continuing Westerly along the South line of Section 36, T5N, R5W, SBB&M, to the Southwest corner of said Section 36;

Thence Northerly along the West line of Section 36, T5N, R5W, SBB&M, to the Northwest corner of said Section 36;

Thence Westerly along the South line of Section 26, T5N, R5W, SBB&M, to the Southwest corner of said Section 26;

Thence Northerly along the West line of Section 26, T5N, R5W, SBB&M, to the half-section line of said Section 26;

Thence Westerly along the half-section line of Section 27, T5N, R5W, SBB&M, to the West line of said Section 27;

Thence Northerly along the West line of Sections 27, 22, 15 & 10, T5N, R5W, SBB&M, to the Northwest corner of said Section 10;

Thence Westerly along the South line of Sections 4, 5 & 6, T5N, R5W, SBB&M, and Section 1, T5N, R6W, SBB&M, to the Southwest corner of said Section 1;

Thence Northerly along the West line of Section 1, T5N, R6W, SBB&M, to the Northwest corner of said Section 1;

Thence Westerly along the South line of Section 36, T6N, R6W, SBB&M, to the Southwest corner of said Section 36;

Thence Northerly along the West line of Section 36, 25, 24 & 13, T6N, R6W, SBB&M, to the Northwest corner of said Section 13, said point being the point of beginning.

*VVWRA Annexation No. 1*

In the County of San Bernardino, State of California, described as follows:

That portion of Section 35, T5N-R5W, SBB&M described as the S 1/2 of the SE 1/4 of the NE 1/4 and the E 1/2 of the SE 1/4 and the E 1/2 of the SW 1/4 of the SE 1/4. 120 acres more or less.

VVRA Annexation No. 2

In the County of San Bernardino, State of California described as follows:

Parcel Map 8567 (All parcels)  
Being a portion of the NE $\frac{1}{4}$  of  
Section 1, T4N, R4W. In the County  
of San Bernardino.

(84-171680 BK 88-Pg-70 & 71)  
July 20, 1984

Parcel Map 8633, Parcel 2 & 3 only  
of said parcel map. Being a sub-  
division of portions of Sections  
1 and 12, T4N, R4W, SBM, in the  
County of San Bernardino.

(84-178402 BK 88-Pg 92-97)  
July 27, 1984

*WVRA Annexation No. 3*

REORGANIZATION: CITY OF VICTORVILLE ANNEXATION #1985-3

The south 1/2 of Section 26; T5N, R5W; SBB&M, and that portion of the east 1/2 of Section 35; T5N, R5W; SBB&M described as follows: Commencing at the south 1/4 point of said Section 35, said point being true point-of-beginning; thence northerly along north-south center section line of said Section 35 to a point of intersection with the south line of said Section 26; thence westerly along said south line to the southwest corner of said Section 26; thence northerly along west line of said Section 26 to a point of intersection with the east-west center section line of said Section 26; thence easterly along said center section line to the east line of said Section 26; thence southerly along the east lines of said Sections 26 and 35, said east lines also being the existing City of Victorville boundary, to a point of intersection with the east-west center line of the southeast 1/4 of the northeast 1/4 of said Section 35; said center line also being the existing City of Victorville boundary; thence westerly along said center line, to a point of intersection with the east 1/16 line of Section 35; said east 1/16 line also being a portion of the existing City of Victorville boundary; thence southerly along said east 1/16 line to the northwest corner of the southeast 1/4 of the southeast 1/4 of Section 35; thence westerly along the south 1/16 line of Section 35, said south 1/16 line also being a portion of the existing City of Victorville boundary; to a point of intersection with the north-south centerline of the southwest 1/4 of the southeast 1/4 of Section 35; said north-south center line also being the existing City of Victorville boundary; thence southerly along said north-south center line to a point of intersection with the south line of said Section 35; thence westerly along said south line to the true point of beginning; 520 acres more or less.

*VVWRA Annexation No. 3*

REORGANIZATION: CITY OF VICTORVILLE ANNEXATION #1986-1

That portion of land located in the north 1/2 of Section 1; T4N, R5W; SBB&M and the northwest 1/4 of Section 6; T4N, R4W; SBB&M: described as follows: commencing at a point of intersection of the center line of State Highway 15 with the north line of said Section 6, said point being north 89 degrees 18 minutes 34 seconds east 156 feet more or less from the northwest corner of said Section 6; thence south 32 degrees 54 minutes 00 seconds west 3,156 feet more or less along the center line of said Highway as it presently exists, to a point of intersection with the east-west center section line of said Section 1; thence westerly along said center section line 1,110 feet more or less to the point of intersection with the north-south center section line of said Section 1; thence northerly along said north-south center section line 1,320 feet more or less to a point of intersection with the east-west, north 1/16 center section line of said Section 1; thence westerly along said 1/16 center section line 1,320 feet more or less to the west line of the east half of the west half of Section 1; thence north along said west line to the existing City limits of Victorville; thence easterly along said City limits to the true point-of-beginning; 159.55 acres more or less.

*VVWRA Annexation No. 4*

In the County of San Bernardino, State of California described as follows:

Parcel Map 9827, Parcel 1, 2, 3, & 4  
as per map recorded in Book 108, Pages  
23 and 24 of Parcel Map. Being a division  
of a portion of the West 1/2 of Government  
Lot 2 in the Northwest 1/4 of Section 6, T4N,  
R3W, SBM, in the County of San Bernardino

*VVWRA Annexation No. 5*

The South 1/2 of Section 27; T5N, R5W, SBB&M, Section 34; T5N, R5W, SBB&M and the West 1/2 of Section 35; T5N, R5W, SBB&M described as follows:

Commencing at the South 1/4 point of said Section 35, said point being the True Point of Beginning; thence Northerly along the North-South center section line of said Section 35, said center line also being the existing City of Victorville boundary, to a point of intersection with the North line of said Section 35; thence Westerly along said North line, said North line also being the existing City of Victorville boundary, to the Southeast corner of said Section 27; thence Northerly along the East line of said Section 27, said East line also being the existing City of Victorville boundary, to a point of intersection with the East-West center section line of said Section 27; thence Westerly along said center line to the West 1/4 point of said Section 27; thence Southerly along the West lines of said Sections 27 and 34 to the Southwest corner of said Section 34; thence Easterly along the South lines of said Sections 34 and 35 to the True Point of Beginning; 1,280 acres more or less.

*VVWRA Annexation No. 6*

Those portions of Townships 5 and 6 North, Ranges 5 and 6 West, San Bernardino Meridian, in the County of San Bernardino, State of California, described as follows:

Section 2 and Section 11 of Township 5 North, Range 6, West, and Section 35, Township 6 North, Range 6 West; and

Section 7 and the South 1/2 of Sections 8, 9, and the West 1/2 of Section 10, Township 6 North, Range 5 West and Section 12 and the East 1/2 of Section 11, Township 6 North, Range 6 West.

VVRA Annexation No. 7

The NE 1/4 of Section 5, Township 4 North, Range 3 West, San Bernardino Meridian, in the County of San Bernardino, State of California described as follows:

East 1/2 of Gov Lot 2 of the NE 1/4 Section 5, Township 4 North, Range 3 West, except South 638 ft and except County Road, and except additional street per document recorded 11-6-81 #245910, offer of dedication per document recorded 11-6-81 #245911.

North 270 ft, South 638 ft, East 645 ft, East 38.78 ft of Gov Lot 2 of the NE 1/4 of Section 5, Township 4 North, Range 3 West, San Bernardino Meridian, in the County of San Bernardino, State of California.

Parcel Nos. 2 and 3 of Parcel Map No. 1437, being a portion of the NE 1/4 of Section 5, Township 4 North, Range 3 West, San Bernardino Meridian, in the County of San Bernardino, State of California.

UWRA Annexation No. 8

Those properties of Township 4 North, Ranges 3 and 4 West, San Bernardino Meridian, in the County of San Bernardino, State of California, described as follows:

PARCEL J:

THE WEST 1/2 OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 6, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL K:

THE WEST 1/2 OF THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 6, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL L:

THE SOUTH 1/2 OF GOVERNMENT LOTS 1 AND 2 OF THE SOUTHWEST 1/4 AND THE EAST 1/2 OF THE NORTH 1/2 OF GOVERNMENT LOT 1 OF THE SOUTHWEST 1/4 AND THE SOUTH 1/2 OF THE SOUTH 1/2 OF THE WEST 1/2 OF THE NORTH 1/2 OF GOVERNMENT LOT 1 OF THE SOUTHWEST 1/4 AND THE SOUTH 1/2 OF THE SOUTH 1/2 OF THE NORTH 1/2 OF GOVERNMENT LOT 2 OF THE SOUTHWEST 1/4 OF SECTION 7, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL M:

THE SOUTH 1/2 OF GOVERNMENT LOT 2 OF THE NORTHWEST 1/4 AND THE NORTH 3/4 OF THE NORTH 1/2 OF GOVERNMENT LOT 2 OF THE SOUTHWEST 1/4 AND THE NORTH 3/4 OF THE WEST 1/2 OF THE NORTH 1/2 OF GOVERNMENT LOT 1 OF THE SOUTHWEST 1/4 OF SECTION 7, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL M-1:

THE NORTH 1/2 OF GOVERNMENT LOT 2 OF THE NORTHWEST 1/4 OF SECTION 7, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL N:

*VVWRA Annexation No. 8*

THE WEST 1/2 OF THE NORTH 1/2 OF GOVERNMENT LOT 1 OF THE NORTHWEST 1/4 OF SECTION 7, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL O:

THE EAST 1/2 OF THE NORTH 1/2 OF GOVERNMENT LOT 1 OF THE NORTHWEST 1/4 OF SECTION 7, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL P:

THE EAST 1/2 OF THE SOUTH 1/2 OF GOVERNMENT LOT 1 OF THE NORTHWEST 1/4 OF SECTION 7, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND, APPROVED BY THE SURVEYOR GENERAL.

PARCEL Q:

THE WEST 1/2 OF THE SOUTH 1/2 OF GOVERNMENT LOT 1 OF THE NORTHWEST 1/4 OF SECTION 7, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL R:

THE NORTHWEST 1/4 OF THE SOUTHEAST 1/4 AND THE NORTH 16 FEET OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 7, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL S:

THE WEST 1/2 OF THE NORTHEAST 1/4 OF SECTION 7, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL T:

THE NORTH 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 18, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL U:

GOVERNMENT LOTS 1 AND 2 OF THE NORTHWEST 1/4 OF SECTION 18, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

VVWRA Annexation No. 8

PARCEL V:

THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 AND THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 12, TOWNSHIP 4 NORTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL W:

GOVERNMENT LOTS 1 AND 2 OF THE SOUTHWEST 1/4 OF SECTION 6, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL X:

PARCELS 2 AND 3 OF PARCEL MAP 10215, AS PER MAP ON FILE IN BOOK 119, PAGES 76 AND 77 OF PARCEL MAPS, SAN BERNARDINO COUNTY RECORDS.

PARCEL X-1:

THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 6, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL Y:

THE SOUTH 1/2 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 18, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL Z:

THE EAST 1/2 OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 18, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO GOVERNMENT SURVEY.

PARCEL AA:

PARCELS 1 THROUGH 8, INCLUSIVE OF PARCEL MAP NO. 8567, IN THE COUNTY OF SAN BERNARDINO, AS PER PLAT RECORDED IN BOOK 88 OF PARCEL MAPS, PAGES 70 AND 71, RECORDS OF SAID COUNTY.

PARCEL A:

PARCELS 1, 4, 5 AND 6 OF PARCEL MAP NO. 8633, AS PER PLAT RECORDED IN BOOK 88 OF PARCEL MAPS, PAGES 92 TO 97, INCLUSIVE, RECORDS OF SAID COUNTY.

VVWRA Annexation No. 9

Those portions of Sections 14, 15, 21, 22, 23, 27 and 28 of Township 4 North, Range 5 West, San Bernardino Meridian, in the County of San Bernardino, State of California, described as follows:

Commencing at the North East corner of Section 14 Township 4 North, Range 5 West, San Bernardino Meridian, said point being in the Centerline of Mojave Road as shown on Caltrans right-of-way Map No. 984554.

THENCE, South  $01^{\circ} 56' 47''$  East 1370.66 per said right-of-way map along the East line of said Section 14 to the South line of the North 1/2 of the North 1/2 of said Section 14;

THENCE, South  $89^{\circ} 22' 49''$  West 2460.99 feet per said Caltrans right-of-way map along the South line of the North 1/2 of the North 1/2 of said Section 14 to a point in the Northwest right-of-way line of Interstate 15. Said point also being TRUE POINT OF BEGINNING;

THENCE, continuing West along the South line of the North 1/2 of the North 1/2 of Section 14 and Section 15 to the West line of the East 1/2 of the East 1/2 of Section 15 Township 4 North, Range 5 West, San Bernardino Meridian;

THENCE, South along said West line of the East 1/2 of the East 1/2 of said Section 15 to the South line of said Section. Said point also shown as East 1/16 corner of Sections 15 and 22 on Parcel Map 9325 filed in Book 97 at Page 41 of Parcel Maps, Records of San Bernardino County;

THENCE, West along said South line of Section 15 to the Southwest corner of said Section 15, Township 4 North, Range 5 West. Said point also being the Northeast corner of Section 21, Township 4 North, Range 5 West, as shown on Parcel Map 6934 filed in Book 68 at Pages 48 through 49 inclusive of Parcel Maps, Records of San Bernardino County;

THENCE, Continuing West along the North line of said Section 21 to the North 1/4 corner of said Section 21 as shown on said Parcel Map 6934;

VVWRA Annexation No. 9

- THENCE, South along the West line of the East 1/2 of Section 21, Township 4 North, Range 5 West, to the South line of said Section 21. Said point also being the North 1/4 corner of Section 28, Township 4 North, Range 5 West as shown on Parcel Map 8098 filed in Book 84 at Pages 11 through 12 inclusive of Parcel Maps, records of San Bernardino County;
- THENCE, Continuing South along the West line of the East 1/2 of said Section 28 to the center North 1/16 corner of said Section 28 as shown on said Parcel Map 8098;
- THENCE, East along the South line of the North 1/2 of the North East 1/4 of said Section 28, Township 4 North, Range 5 West to the centerline of the West Frontage Road of Highway 395 as shown on Caltrans right-of-way Map No 987595;
- THENCE, South  $0^{\circ} 48' 37''$  East 389.56 feet more or less along the centerline of said West Frontage Road to its intersection with the centerline of Joshua Street (formerly Palm Avenue) as shown on said Caltrans right-of-way map;
- THENCE, Easterly along the centerline of said Joshua Street as per Caltrans right-of-way Maps No. 987595 and 987601 the following four (4) courses:
- North  $89^{\circ} 11' 23''$  East 1205.03 feet to the beginning of a curve concave to the South having a radius of 800 feet;
  - Southeasterly 470.68 feet along said curve through a central angle of  $33^{\circ} 42' 37''$ ;
  - South  $57^{\circ} 06' 00''$  East 1414.84 feet to the centerline of the East Frontage Road of Interstate 15 as shown on said Caltrans right-of-way Map No. 987601.
  - South  $34^{\circ} 53' 27''$  West 60 feet more or less along the centerline of said East Frontage Road to its intersection with the South line of the North 1/2 of Section 27, Township 4 North, Range 5 West;
- THENCE, East along said South line of the North 1/2 of Section 27 to the East line of the West 1/2 of the West 1/2 of the Northeast 1/4 of said Section 27;
- THENCE, North along said East line of the West 1/2 of the West 1/2 of the Northeast 1/4 of Section 27 to the North line of said Section 27. Said point also being in the existing City limits line of Hesperia;

VVWRA Annexation No. 9

THENCE, East along the North line of Section 27 to the Westerly line of Section 23, Township 4 North, Range 5 West;

THENCE, North along the Westerly line of Section 23, to the Southwesterly corner of that parcel described per Instrument #86-265217, as recorded on September 15, 1986, Records of San Bernardino County;

THENCE, Easterly, Northerly and Westerly along the boundary of said parcel to the Northwest corner of said parcel, also being the West quarter corner of Section 23;

THENCE, North along the Westerly line of Section 23, Township 4, Range 5 West, to the Westerly Caltrans right-of-way of Interstate 15.

THENCE, Northeasterly along the Westerly Caltrans right-of-way to the TRUE POINT OF BEGINNING.

*VVRA Annexation No. 10*

In the County of San Bernardino, State of California, more specifically described as follows:

Sections 1 and 2, Township 6 North, Range 6 West, San Bernardino Meridian; and,

Section 6, Township 6 North, Range 5 West, Section 31, Township 7 North Range 5 West, and Sections 35 and 36, Township 7 North Range 6 West, San Bernardino Meridian; and,

The West 1/2 of the Southwest 1/4 and the Northwest 1/4 of Section 12, Township 5 North, Range 6 West, San Bernardino Meridian; and,

The North 1/2 of Section 19; the North 1/2 of Section 20; the North 1/2 of Section 21; the South 1/2 of the South 1/2 of Section 18; Sections 16 and 17; the East 1/2 and the East 1/2 of the Northwest 1/4 of Section 9, all in Township 5 North, Range 5 West, San Bernardino Meridian; and,

The North 1/2 of Sections 23 and 24, the South 1/2 of the Southeast 1/4 and the Southwest 1/4 of Section 13, the South 1/2 of the South 1/2 and the Northeast 1/4 of the Southeast 1/4 and the East 1/2 of the Northwest 1/4 of the Southeast 1/4 of Section 14, Township 5 North, Range 6 West, San Bernardino Meridian.

VVRA Annexation No. 11

In the County of San Bernardino, State of California, more specifically described as follows:

Sections 28, 29, 32, 33 and the South halves of Section 20 and 21, Township 5 North, Range 5 West, San Bernardino Base and Meridian.

Also the North halves of Sections 4 and 5 and the Southeast quarter of said Section 4, Township 4 North, Range 5 West, San Bernardino Base and Meridian.

The North 1/2 of Fractional Section 31, Township 5 North, Range 5 West and the North 1/2 of Section 36, Township 5 North, Range 6 West, San Bernardino Base and Meridian.

Fractional Section 30 and the South one-half of Fractional Section 19, Township 5 North, Range 5 West, San Bernardino Base and Meridian.

*UVWA Annexation No. 12*

In the County of San Bernardino, State of California, more specifically described as follows:

Beginning at a point along the south boundary of Section 18 (T4N, R3W) and also being the easterly limit of Mojave River, thence;

Easterly along the south boundary to the southeast corner of said Section 18 (T4N, R3W), thence;

Northerly along the east boundary of Section 18 to the northeast corner of Section 18, (T4N, R3W), thence;

Easterly along the south boundary of Section 8 to the southeast corner of Section 8 (T4N, R3W), thence;

Southerly along the west boundary of Section 16 to the southwest corner of Section 16 (T4N, R3W), thence;

Easterly along the south boundary of Section 16 to the southeast corner of Section 16 (T4N, R3W), thence;

Northerly along the west boundary of Section 15 to the west 1/4 corner of Section 15 (T4N, R3W), thence;

Easterly along the quarter section line of Section 15 to the east 1/4 corner of Section 15 (T4N, R3W), thence;

Northerly along the east boundaries of Section 15, Section 10, and Section 3 to the east 1/4 corner of Section 3 (all within T4N, R3W), thence;

Easterly along the quarter section line of Section 2 to the east 1/4 corner of Section 2 (T4N, R3W), thence;

Northerly along the east boundary of Section 2 to the northeast corner of Section 2 (T4N, R3W), thence;

Northerly along the east boundaries of Section 35, Section 26, Section 23, Section 14, Section 11, and Section 2 to the northeast corner of Section 2 (all within T5N, R3W) thence;

Continuing at the southeast corner of Section 35, and northerly along the east boundaries of Section 35, Section 26, Section 23, Section 14, Section 11, and Section 2 to the northeast corner of Section 2 (all within T6N, R3W), thence;

Westerly along the north boundaries of Section 2, Section 3, Section 4, and Section 5 to the easterly right of way limit of the Interstate 15 Freeway, thence;

VVWRA Annexation No. 12

Southwesterly along the easterly right of way limit of Interstate 15 to the current most northerly limit of the Apple Valley Water District that are within the VVWRA service area (being north boundary of Section 26, T6N, R4W), thence along the current boundary limit as follows;

Easterly along the north boundary of Section 26 to the northeast corner of Section 26 (T6N, R4W), thence;

Southerly along the east boundaries of Section 26 and Section 35 (all within T6N, R4W), to the southeast corner of Section 35, thence;

Easterly along the south boundaries of Section 36 (T6N, R4W) and Section 31 (T6N, R3W), to the southeast corner of Section 31, thence;

Southerly along the west boundary of Section 5 to the southwest corner of Section 5 (T5N, R3W), thence;

Easterly along the south boundary of Section 5 to the southeast corner of Section 5 (T5N, R3W), thence;

Southerly along the west boundary of Section 9 to the west 1/4 corner of Section 9 (T5N, R3W), thence;

Easterly along the quarter section line of Section 9 to the east 1/4 corner of Section 9 (T5N, R3W), thence;

Southerly along the west section line of Section 10 to the southwest corner of Section 10 (T5N, R3W), thence;

Easterly along the south boundary of Section 10 to the southeast corner of Section 10 (T5N, R3W), thence;

Southerly along the east boundaries of Section 15, Section 22, Section 27, and Section 34 to the southeast corner of Section 34 (all within T5N, R3W), thence;

Westerly along the south boundaries of Section 34 and Section 33 to the southwest corner of Section 33 (also being the northeast corner of Section 5, all within T5N, R3W), thence;

Southerly along the easterly boundary of Parcel Map No. 11552 (also being the easterly boundary of Section 5, T5N, R3W) and continued along the centerline of Kiowa Road to the true northeast corner of Parcel No. 4 of Parcel Map 1437, thence;

Westerly along northerly boundary of Parcel No. 4 of Parcel Map 1437 to the northwest corner of said parcel, thence;

Southerly along the westerly boundary of Parcel No. 4 of Parcel Map 1437 to the southwest corner of said parcel, thence;

Westerly along the southerly boundary of Parcel No. 3 of Parcel Map 1437 to the southwest corner of said parcel, thence;

VVWRA Annexation No. 12

Northerly along the westerly boundaries of Parcels No. 3 and No. 2 of Parcel Map 1437 to the northwest corner of Parcel No. 2 (also being the southerly boundary of Parcel Map 11552 and centerline of Sequoia Road), thence;

Westerly along the southerly boundary of Parcel Map 11552 to the southwest corner of Parcel Map 11552, thence;

Northerly along the westerly boundary of Parcel Map 11552 to the northwest corner of said Parcel Map 11552 (also being the East 1/16 corner along the north boundary of Section 5, T4N, R3W), thence;

Westerly along the north boundaries of Section 5 and Section 6 (all within T4N, R3W) to the northwest corner of Section 6 (also being the intersection of Apple Valley Road and Bear Valley Road), thence;

Southerly along the easterly boundary of Parcel Map 8567 to the northwest corner of Parcel Map 9827 (VVWRA Annexations No. 2 and No. 4), thence;

Southerly along the easterly limits of VVWRA Annexations No. 4 and No. 8 (The Entire Jess Ranch Project Area) and along the easterly limit of the Mojave River to the point of Beginning of this Annexation.

The estimated areas annexed into the Victor Valley Wastewater Reclamation Authority boundary is approximately 51.3 square miles.

VVWRA Annexation No. 13

Those portions of Sections 27 and 28 of Township 4 North, Range 5 West, San Bernardino Meridian, in the County of San Bernardino, State of California described as follows:

Beginning at the Center North 1/16 corner of Section 28, Township 4 North, Range 5 West, San Bernardino Meridian, as shown on parcel Map 8098 filed in Book 84 at Pages 11 through 12 inclusive of Parcel Maps, records of San Bernardino County, said point also being located on the existing City limits line;

THENCE, South along the West line of the East 1/2 of said Section 28 a distance of 3,819 feet, more or less, to a point 141 feet from the South 1/4 corner of said Section 28, said point being the Northwest corner of that certain parcel of and conveyed to Terragrande Inc., by deed recorded in book 6629, page 965, Official Records, in the office of the County Recorder of said County. Said point also being the Southwest corner of that certain parcel of land conveyed to William B. and Betty L. Schoen by deed recorded as Instrument No. 88-453820, Official Records, in the office of the County Recorder of said County;

THENCE, East parallel with the South line of said Southeast 1/4 of said Section 28, 636 feet, more or less, along the South line of said land per said Instrument No. 88-453820, to the West line of that certain parcel of land conveyed to Robert M. and Vivian V. Stroup by deed recorded in book 8616, page 841, Official Records in the office of the Recorder of said County;

THENCE, North parallel with the West line of said Southeast 1/4 50 feet, more or less, along said West line of said land per said book 8618, page 841, to the North line of said land per said book 8618, page 841;

THENCE, East parallel to the South line of said Southeast 1/4 of said Section 28, along said North line per said book 8618, page 841, to the intersection of the centerline of Interstate No. 15;

VVWRA Annexation No. 13

THENCE, Northeasterly along said centerline to the intersection with the centerline of Joshua Street (formerly Palm Avenue) as shown on Cal-trans right-of-way Map No. 987601. Said point also being located in the Northwest 1/4 of Section 27, T4N, R5W and on the existing city limits line;

THENCE, Westerly along the Southerly city limits boundary and the centerline of said Joshua Street as per Cal-trans right-of-way Maps No. 987601 and 987595, the following three (3) courses:

N 57 06' 00" W 614.84' to the beginning of a curve concave to the South having a radius of 800':

Northwesterly 470.68 feet along said curve through a central angle of 33 42' 87":

S 89 11' 23" W 1205.03 feet to its intersection with the centerline of the West Frontage Road of Highway 395;

THENCE, N 0 48' 37" W 389.56 feet more or less along the centerline of said Frontage Road to the South line of the North 1/2 of the Northeast 1/4 of said section 28;

THENCE, West along said South line of the North 1/2 of the Northeast 1/4 of Section 28 to the POINT OF BEGINNING.

VVWRA Annexation No. 14

THOSE PORTIONS OF SECTIONS 1,2,3,9,10,11,14, AND 15, TOWNSHIP 4 NORTH, RANGE 5 WEST, SAN BERNARDINO BASE AND MERIDIAN, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 3; THENCE EASTERLY ALONG THE NORTH LINE OF SAID SECTION 3 TO THE NORTHWEST CORNER OF SAID SECTION 2; THENCE EASTERLY ALONG THE NORTH LINE OF SAID SECTION 2 AND SAID SECTION 1 TO THE EAST LINE OF THE NORTHWEST QUARTER OF SAID SECTION 1; THENCE SOUTHERLY ALONG SAID EAST LINE TO THE NORTHWEST 1/16 CORNER OF SAID SECTION 1; THENCE EASTERLY ALONG THE NORTH 1/16 LINE OF SAID SECTION 1 TO THE CENTER NORTH 1/16 CORNER THEREOF; THENCE SOUTHERLY ALONG THE NORTH - SOUTH CENTER SECTION LINE OF SAID SECTION 1 TO THE CENTER 1/4 CORNER THEREOF; THENCE EASTERLY ALONG THE EAST-WEST CENTER SECTION LINE OF SAID SECTION 1 TO A POINT OF INTERSECTION WITH THE CENTERLINE OF INTERSTATE 15; THENCE SOUTHWESTERLY ALONG SAID CENTERLINE TO ITS INTERSECTION WITH THE NORTH 1/16 LINE OF SAID SECTION 14; THENCE WESTERLY ALONG SAID NORTH 1/16 LINE AND THE NORTH 1/16 LINE OF SAID SECTION 15 TO THE NORTHEAST 1/16 CORNER OF SAID SECTION 15; THENCE SOUTHERLY ALONG THE EAST 1/16 LINE OF SAID SECTION 15 TO ITS INTERSECTION WITH THE CENTERLINE OF IMPROVEMENTS OF THE CALIFORNIA AQUEDUCT; THENCE NORTHWEST ALONG SAID CENTERLINE THROUGH ITS VARIOUS COURSES TO THE WEST LINE OF SAID SECTION 9; THENCE NORTHERLY ALONG SAID WEST LINE TO THE NORTHWEST CORNER OF SAID SECTION 9; THENCE EASTERLY ALONG THE NORTH LINE OF SAID SECTION 9 TO THE NORTHEAST CORNER THEREOF, ALSO BEING THE SOUTHWEST CORNER OF SAID SECTION 3; THENCE NORTHERLY ALONG THE WEST LINE OF SAID SECTION 3 TO THE NORTHWEST CORNER THEREOF, BEING THE POINT OF BEGINNING.

**EXHIBIT "B"**

**DESCRIPTION OF REAL PROPERTY**

**OWNED BY**

**VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY**

The East one-half of the South-West one-quarter; the South-east one-quarter of the North-west one-quarter; the West one-half of the South-east one-quarter; the West one-half of the North-east one-quarter; the West one-half of the East one-half of the North-east one-quarter; and the West one-half of the East one-half of the South-east one-quarter; all in Section 12, Township 6 North, Range 5 West, San Bernardino Meridian in the County of San Bernardino, State of California, according to the official plat thereof.

## **APPENDIX E**

### **CITY OF VICTORVILLE SEWER ATLAS (disc)**

## **APPENDIX F**

### **DRAFT FINAL SEWER MASTER PLAN (disc)**

## **APPENDIX G**

### **HIGH MAINTENANCE AREAS LOCATION MAPS**

VSD-122

10'S SENECA

10'S ROAD

10'S

10'S

10'S

8'S

8'S

8'S

BAREGO RD.

8'S

A-AMERICAN  
SELF-  
STORAGE

APARTMENTS

APARTMENTS

8'S

MC ART ROAD

ROAD

AMARGOSA

VSD-110

8'S

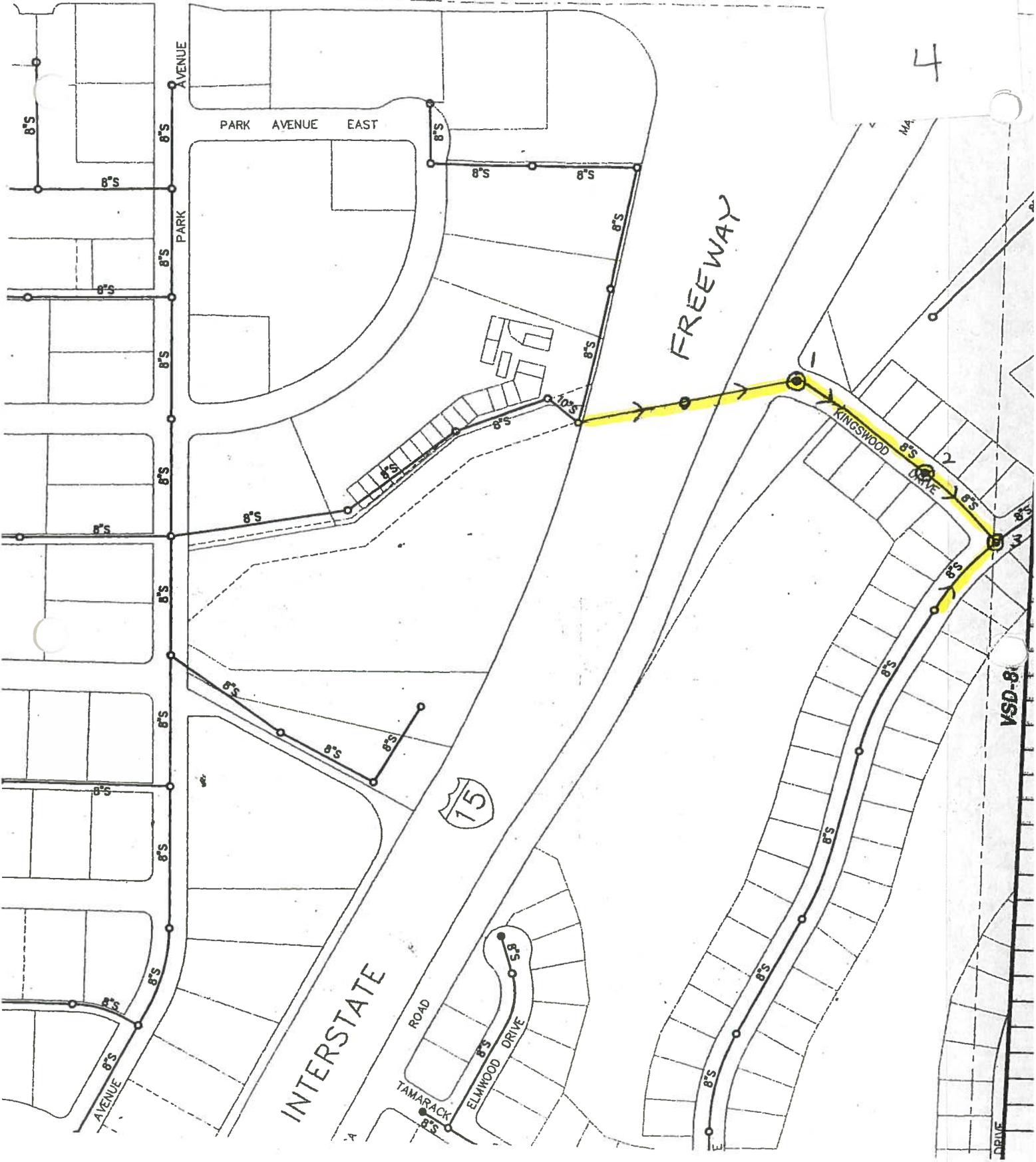




ROAD

VSD-110

4



PARK AVENUE EAST

PARK AVENUE

AVENUE

TAMARACK ROAD

ELMWOOD DRIVE

KINGSWOOD DRIVE

INTERSTATE

FREEWAY

VSD-81

VSD-89

5



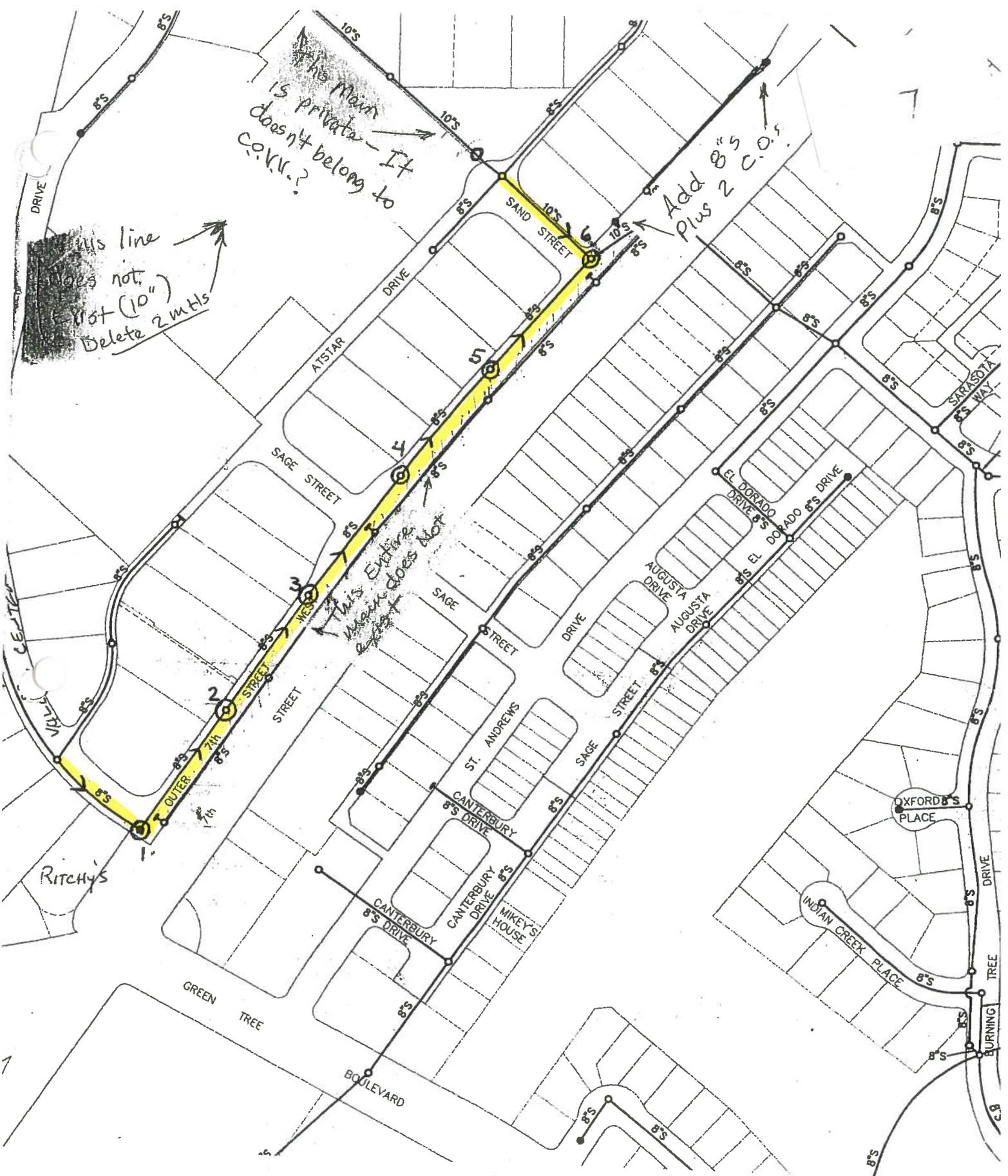


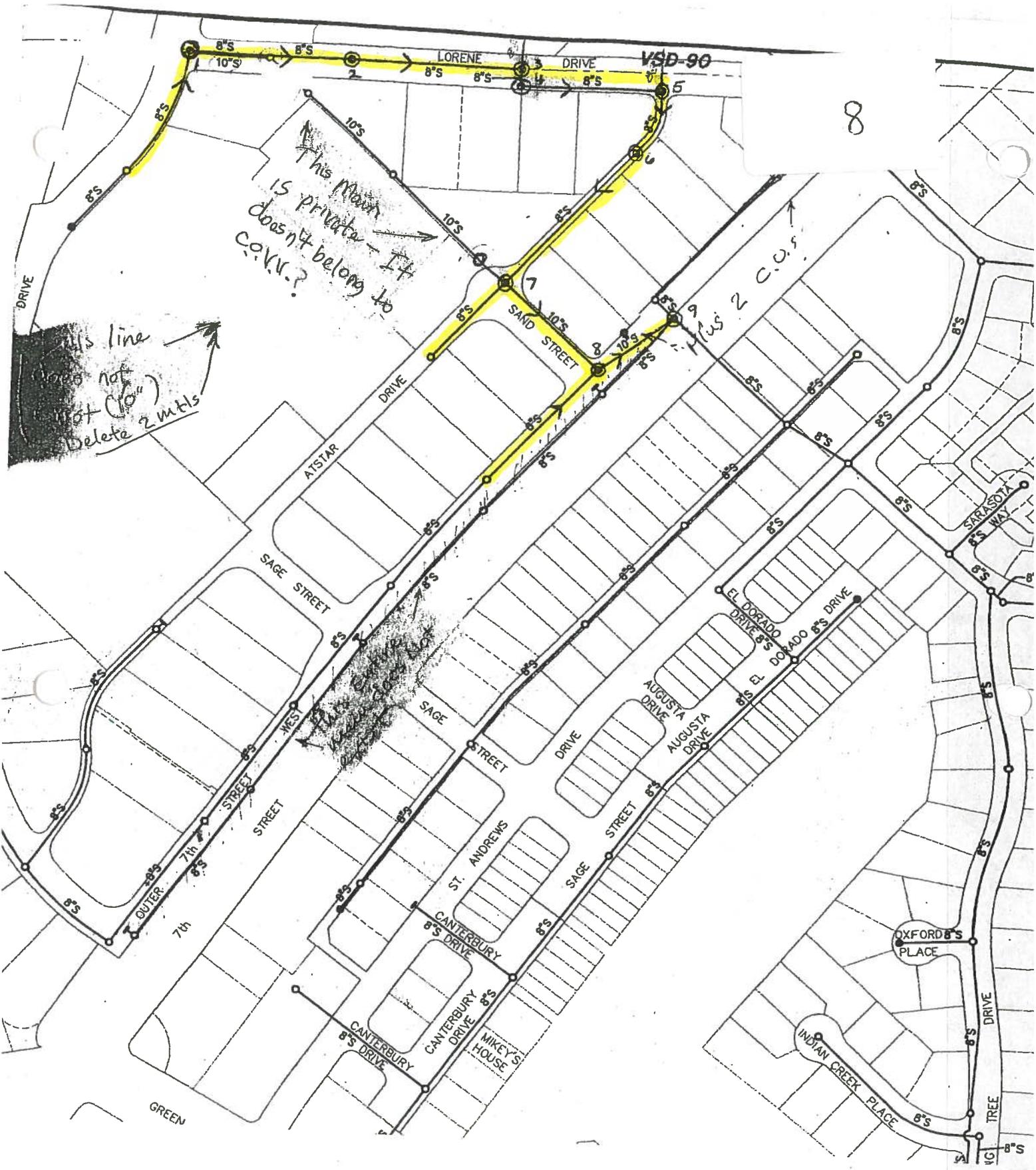
his Main  
is private - It  
doesn't belong to  
C.O.V.V.?

his line  
does not  
fit (10")  
Delete 2 mths

Add 8" S  
Plus 2 C.O.s

This Entire  
Section Does Not  
Exist





- Lorene Dr. M/HS may need to  
 BE FLUSHED EARLY AM IF TRAFFIC  
 IS HEAVY

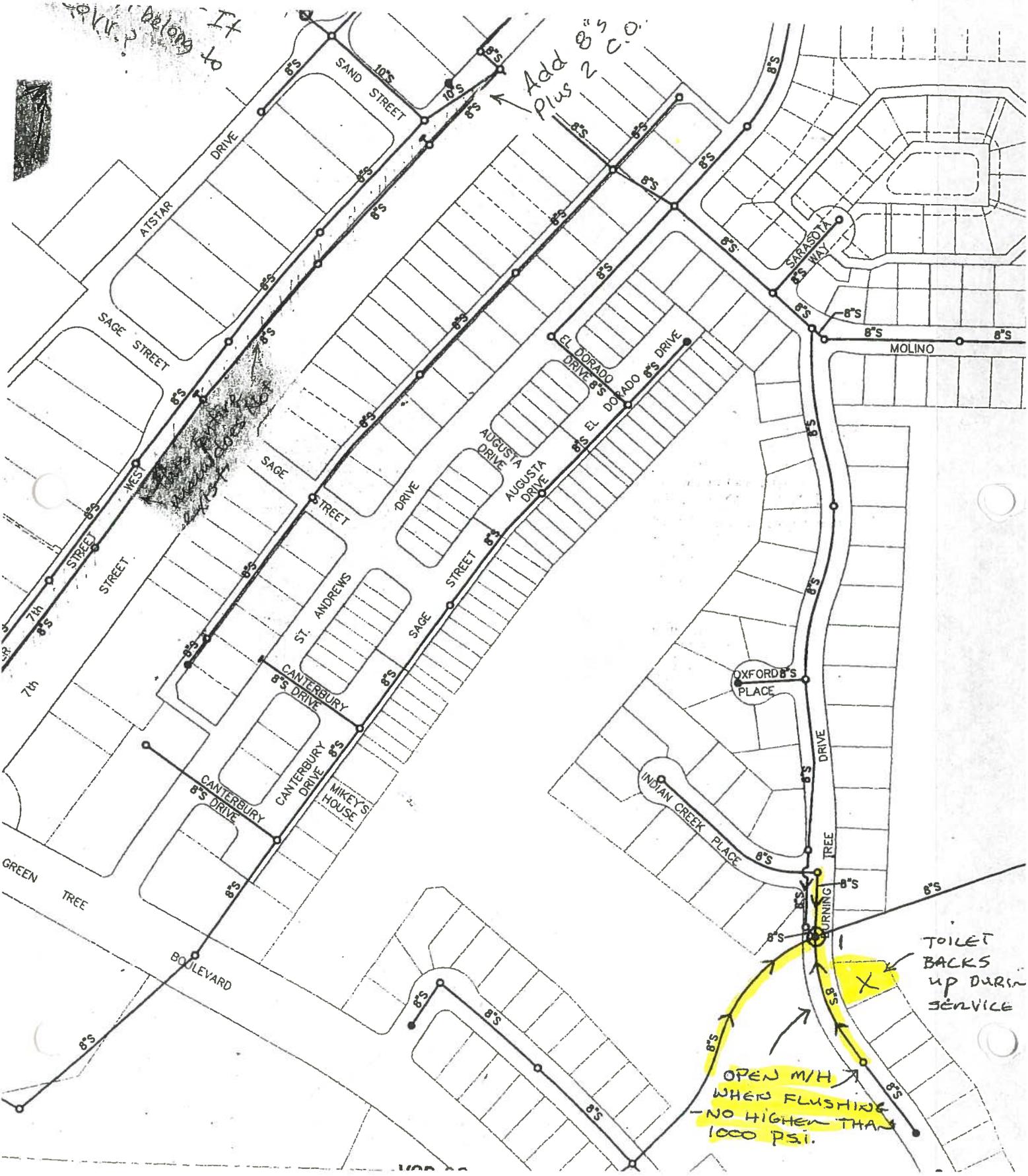


10

10

It belongs to [unclear]

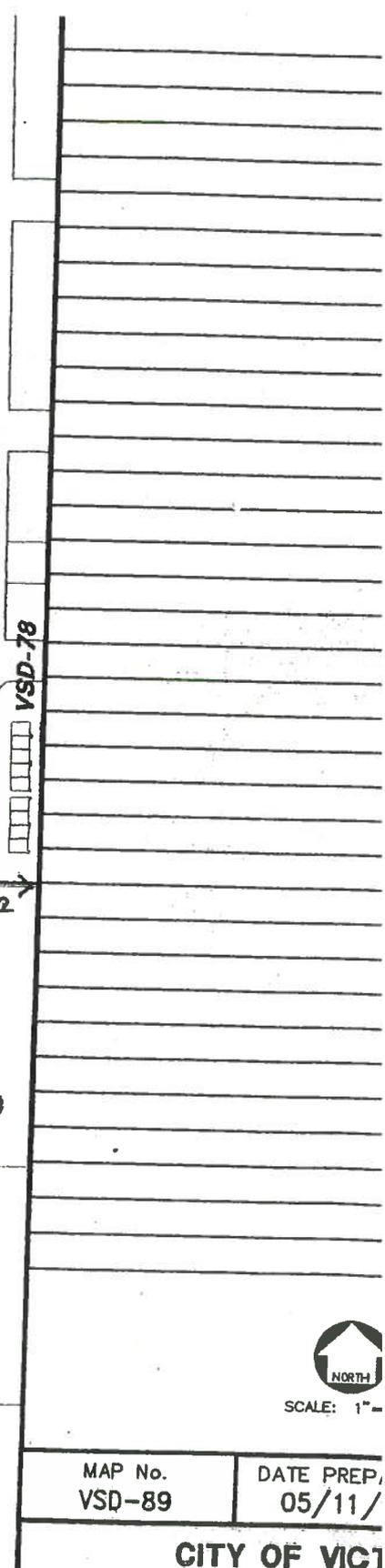
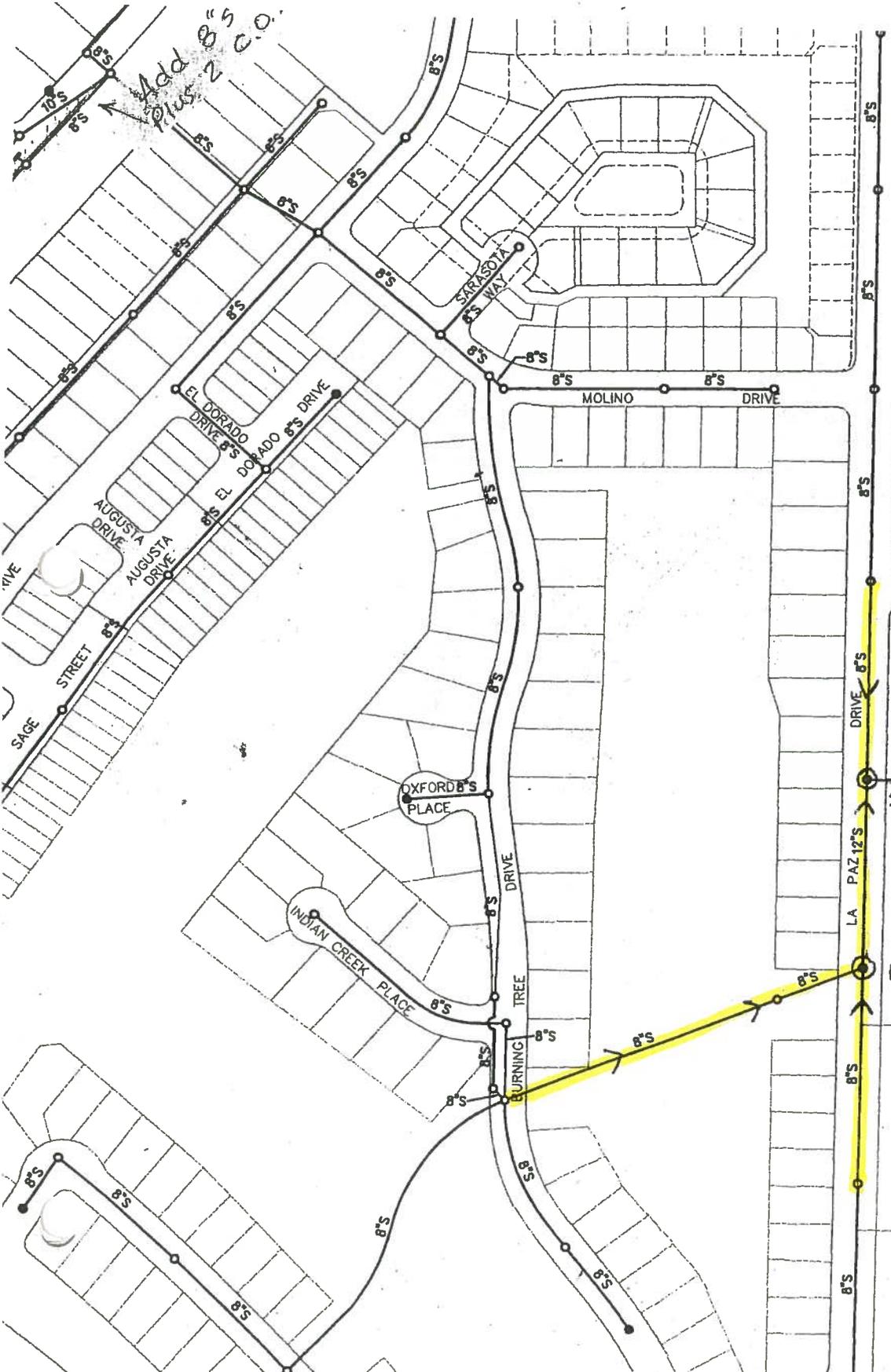
Add 8" C.O. Plus 2"



OPEN M/H  
 WHEN FLUSHING  
 - NO HIGHER THAN  
 1000 PSI.

TOILET  
 BACKS  
 UP DURING  
 SERVICE

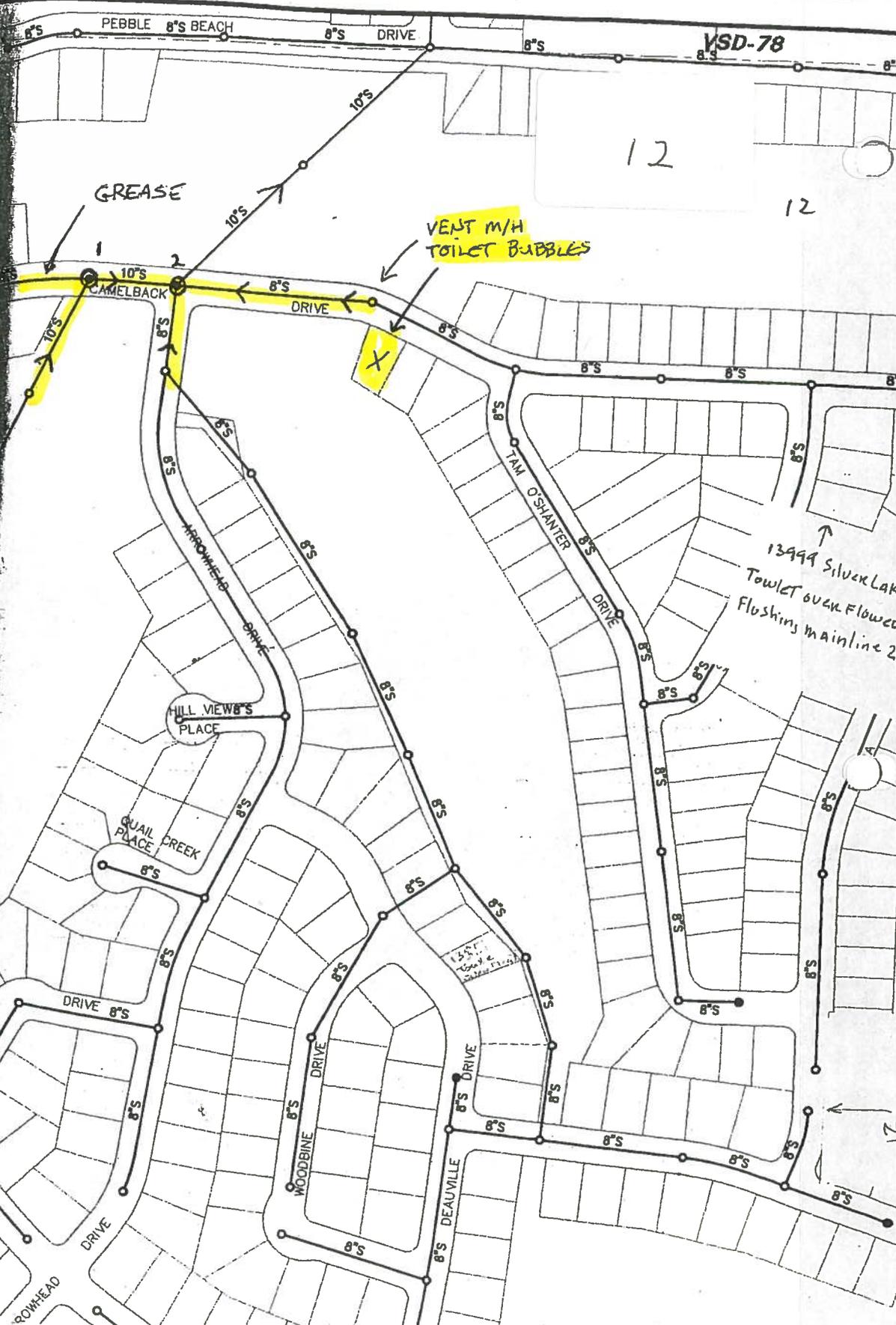
11



SCALE: 1" =

MAP No. VSD-89	DATE PREP/ 05/11/
-------------------	----------------------

CITY OF VICT



VSD-78

12

12

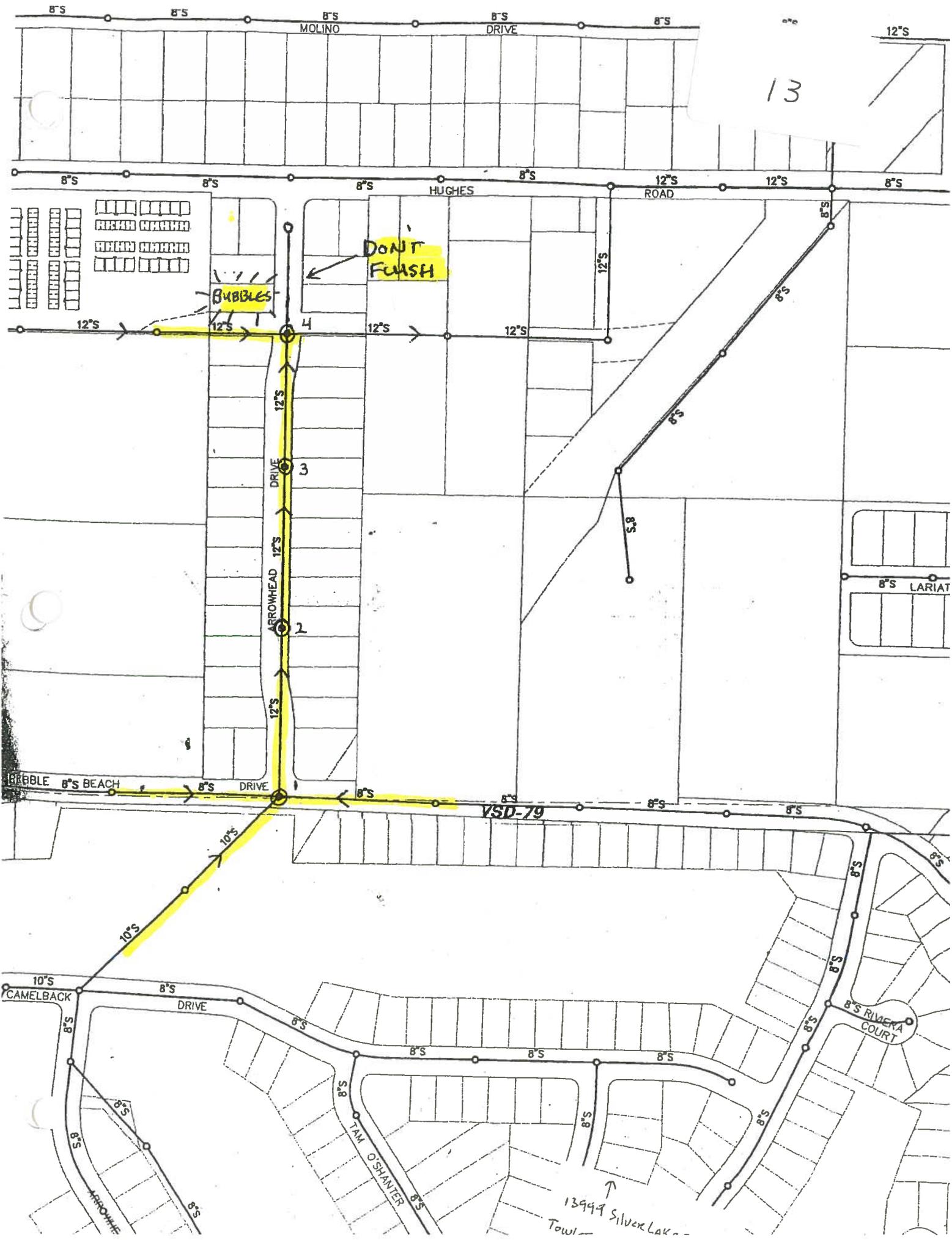
GREASE

VENT M/H  
TOILET BUBBLES

13999 SilverLak  
Toilet over Flowed  
Flushing mainline 2.

1.5\"/>

21



13

DON'T FURSH

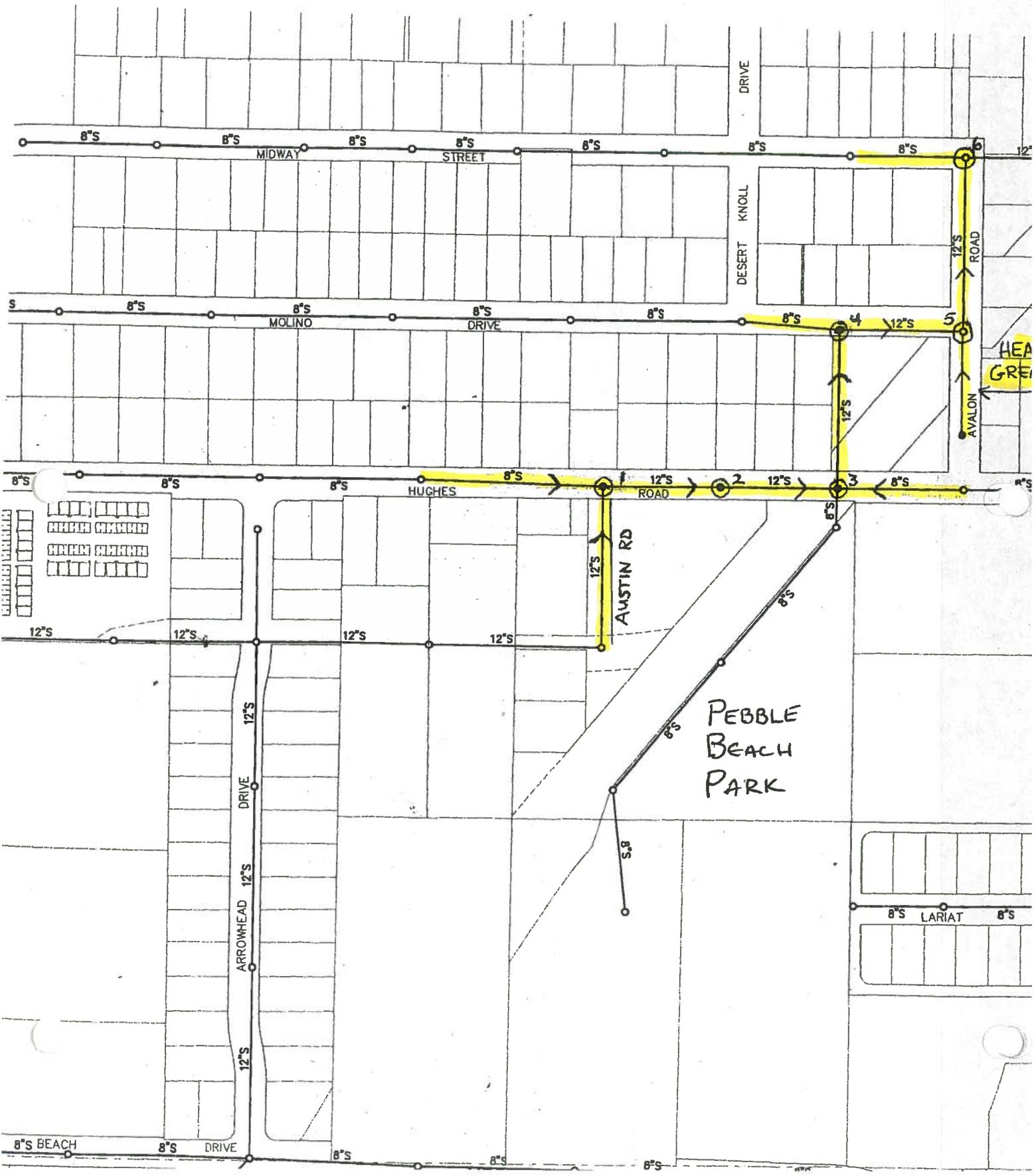
BUBBLES

VSD-79

13949 Silver Lake  
Towl

14

14







16

16

VILLA DRIVE

MESA DRIVE

CABRILLO DRIVE

SENECA ROAD

HARMODY LN.

LORENE DRIVE

MIDWAY STREET

MOLINO DRIVE

DRIVE

DESERT KNOLL

DRIVE

8' EASEMENT

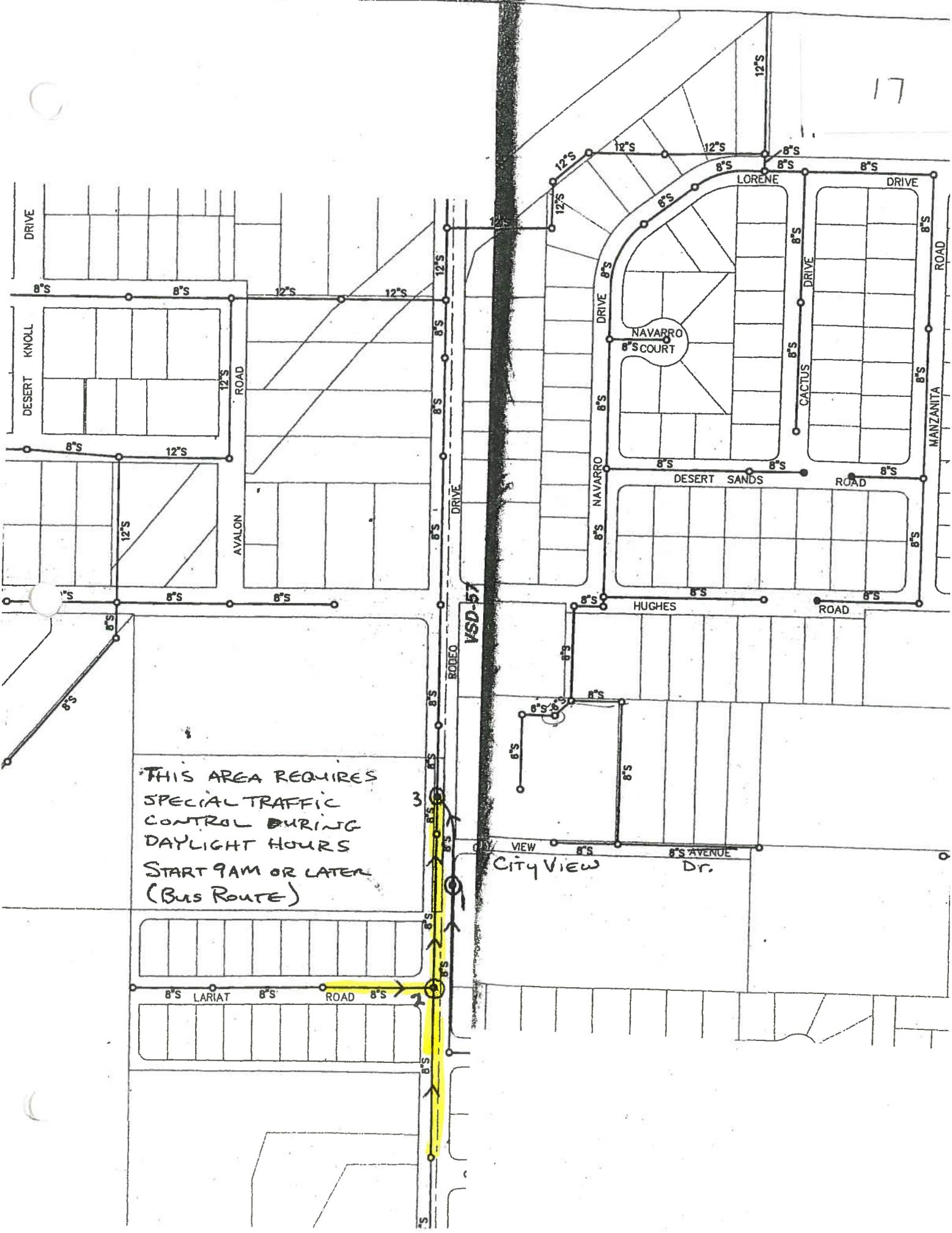
1

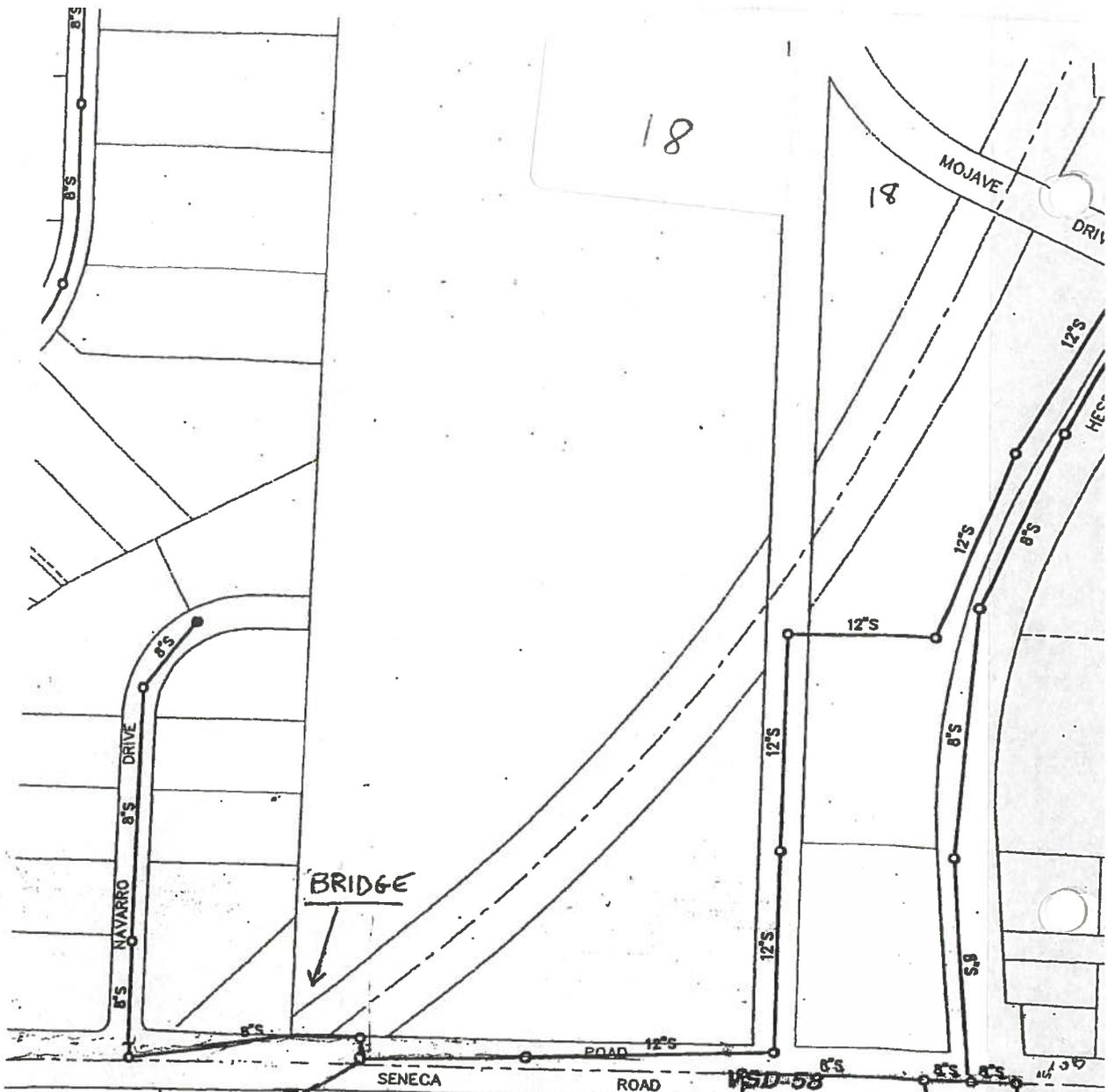
2

3

12'S

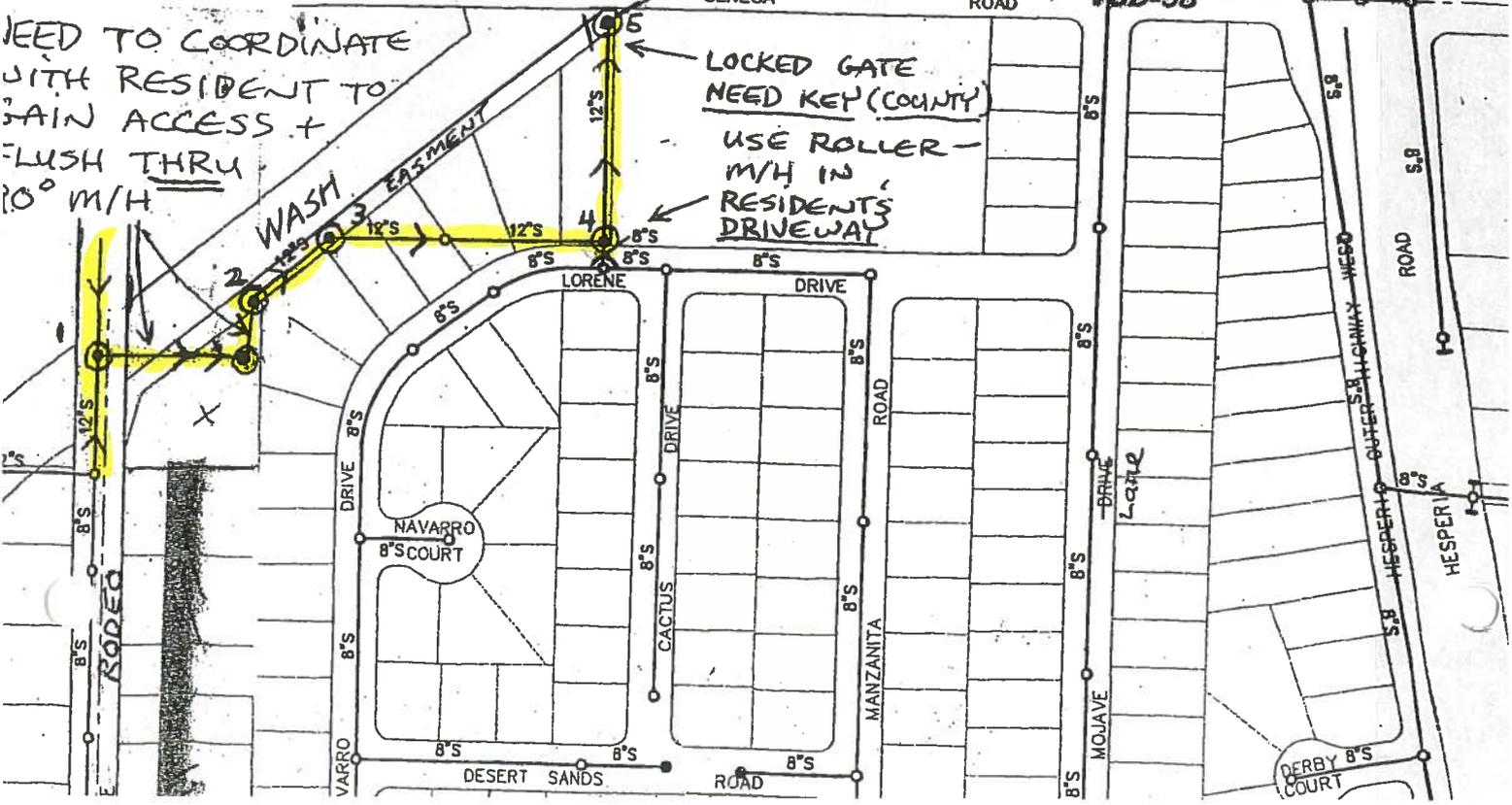
1

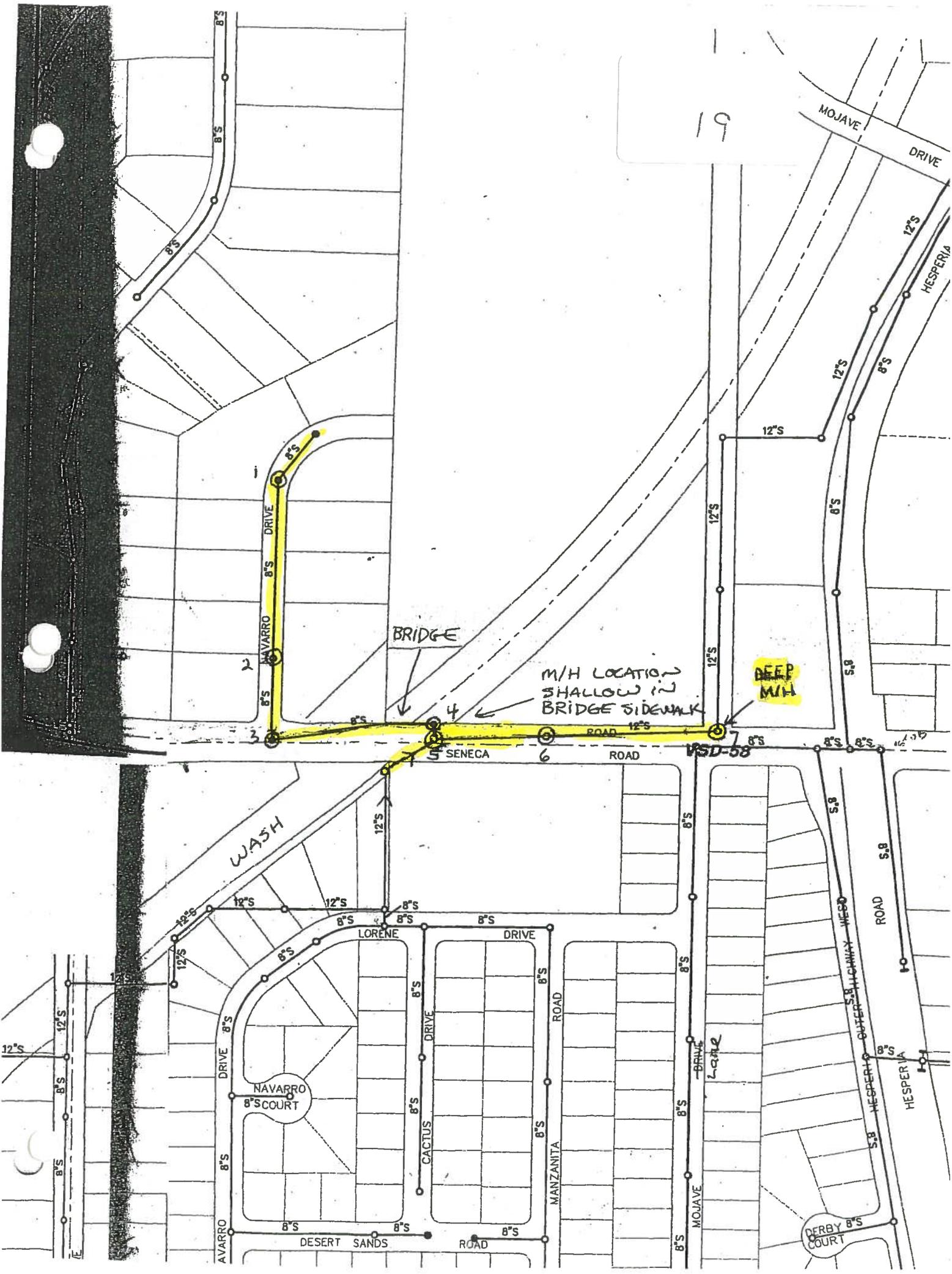




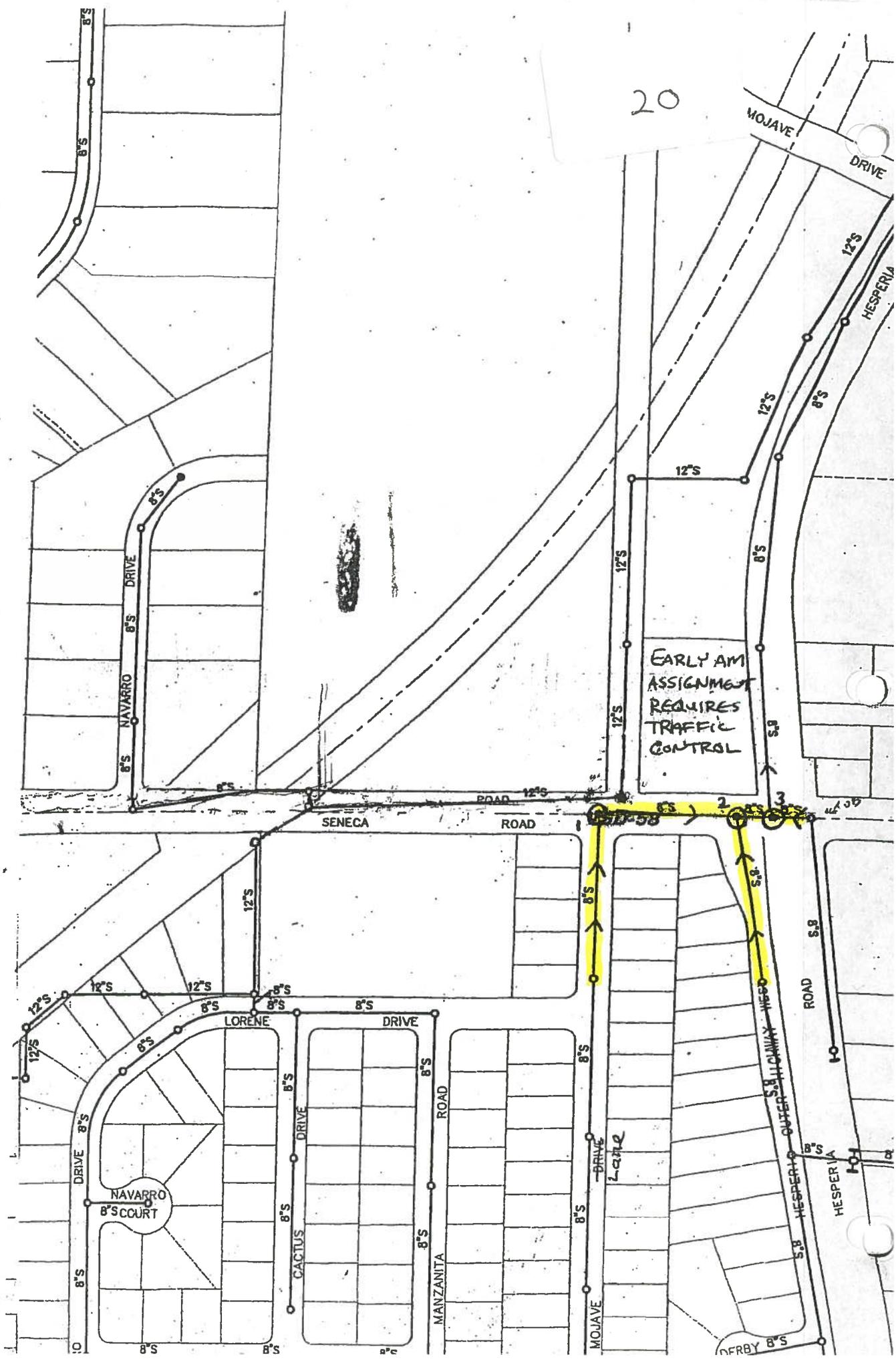
NEED TO COORDINATE WITH RESIDENT TO GAIN ACCESS + FLUSH THRU 10' M/H

LOCKED GATE NEED KEY (COUNTY)  
USE ROLLER - M/H IN RESIDENTS DRIVEWAY



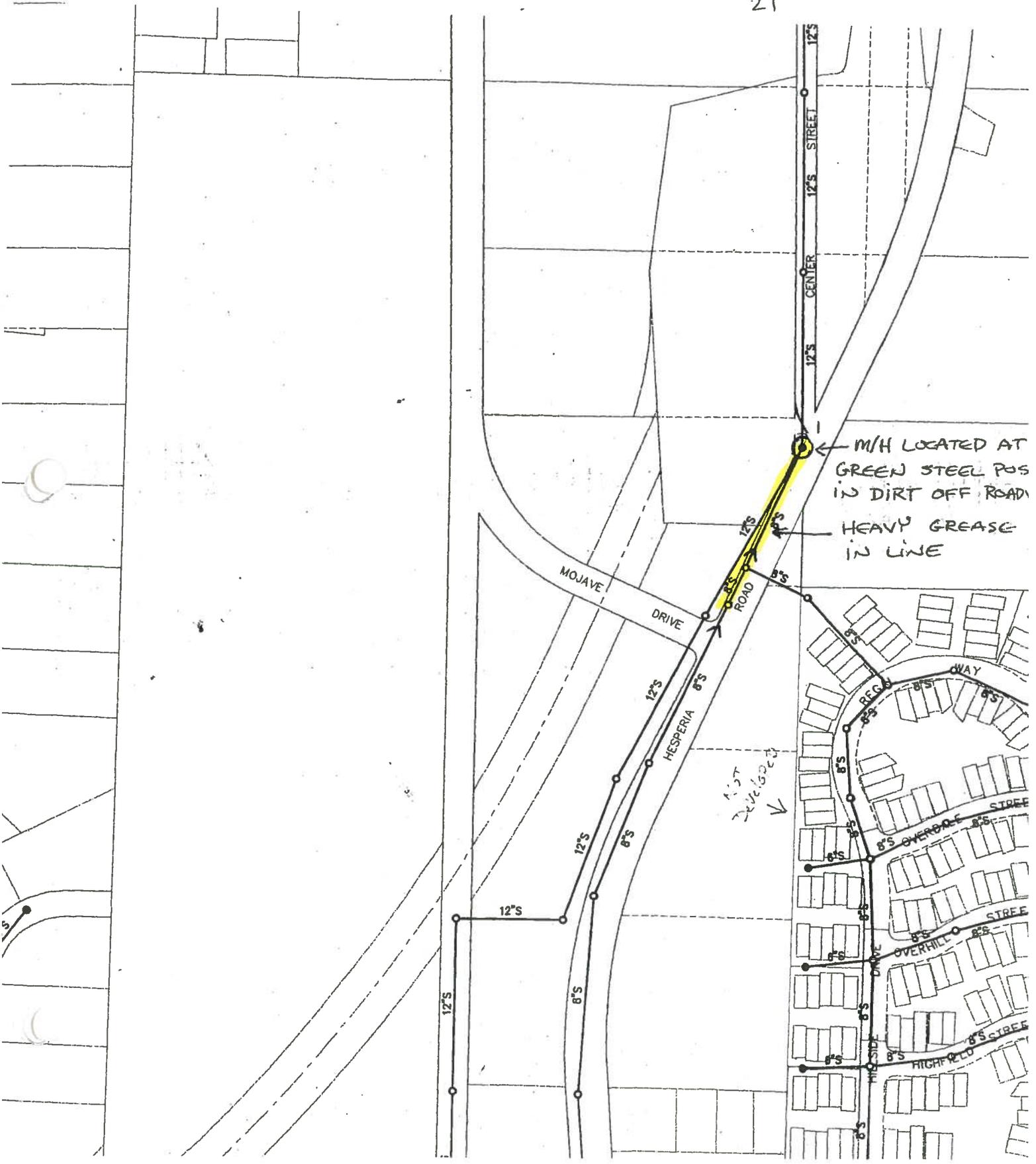


20



21

21

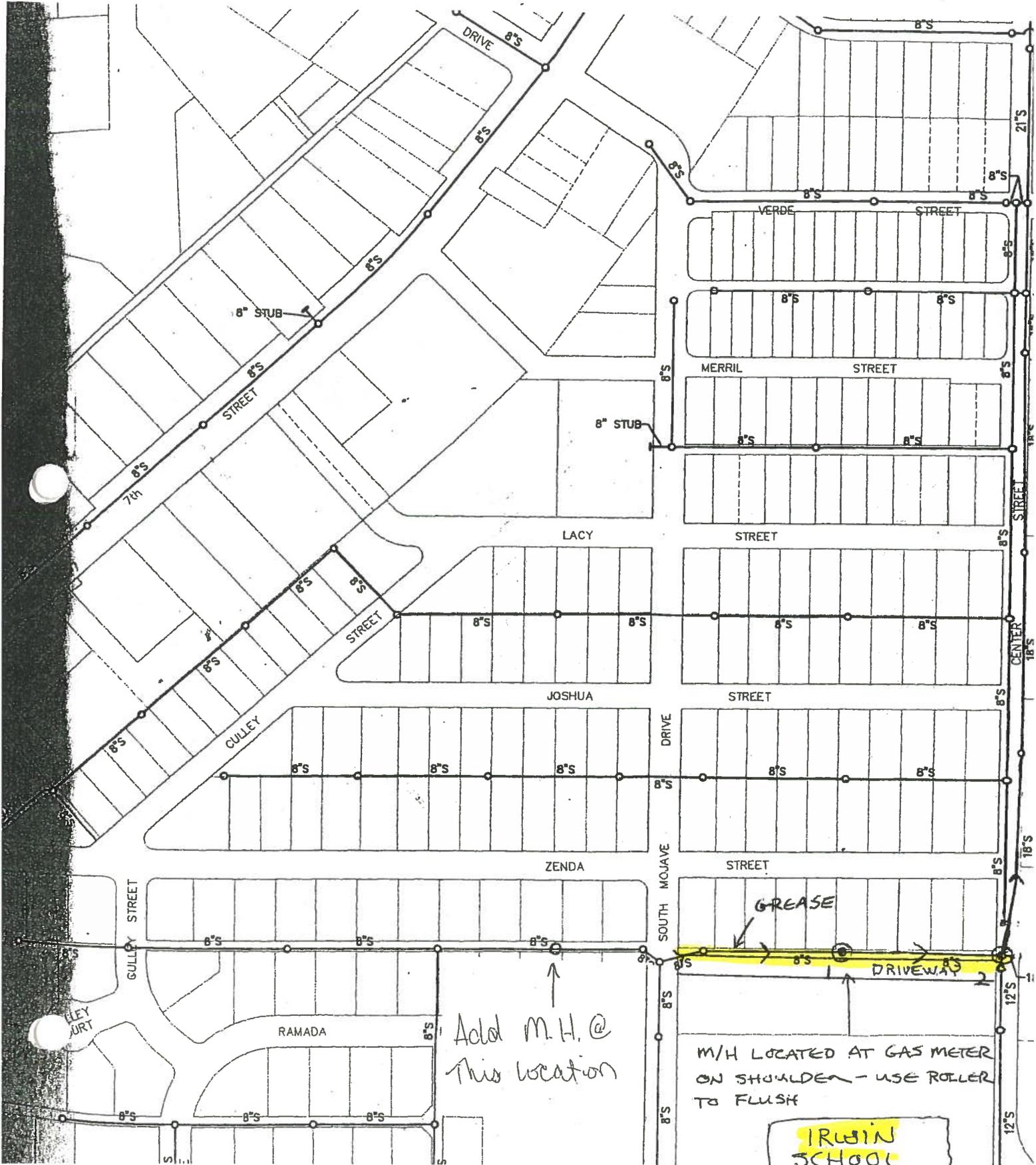


M/H LOCATED AT GREEN STEEL POS IN DIRT OFF ROAD  
HEAVY GREASE IN LINE

NOT RELEVANT  
↓

22





8" STUB

8" STUB

GREASE

DRIVEWAY

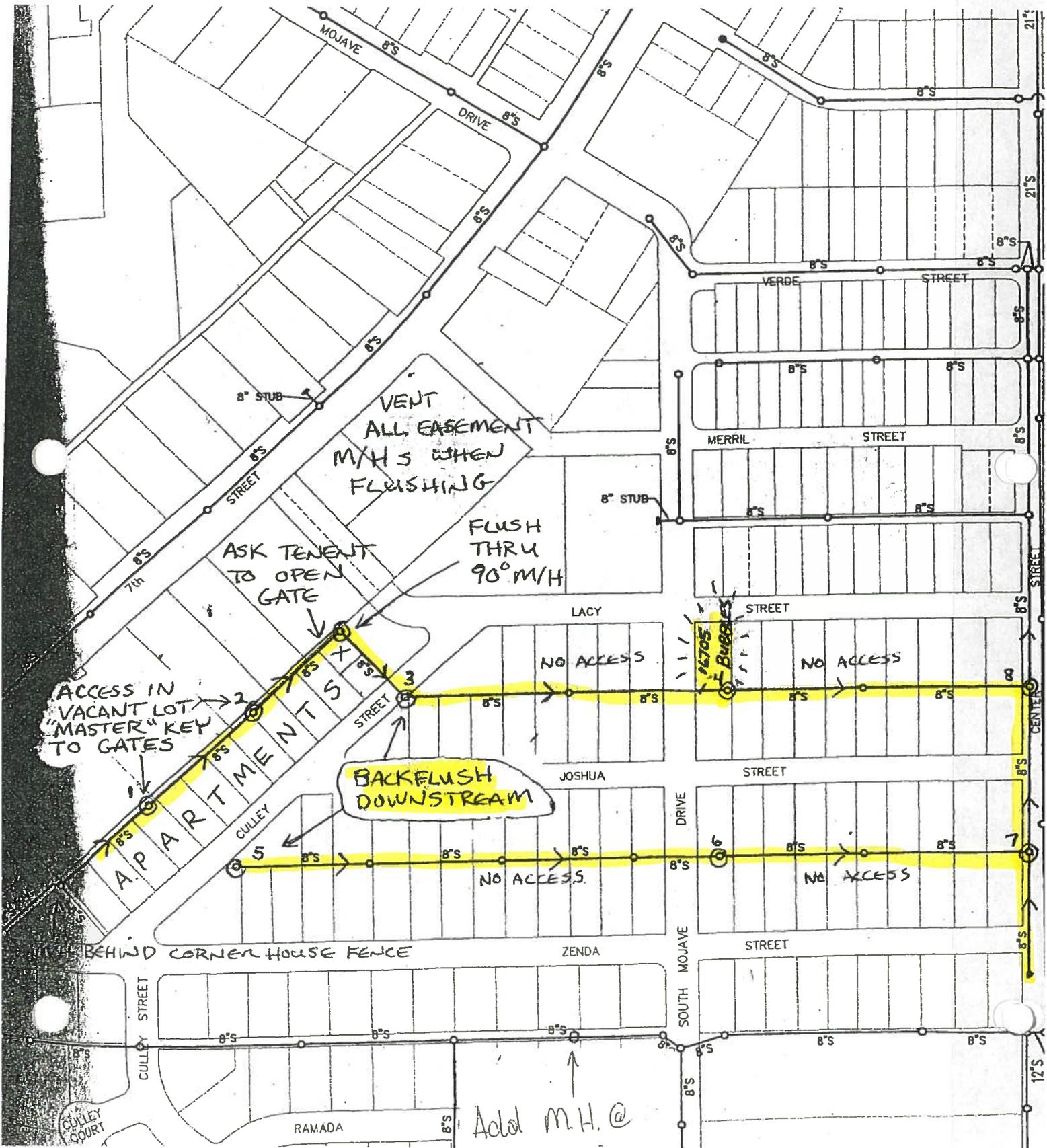
Add M.H. @  
This location

M/H LOCATED AT GAS METER  
ON SHOULDER - USE ROLLER  
TO FLUSH

IRWIN  
SCHOOL

24

24



Add M.H. @

25

MONTECITO DRIVE  
TROPICANA DRIVE

THIS EARLY AM.  
ASSIGNMENT REQUIRES  
TRAFFIC CONTROL

PRIVATE  
PROPERTY

TREE BOULEVARD

VSD-47

GREEN TREE

BO

COAD

ROAD

EUREKA

STREET

ROAD 21'S

21'S

21'S

21'S

8'S  
8'S  
8'S

HESPERIA

8'S

8'S

8'S

12'S

12'S

12'S

12'S

15'S

15'S

15'S

21'S

STUB

RO 2

3

4

ROAD 21'S

ROJAVE DRIVE VSD-75

26

TOILETS  
BUBBLE  
VENT M/H  
COMING  
+  
GOING  
AT  
1000 PSL  
OR  
LESS



L. LATS  
12 o'clock  
LAT. 12 o'clock

DEL PARQUE COURT  
M.L.P.

Move  
to  
Up

M.L.P.

M.L.P.

VSD-59

CIRCLE

27

BE SURE AND VENT ALL  
M/Hs COMING AND GOING

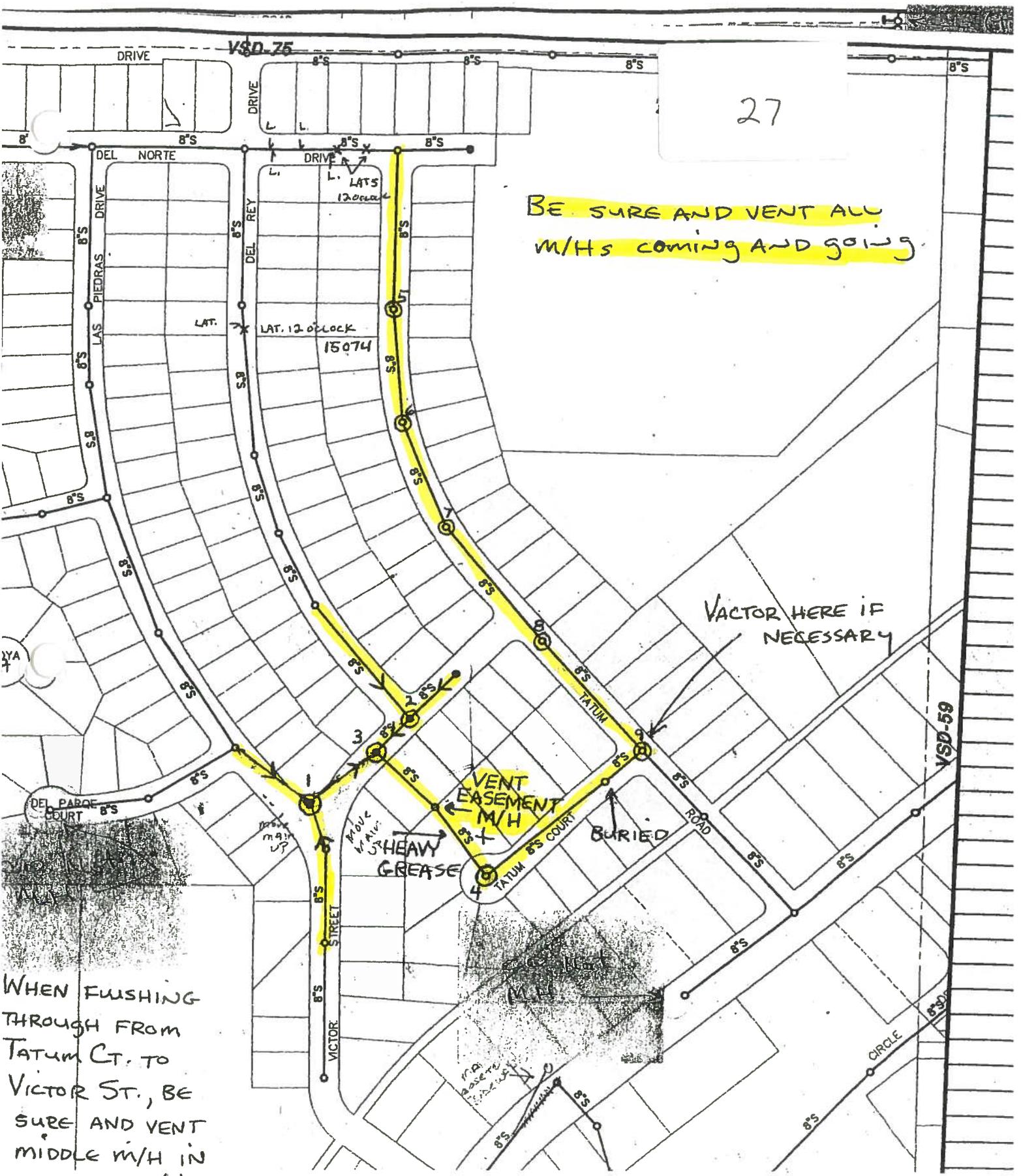
VECTOR HERE IF  
NECESSARY

VENT  
EASEMENT  
M/H

HEAVY  
GREASE

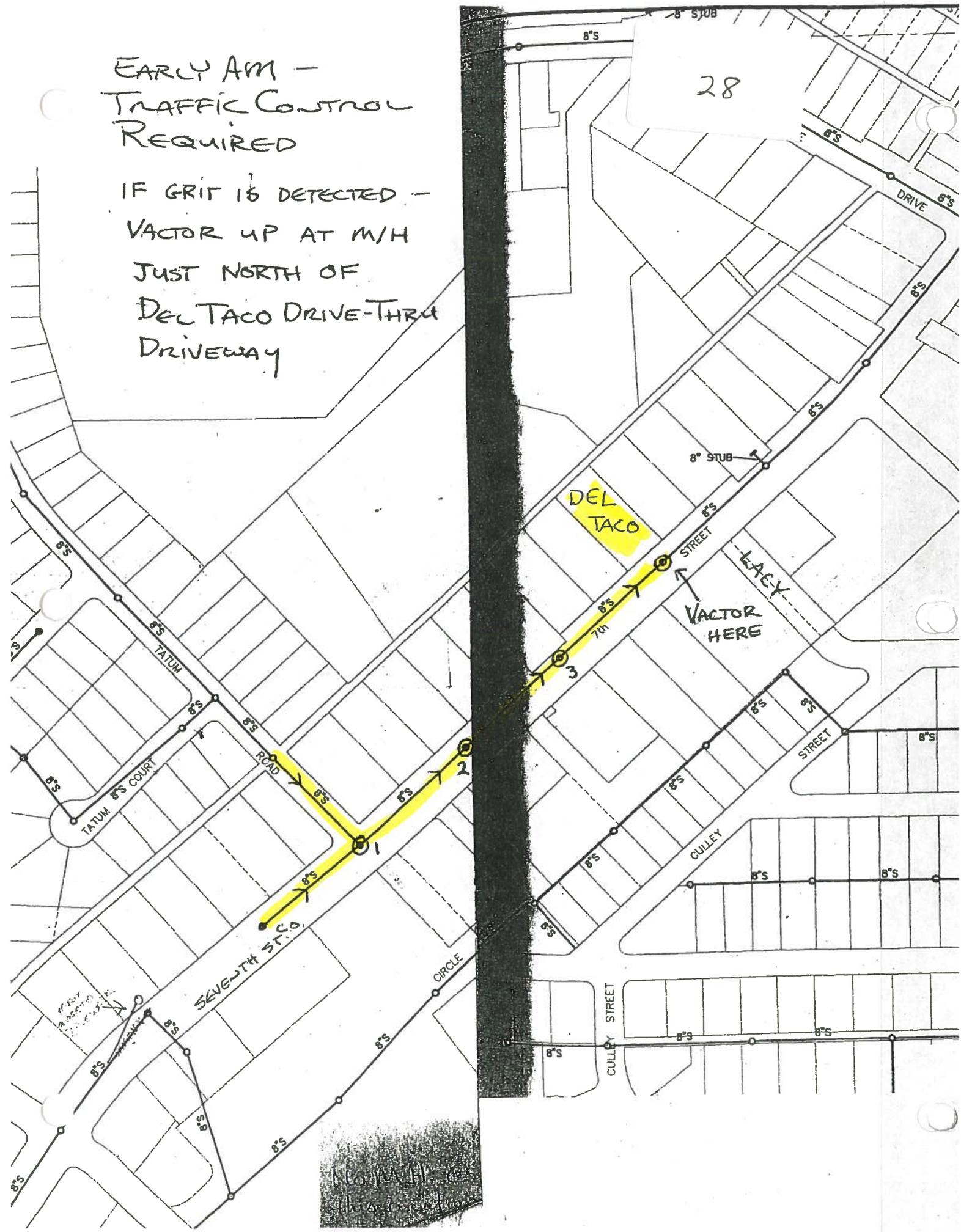
BURIED

WHEN FLUSHING  
THROUGH FROM  
TATUM CT. TO  
VICTOR ST., BE  
SURE AND VENT  
MIDDLE M/H IN  
EASEMENT. YOU  
WILL NEED EXTRA  
HELP WITH RADIOS.



EARLY AM -  
TRAFFIC CONTROL  
REQUIRED

IF GRIT IS DETECTED -  
VECTOR UP AT M/H  
JUST NORTH OF  
DEL TACO DRIVE-THRU  
DRIVEWAY

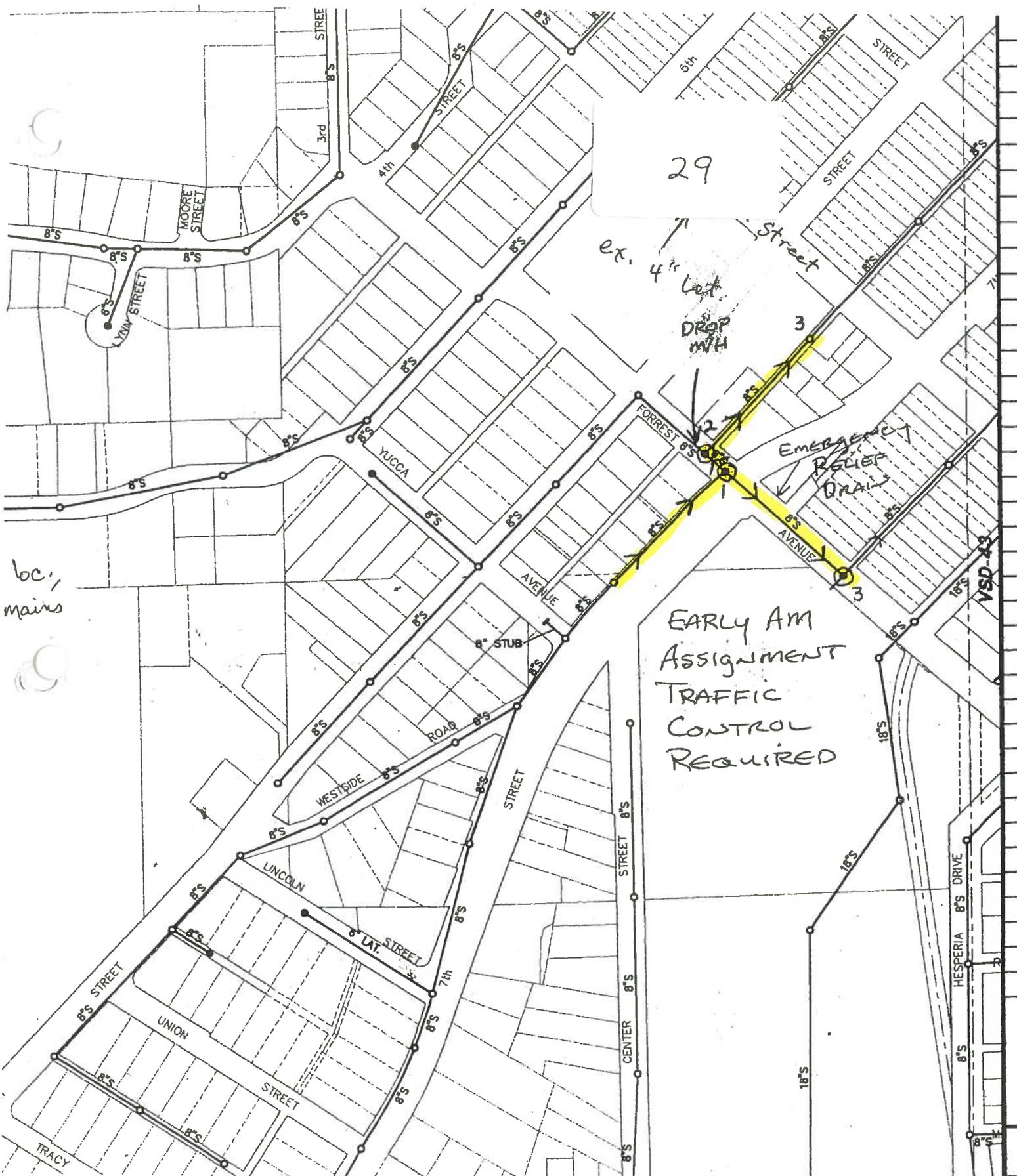


28

DEL TACO

VECTOR HERE

10/11/14  
A. BASSO  
10/11/14



29

ex. 4" Lat.  
DROP  
MWH

EMERGENCY  
RELIEF  
DRAIN

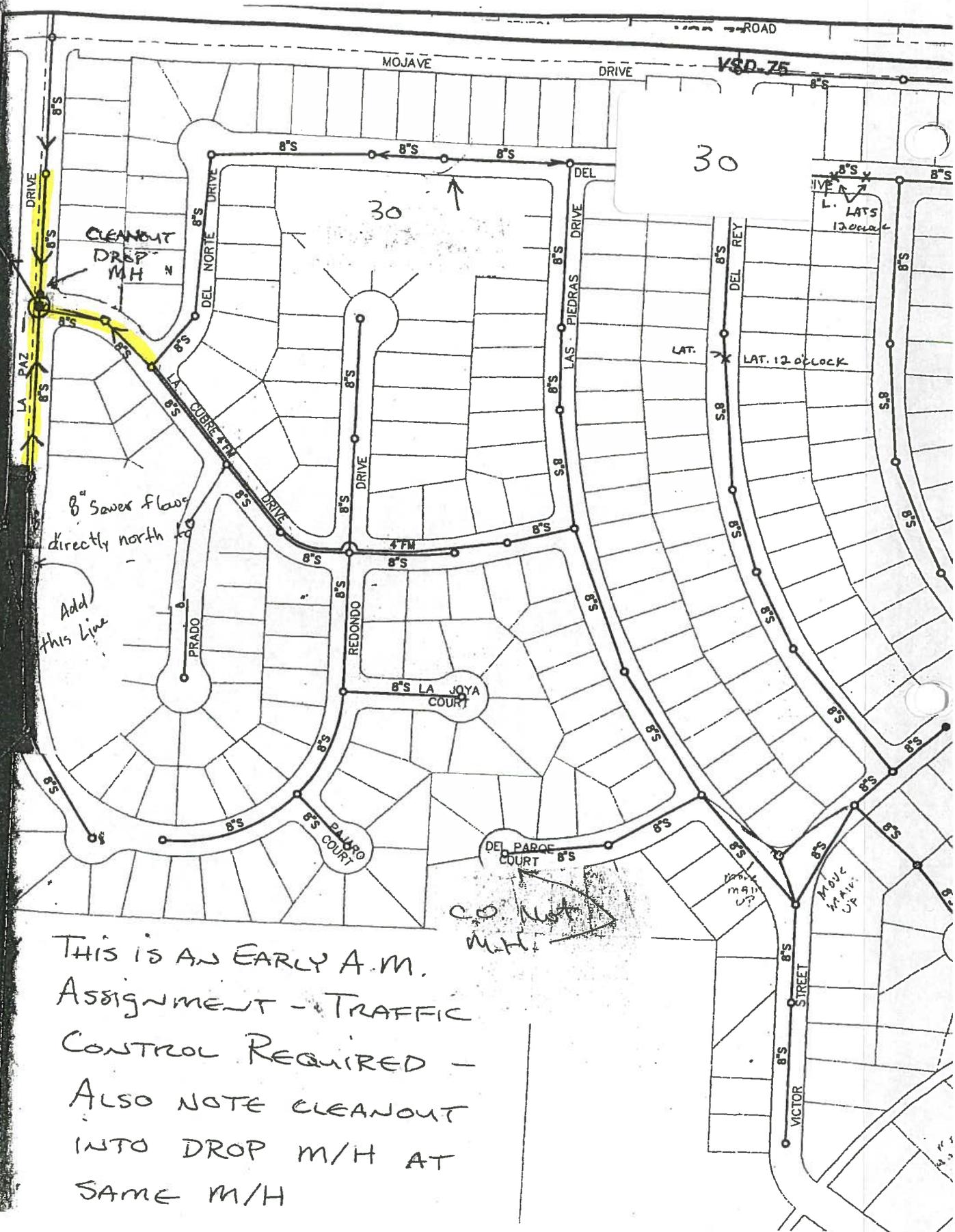
EARLY AM  
Assignment  
TRAFFIC  
CONTROL  
REQUIRED

bc,  
mains

VSD-43

HESPERIA DRIVE

8" S



CLEANOUT  
DROP  
M/H

8" Sewer flows  
directly north to

Add  
this line

THIS IS AN EARLY A.M.  
ASSIGNMENT - TRAFFIC  
CONTROL REQUIRED -  
ALSO NOTE CLEANOUT  
INTO DROP M/H AT  
SAME M/H

CO. Not  
M/H

MOUNT  
MAIN  
UP

30

30

LAT. 12 O'CLOCK

L. LATS  
12 O'CLOCK

VSD-75

MOJAVE

DRIVE

LA PAZ DRIVE

DEL NORTE DRIVE

LA COBRE FM

PRADO DRIVE

REDONDO DRIVE

DEL LAS PIEDRAS DRIVE

DEL PARQUE COURT

LA JOYA COURT

LA PAZ COURT

DEL REY

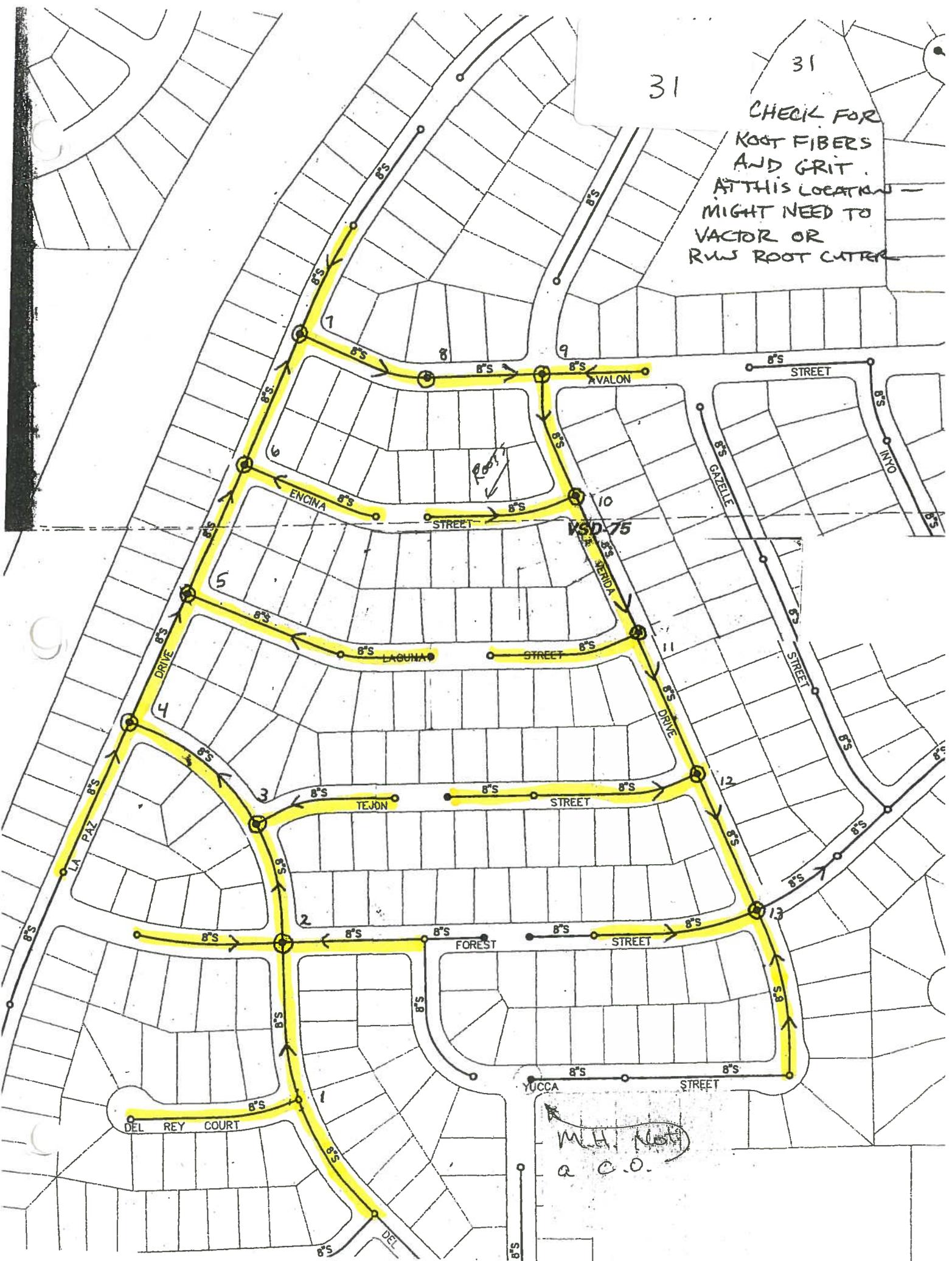
VICTOR STREET

8'S

31

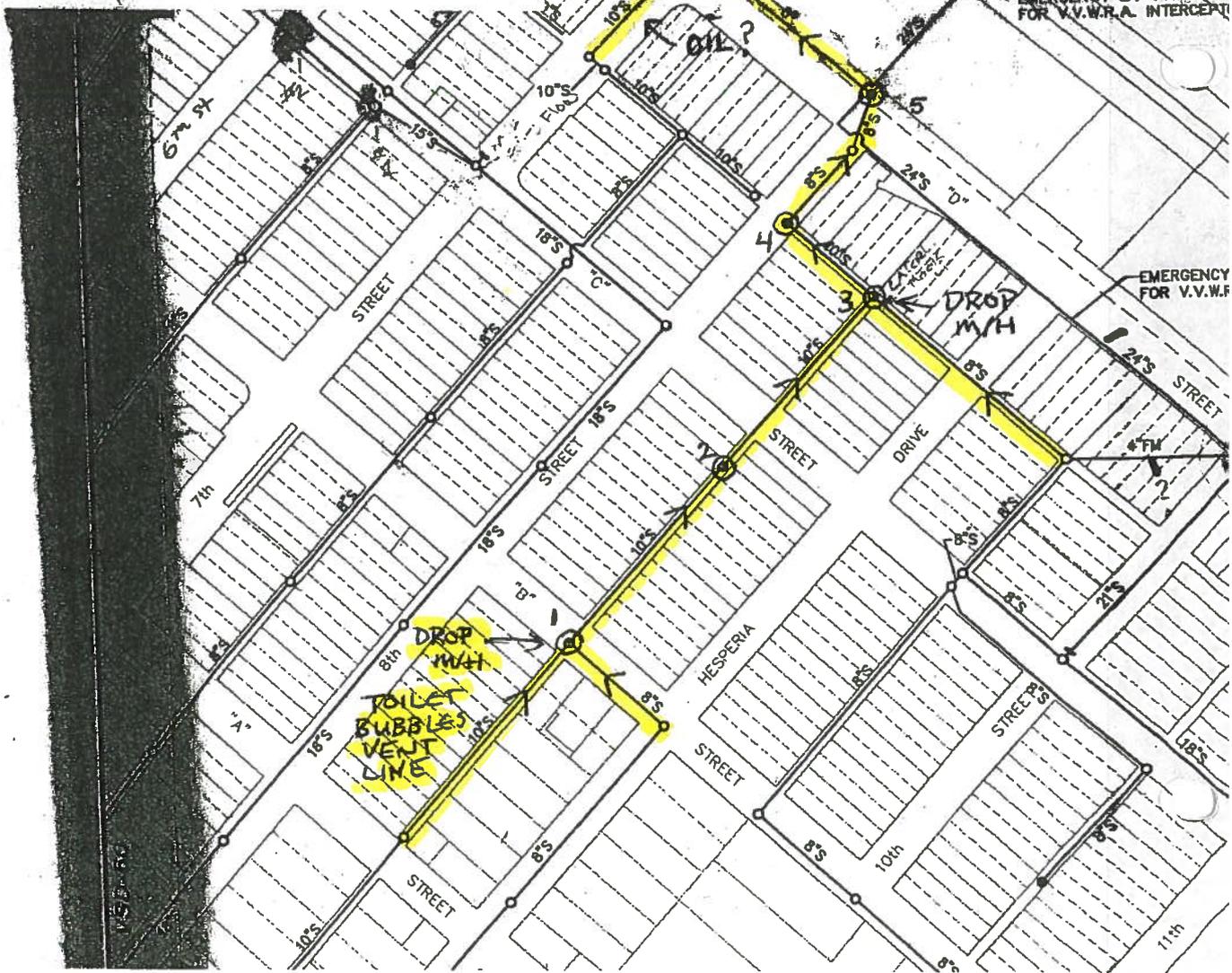
31

CHECK FOR  
ROOT FIBERS  
AND GRIT.  
AT THIS LOCATION —  
MIGHT NEED TO  
VACOR OR  
RWS ROOT CUTTER

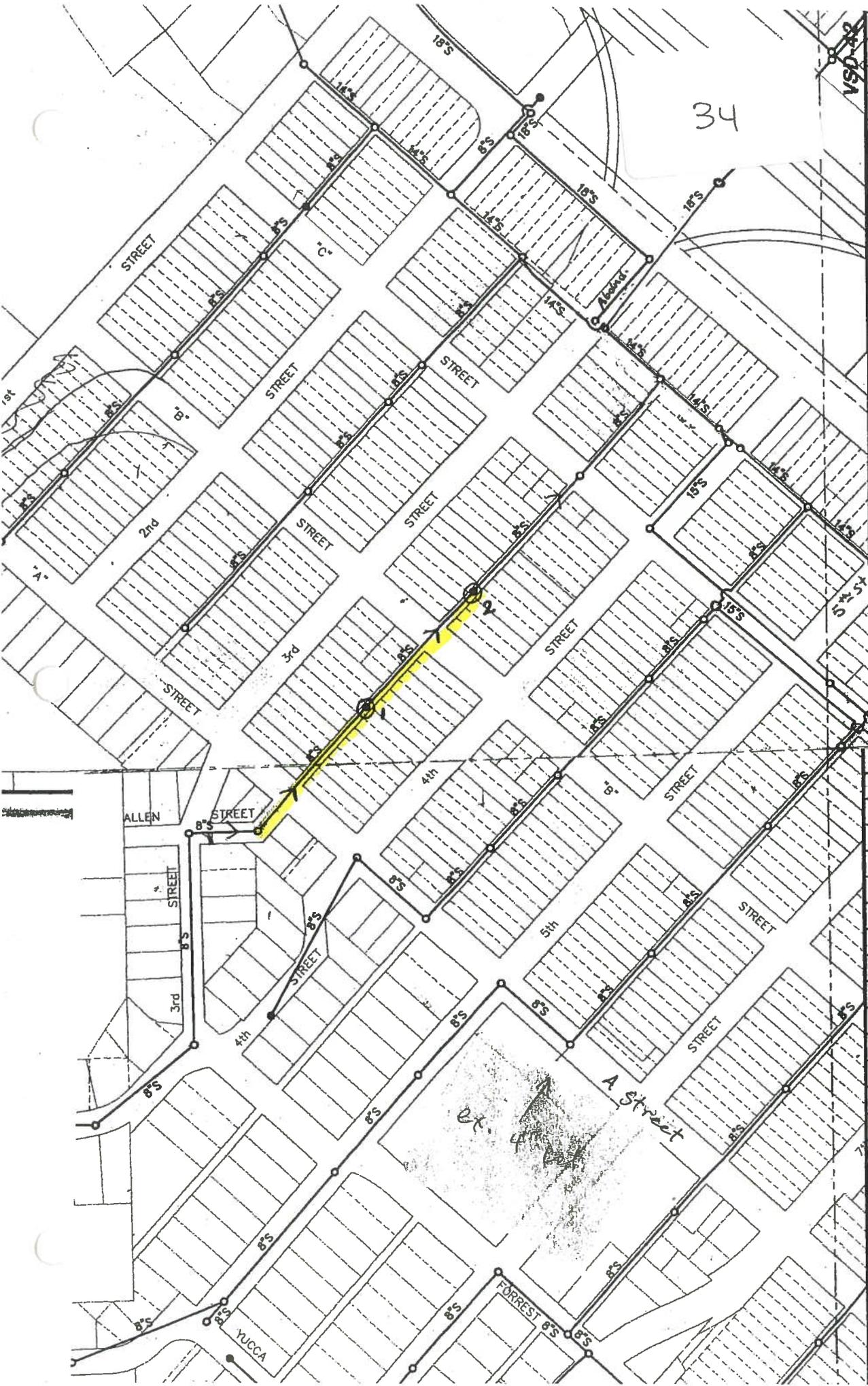


M.H. NOTY  
a.c.o.

- EARLY AM ASSIGNMENT REQUIRES EXTENSIVE TRAFFIC CONTROL ON D ST. M/H'S
- PERMIT MUST BE OBTAINED FROM CALTRANS.
- M/H'S SOUTH OF D ST. SHOULD BE CLEANED THE DAY BEFORE D ST. IS CLEANED IN ORDER THAT ENOUGH TIME IS ALLOTTED TO SERVICE THE 2 M/H'S IN THE D ST. RIGHT-OF-WAY.







← within 7' of Prop. Line

Move locat. of this Mt. within 5' Prop. Line

MAP No. VSD-61

CITY NORTHEAST, 1



35

DROP M/H

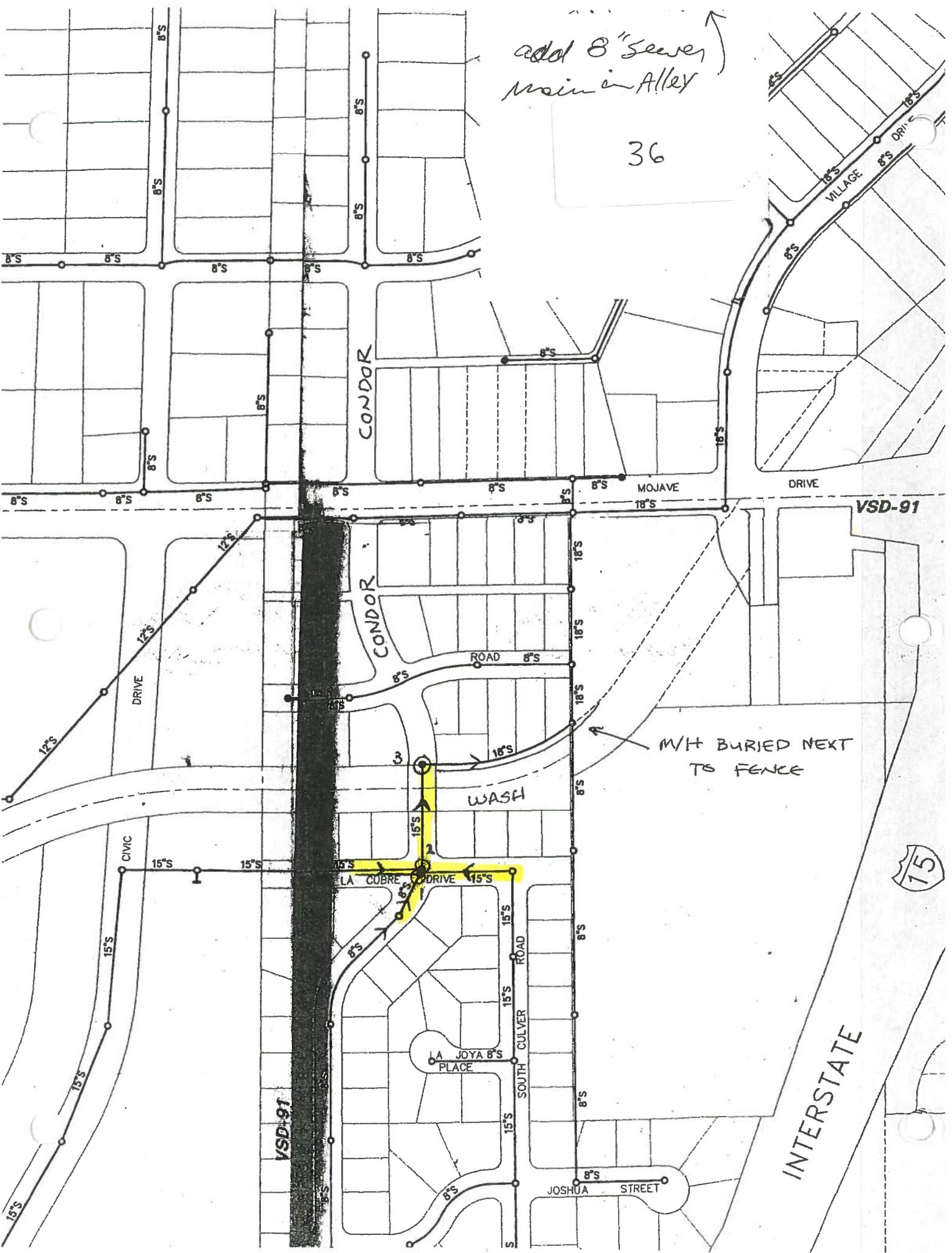
Burien

VSD-61

SPOT CHECK THESE  
M/H'S - RINSE +  
REMOVE DEBRIS -  
PAY SPECIAL ATTENTION  
AT DROP M/H BETWEEN  
5TH + 6TH (FLUSH ONLY)  
(IF NEEDED.)

add 8" sewer  
main in Alley

36



M/H BURIED NEXT  
TO FENCE



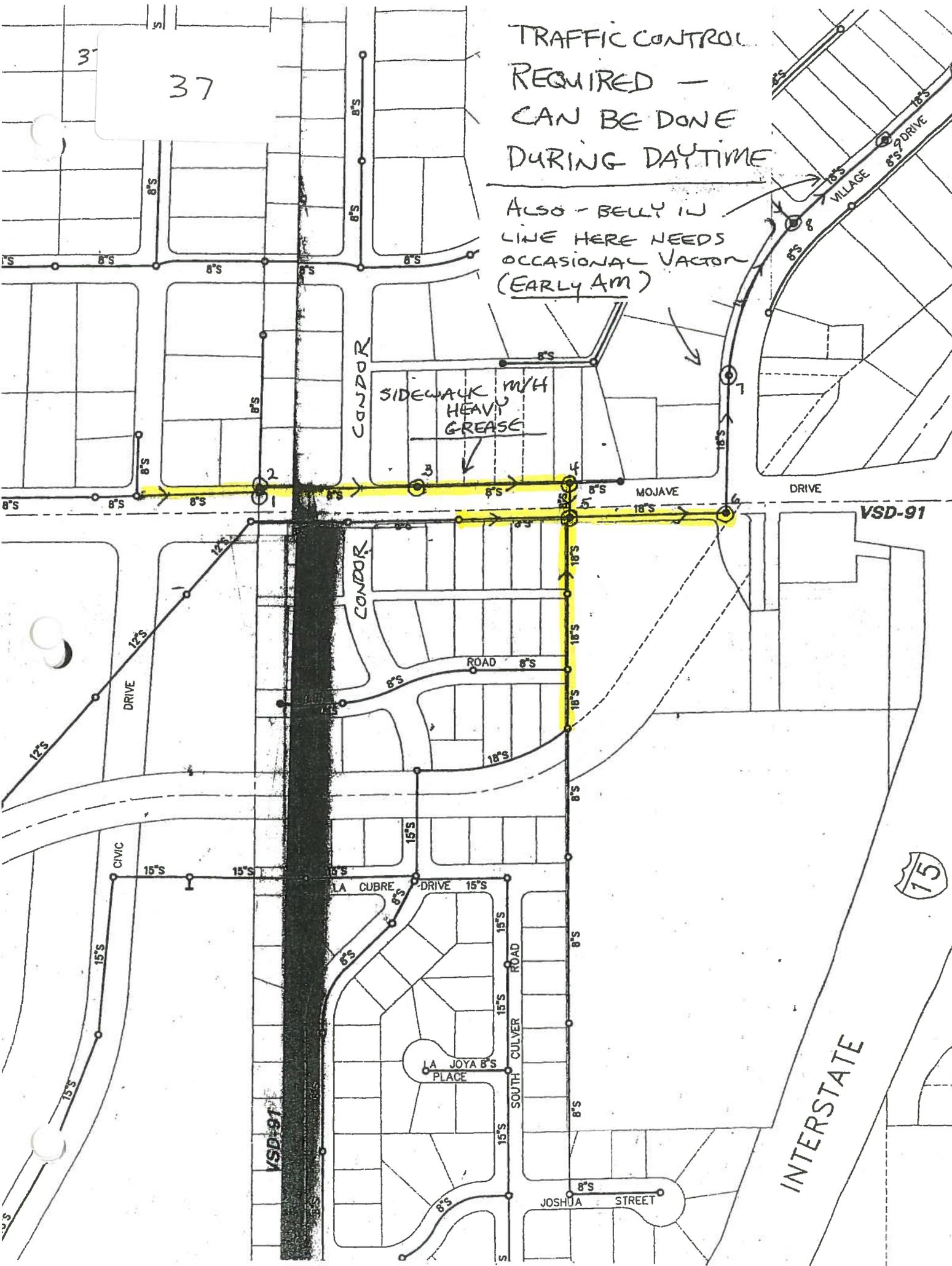
INTERSTATE

37

TRAFFIC CONTROL  
REQUIRED -  
CAN BE DONE  
DURING DAYTIME

ALSO - BELLY IN  
LINE HERE NEEDS  
OCCASIONAL VACATION  
(EARLY AM)

SIDEWALK WITH  
HEAVY  
GREASE



INTERSTATE

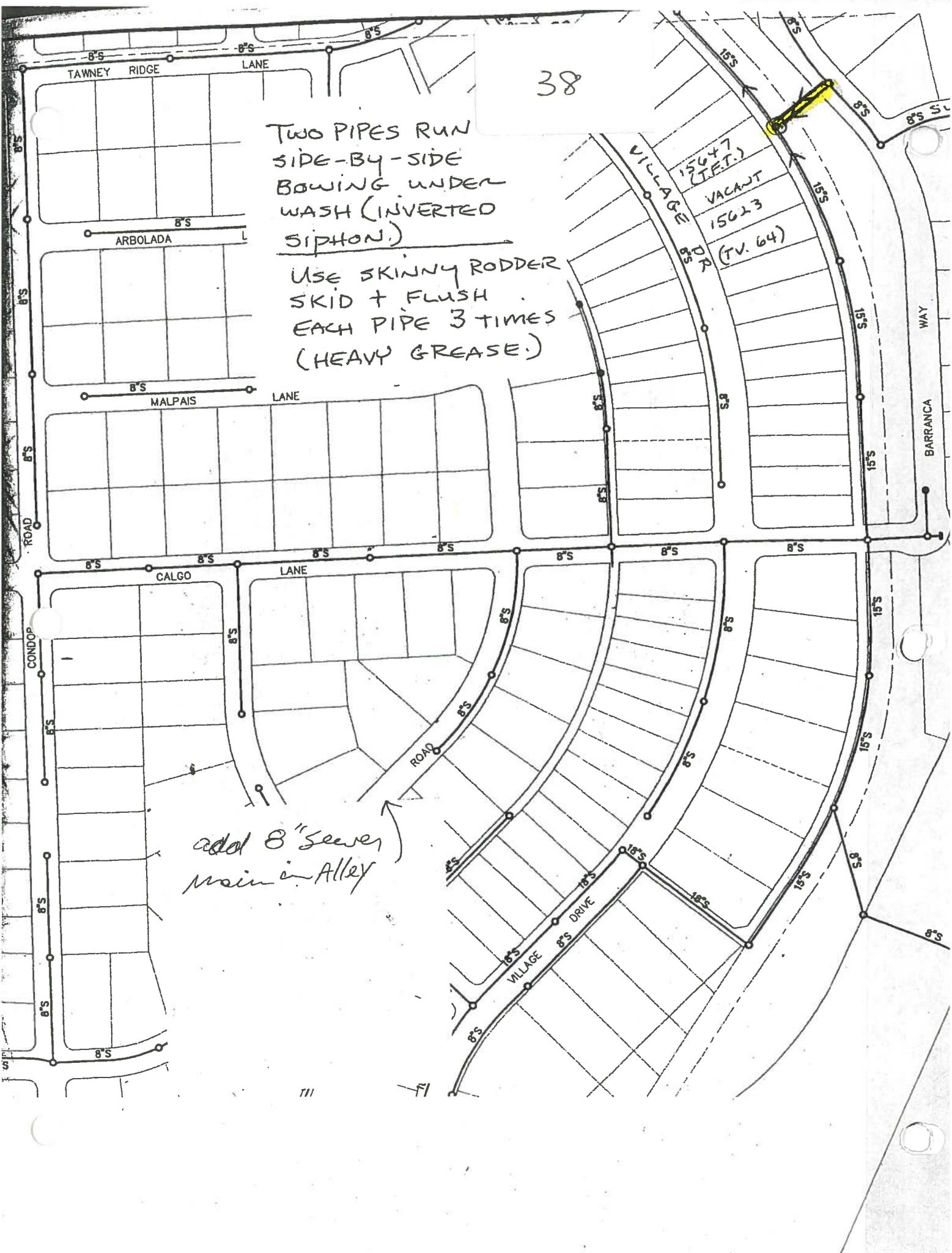


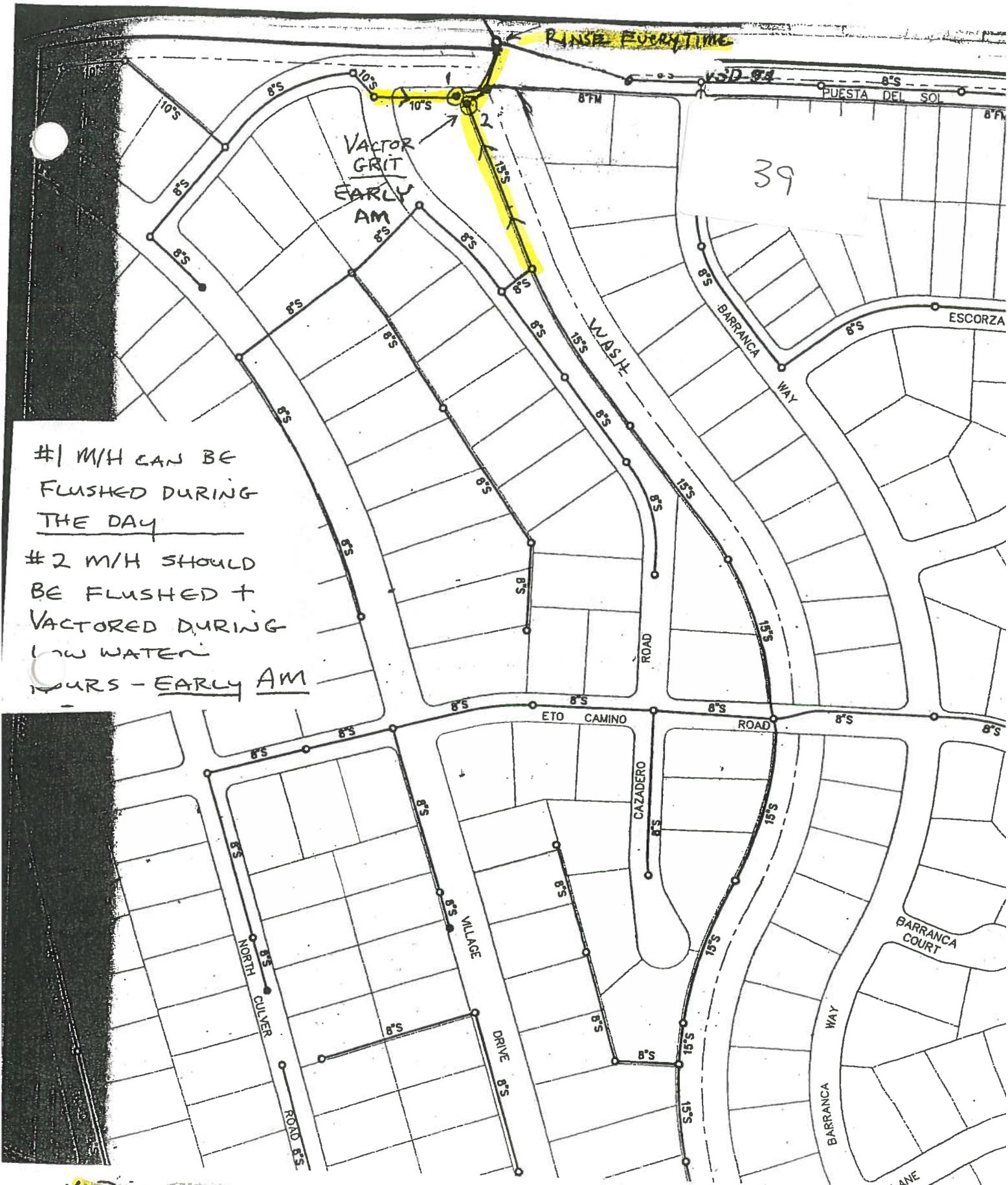
38

TWO PIPES RUN  
SIDE-BY-SIDE  
BOWING UNDER  
WASH (INVERTED  
SIPHON.)

USE SKINNY RODDER  
SKID + FLUSH  
EACH PIPE 3 TIMES  
(HEAVY GREASE.)

add 8" sewer  
main in Alley

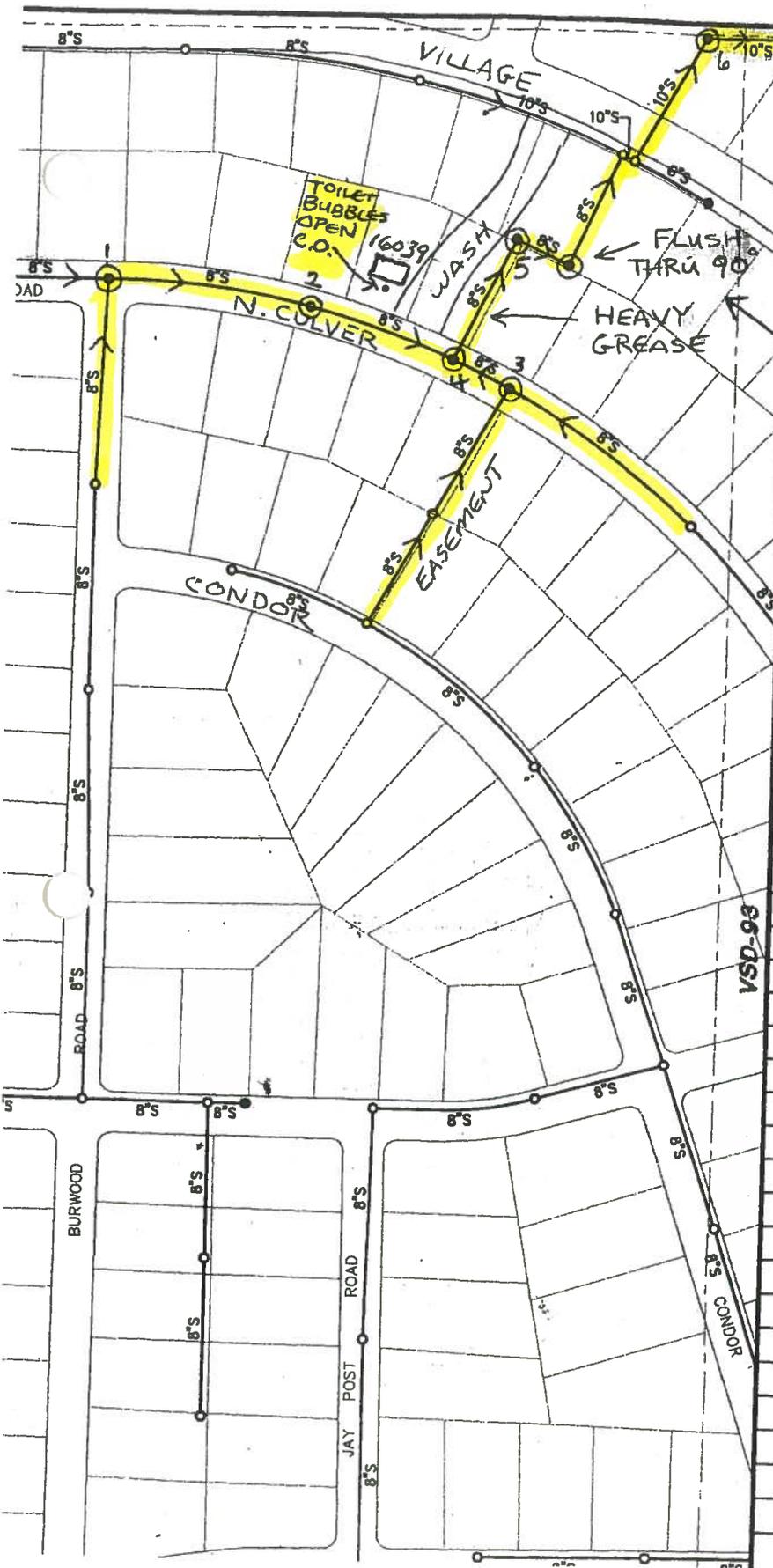




#1 M/H CAN BE  
 FLUSHED DURING  
 THE DAY

#2 M/H SHOULD  
 BE FLUSHED +  
 VACTORED DURING  
 LOW WATER  
 HOURS - EARLY AM

\* RINSE M/H ON N/SIDE PUESTA DEL SOL  
INLET COMING FROM EAST HAS GRADE BUILT UP



SEWER NO

40

MAY NEED EXTRA ASSISTANCE  
 TO FLUSH FROM #6 M/H  
 ACROSS VILLAGE DR + THRU  
 90° M/H TO #5 M/H.  
 + TRAFFIC CONTROL  
 (VILLAGE RD. CROSSING ONLY  
 NEEDS SERVICE ABOUT ONCE  
 OR TWICE A YEAR.)  
 MAKE NOTE ON LIST TO ADVISE  
 NEXT SERVICE.



42

LCS ANGELES DEPARTMENT OF WATER AND POWER

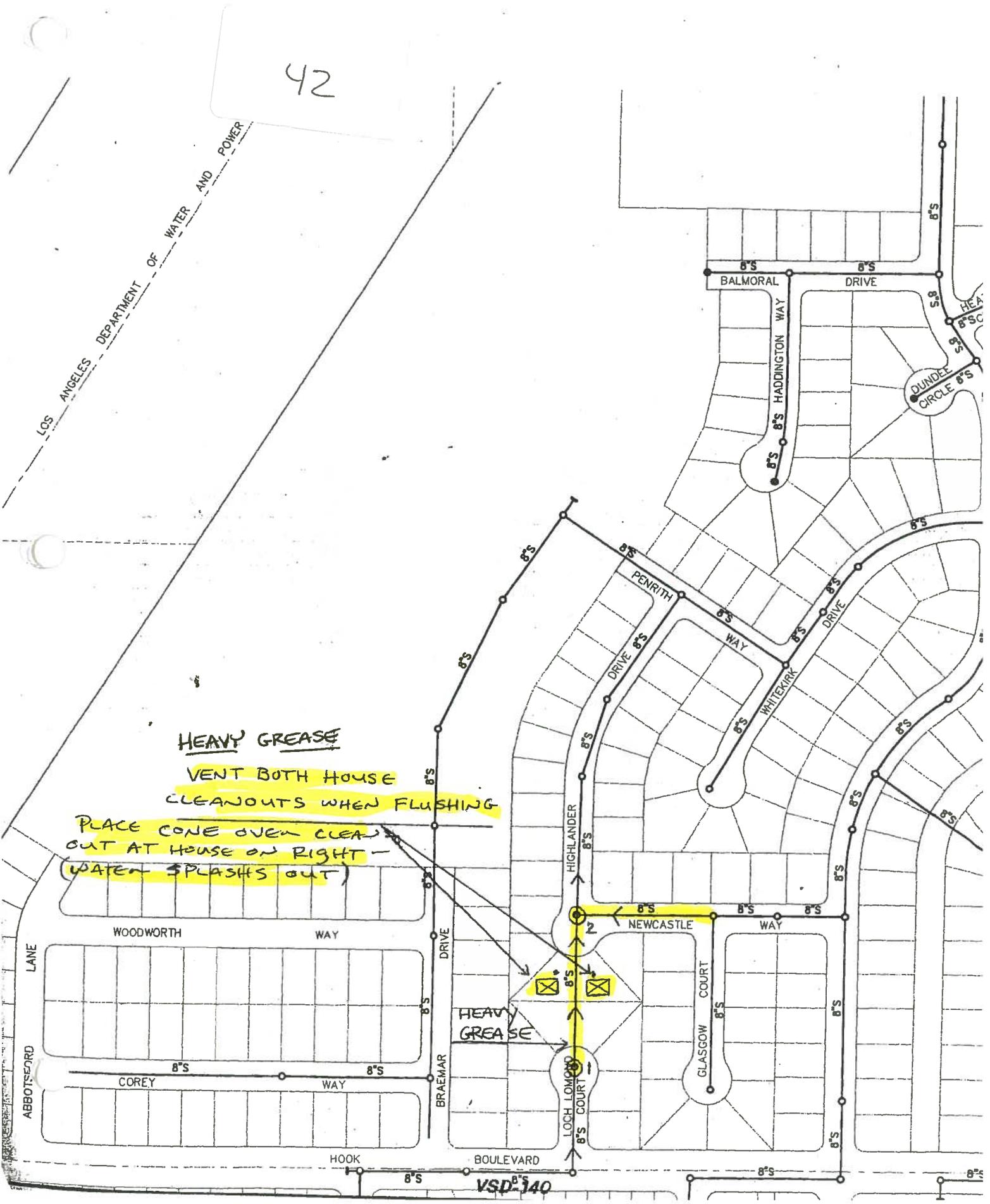
HEAVY GREASE

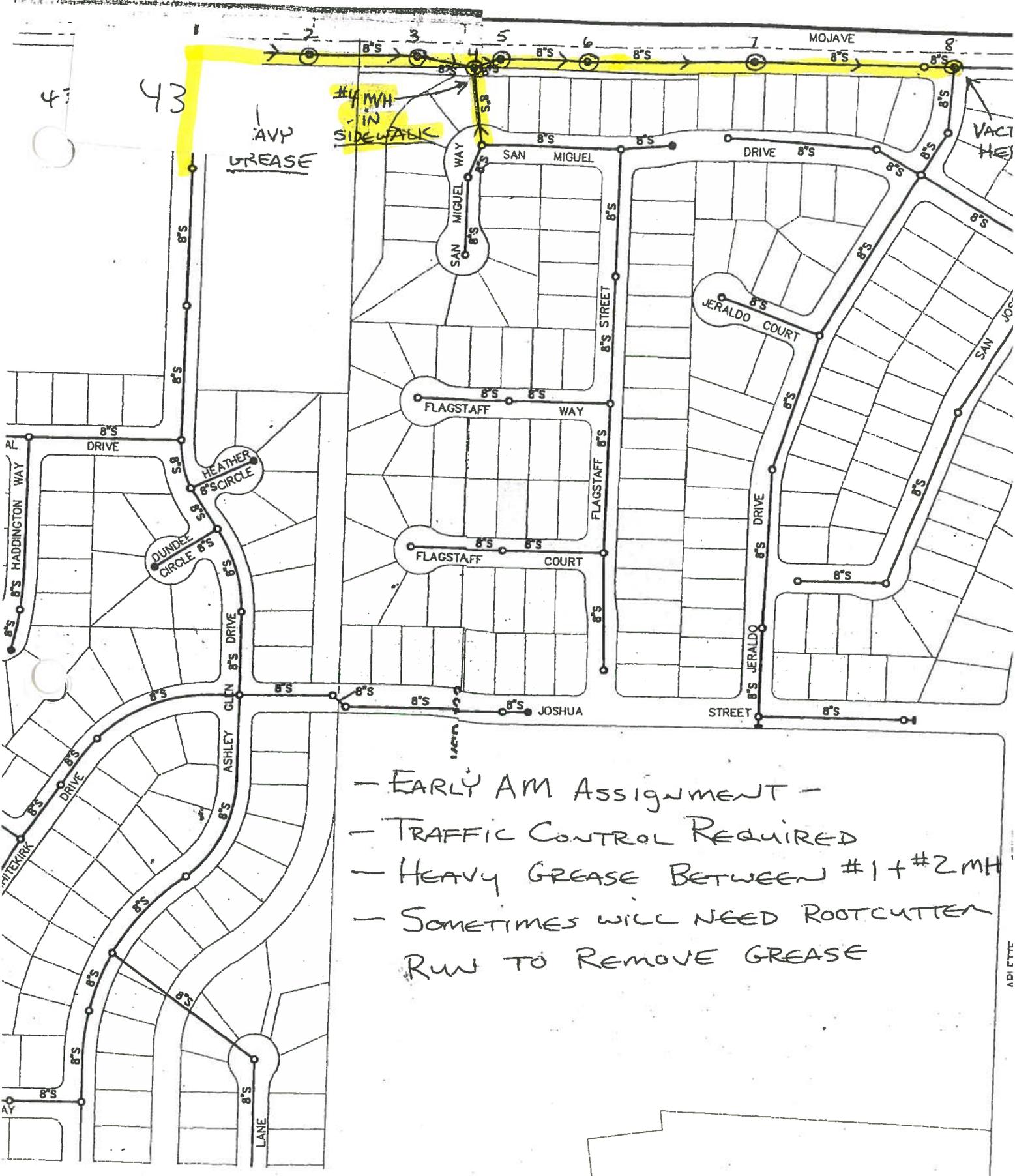
VENT BOTH HOUSE  
CLEANOUTS WHEN FLUSHING

PLACE CONE OVER CLEANOUT  
AT HOUSE ON RIGHT -  
(WATER SPLASHES OUT)

HEAVY  
GREASE

VSD 140



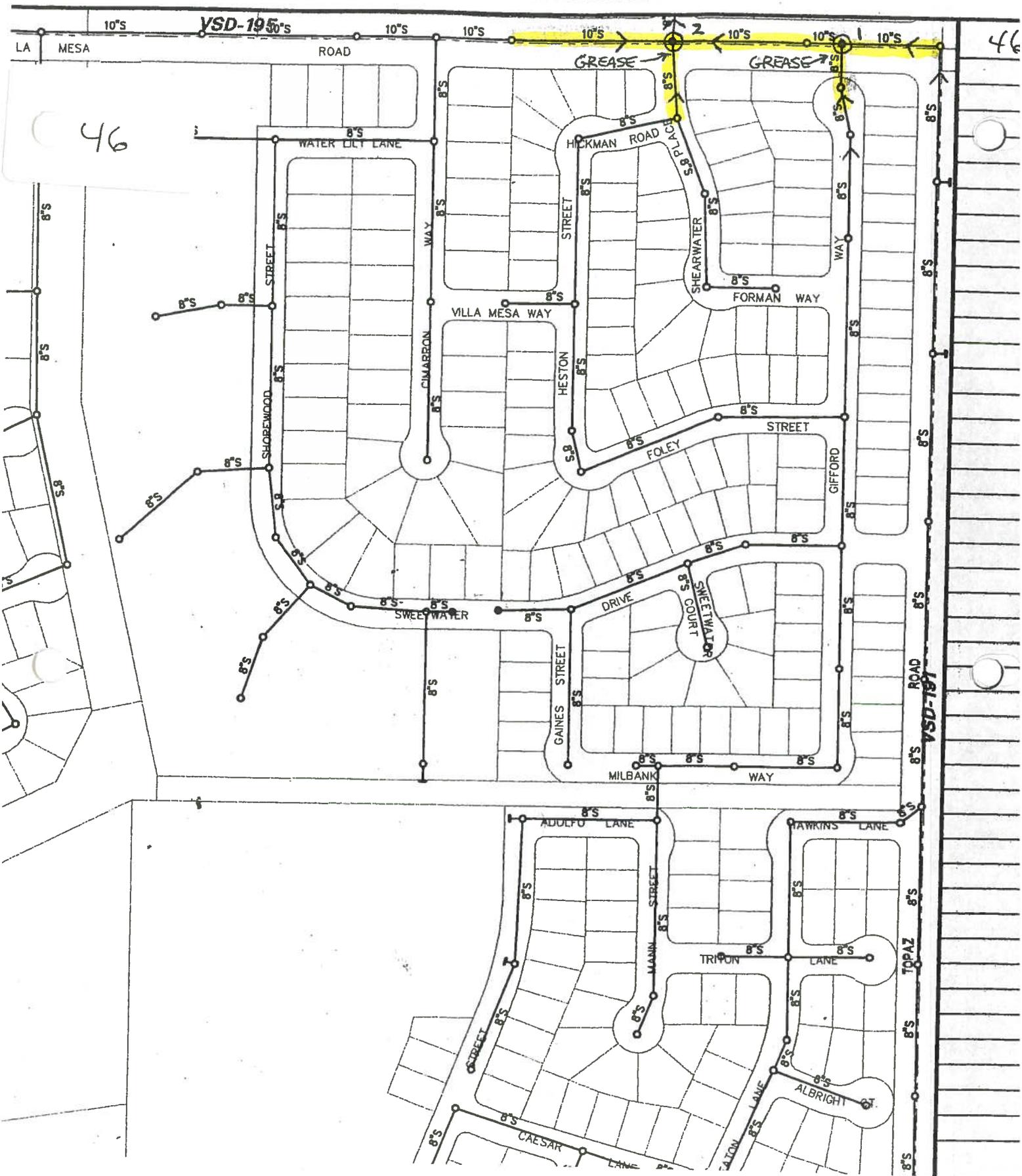


- EARLY AM ASSIGNMENT -
- TRAFFIC CONTROL REQUIRED
- HEAVY GREASE BETWEEN #1 + #2 MH
- SOMETIMES WILL NEED ROOTCUTTER RUN TO REMOVE GREASE

ADLETTE







46

46

10°S VSD-195 10°S 10°S 10°S 10°S

GREASE →

GREASE →

VSD-197

LA MESA ROAD

WATER LIFT LANE

HICKMAN ROAD

S.P. PLACE

FORMAN WAY

VILLA MESA WAY

HESTON STREET

FOLEY STREET

SHOREWOOD STREET

CIMARRON WAY

SWEETWATER DRIVE

SWEETWATER COURT

GAINES STREET

SWEETWATER

MILBANK WAY

ADULFU LANE

MANN STREET

TRIPON LANE

HAWKINS LANE

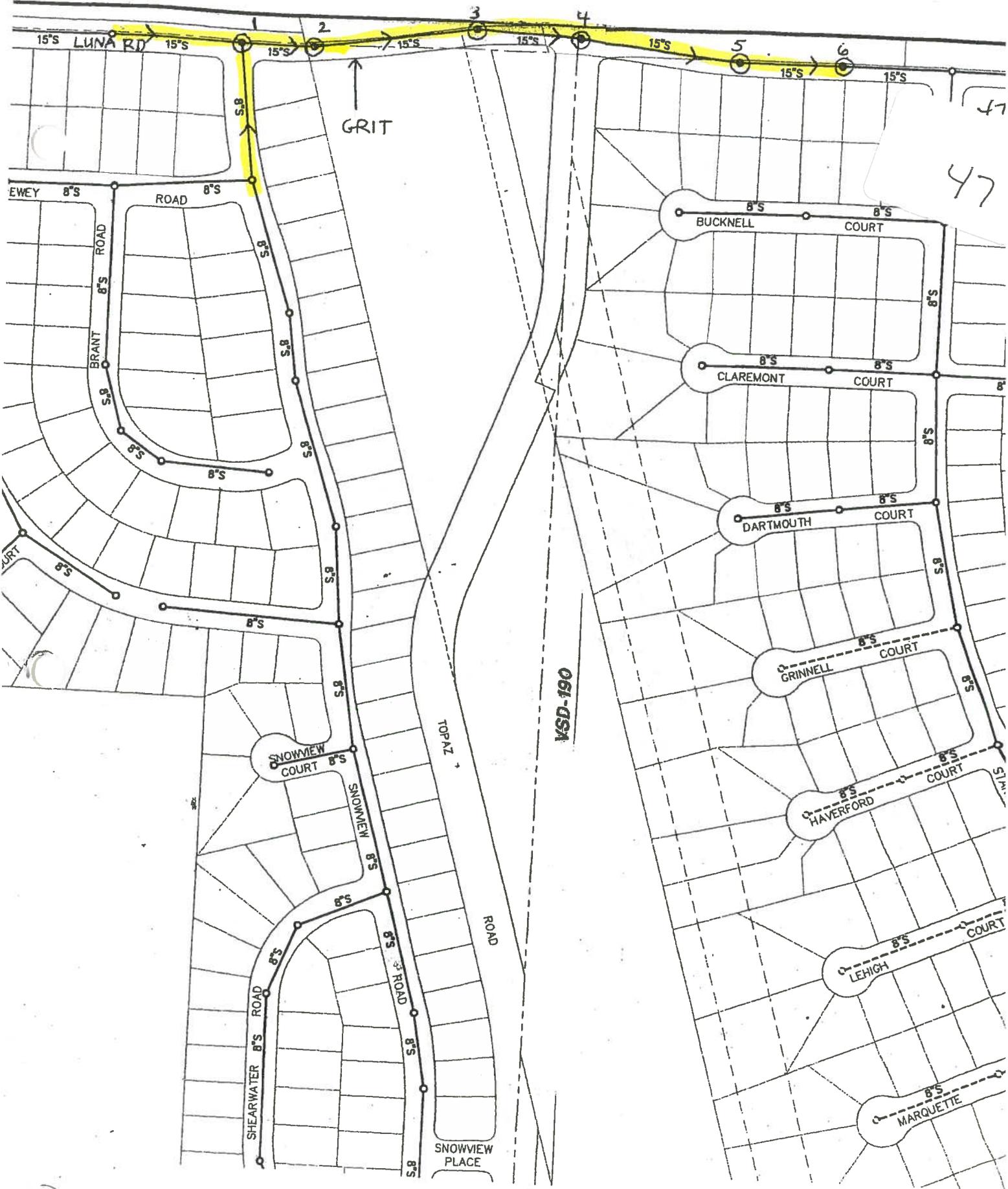
TOPAZ LANE

ALBRIGHT LANE

CAESAR LANE

CAITON LANE

TOPAZ LANE



VSD-190

LA MESA ROAD

48

DESERT VISTA DRIVE 8'S

SPRING WAY

PARADISE COURT 8'S

MOUNTAIN COURT 8'S

BLUE MESA COURT 8'S

HIGH DESERT 8'S

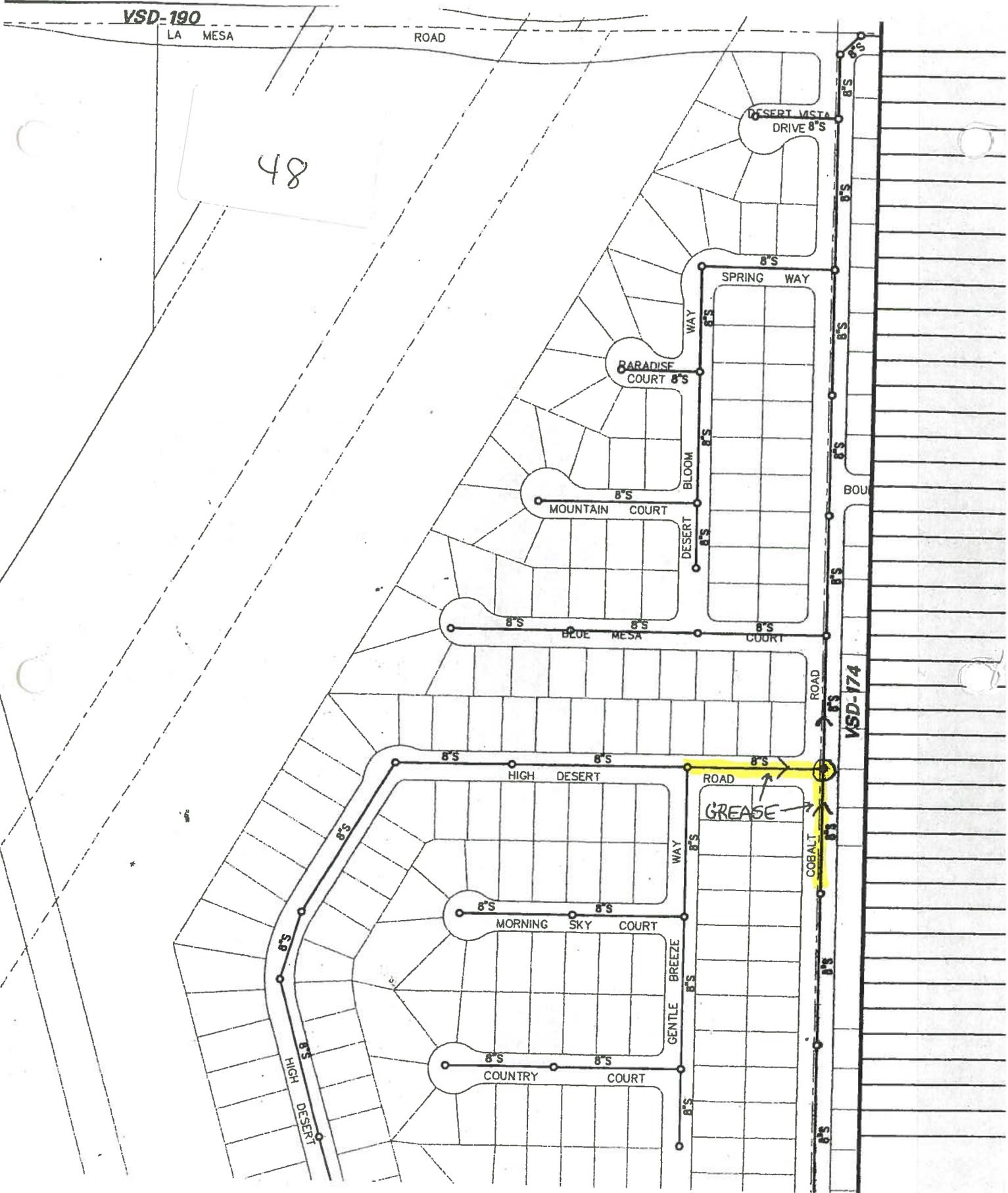
MORNING SKY COURT 8'S

COUNTRY COURT 8'S

VSD-174

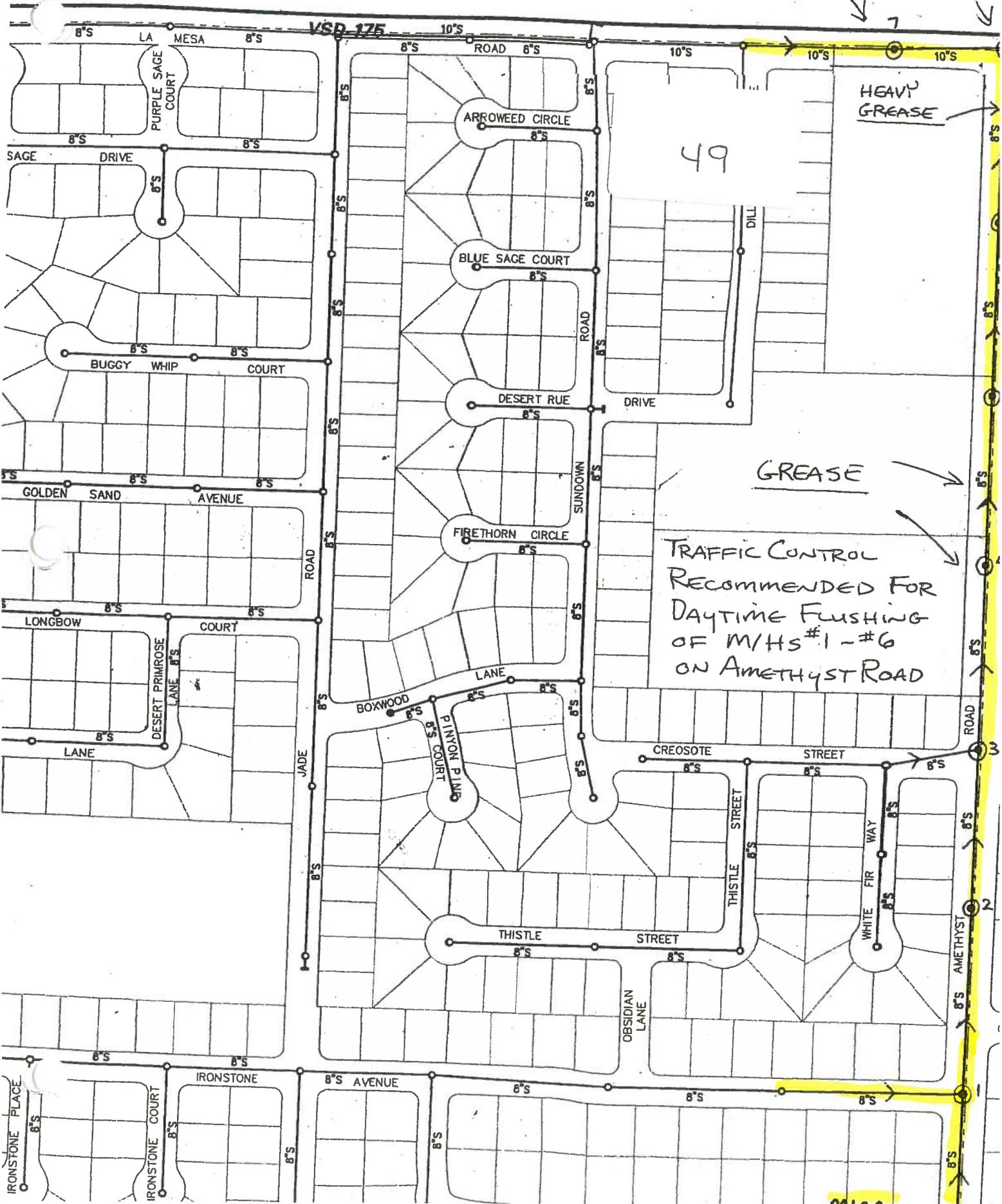
GREASE

COBALT



\*USE ROOTCUTTER  
TO REMOVE  
GREASE AT M/H #8

FLUSH #7 + #8 M/H'S ON  
LA MESA RD. EARLY AM -  
TRAFFIC CONTROL REQUIRE



HEAVY GREASE

49

GREASE

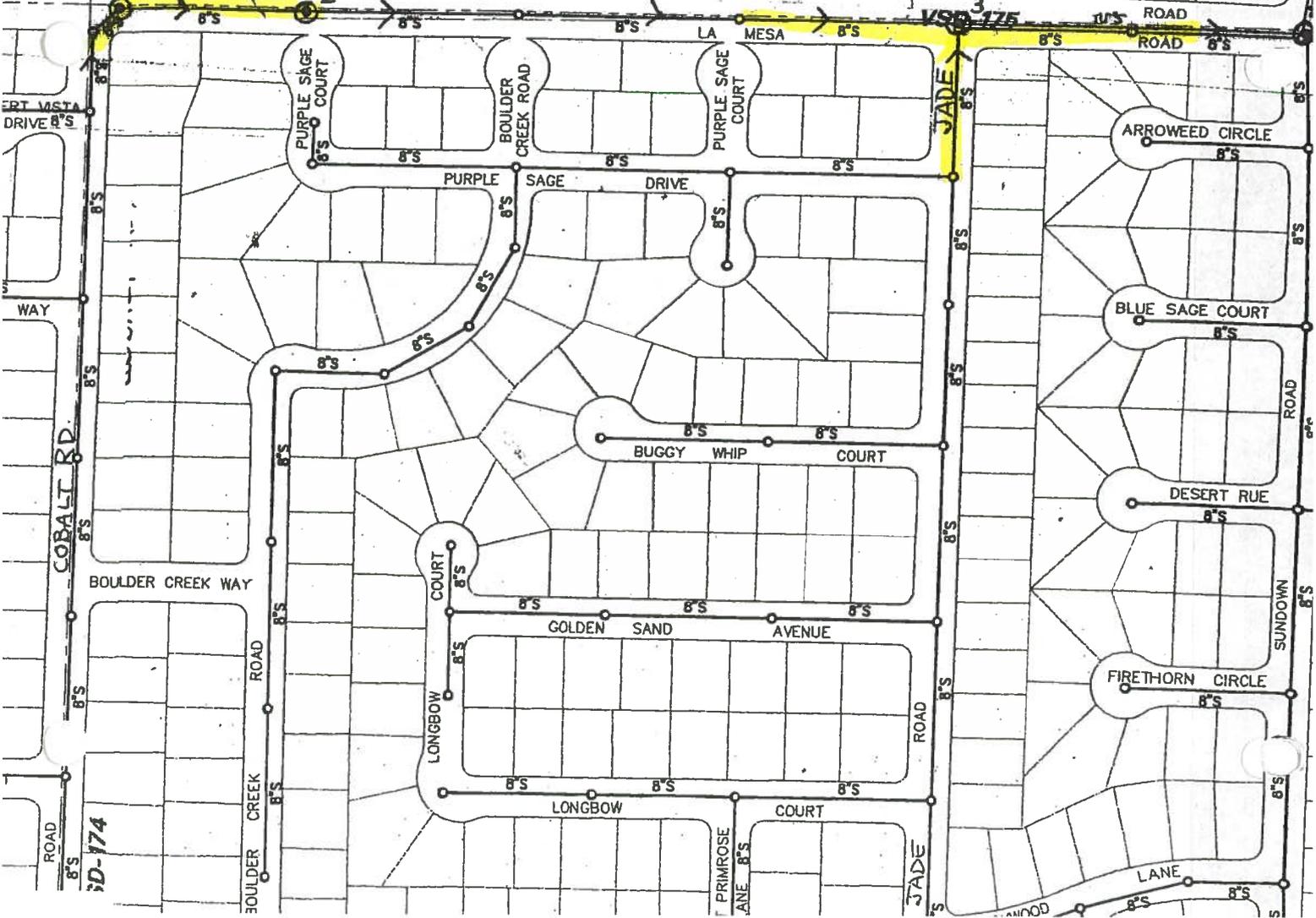
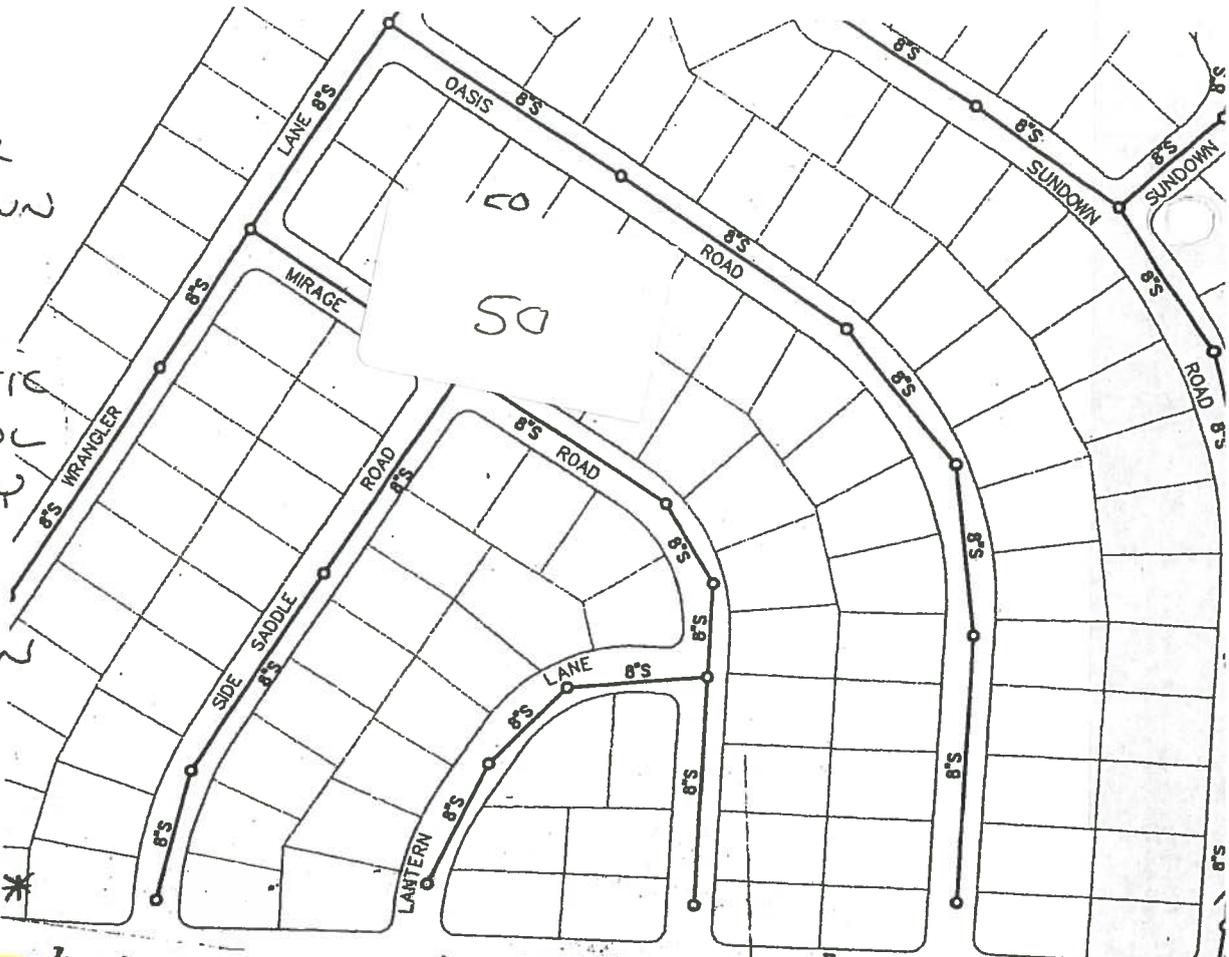
TRAFFIC CONTROL  
RECOMMENDED FOR  
DAYTIME FLUSHING  
OF M/H'S #1 - #6  
ON AMETHYST ROAD

2

1

BE ADVISED -  
M/HS AT OR  
N TR SUNDOWN  
NEED TO BE  
FLUSHED  
WHEN TRAFFIC  
FROM SCHOOL  
IS NOT HEAVY

DO NOT  
FLUSH WHEN  
CHILDREN  
ARE  
PRESENT  
SCHOOL ZONE\*



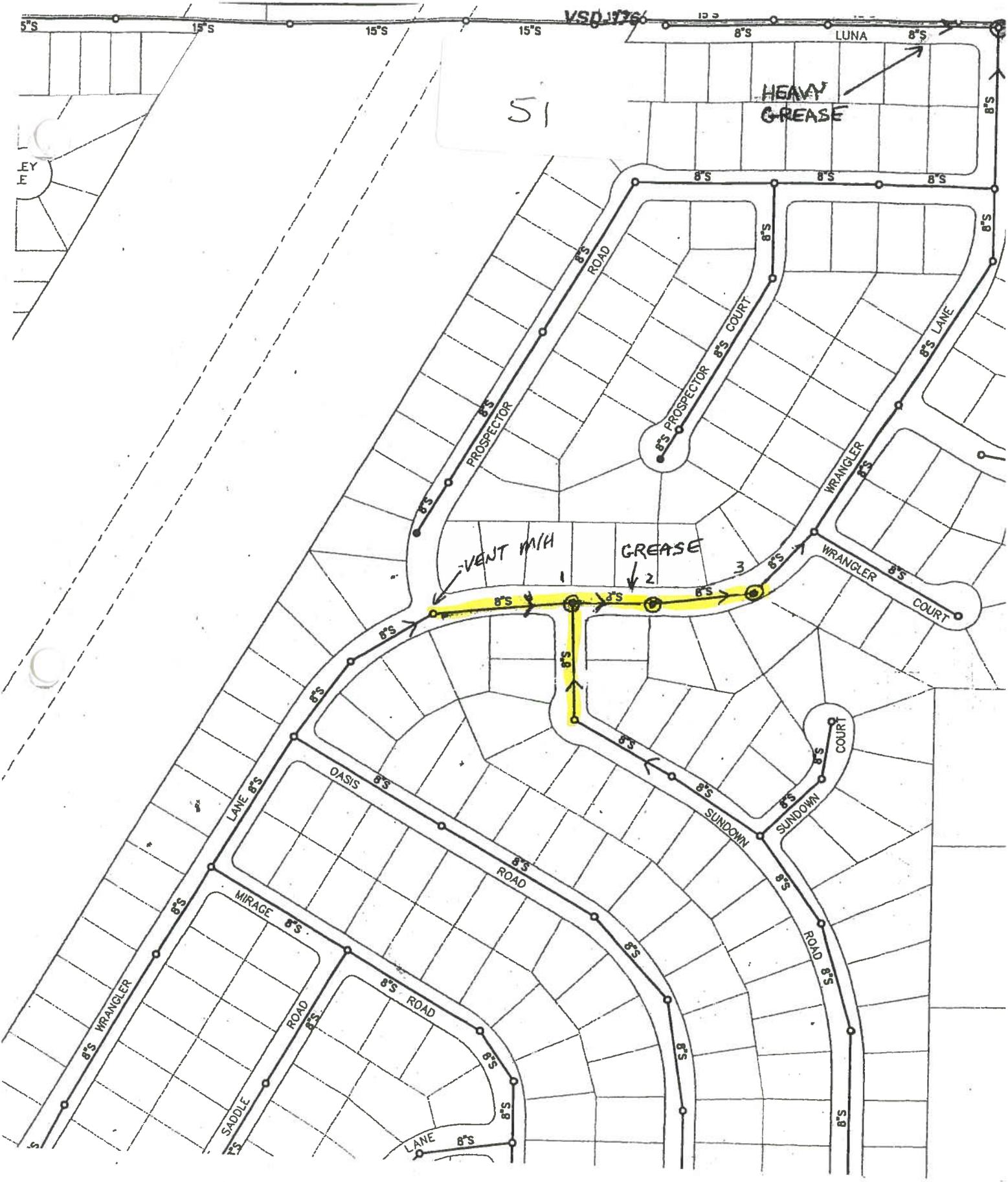
VSD 1776

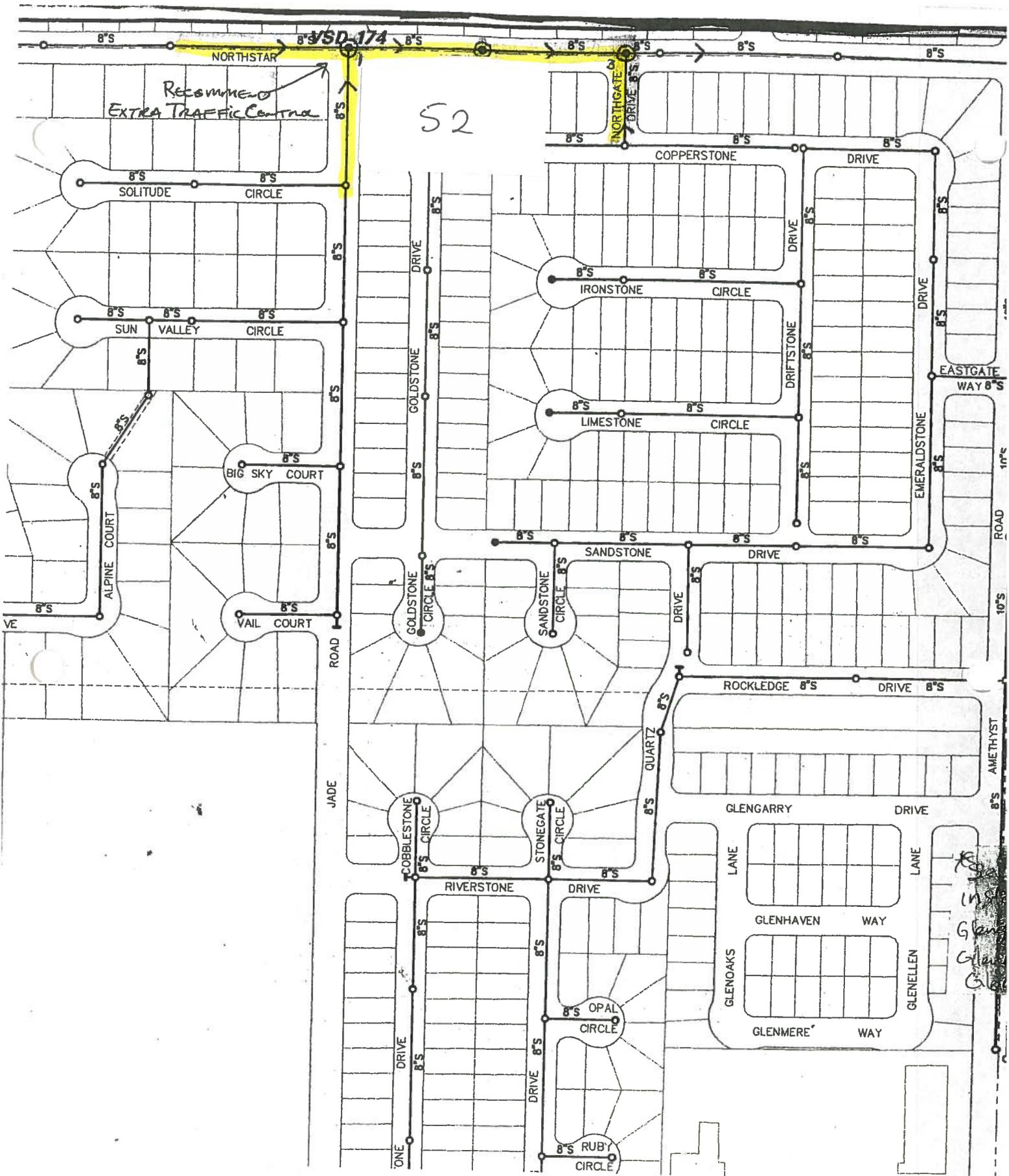
51

HEAVY GREASE

VENT WITH

GREASE





Recommended  
EXTRA TRAFFIC CONTROL

52

INS  
Glen  
Glen  
Glen

GALAXY

VSD-170

AVENUE

NORTH STAR

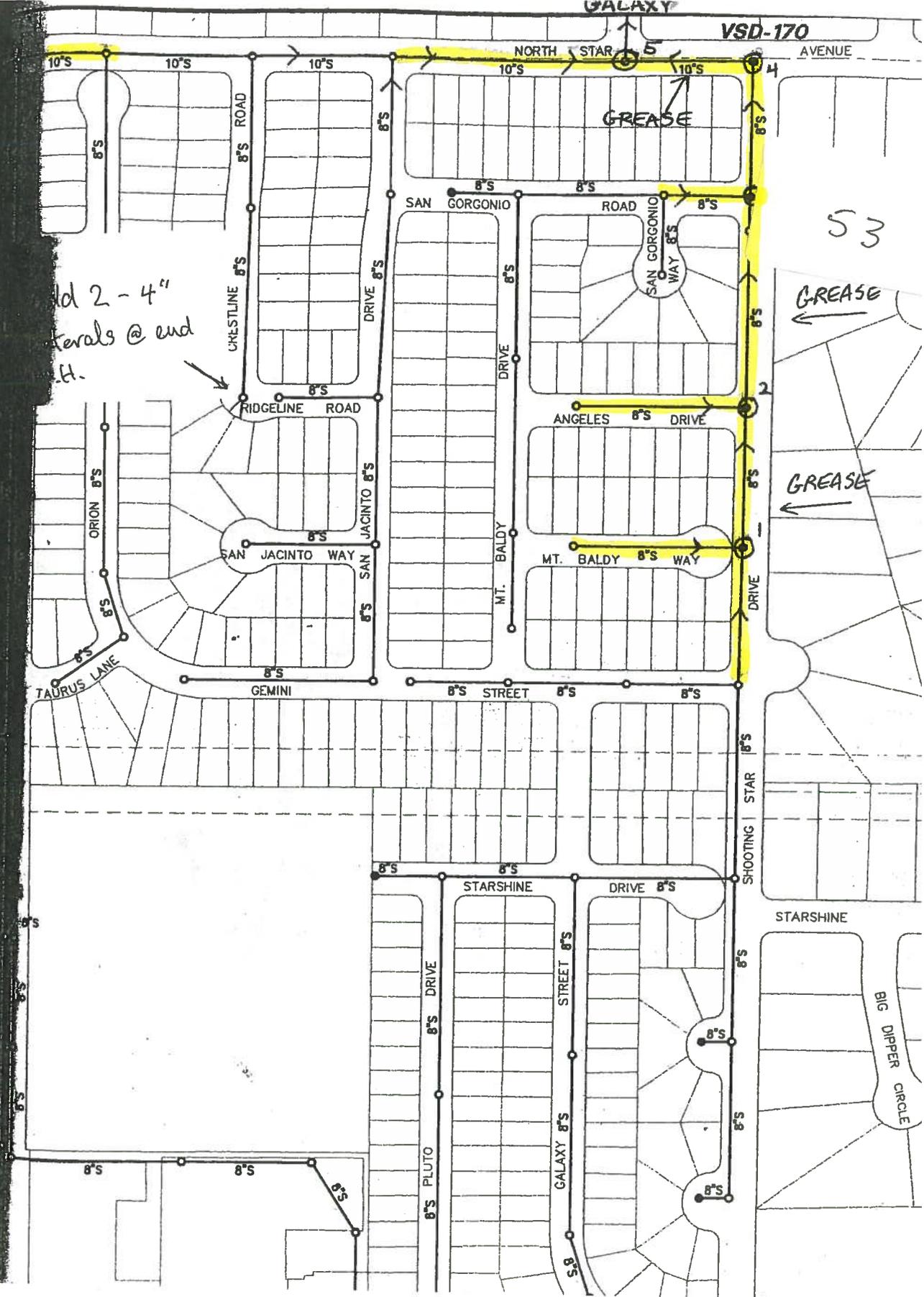
GREASE

GREASE

GREASE

53

old 2-4" laterals @ end H.



ORION 8'S

TAURUS LANE

CHRISTINE 8'S

RIDGELINE ROAD

SAN JACINTO WAY

GEMINI

SAN GORGONIO ROAD

SAN GORGONIO WAY

ANGELES DRIVE

MT. BALDY WAY

MT. BALDY DRIVE

GEMINI STREET

STARSHINE DRIVE

PLUTO DRIVE

GALAXY STREET

SHOOTING STAR DRIVE

STARSHINE

BIG DIPPER CIRCLE

54

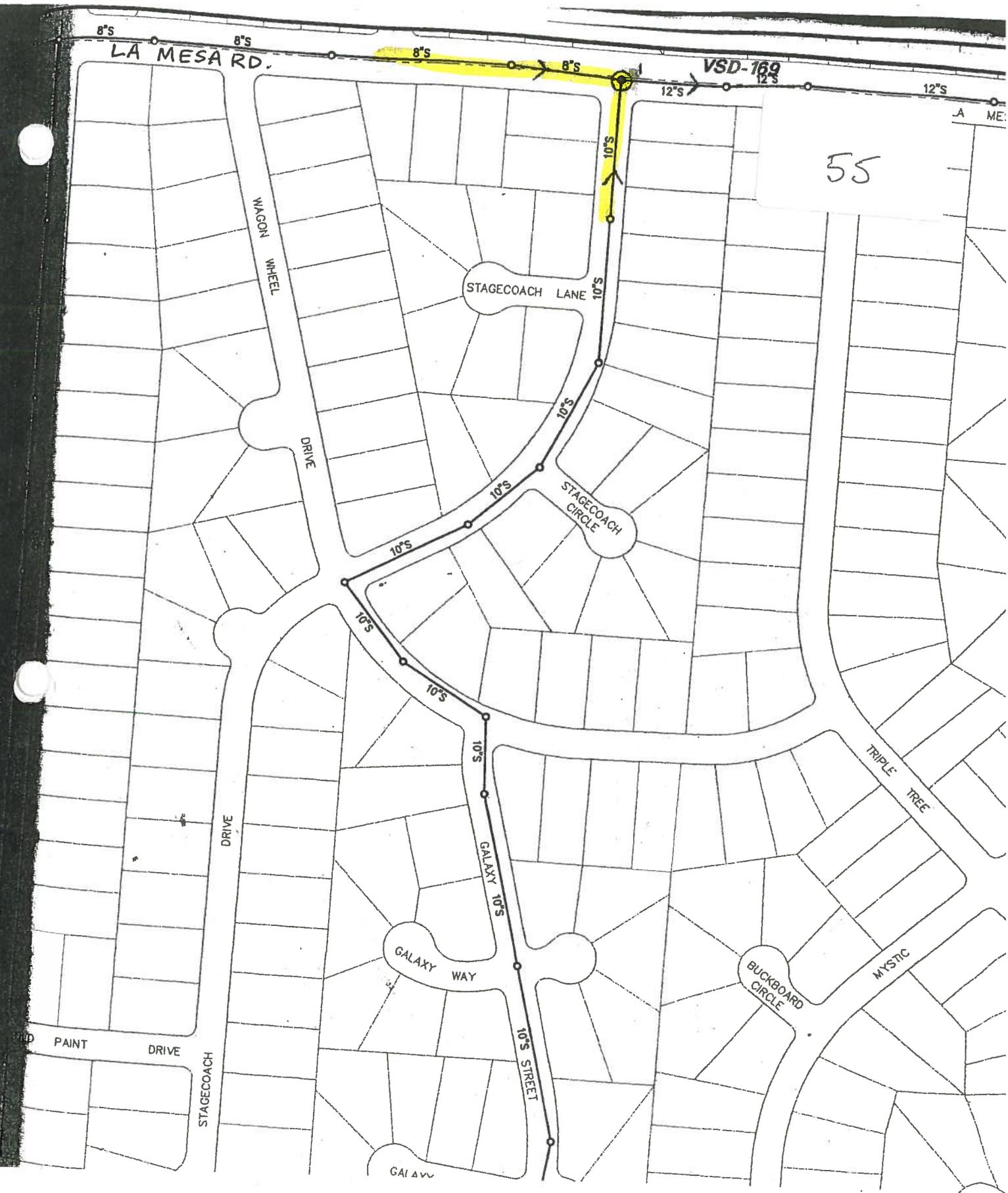
54



LA MESA RD.

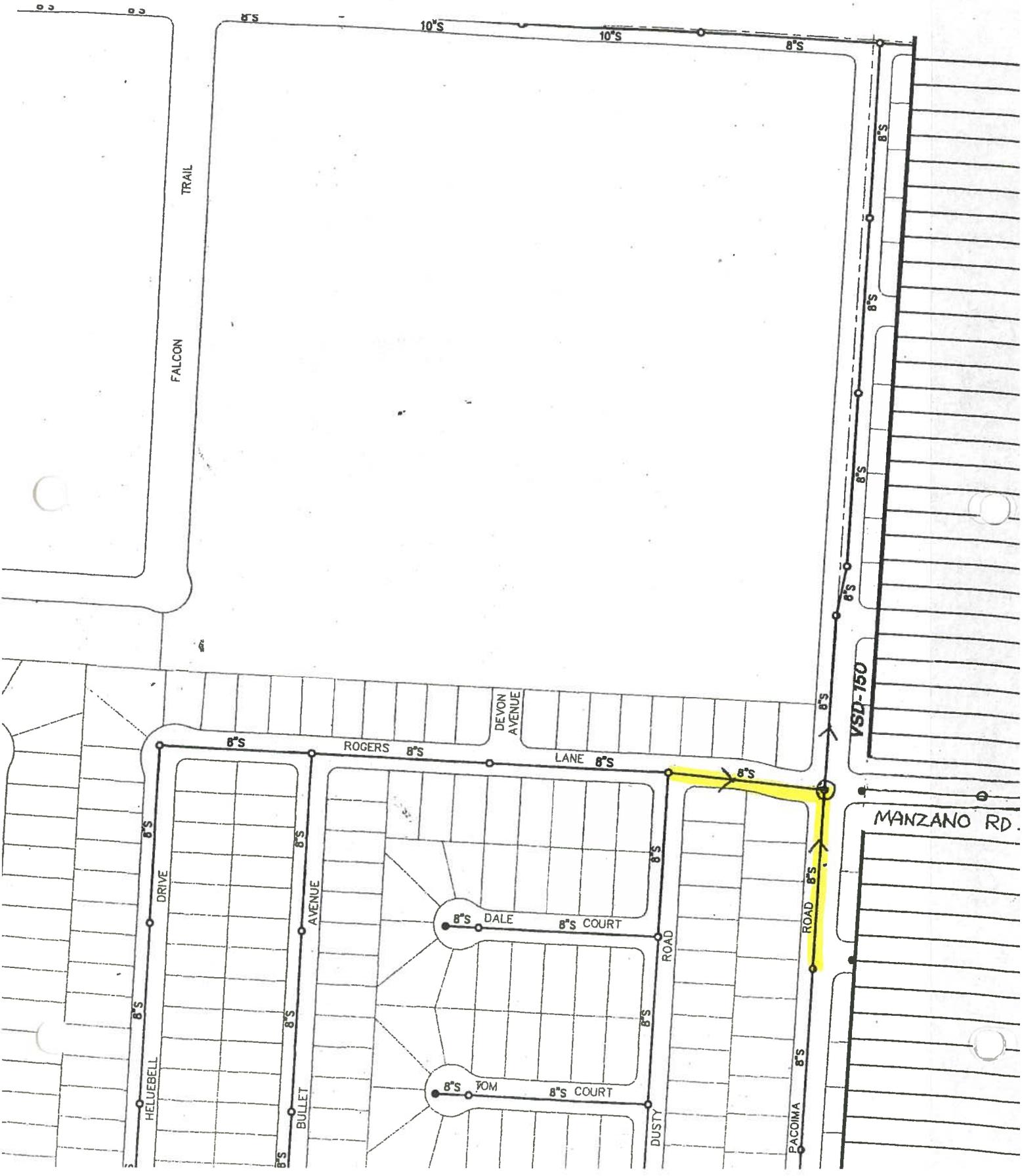
VSD-169

55

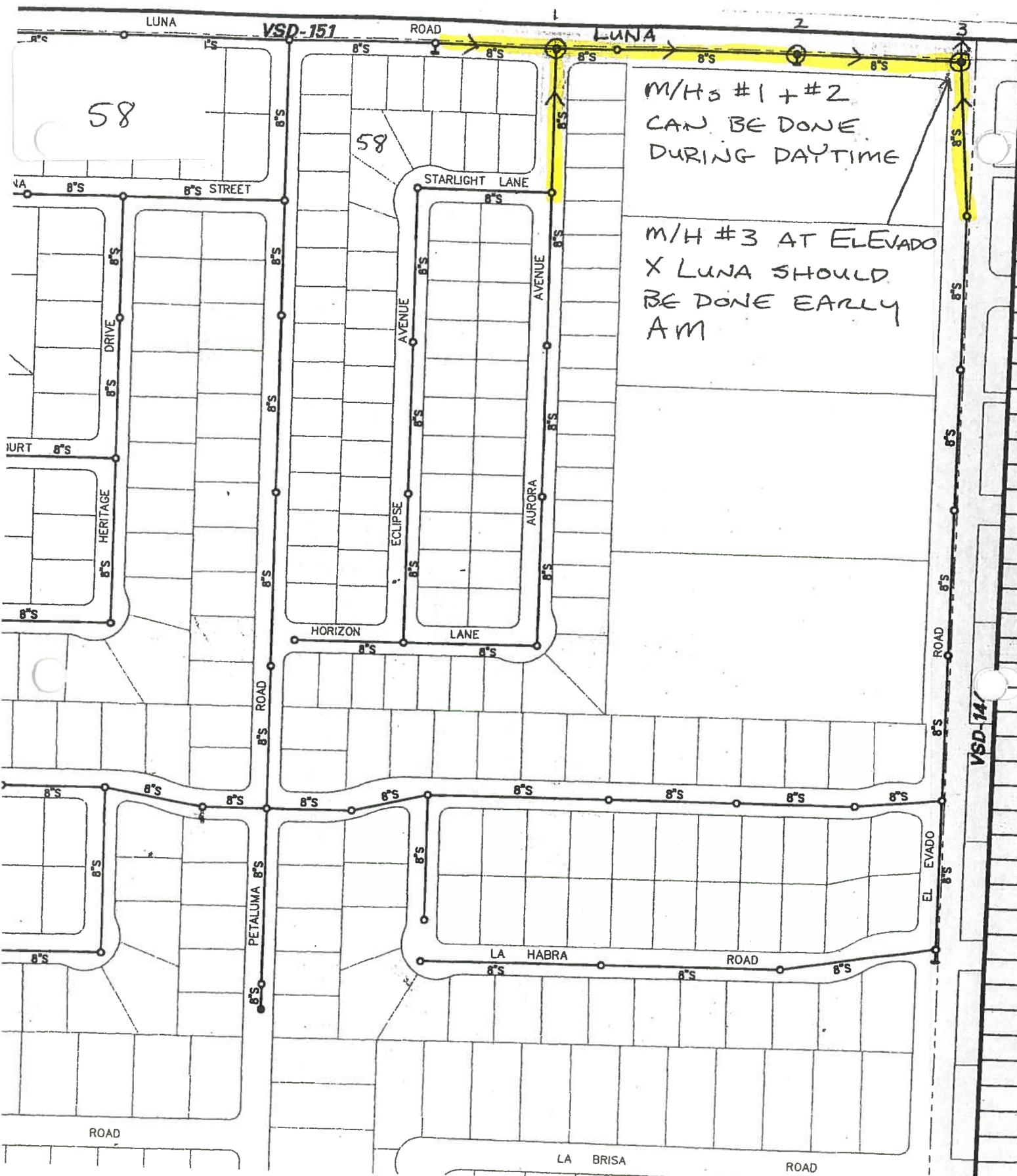


56

56







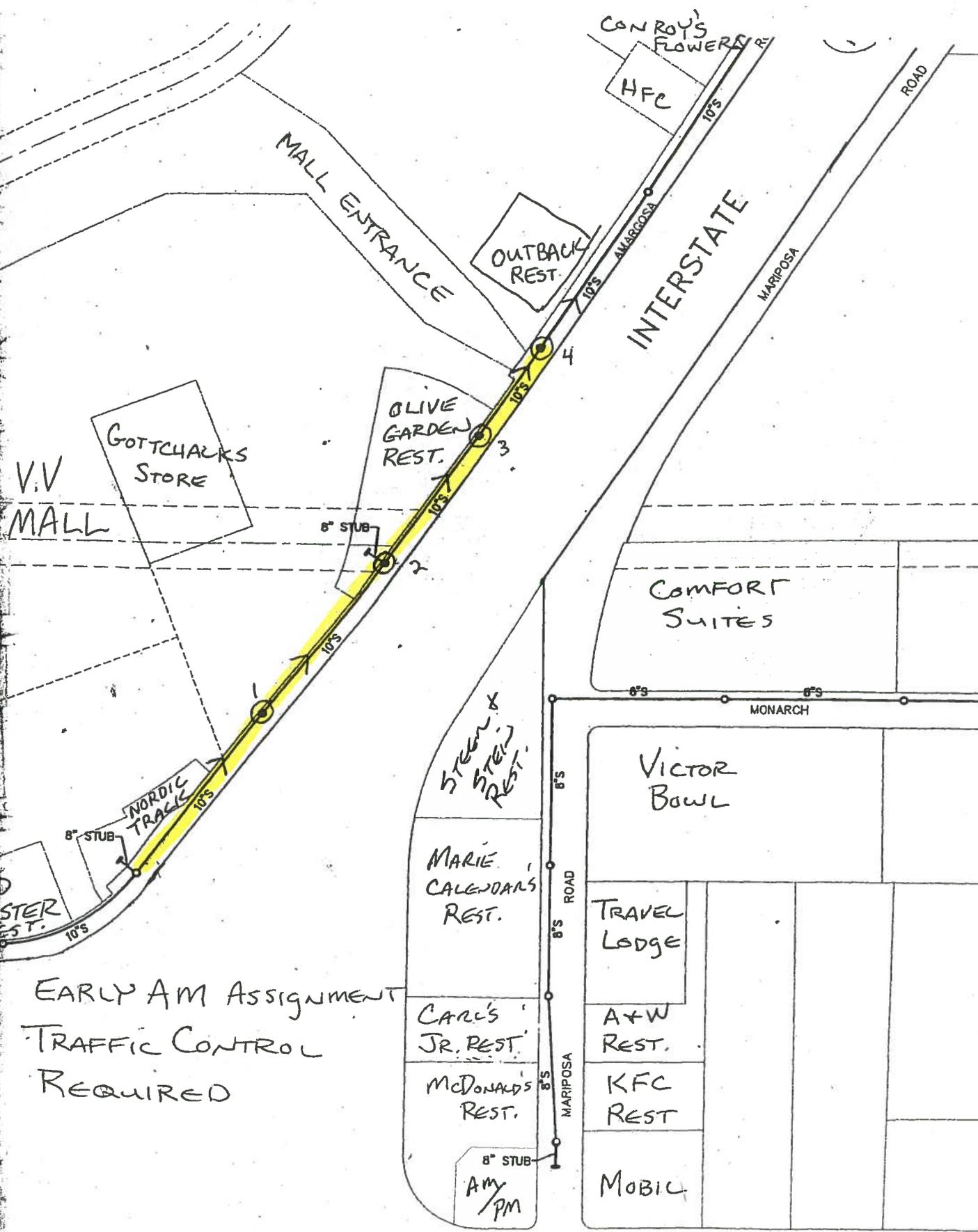
58

58

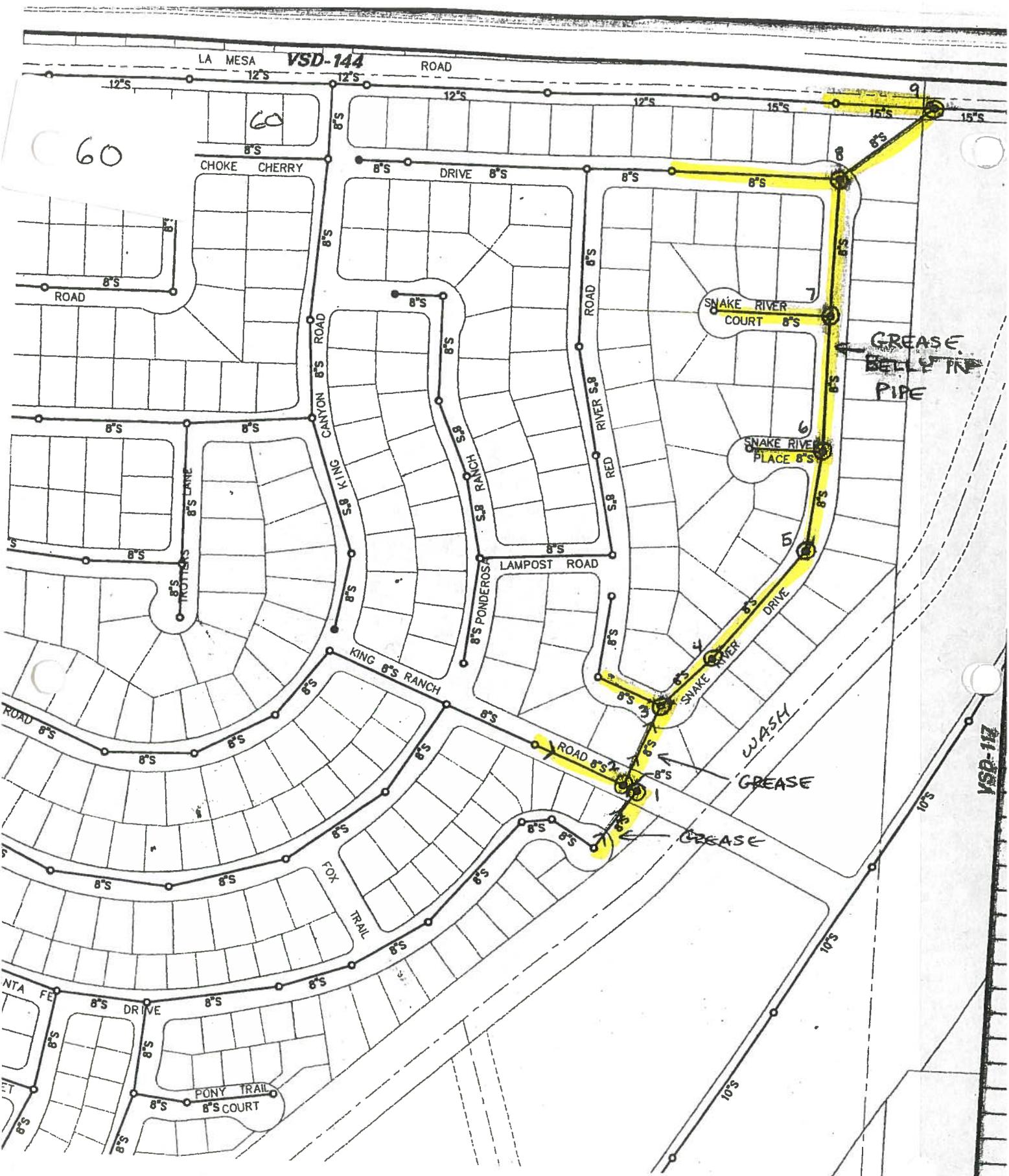
M/Hs #1 + #2  
CAN BE DONE  
DURING DAYTIME

M/H #3 AT ELEVADO  
X LUNA SHOULD  
BE DONE EARLY  
AM

VSD-14



EARLY AM Assignment  
 TRAFFIC CONTROL  
 REQUIRED



LA MESA ROAD VSD-144

12'S 12'S 12'S 12'S 12'S 15'S 15'S 15'S

60

60

CHOKE CHERRY

DRIVE

7  
SNAKE RIVER COURT

GREASE BELLY PIPE

6  
SNAKE RIVER PLACE

LAMPOST ROAD

5  
SNAKE RIVER DRIVE

KING RANCH

4  
SNAKE RIVER DRIVE

WASH GREASE

3  
ROAD

GREASE

FOX TRAIL

8'S DRIVE

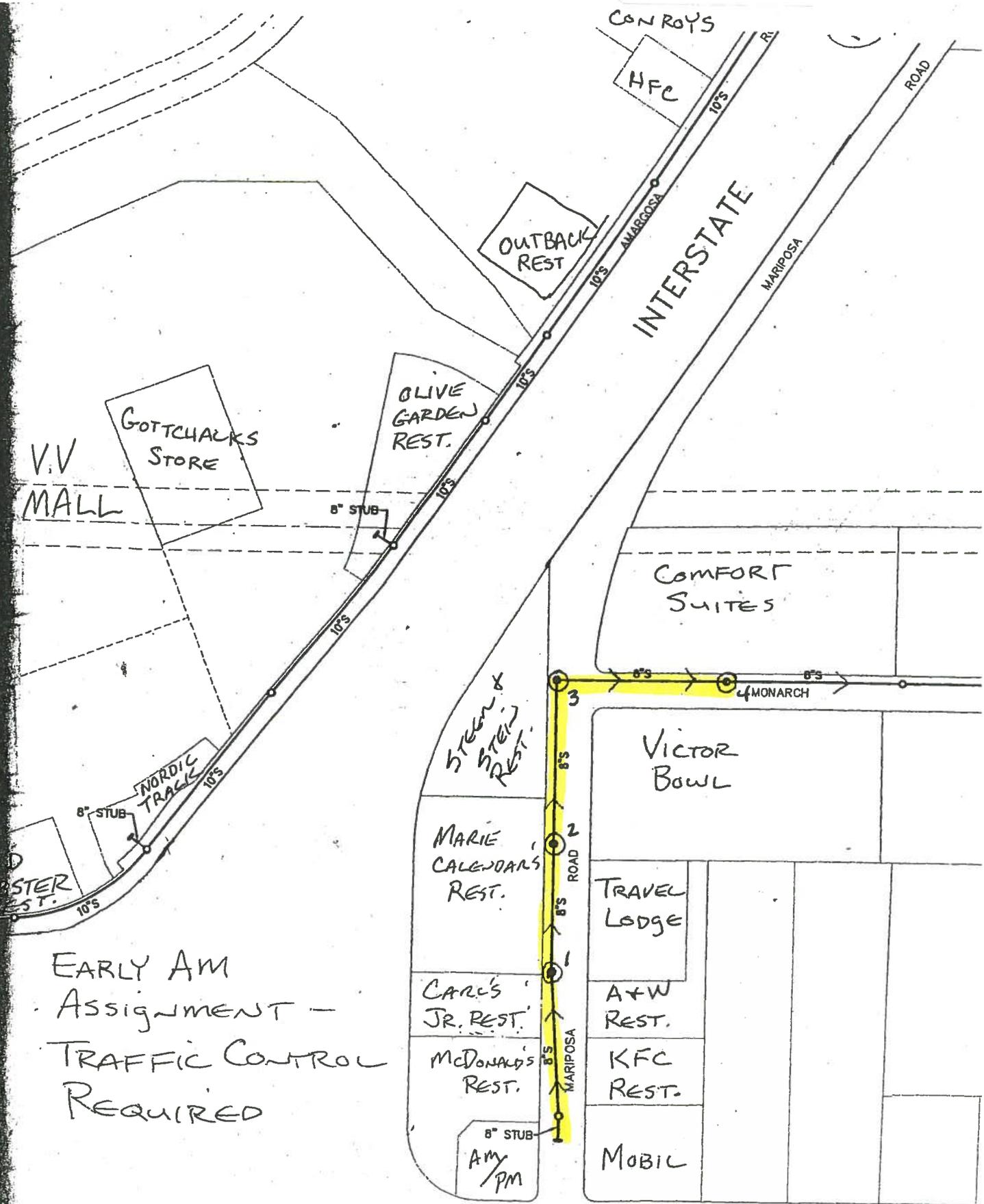
PONY TRAIL COURT

VSD-112

10'S

10'S

61

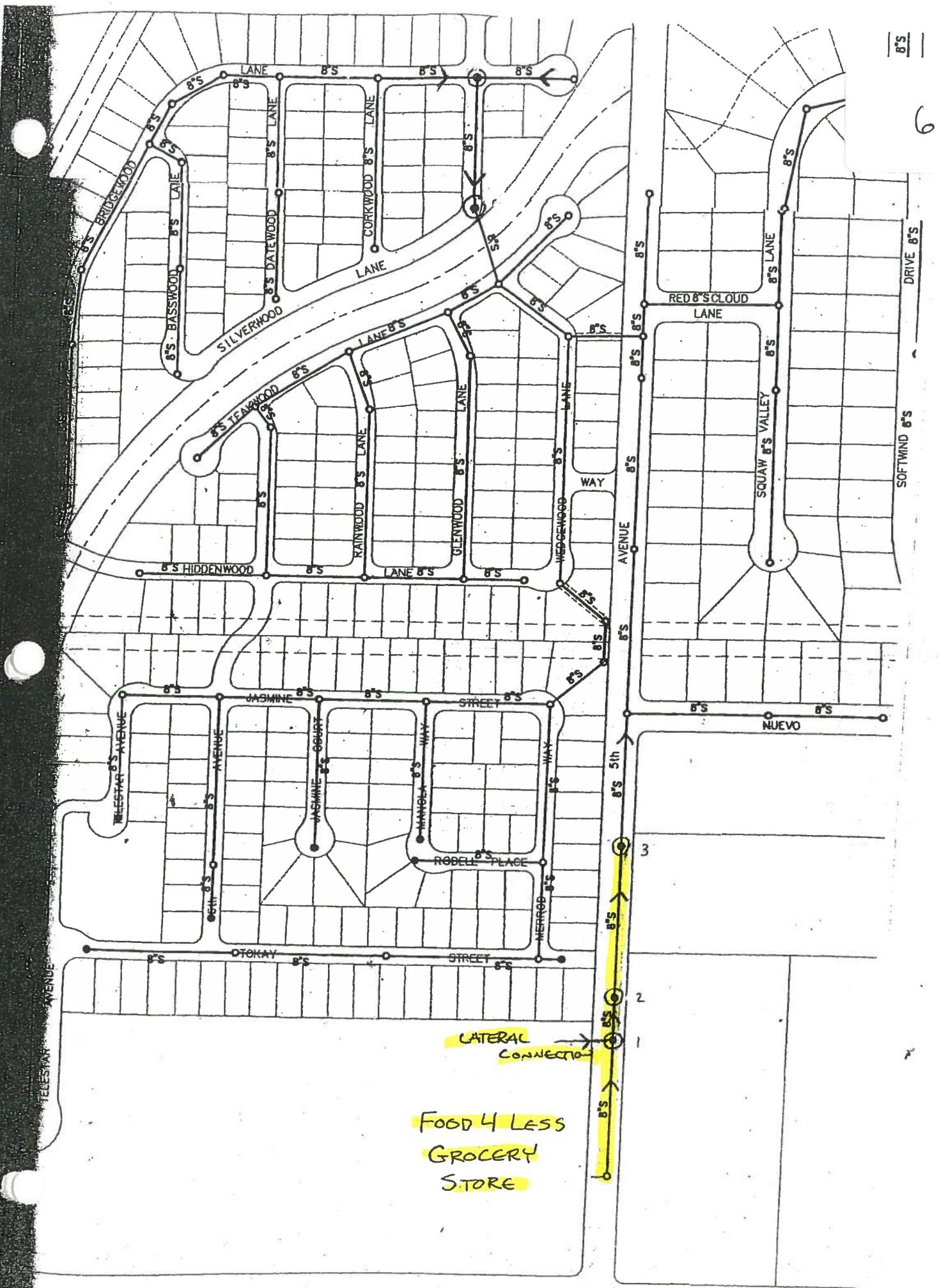


EARLY AM  
 ASSIGNMENT -  
 TRAFFIC CONTROL  
 REQUIRED



8'S

63



FOOD 4 LESS  
GROCERY  
STORE

LATERAL  
CONNECTION

BEAR VALLEY

ROAD

VSD-82

SILICA

DRIVE

VENT-TOILET BUBBLES

64

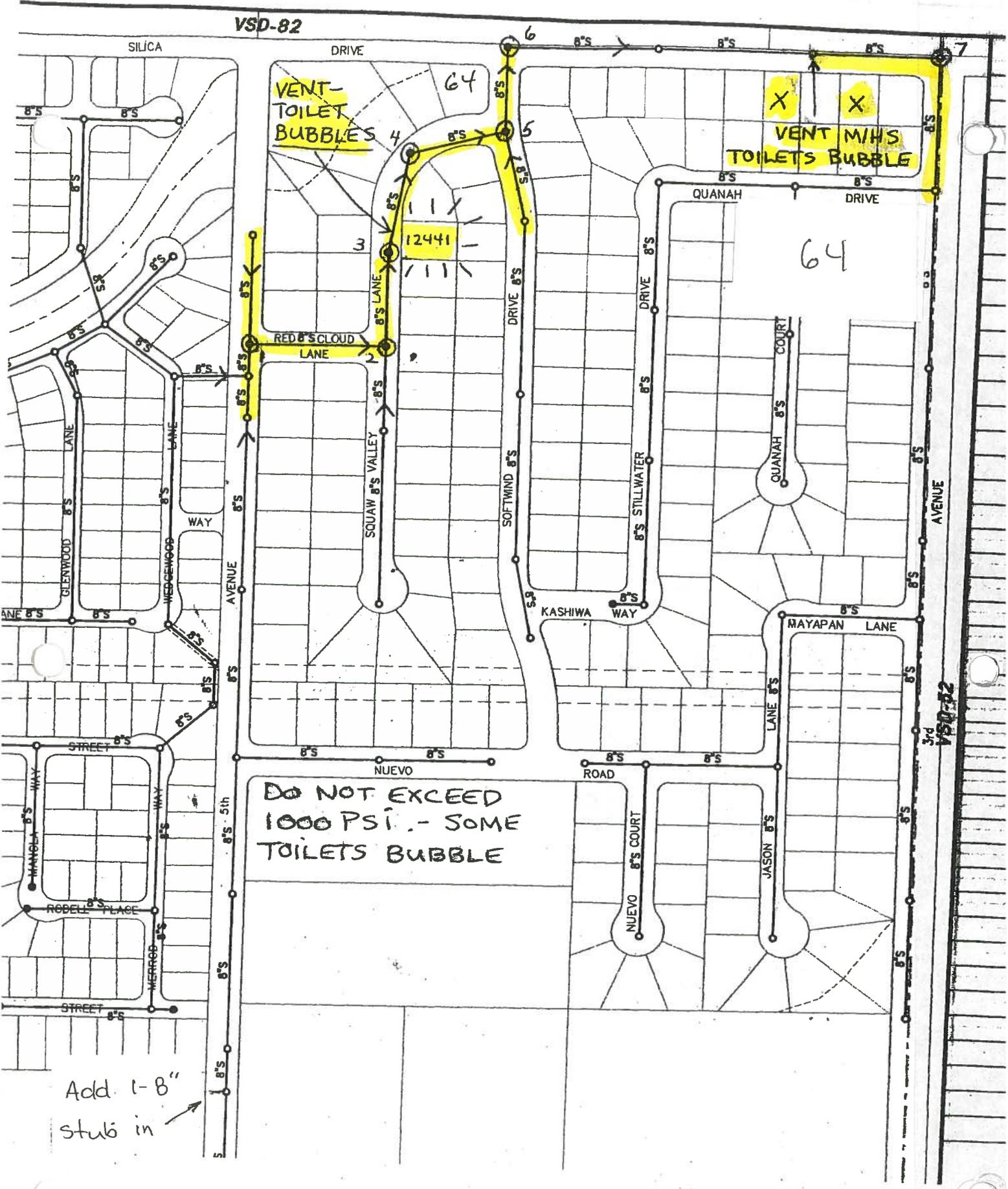
VENT MIHS TOILETS BUBBLE

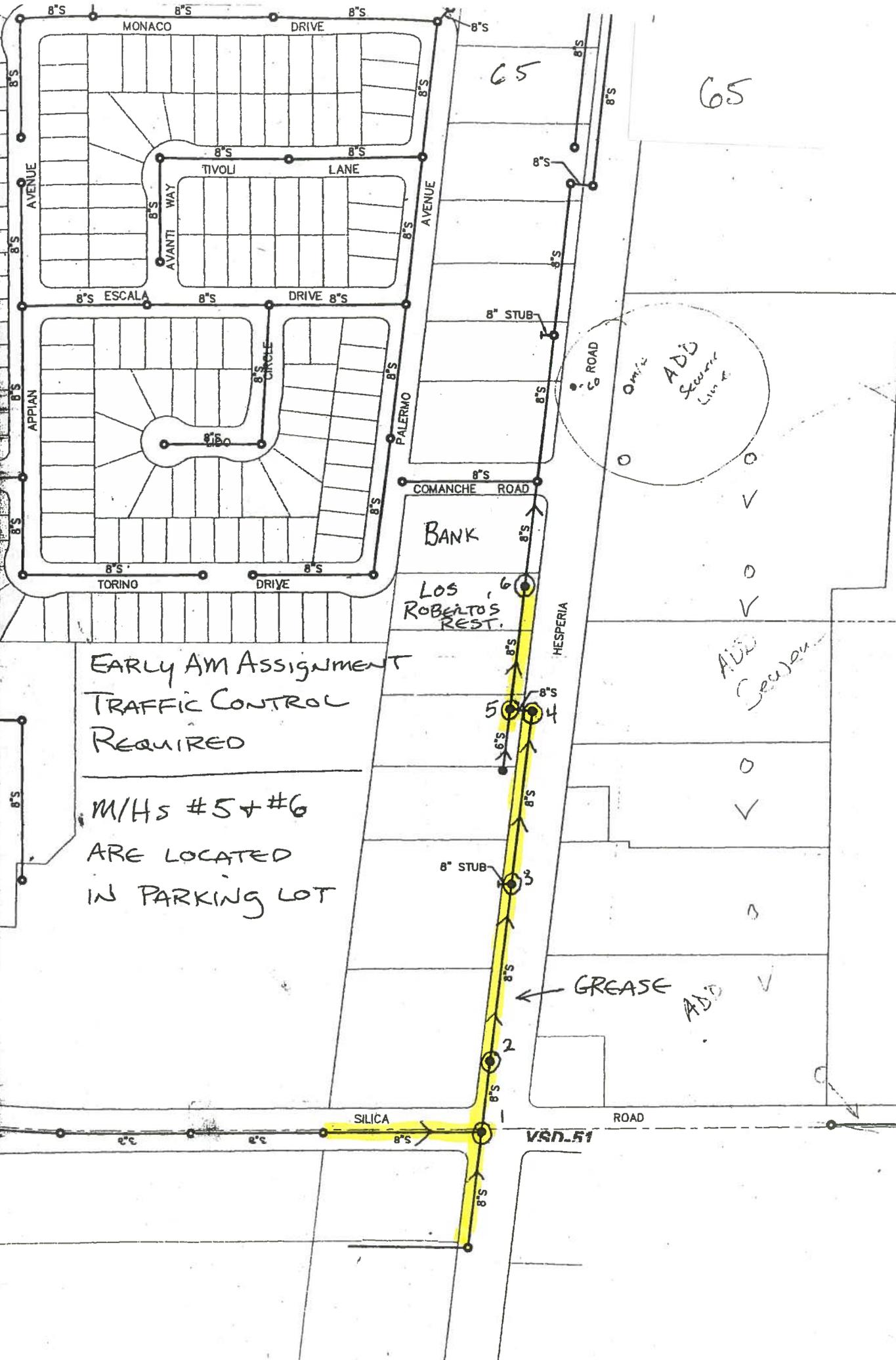
64

12441

DO NOT EXCEED 1000 PSI. - SOME TOILETS BUBBLE

Add 1-8" stub in





EARLY AM ASSIGNMENT  
TRAFFIC CONTROL  
REQUIRED

M/Hs #5 + #6  
ARE LOCATED  
IN PARKING LOT

ADD  
SEWER  
LINE

ADD  
SEWER

GREASE  
ADD

65

65

BANK

LOS ROBERTOS REST.

HESPERIA

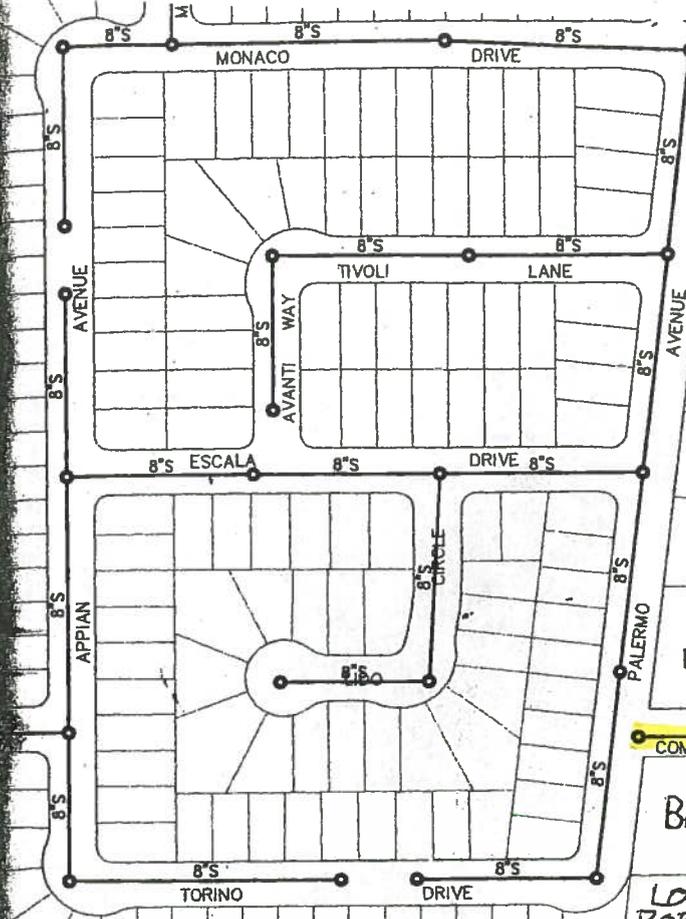
VSD-51

SILICA

ROAD

8" STUB

66



BACKFLUSH SHORT SECTION

ADD SERVICE LINE

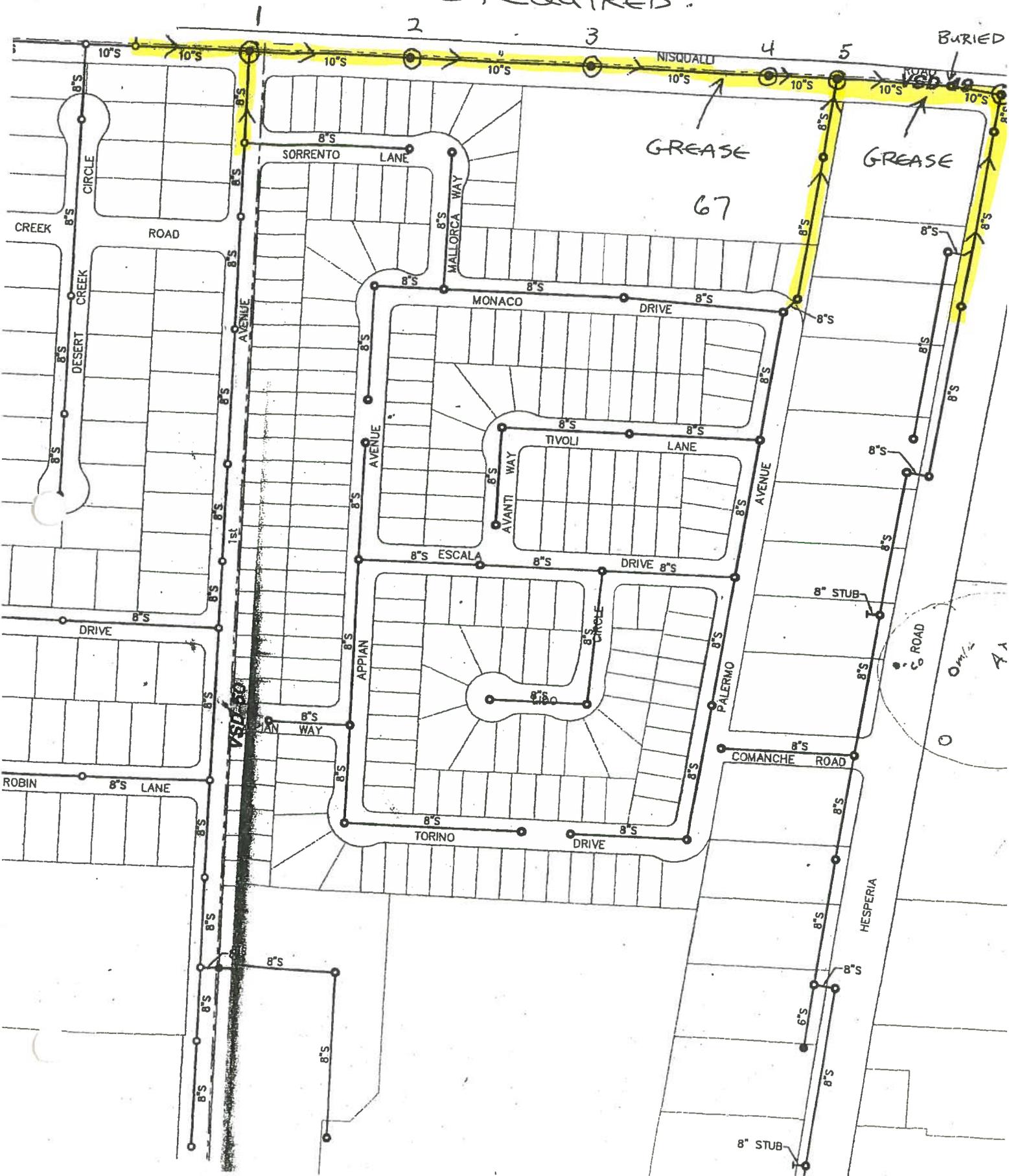
VENT M/H WHILE FLUSH

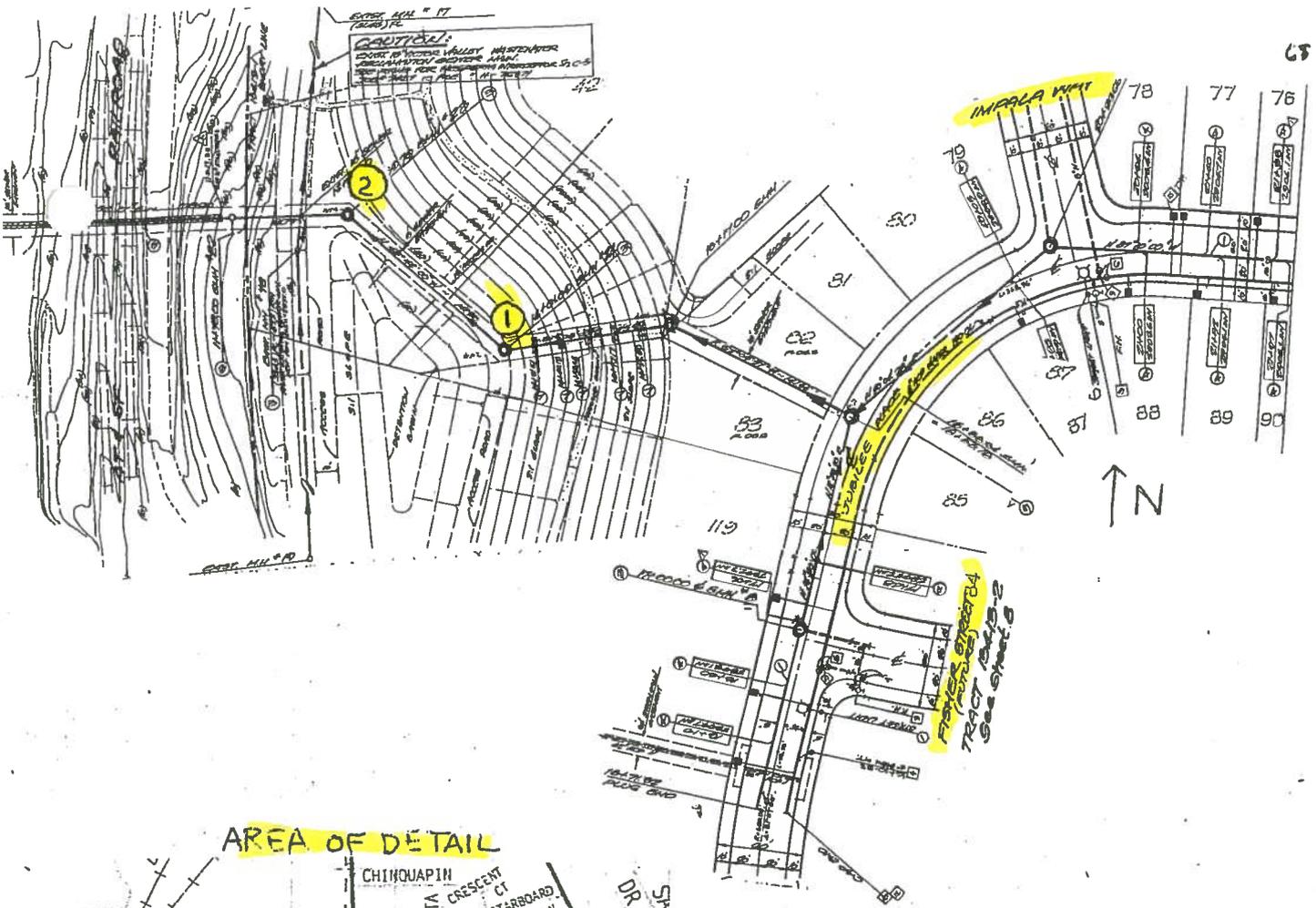
BANK LOS ROBERTO'S REST.

VSD-51

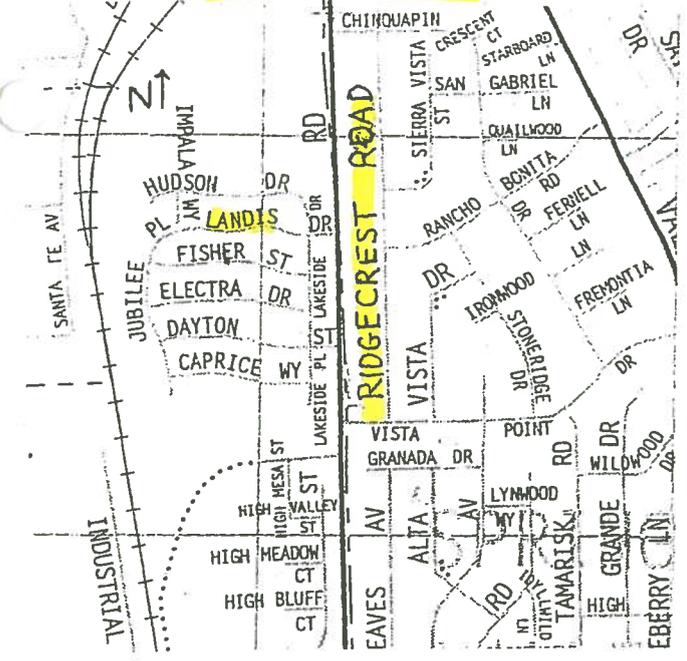
M/HS 1, 2 & 3 CAN BE FLUSHED DURING DAYTIME HO.  
WITH TRAFFIC CONTROL ASSISTANCE AT INTERSECT  
OF NISQUALLI X 1ST AVE.

M/HS #4, 5 & 6 ARE EARLY AM LOCATIONS -  
TRAFFIC CONTROL REQUIRED.

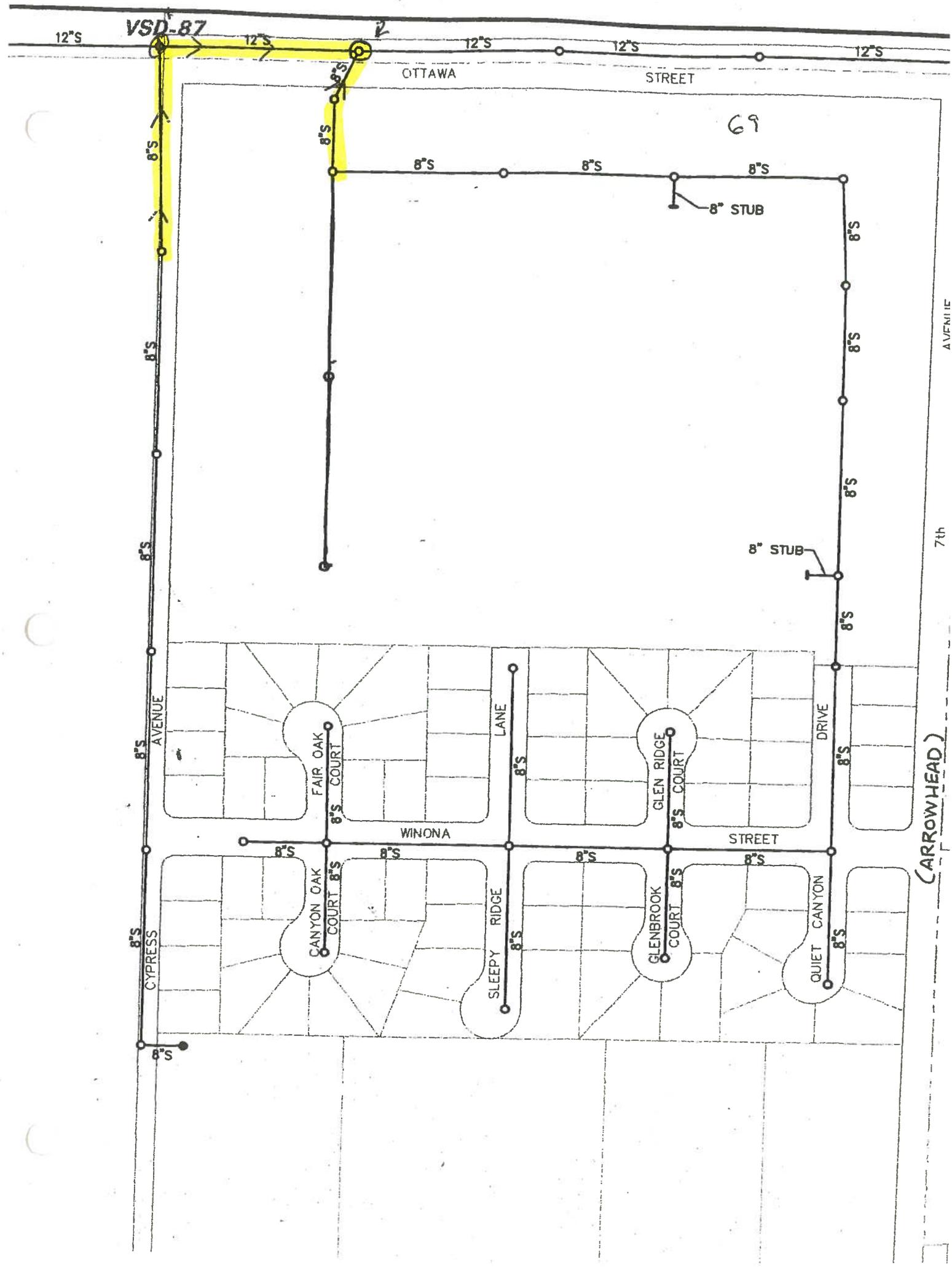




AREA OF DETAIL



BOTH MANHOLES ARE DOWN HILL IN SEWER EASEMENT.  
 SPOT-CHECK ONLY.  
 ROUGH TERRAIN-MUST BE  
 ACCESSED BY 4-WHEEL  
 DRIVE VEHICLE.



70



K.M.H. Parked Over

stumped driver

stumped driver

EX M.H.

VSD-108

AMARGOSA ROAD

ARLETTE DRIVE

SAN JOSE DRIVE

DEL NORTE DRIVE

DAKOTA COURT

DAKOTA STREET

WILDROSE STREET

DAKOTA WAY

CHUPAROSA STREET

STREET

STREET

ROAD

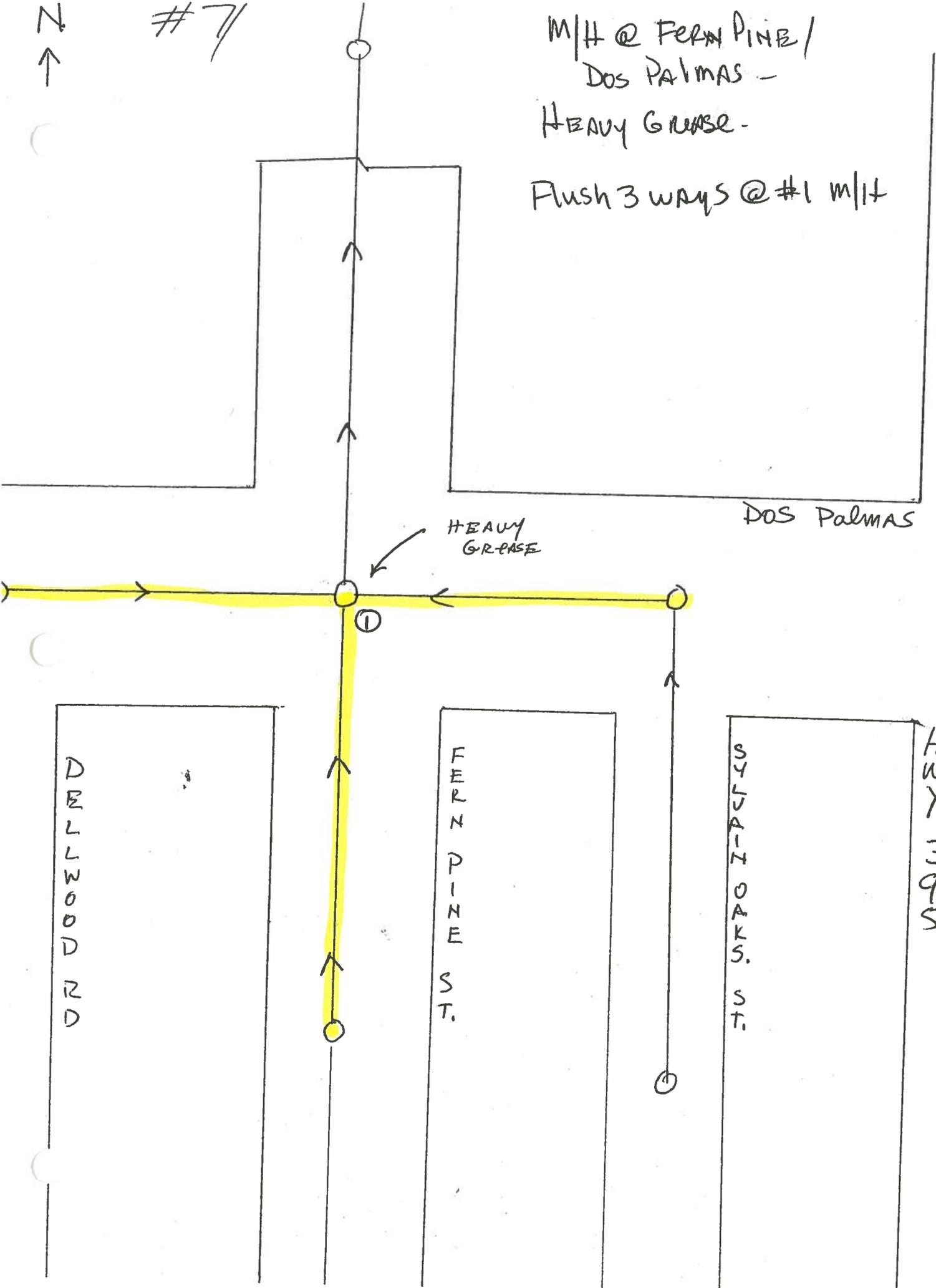
STREET

N  
↑

#7

M/H @ FERN PINE /  
DOS PALMAS -  
HEAVY GRASE.

Flush 3 ways @ #1 M/H



DOS PALMAS

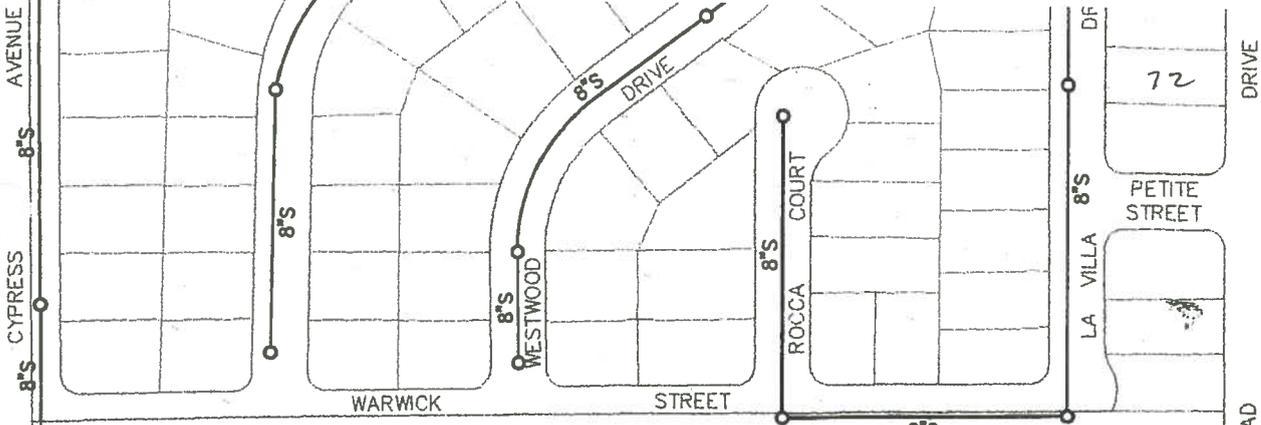
HEAVY  
GRASE

SUNSHINE ST.

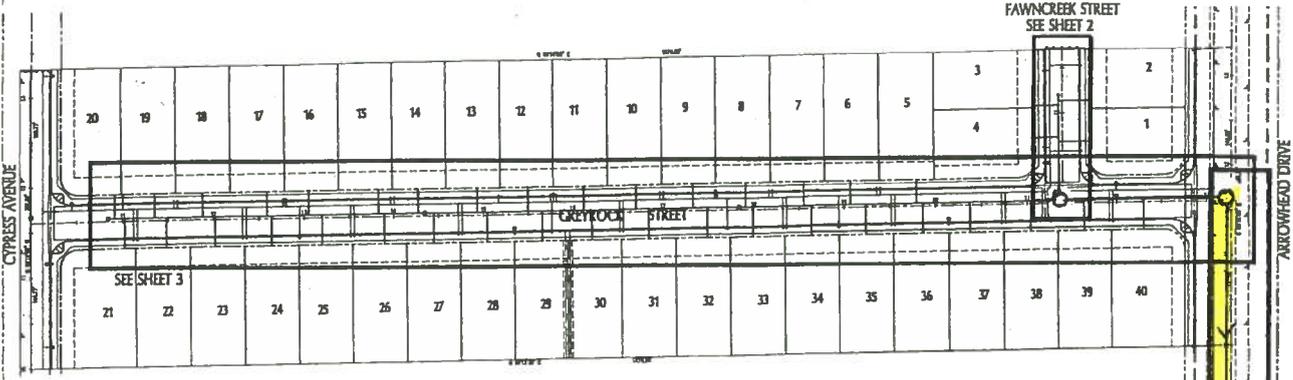
FERN PINE ST.

SUNSHINE ST.

H.W.Y. 395



ARROWHEAD DRIVE



# 73

is 8' up  
N. side of M.H.

- ①
- ②
- ③
- ④

Signs of ...  
F.L.

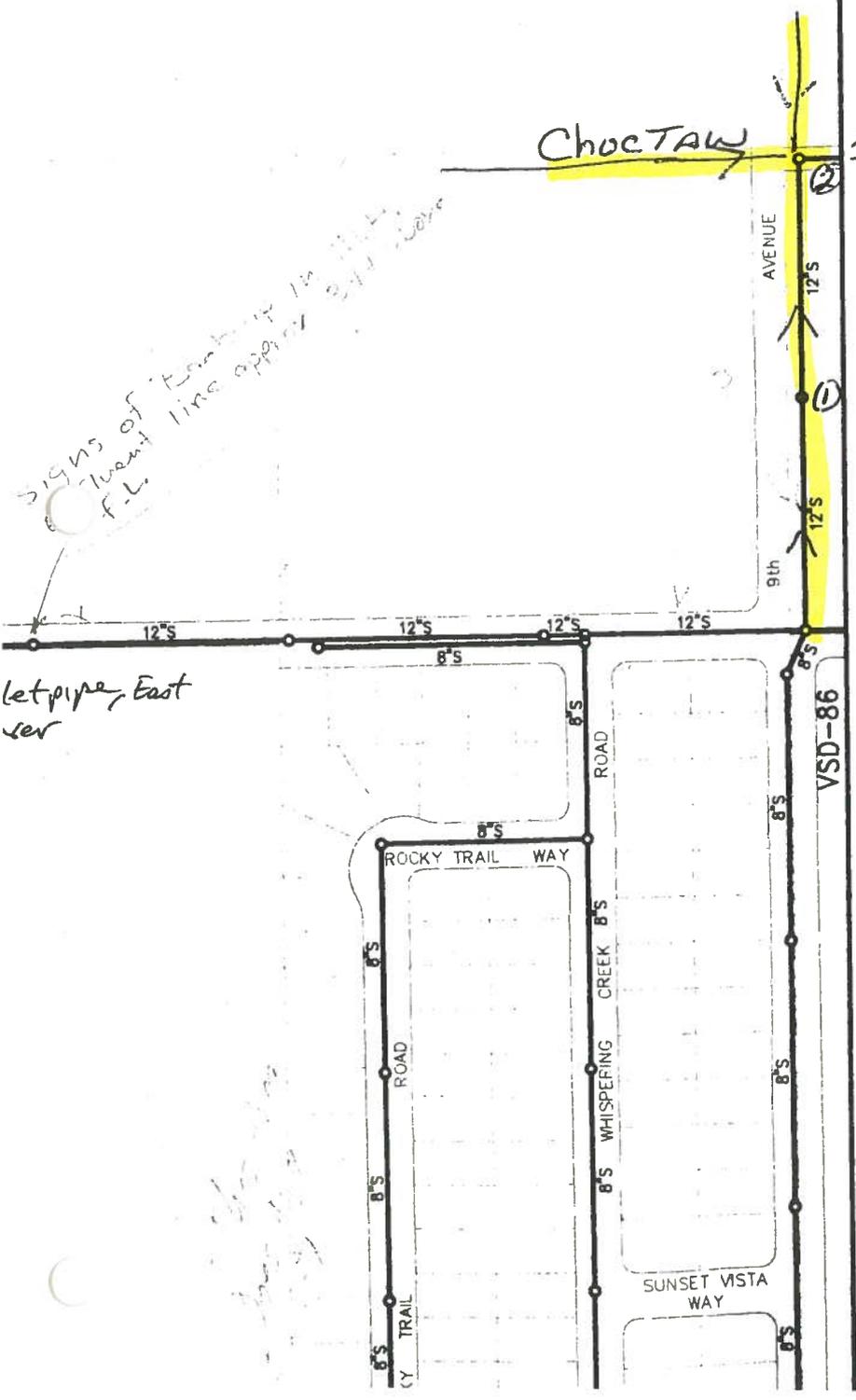
Let pipe, East  
ser

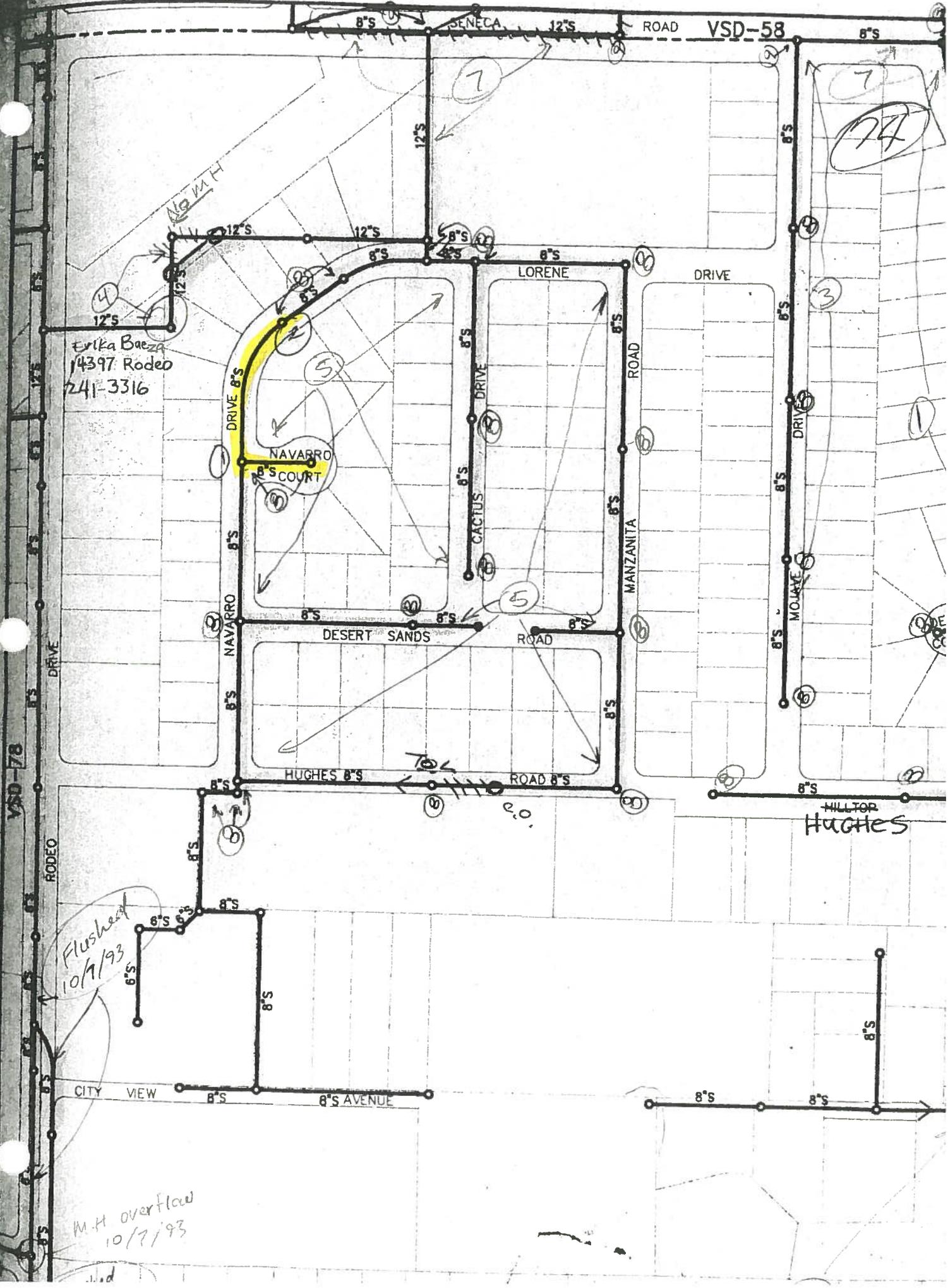
Choctaw

AVENUE

9th

VSD-86





Erika Baeza  
14397 Rodeo  
241-3316

NAVARRO  
8'S COURT

Flushed  
10/7/93

M.H. overflow  
10/7/93

HILLTOP  
HUGHES

7  
74

4

5

7

3

1

5

1

5

5

5

5

5

5

5

5

5

5

5

DRIVE

DRIVE 8'S

NAVARRO 8'S

NAVARRO 8'S

HUGHES 8'S

8'S

8'S AVENUE

8'S

DESERT SANDS ROAD

ROAD 8'S

VSD-58

VSD-78

RODEO DRIVE

CITY VIEW

8'S AVENUE

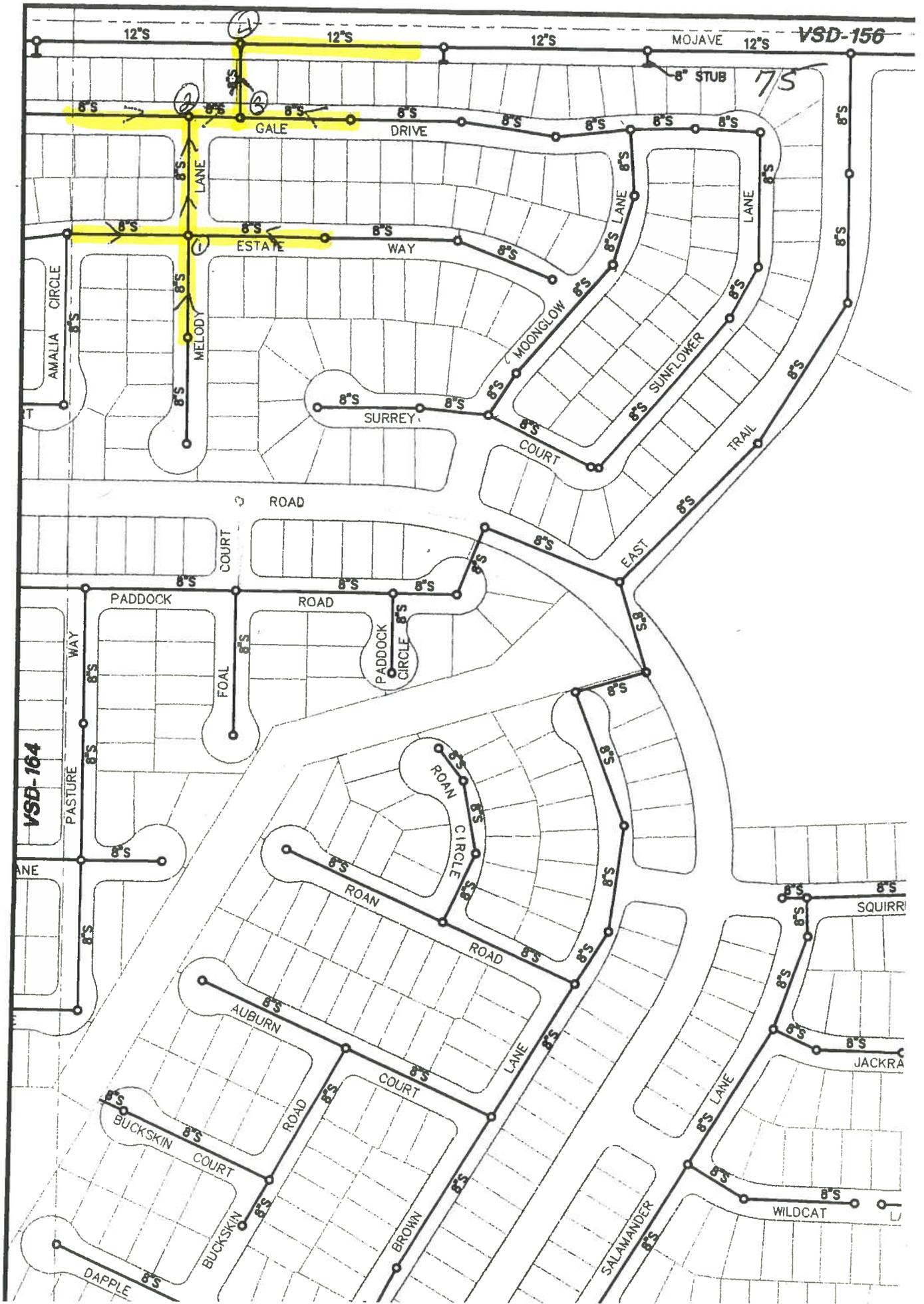
8'S

8'S

8'S

12'S

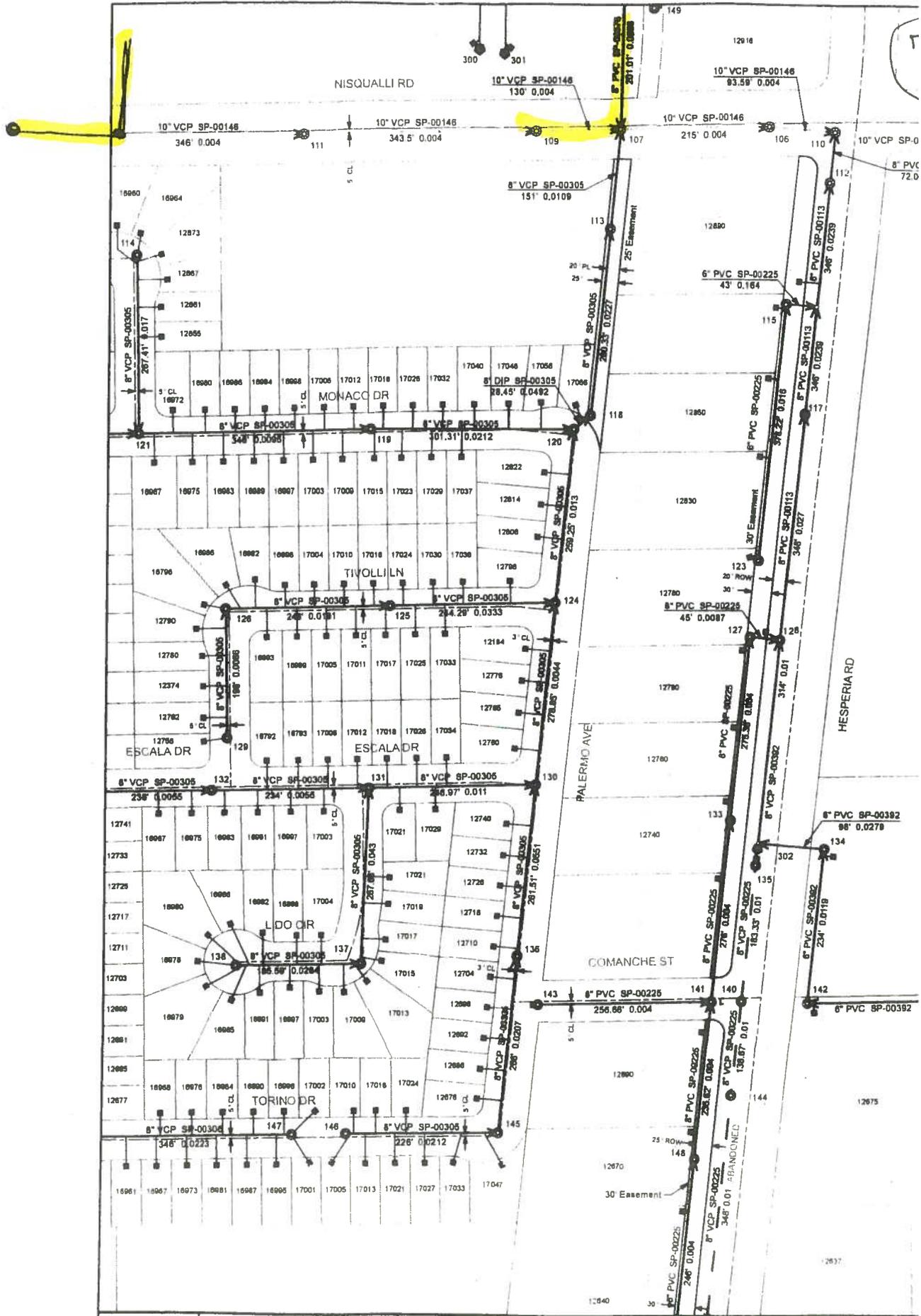
8'S



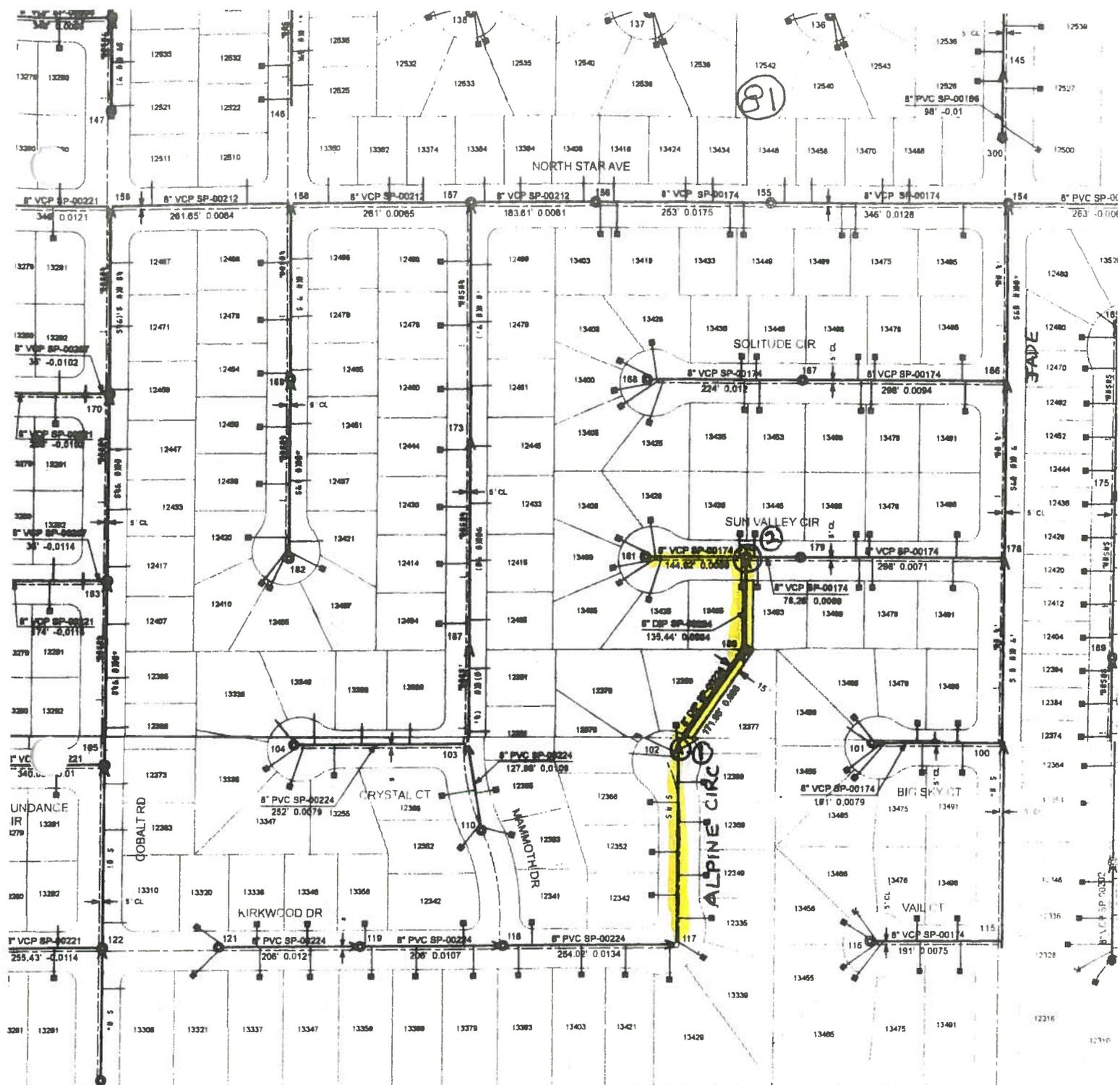










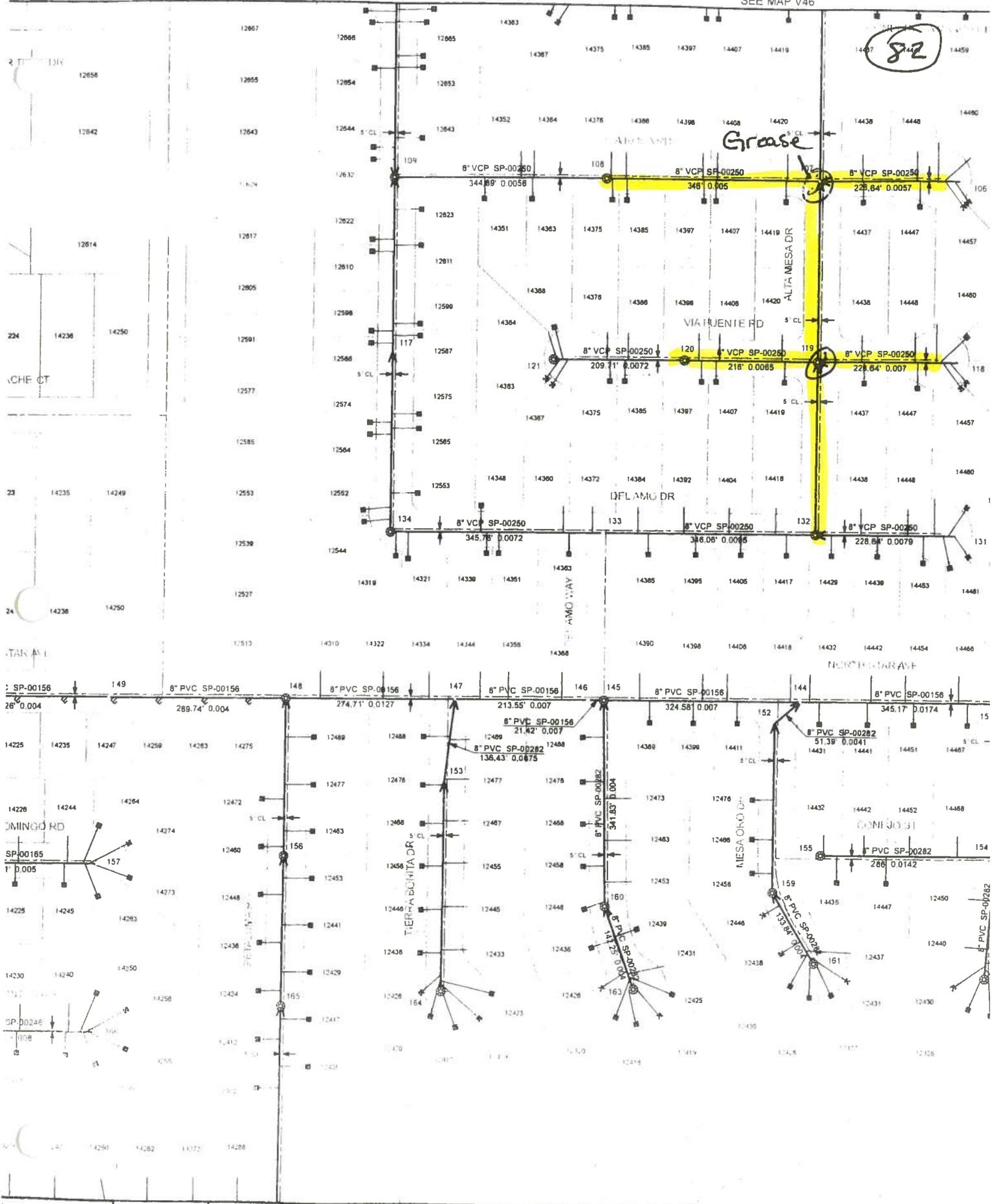


# #81 ALPINE CIRCLE

FLUSH FROM CULDESAC M/H FIRST ON ALPINE CIRCLE.  
 THEN FLUSH FROM SUN VALLEY CIRCLE TO  
 ALPINE CIRCLE (THROUGH EASEMENT DRAINAGE  
 AREA) CALL FOR ASSISTANCE TO VENT  
 M/H.



842



Scale: 1" = 200'

CONSTRUCTION USE

CITY OF VICTORVILLE

Sewer Atlas Book

This Map and accompanying Datasheet represent System facilities. Data provided hereon is not a

## **APPENDIX H**

### **CITY OF VICTORVILLE – ENGINEERING DEPARTMENT STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS**

**CITY OF VICTORVILLE**  
**ENGINEERING DEPARTMENT**  
***STANDARD SPECIFICATIONS FOR***  
***PUBLIC IMPROVEMENTS***

All public improvements constructed by or under the inspection of the City of Victorville shall conform to these specifications and the references contained herein. The design and construction standards used for any project should equal or exceed the minimum given in these Standard Specifications to the maximum extent feasible. The design and construction standards that are set herein are to provide a guide for the engineers and contractors to exercise sound judgment in applying standards with the approval of the City Engineer.

Public improvements undertaken by the City of Victorville may deviate from these specifications with plan and specification approval by the City Engineer. In the event of conflicts between any provision contained in these Standard Specifications and the references contained herein, these Standard Specifications shall govern, unless they conflict with State or Federal regulations.

Date: June 5, 2007

*John A. McGlade*

John A. McGlade, P.E., City Engineer  
R.C.E. 40935, Expires 3/31/09



RESOLUTION NO. 07-159

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF VICTORVILLE AMENDING STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS WITHIN THE CITY AND RESCINDING RESOLUTION NO. 76-027

WHEREAS, the Victorville Subdivision Ordinance No. 458, makes reference to and authorizes the establishment of certain standard specifications for public improvements within the City of Victorville; and

WHEREAS, such standards have been established for the purpose of avoiding excessive maintenance to the City of Victorville and to protect the health, safety and welfare of the general public.

WHEREAS, this resolution supersedes Resolution No. 76-27, which was passed, approved, and adopted on the 19<sup>th</sup> day of April, 1976.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF VICTORVILLE DOES HEREBY RESOLVE AS FOLLOWS:

SECTION 1. That the amended Standard Specifications for Public Improvements dated January 8, 2007, and entitled "City of Victorville Engineering Department Standard Specifications for Public Improvements" are hereby adopted.

SECTION 2. That said Standard Specifications for Public Improvements shall apply to the construction of all public improvements within the City of Victorville insofar as they shall apply.

PASSED, APPROVED AND ADOPTED this 5<sup>th</sup> day of June 2007.



\_\_\_\_\_  
MAYOR OF THE CITY OF VICTORVILLE

ATTEST:



\_\_\_\_\_  
CITY CLERK

APPROVED AS TO FORM:



\_\_\_\_\_  
ASSISTANT CITY ATTORNEY

I, CAROLEE BATES, City Clerk of the City of Victorville and ex-officio Clerk to the City Council of said City, DO HEREBY CERTIFY that the foregoing is a true and correct copy of Resolution No. 07-159 and was adopted at a meeting held on the 5<sup>th</sup> day of June 2007, by the following roll call vote, to wit:

AYES: Councilmembers Almond, Cabriales, Hunter and Rothschild

NOES: None

ABSENT: Mayor Caldwell

ABSTAIN: None



\_\_\_\_\_  
CITY CLERK OF THE CITY OF VICTORVILLE

## **Section VIII - Sewers**

### **1. General**

Sanitary sewers and appurtenances shall be constructed as shown on the Plans in accordance with these Standard Specifications and Drawings and the Standard Specifications for Public Works Construction and Section 64630, Title 22, of California Administrative Code regarding water and sewer separation.

### **2. Materials**

- A. Concrete – Concrete for manhole bases, sewer saddles, etc. shall be Class 1 with a compressive strength of 3250 PSI.
- B. Sewer Pipe – Sewer pipe and fittings shall conform to the standards set forth by ASTM. Sewer pipe and fittings shall be extra strength Vitrified Clay Pipe (VCP) per ASTM Standard C-700 or Polyvinyl Chloride Pipe (PVC) per one of these ASTM Standards; D-2680, D-3034 and F-679, with an SDR value not more than 35 or F-949. Pipe lengths shall not exceed 20 feet. Joints shall be push-on type bell and spigot with Elastomeric Ring Gaskets, per ASTM Standard Specifications F-477 and D-3212.
- C. Manholes – Manholes shall be constructed from pre-cast concrete sections per Standard Drawing SS-01.
- D. Frames and Covers – Frames and covers shall be cast-iron painted with a black bituminous paint. Manhole frame and cover shall be per Standard Drawing SS-02 and have a 24-inch diameter clear opening and shall be inscribed "Victorville" or "City of Victorville" and "Sewer." Clean out frame and cover shall have a ten-inch diameter clear opening and be inscribed "Sewer." All lettering shall be a minimum of one-inch in height.

### **3. Construction**

Mainline sanitary sewers shall be eight-inch diameter minimum and shall be constructed in the street with centerline sewer pipe, five-feet minimum from street centerline. Typically, centerline sewer pipe is installed five-feet off centerline street. Residential laterals shall be four-inch diameter minimum and commercial laterals shall be six-inch diameter minimum. Lateral shall be spaced at five-foot centers minimum and five feet clear of manholes, per Standard Drawing SS-03. Cover on mainline sewer is five-feet minimum unless concrete encased or special pipe approved by the engineer is used, then three-feet minimum. Laterals shall have four-foot minimum cover unless concrete encased or special pipe approved by the engineer is used, then three-foot minimum. Note: On shallow mainline sewer laterals, it may be impossible to construct due to cover requirements.

Sewer pipe shall be installed on straight line and straight grade. Flowline grade on mainline sewer shall be 0.5 percent minimum unless special conditions warrant, then flowline grade may be reduced to 0.4 percent with City Engineer's approval. Mainline in all cul-de-sacs and end of line with 24 or fewer lateral connections shall have a minimum flow line grade of 0.5 percent. Lateral shall have one percent minimum grade on six-inch diameter pipe and two percent minimum on four-inch diameter pipe. Sewer lines shall be designed to maintain two-feet per second flow velocity, assuming three-quarter full on trunk lines and one-half full on mainline. Pipe bedding shall be per Standard Drawings SS-05.

Sewer lines shall be installed below and as far from water mains as possible. Provide a minimum of ten-feet horizontal separation and one-foot vertical separation between sewer mains and laterals and water distribution lines. If the horizontal separation between sewer and water main must be less than ten-feet and the sewer is more than one-foot below the water main, special construction as approved by the City Engineer is required.

Backflow preventors shall be installed on all laterals if such lateral is connected to a ten-inch or larger mainline.

Manholes shall be constructed per Standard Drawing SS-01 and shall be spaced at 350-foot center maximum. A manhole shall be constructed for joining any lateral eight-inches diameter or larger to the mainline. Cleanouts may be used at the end for mainline sewer runs less than 175-feet per Standard Drawing SS-04. Invert elevations shall provide 0.10-foot fall through manhole on straight runs and 0.20-foot fall for side runs except if downstream pipe is a larger diameter; then match overt elevations.

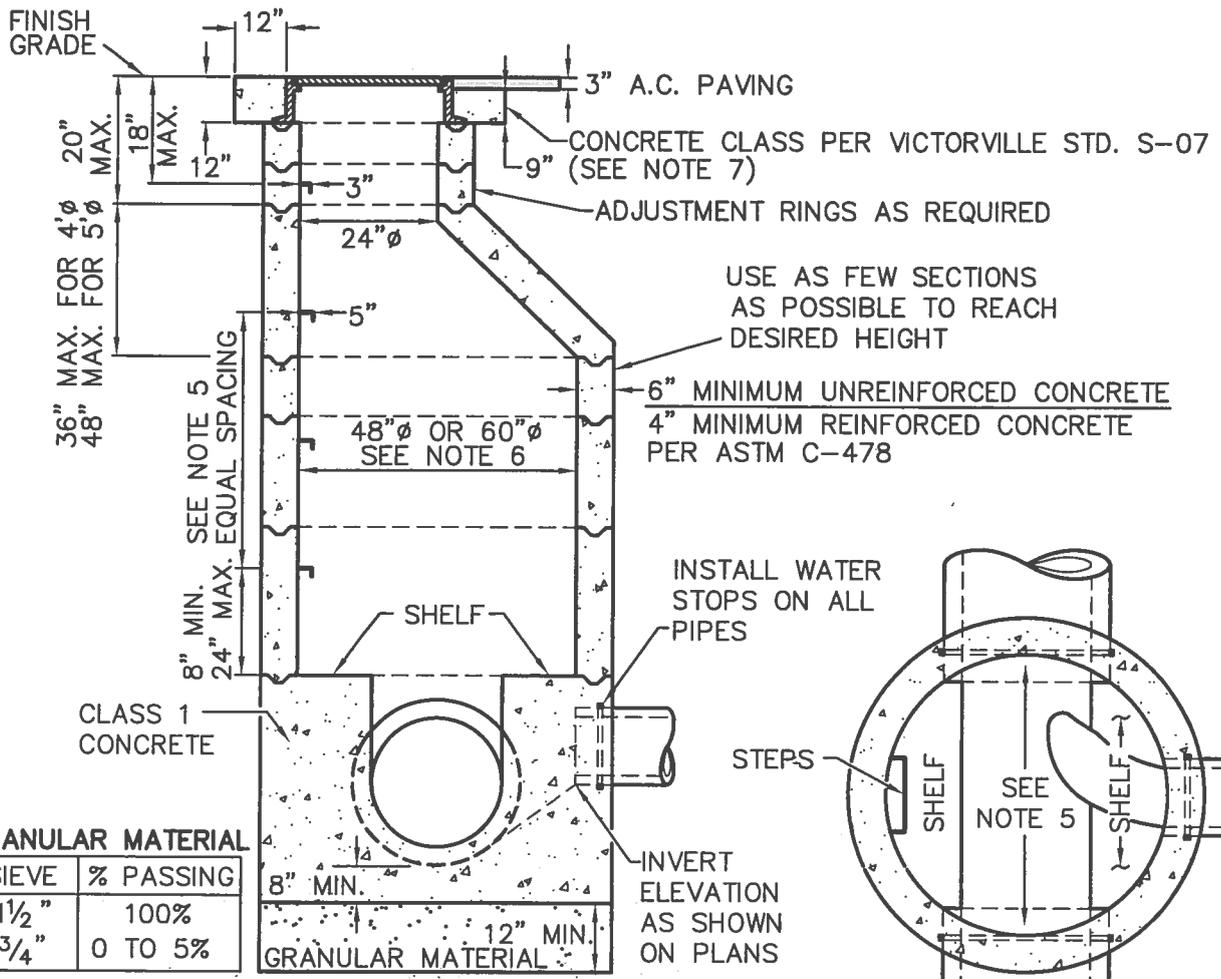
Trunk line sewers are defined as those having a minimum capacity of 1.5 MGD when depth of flow divided by pipe diameter is equal to 0.75 ft., which are identified in the latest Sewer Master Plan. Cover on trunk line sewer is a minimum of eight feet.

#### **4. Testing**

After the sewer mainline cleaning (balling) to remove dirt and debris and a minimum of 14 days following completion of construction, the maximum deflection allowed on PVC pipe shall be checked by pulling a rigid nine-sided mandrel with a minimum diameter as specified in Section 306-1.2.12 of the Standard Specifications for Public Works Construction. Then a leakage air pressure test shall be run for all mainline and trunk sewers per Section 306-1.4.4 of the Standard Specifications for Public Works Construction. Any failures of these tests shall be corrected prior to the next test and final acceptance by the City.



# STANDARD DRAWINGS



**GRANULAR MATERIAL**

SIEVE	% PASSING
1 1/2"	100%
3/4"	0 TO 5%

GRANULAR MATERIAL ALL MANHOLES  
IF INVERT IS WITHIN 8" OF GROUNDWATER

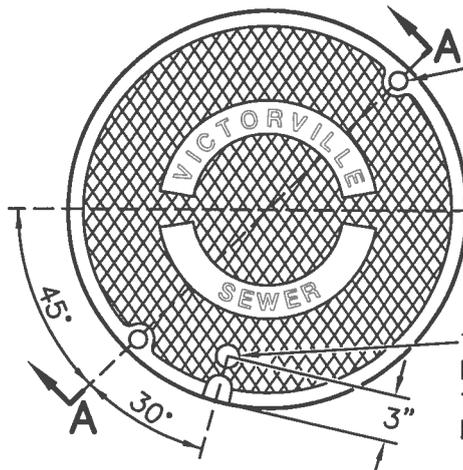
**NOTES:**

**SECTION**

**PLAN**

1. ALL SECTIONS TO BE SET IN 1:3 MORTAR TRIMMED SMOOTH INSIDE.
2. CONCRETE FOR MANHOLE SECTIONS SHALL BE 3000 P.S.I. MINIMUM.
3. PROVIDE FLEXIBLE JOINT IN ALL SEWER PIPE OUTSIDE OF MANHOLE BUT WITHIN 12" OF CONCRETE BASE.
4. MANHOLE STEPS SHALL BE ALHAMBRA FOUNDRY A3320 OR EQUAL. INSTALL AT 12" MINIMUM TO 16" MAXIMUM EQUAL SPACINGS.
5. FOR ALL PIPE SIZES THE TOP HALF OF THE PIPE SHALL BE REMOVED TO THE CONTOUR OF THE INSIDE OF THE MANHOLE AND THE BROKEN EDGES SHALL BE TROWELED SMOOTH WITH CEMENT MORTAR PROVIDING A MONOLITHIC BASE.
6. 60" SHAFT DIAMETER SHALL BE USED FOR MANHOLES WITH A) 18"Ø OR LARGER OR B) WHERE 2 OR MORE INLETS EXIST.
7. IN AREAS WHERE MANHOLE IS IN A DIRT EASEMENT, A MINIMUM 12" WIDE BY 12" DEEP PAD OR PRE-CAST FRAME AND LID WILL BE REQUIRED AROUND MANHOLE LID AND FRAME.

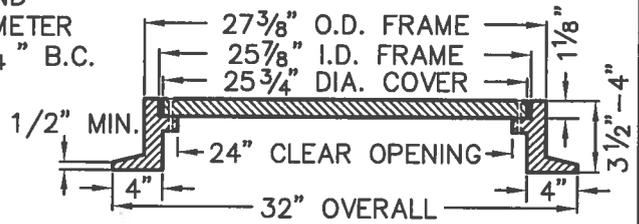
REV.	DATE	BY	CITY OF VICTORVILLE - ENGINEERING DEPARTMENT	
	11/5/75	T.D.W.	<b>SANITARY SEWER MANHOLE</b>	<b>SS-01</b>
1	3/12/93	D.G.H.		
2	7/25/07	STAFF		
			JOHN A. MCGLADE, CITY ENGINEER	SHEET 1 OF 1



COUNTERBORE  $1\frac{1}{8}$ "  
 $\times$   $\frac{5}{16}$ " DEEP AND  
 DRILL  $\frac{7}{16}$ " DIAMETER  
 HOLE ON  $23\frac{1}{4}$ " B.C.  
 (2 PLACES)

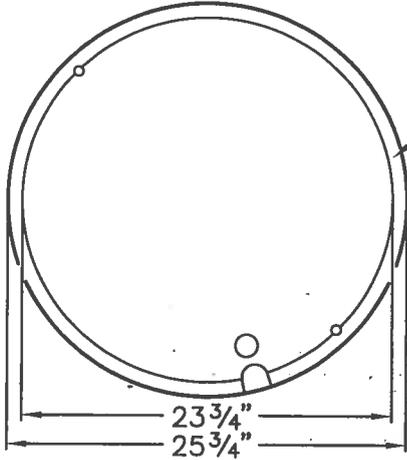
$1\frac{1}{2}$ "  $\times$   $1\frac{1}{2}$ " OPEN  
 EDGE PICKHOLE WITH  
 1" DIAMETER HOLE 3"  
 FROM EDGE OF COVER

**PLATEN COVER  
 TOP VIEW**



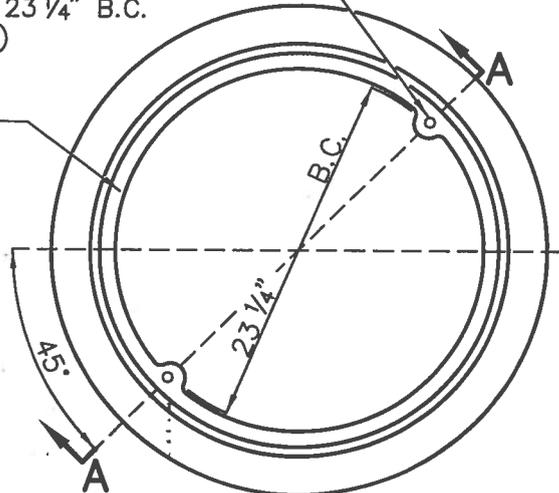
**SECTION A-A**

DRILL AND TAP FRAME  
 FOR  $\frac{3}{8}$ "-16"  $\times$   $1\frac{1}{2}$ "  
 SOCKET SET SCREW  
 BOLTS ON  $23\frac{1}{4}$ " B.C.  
 (2 PLACES)



**PLATEN COVER  
 BOTTOM VIEW**

MACHINED  
 SURFACE



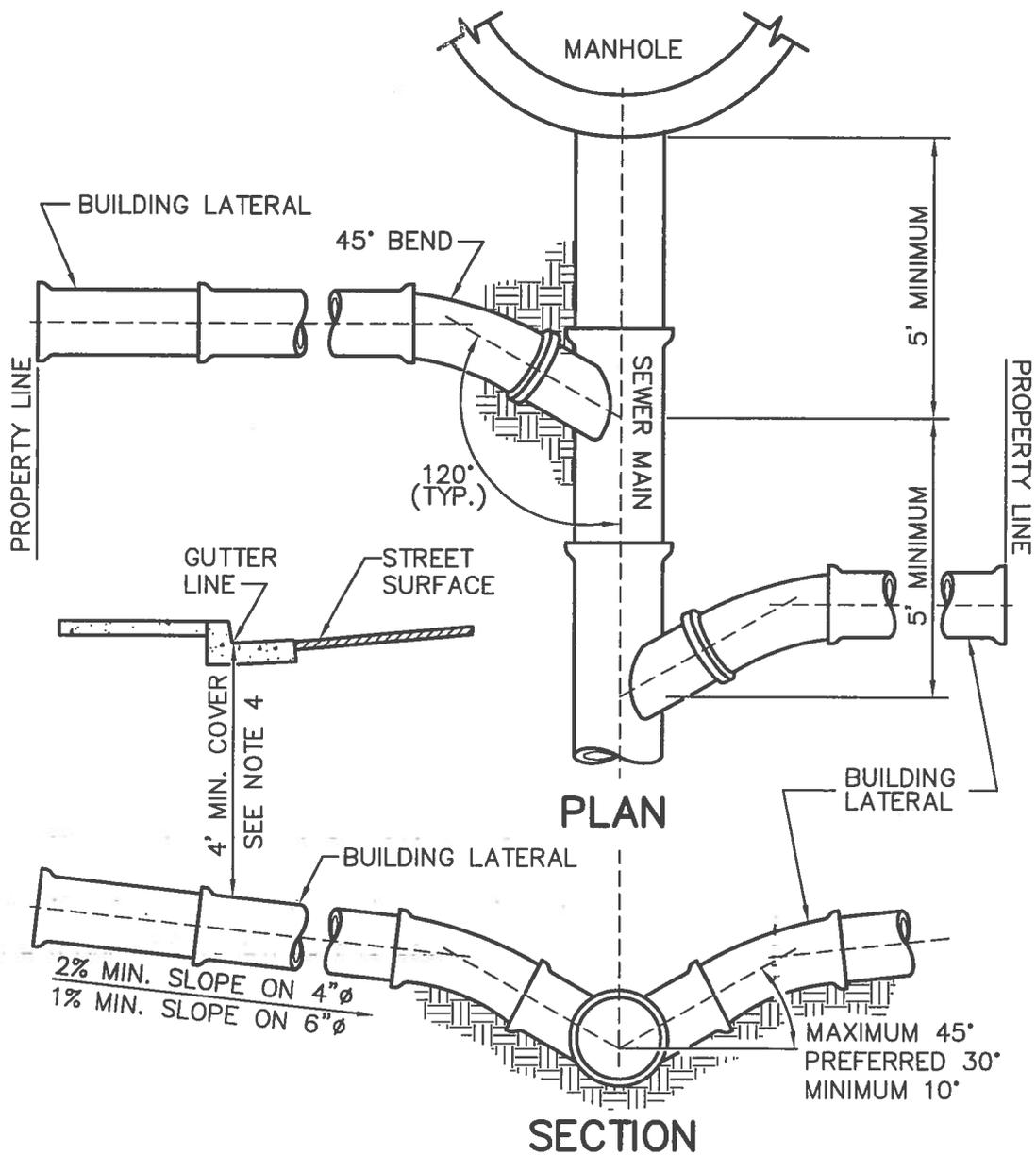
**PLAN OF FRAME**

**NOTES:**

1. MANHOLE FRAME AND COVER TO BE MANUFACTURED FROM CLASS 35 CAST IRON PER ASTM A-48.
2. FRAME AND COVER SHALL BE CAPABLE OF SUPPORTING H-20 WHEEL LOADING.
3. COVER SHALL HAVE CAST INTO TOP IN 1" HIGH MINIMUM BLOCK LETTERS "VICTORVILLE" OR "CITY OF VICTORVILLE" AND "SEWER". MANUFACTURER'S NAME OR INSIGNIA SHALL BE CAST INTO BOTH FRAME AND COVER.
4. MACHINE MATING SURFACES OF FRAME AND COVER TO PROVIDE UNIFORM EDGE SUPPORT FOR COVER.
5. PAINT FRAME AND COVER WITH BLACK BITUMINOUS PAINT.
6. APPROVED SUPPLIERS: ALHAMBRA FOUNDRY #1254, NEENAH FOUNDRY #R-1593 AND SOUTH BAY FOUNDRY #SBF1253B.

**CITY OF VICTORVILLE - ENGINEERING DEPARTMENT**

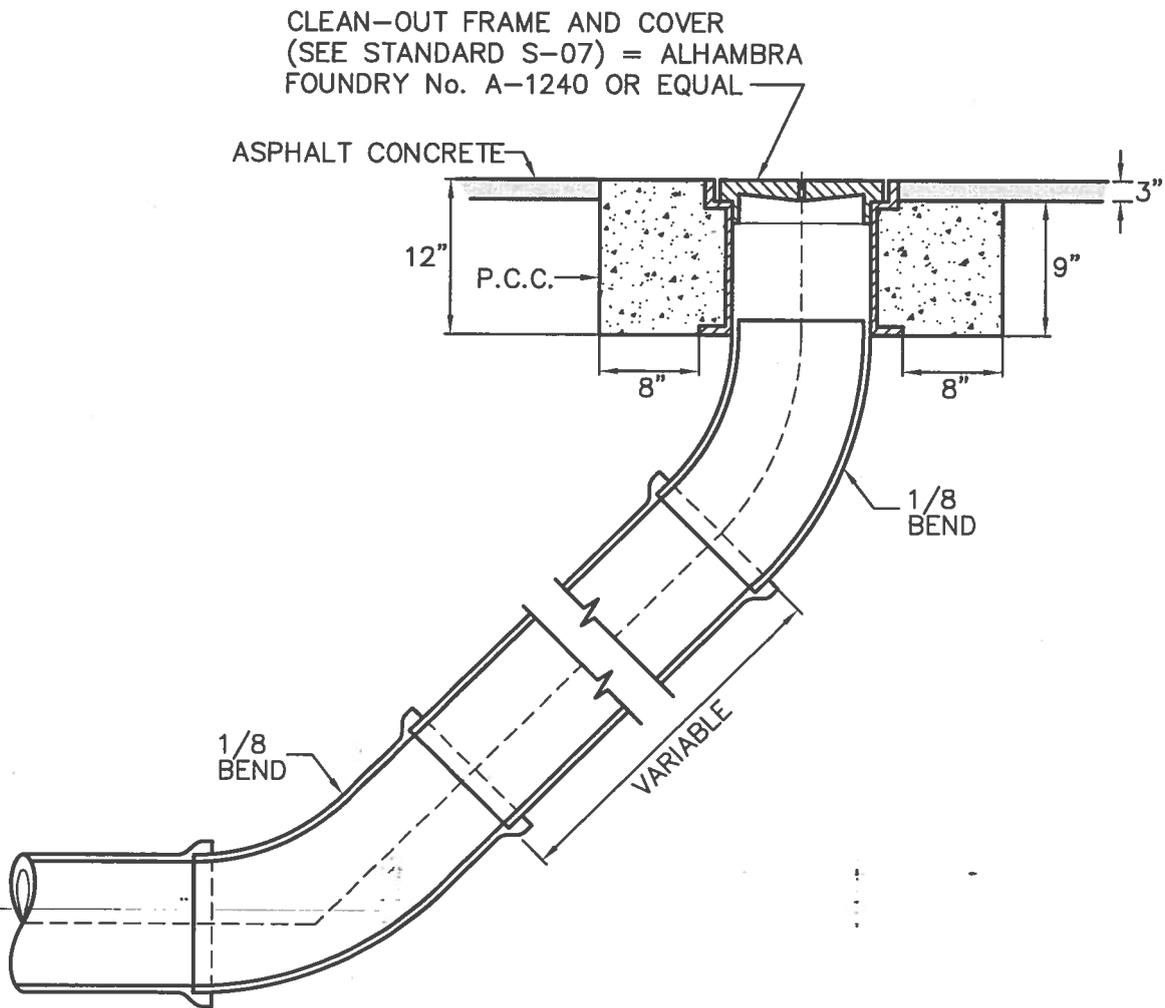
REV.	DATE	BY	SANITARY SEWER MANHOLE FRAME AND COVER	SS-02
	5/18/93	D.G.H.		
1	6/1/07	STAFF	JOHN A. McGLADE, CITY ENGINEER	SHEET 1 OF 1



**NOTES:**

1. USE FACTORY MADE WYES, FITTINGS AND SEWER LATERAL PIPE OF THE SAME MATERIAL AS THE MAIN LINE SEWER FOR NEW INSTALLATIONS OR USE COMPATIBLE WYES AND FITTINGS TO JOIN LATERALS AND MAIN LINE SEWERS OF DIFFERENT MATERIALS.
2. SEWER LATERALS ON EXISTING MAIN LINE SEWER SHALL USE SEWER SADDLES PER CITY STANDARD DRAWING SS-09.
3. PIPE BEDDING FOR LATERALS SHALL CONFORM TO STANDARD DRAWING SS-05.
4. COVER MAY BE REDUCED TO 3' IF CONCRETE ENCASED OR SPECIAL PIPE APPROVED BY THE ENGINEER IS USED.

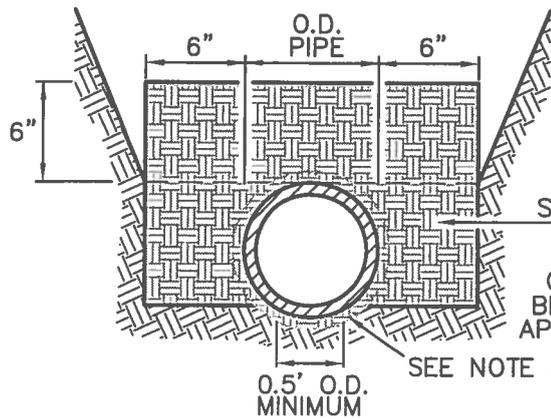
REV.	DATE	BY	CITY OF VICTORVILLE - ENGINEERING DEPARTMENT	
	1/23/67		<b>SEWER LATERALS</b>	
1	3/22/93	D.G.H.	<b>SS-03</b>	
2	6/1/07	STAFF	JOHN A. MCGLADE, CITY ENGINEER	SHEET 1 OF 1



**NOTES:**

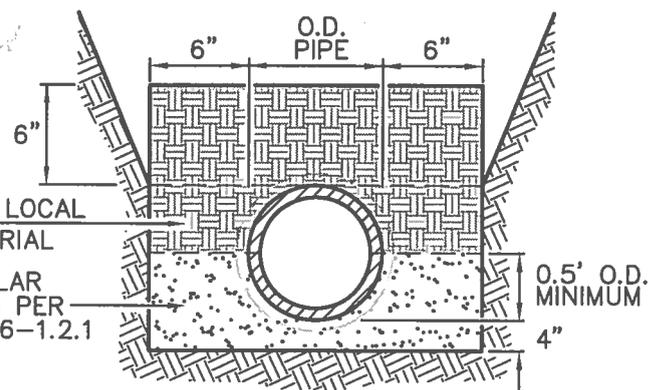
1. NO CLEAN-OUT SHALL BE PLACED IN FRONT OF DRIVEWAYS EXCEPT ON CUL-DE-SACS.
2. CONCRETE SHALL CONTAIN NOT LESS THAN 550 POUNDS OF CEMENTITIOUS MATERIAL PER CUBIC YARD WITH 4% AIR ENTRAINMENT.
3. FINISH GRADE STAKE SHALL BE SET AT EACH CLEAN-OUT TO CONFIRM MAXIMUM DEPTH OF 1/8 BEND IS NOT EXCEEDED.

REV.	DATE	BY	CITY OF VICTORVILLE - ENGINEERING DEPARTMENT	
1/23/67	PATTERSON		<b>SEWER CLEAN-OUT</b>	<b>SS-04</b>
1	3/22/93	D.G.H.		
2	7/25/07	STAFF	JOHN A. MCGLADE, CITY ENGINEER	SHEET 1 OF 1



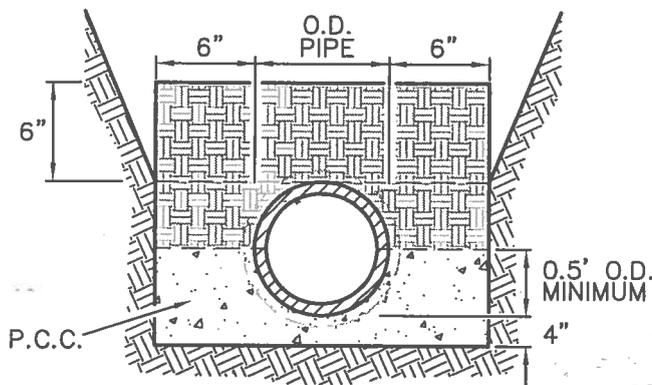
**NORMAL BEDDING**

LINEAR FEET = 1.5



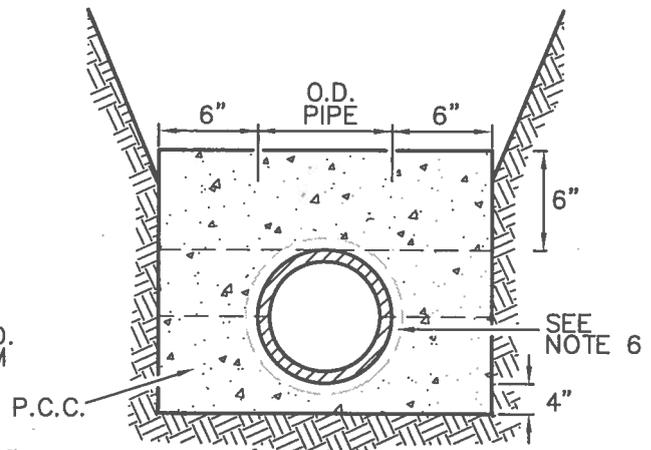
**GRANULAR BEDDING**

LINEAR FEET = 1.9



**CONCRETE CRADLE**

LINEAR FEET = 3.0



**CONCRETE ENCASEMENT**

LINEAR FEET = 4.5

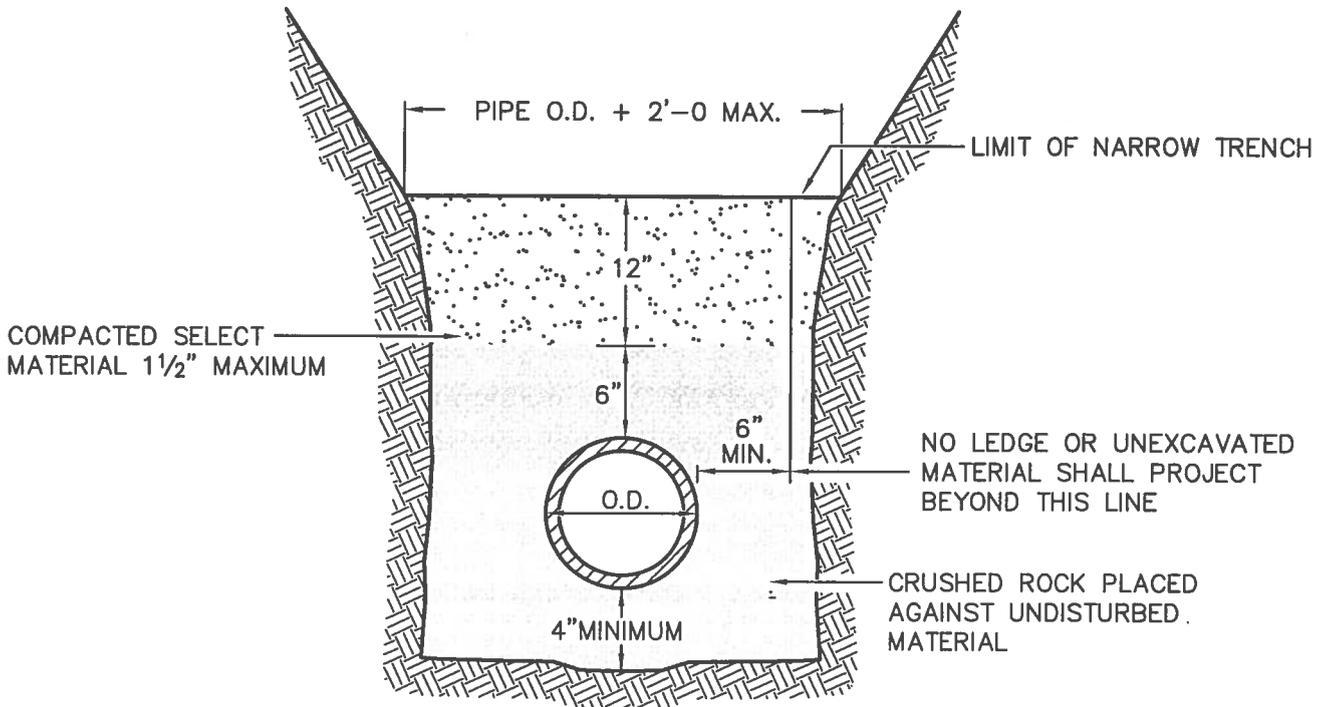
**NOTES:**

1. WIDTH OF TRENCH AT TOP OF PIPE SHALL BE 21" MINIMUM.
2. CONCRETE SHALL BE MINOR CONCRETE PER SECTION 90 OF STANDARD SPECIFICATIONS.
3. BEDDING SHALL BE PLACED IN 6" LAYERS AND MECHANICALLY COMPACTED TO A HEIGHT OF 6" ABOVE THE TOP OF THE PIPE.
4. TRENCH EXCAVATION AND BACKFILL SHALL BE IN ACCORDANCE WITH SECTION 306.1 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND CITY STANDARD DRAWING S-10.
5. HAND SHAPED BOTTOM EITHER IN UNDISTURBED SOIL OR IN APPROVED GRANULAR MATERIAL AT LEAST 1" BELOW BELL OR COLLAR.
6. PLACE ONE LAYER OF 15# BUILDING PAPER AS BOND BREAKER AROUND PIPE AND COUPLINGS.

REV.	DATE	BY
------	------	----

**CITY OF VICTORVILLE - ENGINEERING DEPARTMENT**

	1/24/67	R.S.	<b>CLAY SEWER PIPE BEDDING</b>	<b>SS-05</b>
1	3/23/93	D.G.H.		
2	6/1/07	STAFF	JOHN A. McGLADE, CITY ENGINEER	SHEET 1 OF 2

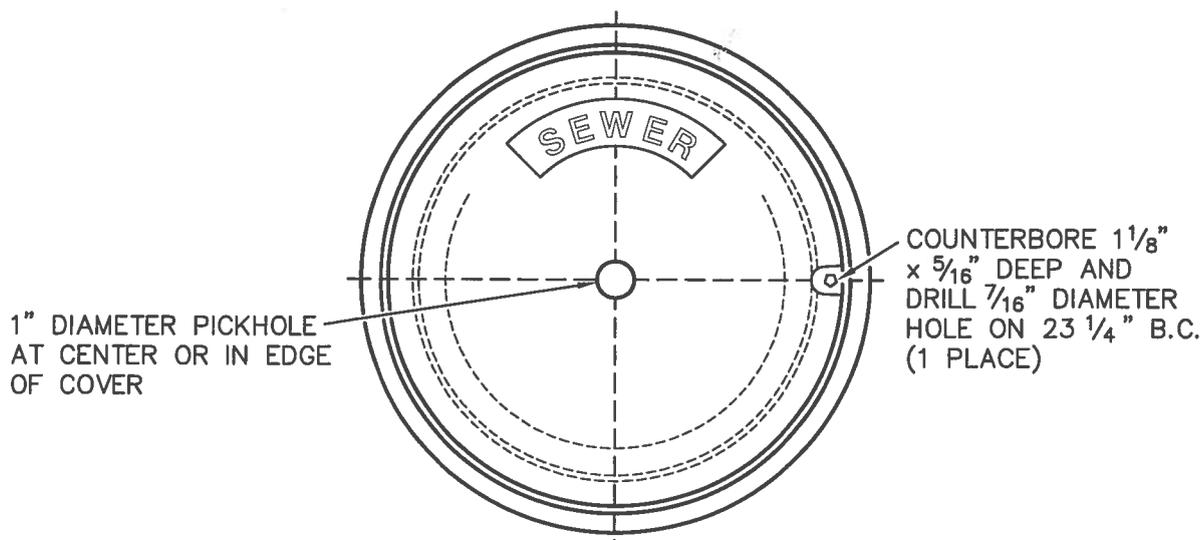


**PVC PIPE BEDDING**  
NOT TO SCALE

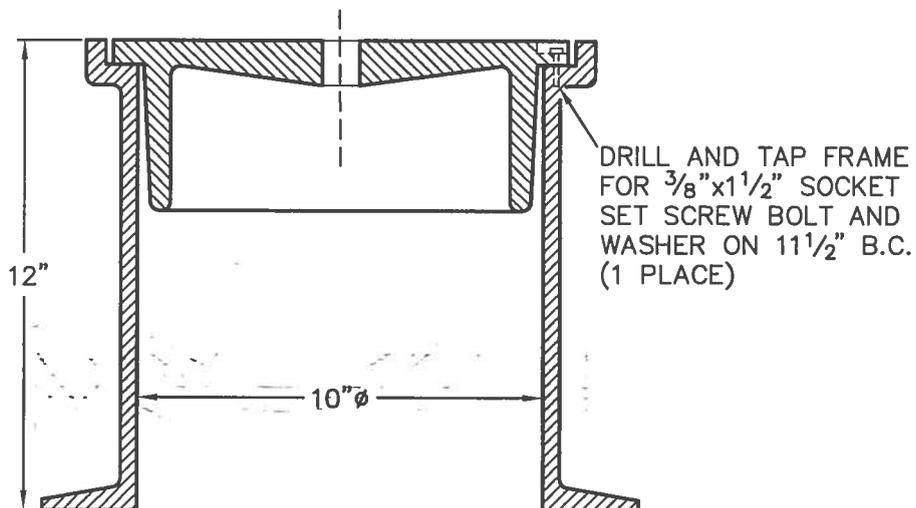
**NOTES:**

1. P.V.C. PIPE SHALL CONFORM TO THE REQUIREMENTS OF ASTM D-2680, D-3034 AND F-679 WITH AN SDR VALUE NOT MORE THAN 35 OR F-949.
2. BEDDING SHALL BE PLACED IN 6" LAYERS AND MECHANICALLY COMPACTED TO 12" ABOVE PIPE.
3. TRENCH EXCAVATION AND BACKFILL SHALL BE PER SECTION 306.1 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND CITY STANDARD DRAWING S-10.
4. THE CRUSHED ROCK BEDDING SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION 306-1.2.13.

REV.	DATE	BY	CITY OF VICTORVILLE - ENGINEERING DEPARTMENT	
	7/28/89	R.S.	<b>PVC SEWER PIPE BEDDING</b>	<b>SS-05</b>
1	3/23/93	D.G.H.		
2	6/1/07	STAFF		
			JOHN A. McGLADE, CITY ENGINEER	SHEET 2 OF 2



PLAN OF FRAME



SECTION THROUGH FRAME AND COVER

**NOTES:**

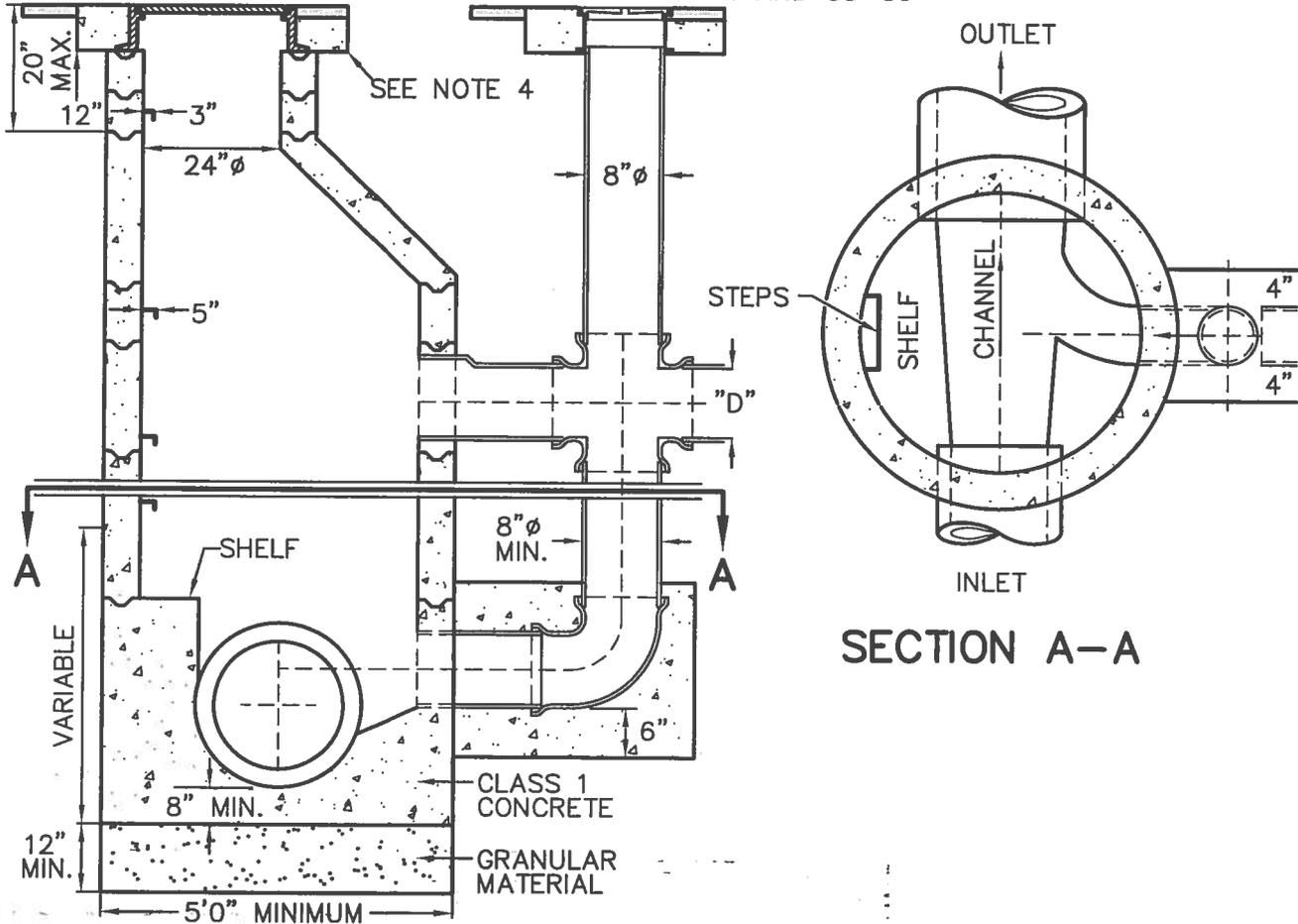
1. MANHOLE FRAME AND COVER TO BE MANUFACTURED FROM CLASS 35 CAST IRON PER ASTM A-48.
2. FRAME AND COVER SHALL BE CAPABLE OF SUPPORTING H-20 WHEEL LOADING.
3. COVER SHALL HAVE CAST INTO TOP IN 1" HIGH MINIMUM BLOCK LETTERS "SEWER", MANUFACTURER'S NAME OR INSIGNIA SHALL BE CAST INTO BOTH FRAME AND COVER.
4. PAINT FRAME AND COVER WITH BLACK BITUMINOUS PAINT.
5. APPROVED SUPPLIERS: ALHAMBRA FOUNDRY A-1240.

**CITY OF VICTORVILLE - ENGINEERING DEPARTMENT**

REV.	DATE	BY	<b>CLEAN-OUT FRAME AND COVER</b>	<b>SS-06</b>
	5/18/93	D.G.H.		
1	6/1/07	STAFF	JOHN A. McGLADE, CITY ENGINEER	SHEET 1 OF 1

MANHOLE FRAME AND COVER  
PER STANDARD DRAWING SS-02

CLEAN-OUT PER STANDARD  
DRAWING SS-04 AND SS-06  $\triangle$



SANITARY SEWER MANHOLE  
PER STANDARD DRAWING SS-01

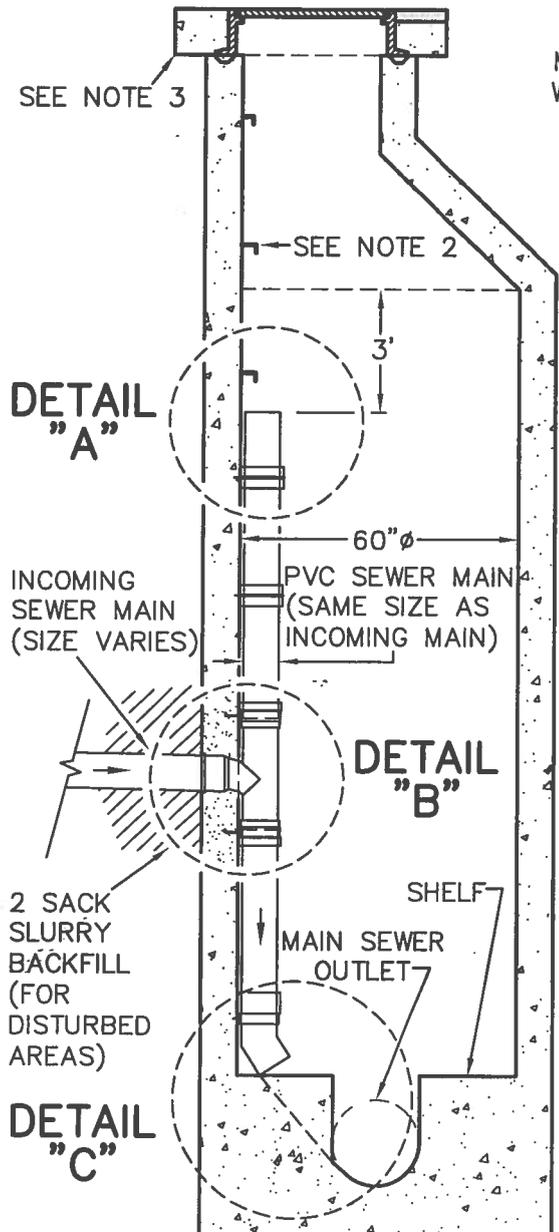
## SECTION

### NOTES:

1. WHEN PIPE IS LAID THROUGH THE MANHOLE, THE TOP HALF OF THE PIPE SHALL BE REMOVED TO THE CONTOUR OF THE INSIDE OF THE MANHOLE AND THE BROKEN EDGE SHALL BE PLASTERED SMOOTH WITH CEMENT MORTAR.
2. CONCRETE SHALL BE CLASS 1 PER SECTION 90 OF STANDARD SPECIFICATIONS.
3. PROVIDE FLEXIBLE JOINT IN MANHOLE WALL OR WITHIN 2'0" OF OUTSIDE FACE FOR VCP ONLY.
4. IN AREAS WHERE MANHOLE IS IN A DIRT EASEMENT, A MINIMUM 12" WIDE BY 12" DEEP PAD OR PRE-CAST FRAME AND LID WILL BE REQUIRED AROUND MANHOLE LID AND FRAME.

REV.	DATE	BY	CITY OF VICTORVILLE - ENGINEERING DEPARTMENT	
1/20/94	BLOMQUIST		<b>SANITARY SEWER DROP MANHOLE</b>	<b>SS-07</b>
$\triangle$	4/26/99	H.A.A.		
2	7/25/07	STAFF	JOHN A. MCGLADE, CITY ENGINEER	SHEET 1 OF 1

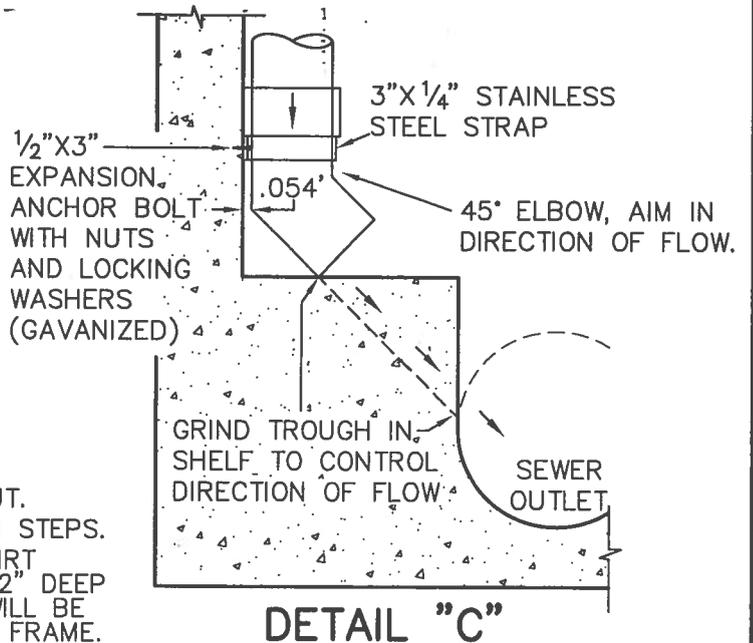
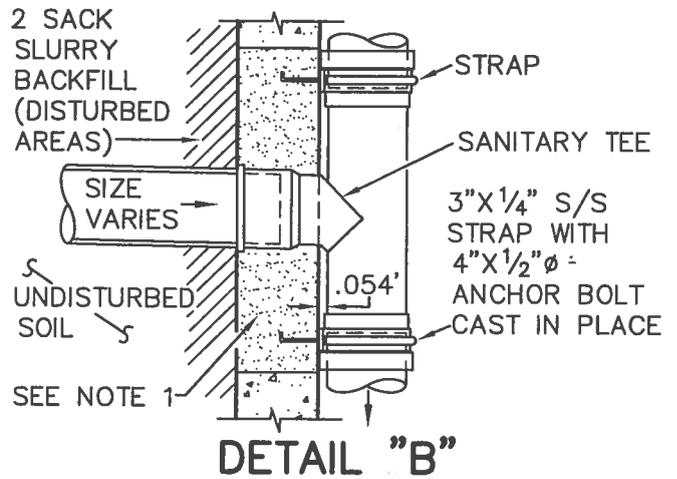
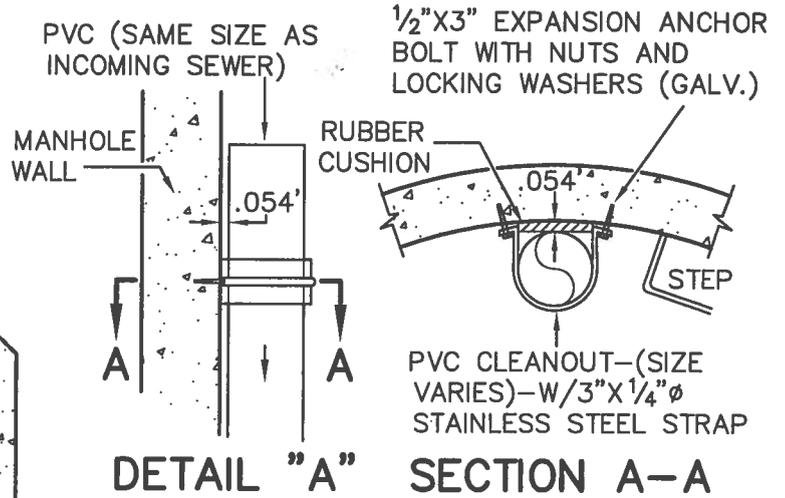
MANHOLE FRAME AND COVER  
PER STANDARD DRAWING SS-02



60"  $\phi$  SANITARY SEWER MANHOLE  
PER STANDARD DRAWING SS-01

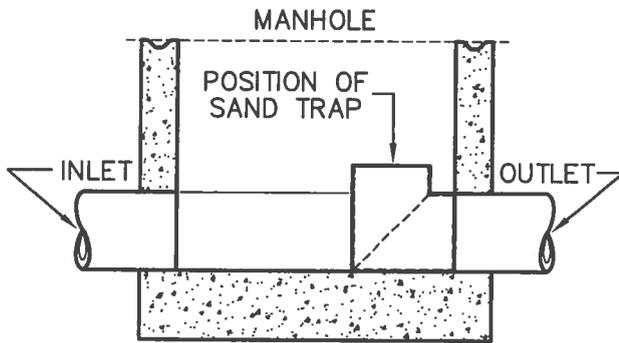
**NOTES:**

1. CORE THROUGH MANHOLE WALL AND RECONSTRUCT WITH WATERPROOF GROUT.
2. DROP PIPE SHALL NOT CONFLICT WITH STEPS.
3. IN AREAS WHERE MANHOLE IS IN A DIRT EASEMENT, A MINIMUM 12" WIDE BY 12" DEEP PAD OR PRE-CAST FRAME AND LID WILL BE REQUIRED AROUND MANHOLE LID AND FRAME.

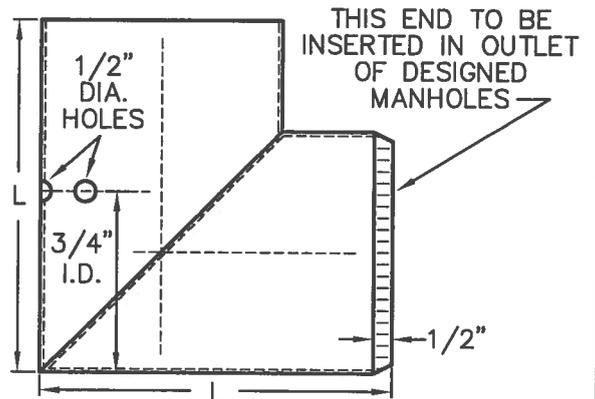


CITY OF VICTORVILLE - ENGINEERING DEPARTMENT

REV.	DATE	BY	SANITARY SEWER MANHOLE WITH INTERNAL SEWER MAIN DROP	SS-07A
	5/10/01	A.S.		
1	7/25/07	STAFF	JOHN A. MCGLADE, CITY ENGINEER	SHEET 1 OF 1



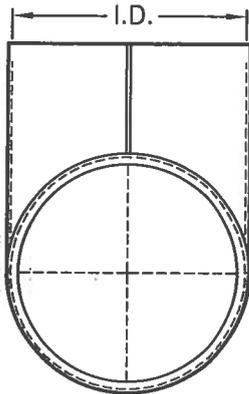
**SECTIONAL VIEW OF  
MANHOLE WITH LOCATION  
OF SAND TRAP**



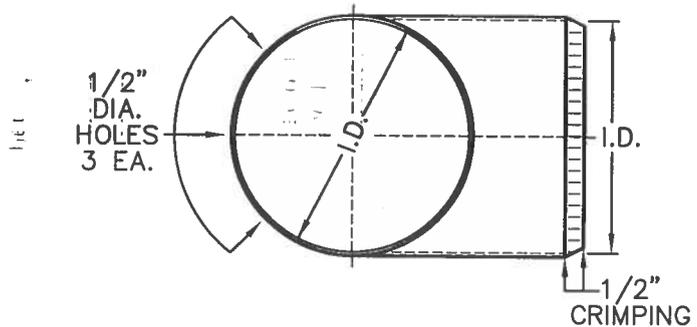
**SIDE VIEW**

**DIMENSIONS OF TRAP**

I.D.	LENGTH
8"	10-1/2"
10"	12-1/2"
12"	16"
15"	18"
18"	19"



**END VIEW**



**TOP VIEW**

**NOTES:**

1. ALL SEAMS TO BE INTERLOCKING SEAMS AND SHALL BE SOLDERED.
2. TRAP TO BE CONSTRUCTED OF 20 GAUGE GALVANIZED SHEET METAL.
3. PLACE TRAPS IN ALL MANHOLES IN WORK AREA AND ONE IN MANHOLE BELOW WORK AREA BEFORE COMMENCING WORK.
4. CLEAN ALL MANHOLES AND REMOVE TRAPS AFTER COMPLETION OF WORK.

REV.	DATE	BY
------	------	----

**CITY OF VICTORVILLE - ENGINEERING DEPARTMENT**

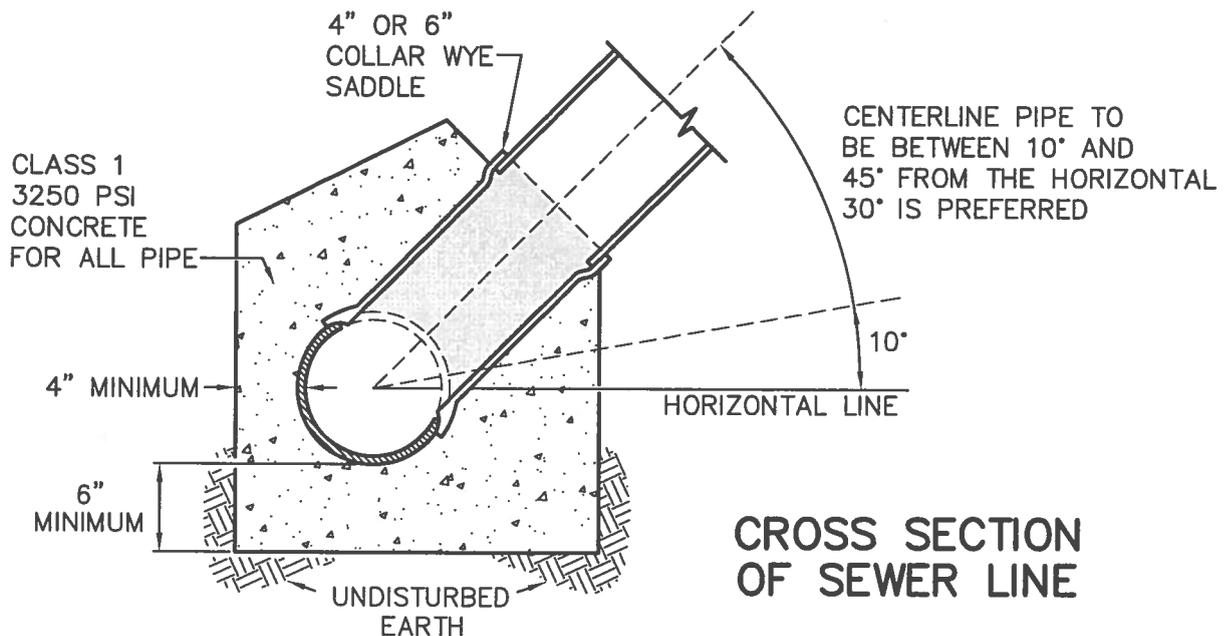
1/18/67	PATTERSON	
1	3/24/93	D.G.H.
2	6/1/07	STAFF

**TEMPORARY SAND TRAP**

**SS-08**

JOHN A. McGLADE, CITY ENGINEER

SHEET 1 OF 1



**NOTES:**

ALL PIPE

1. CALL FOR INSPECTION 2 WORKING DAYS IN ADVANCE OF CUTTING THE PIPE. INSPECTOR MUST BE PRESENT TO OVERSEE THE CUTTING AND SADDLING OPERATION.
2. IF PIPE IS CRACKED, BROKEN OR DAMAGED IN ANY WAY IT SHALL BE REPLACED.
3. MAKE NORMAL SIZE OPENING FOR SADDLE IN MAIN LINE SEWER PIPE 12" MINIMUM CLEAR OF THE BELL. ON CLAY PIPE SAWCUT ON CENTER OPENING AND USE NIPPERS TO ENLARGE OPENING TO SIZE. ON P.V.C. PIPE USE KEY HOLE SAW.
4. REPAIR STREET PER CITY STANDARD DRAWING S-10.

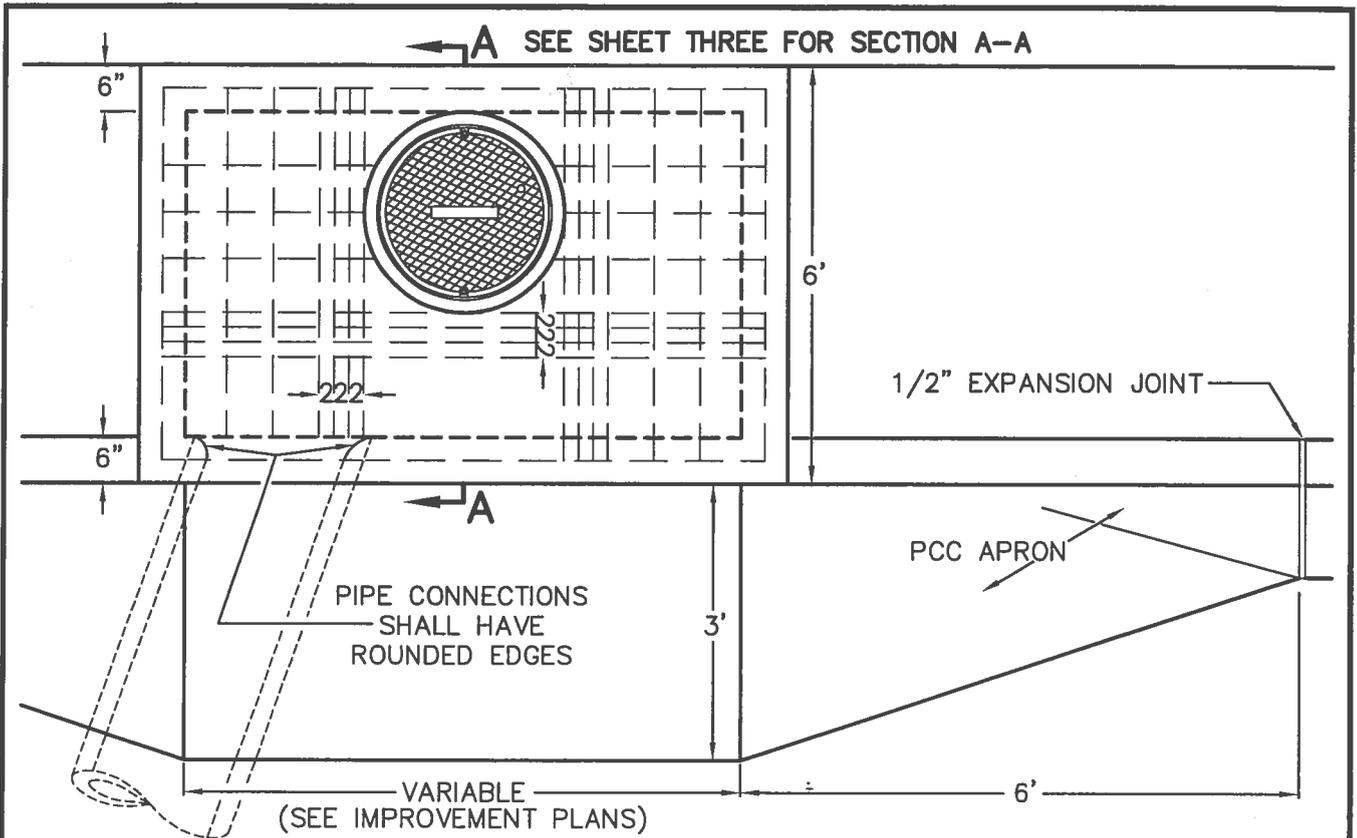
CLAY PIPE

5. WIRE SADDLE IN PLACE WITH 12 GAUGE GALVANIZED STEEL WIRE. USE SILICONE CAULK TO SEAL SADDLE TO PIPE. SADDLE MUST NOT PROTRUDE INTO THE MAIN LINE.
6. PLACE CLASS 1, 3250 PSI, CONCRETE AROUND MAIN LINE AND SADDLE AND 18" ALONG THE MAIN LINE PIPE PER THE CROSS SECTION ABOVE.
7. CURE CONCRETE BY COVERING WITH 12" OF WET EARTH. DO NOT BACKFILL UNTIL THE CONCRETE IS CURED SUFFICIENTLY TO WITHSTAND THE BACKFILL OPERATION.

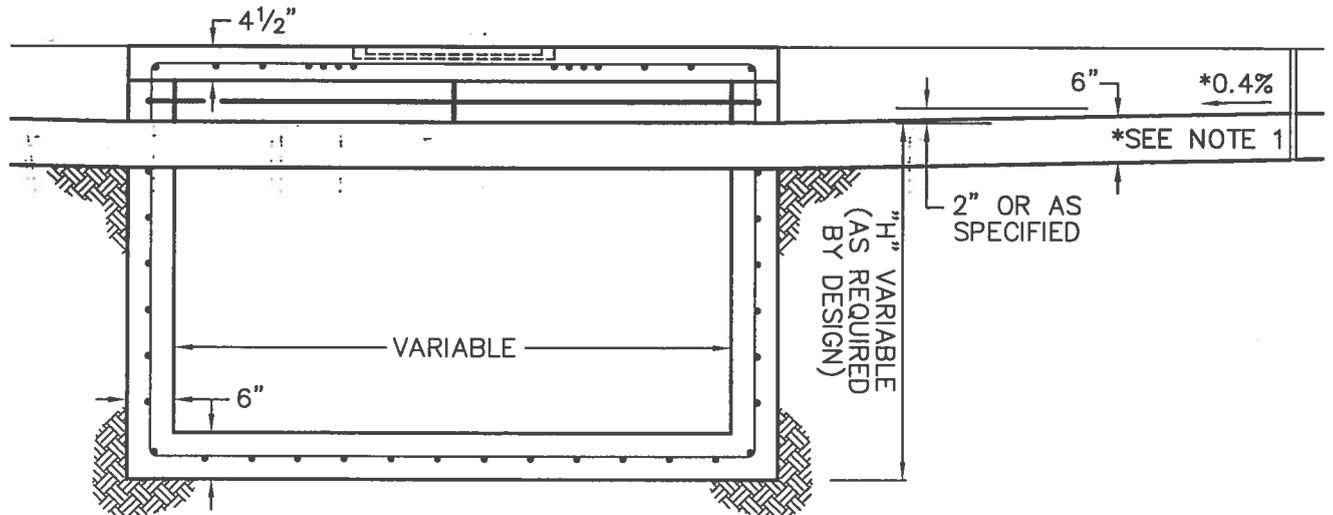
P.V.C. PIPE

8. USE STANDARD MANUFACTURED SADDLES RECOMMENDED BY THE MAIN LINE PIPE MANUFACTURER BEING SADDLED. ALL SADDLES SHALL HAVE ELASTOMERIC SEALS AND SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
9. SADDLES SHALL BE Banded TO THE MAIN LINE SEWER WITH A MINIMUM OF 2 EACH 1/2" WIDE STAINLESS STEEL BAND CLAMPS.
10. REPLACE PIPE BEDDING PER CITY STANDARD DRAWING SS-05 AND BACKFILL.

REV.	DATE	BY	CITY OF VICTORVILLE - ENGINEERING DEPARTMENT	
1/23/67	PATTERSON		<b>SANITARY SEWER SADDLE</b>	<b>SS-09</b>
1	3/24/93	D.G.H.		
2	6/1/07	STAFF	JOHN A. MCGLADE, CITY ENGINEER	SHEET 1 OF 1



**PLAN**



**SECTION**

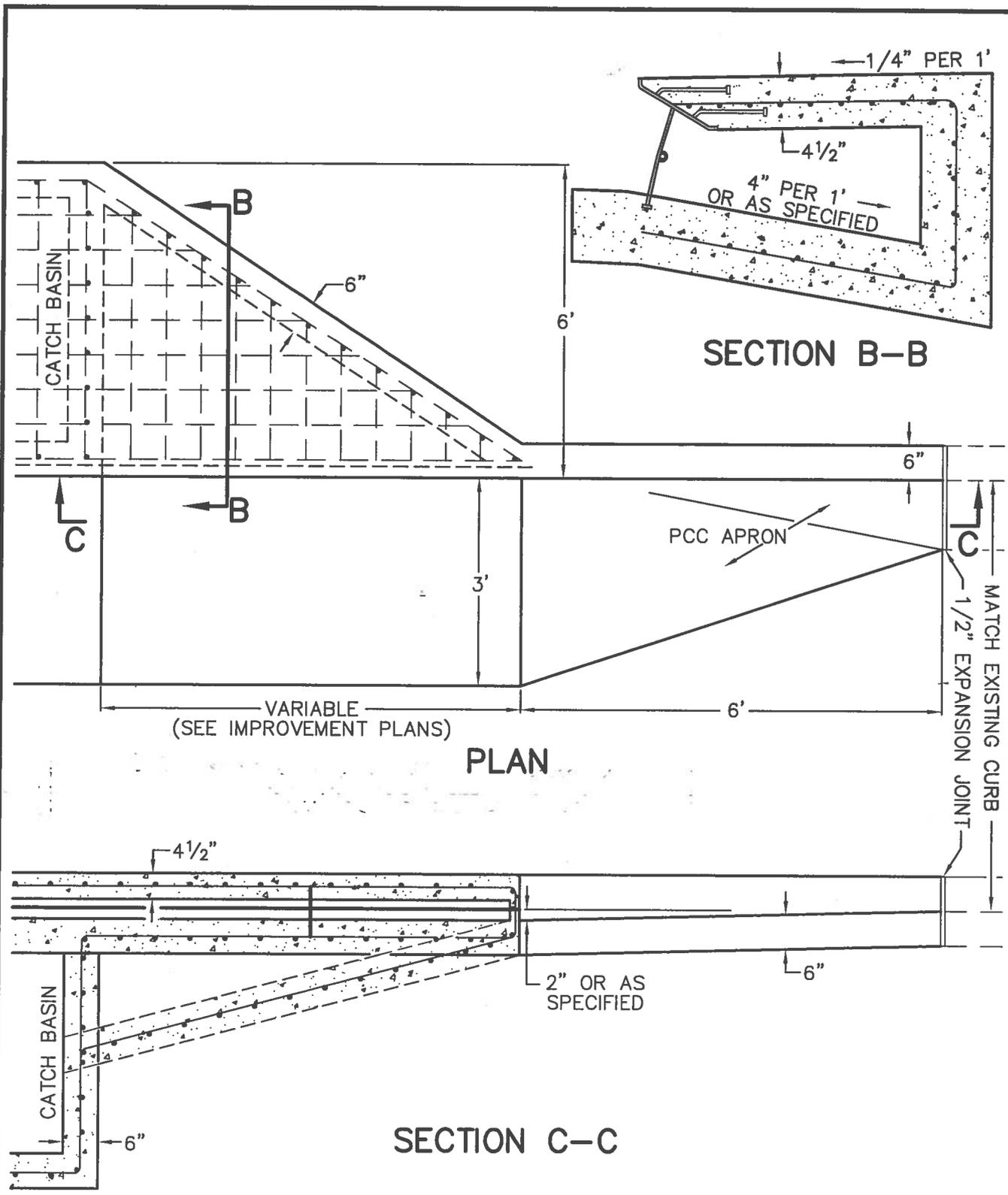
**NOTES:**

1. THE GUTTER CROSS SLOPE SHALL NOT EXCEED 8.33%. THE GUTTER FLOW LINE SHALL NOT BE LESS THAN 0.3% WITHIN 30 FEET OF THE EDGE OF THE DROP INLET OPENING. THE APRON TRANSITION MAY BE EXTENDED UP TO 15 FEET IN LENGTH.

REV.	DATE	BY
	1/26/65	J.H.F.
NOTES	5/1/77	M.A.T.

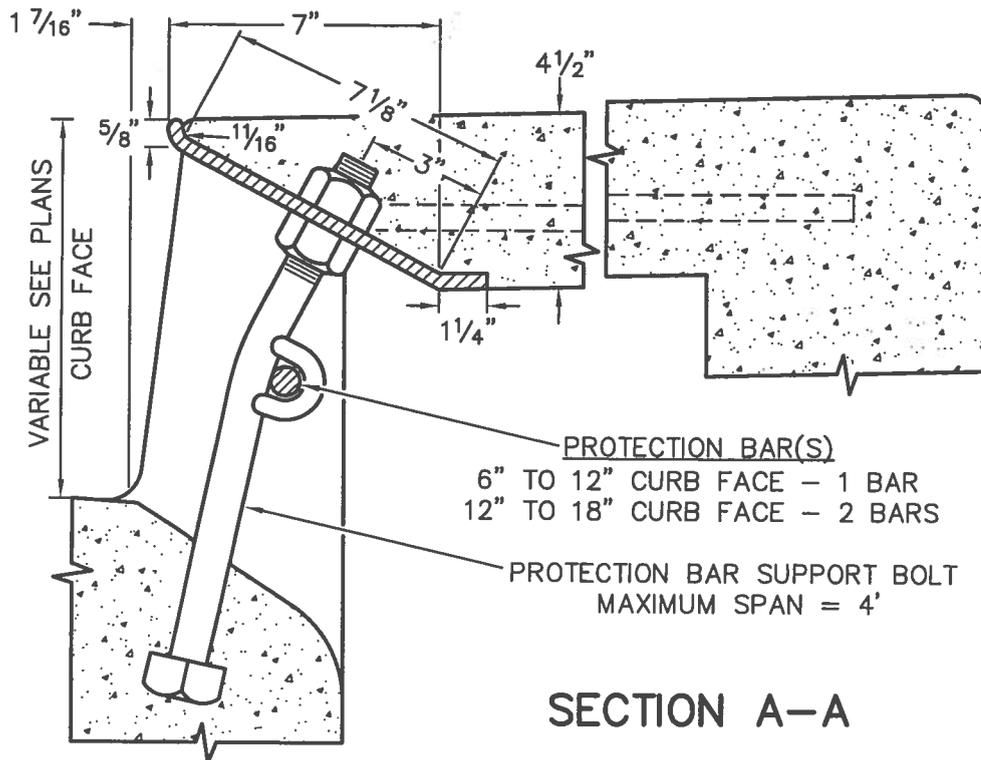
**CITY OF VICTORVILLE - ENGINEERING DEPARTMENT**

BOX WIDTH	3/21/78	X.S.S.	<b>STANDARD DROP INLET</b>	<b>D-02</b>
NOTES	7/1/94	D.G.H.		
	6/1/07	STAFF	JOHN A. McGLADE, CITY ENGINEER	SHEET 1 OF 3



CITY OF VICTORVILLE - ENGINEERING DEPARTMENT

REV.	DATE	BY	SIDE INLET FOR STANDARD DROP INLET	D-02
	10/7/76	M.A.T.		
1	6/1/07	STAFF	JOHN A. McGLADE, CITY ENGINEER	SHEET 2 OF 3



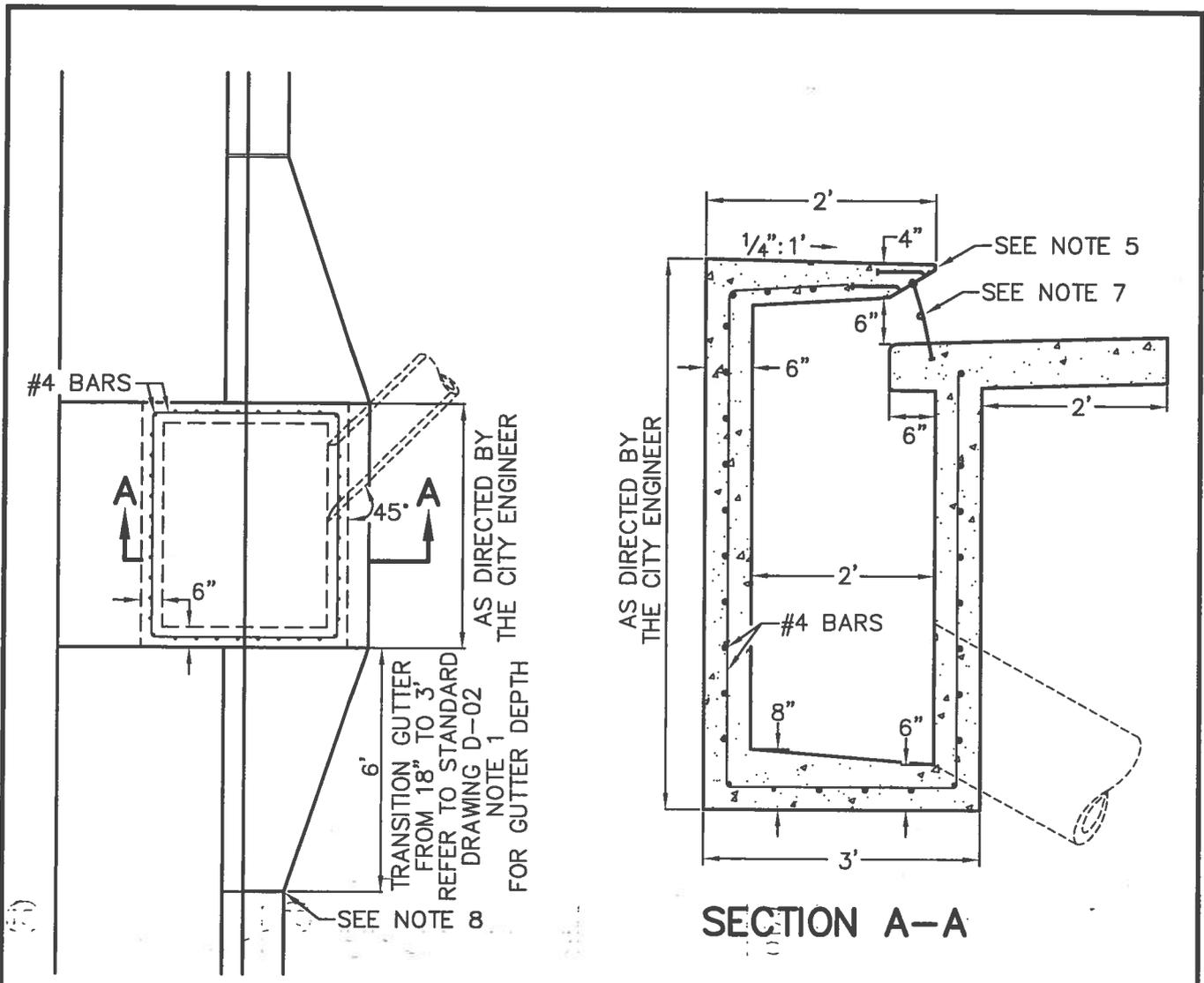
**NOTES:**

1. CONCRETE SHALL BE CLASS 1, PER SECTION 90-1.01 OF STANDARD SPECIFICATIONS.
2. ALL CONCRETE SHALL HAVE 4% AIR ENTRAINMENT.
3. SEE DRAWING S-01 FOR EXPANSION JOINT DETAIL.
4. FLOOR SLOPE SHALL BE 1" PER FOOT TOWARD OUTLET OR AS SPECIFIED ON THE PLANS.
5. REINFORCING SHALL CONSIST OF NO. 4 DEFORMED BARS AT 6" CENTERS EACH WAY UNLESS OTHERWISE NOTED.
6. ALL STEEL REINFORCING SPLICES SHALL BE LAPPED 40 DIAMETERS.
7. ALL STEEL REINFORCING JOINTS SHALL BE BENT TO 1" RADIUS AND EITHER CONTINUED OR LAPPED 40 DIAMETERS.
8. COVER SHALL BE BOLTED DOWN WITH 2 SOCKET SET SCREW BOLTS PER DETAILS ON STANDARD DRAWING D-04.
9. FRAME AND COVER SHALL BE ALHAMBRA FOUNDRY NO. A1530B, GALVANIZED, 22" DIAMETER OPENING OR EQUAL.
10. CURB PROTECTION PLATE SHALL BE ALHAMBRA FOUNDRY NO. A3911 OR EQUAL. PROTECTION BAR SHALL BE ALHAMBRA FOUNDRY A1564 OR EQUAL. PROTECTION BAR SUPPORT BOLTS SHALL BE ALHAMBRA FOUNDRY A1572 OR EQUAL.
11. STEPS - NONE REQUIRED WHERE "H" IS 3'6" OR LESS. INSTALL ONE STEP 16"± ABOVE FLOOR WHEN "H" IS 3'6" TO 5'0". WHERE "H" IS MORE THAN 5'0", STEPS SHALL BE EVENLY SPACED AT 12"± INTERVALS FROM 16"± ABOVE FLOOR TO WITHIN 12"± OF THE TOP OF THE BOX. PLACE STEPS IN WALL WITHOUT PIPE OPENINGS.
12. ALL EXPOSED METAL PARTS SHALL BE GALVANIZED.

REV.	DATE	BY
	1/26/65	J.H.F.

**CITY OF VICTORVILLE - ENGINEERING DEPARTMENT**

NOTES	5/1/77	M.A.T.	<b>STANDARD DROP INLET</b>	<b>D-02</b>
NOTES	7/1/94	D.G.H.		
	6/1/07	STAFF		

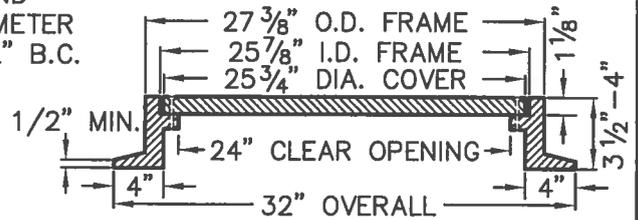
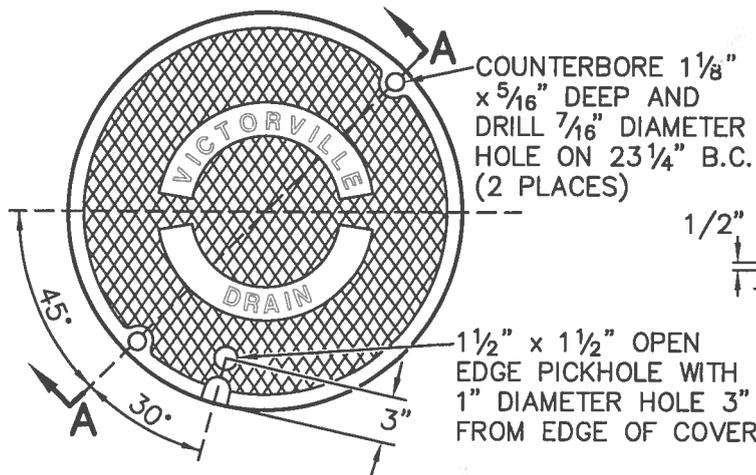


**NOTES:**

1. ALL CONCRETE SHALL CONTAIN NOT LESS THAN 550 POUNDS OF CEMENTITIOUS MATERIAL PER CUBIC YARD WITH 4% AIR ENTRAINMENT.
2. REINFORCING SHALL CONSIST OF NO. 4 DEFORMED BARS AT 6" CENTERS UNLESS OTHERWISE NOTED.
3. ALL STEEL REINFORCING SPLICES SHALL BE LAPPED 40 DIAMETERS.
4. BEND AND WELD REINFORCING BARS TO ROLLED PLATE. (SEE STANDARD DRAWING D-02).
5. ALL EXPOSED METAL PARTS SHALL BE GALVANIZED.
6. SEE STANDARD DRAWING D-02 FOR HARDWARE DETAIL.
7. SEE STANDARD DRAWING S-01 FOR EXPANSION JOINT DETAIL.

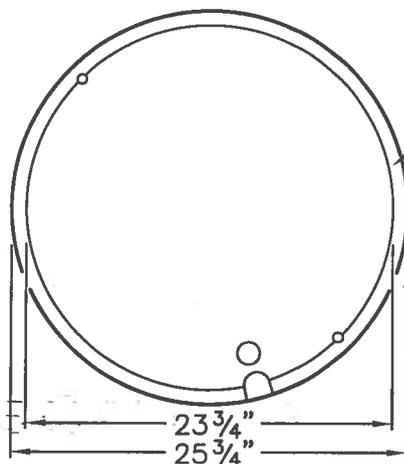
**CITY OF VICTORVILLE - ENGINEERING DEPARTMENT**

REV.	DATE	BY	<b>STANDARD DROP INLET</b>	<b>D-03</b>
	2/19/76	X.S.S.		
1	6/1/07	STAFF	JOHN A. McGLADE, CITY ENGINEER	SHEET 1 OF 1



SECTION A-A

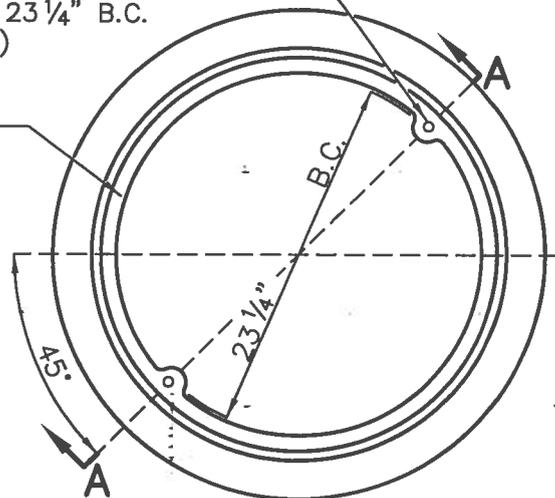
PLATEN COVER  
 TOP VIEW



PLATEN COVER  
 BOTTOM VIEW

DRILL AND TAP FRAME  
 FOR  $\frac{3}{8}$ "-16"  $\times$   $1\frac{1}{2}$ "  
 SOCKET SET SCREW  
 BOLTS ON  $23\frac{1}{4}$ " B.C.  
 (2 PLACES)

MACHINED  
 SURFACE



PLAN OF FRAME

**NOTES:**

1. MANHOLE FRAME AND COVER TO BE MANUFACTURED FROM CLASS 35 CAST IRON PER ASTM A-48.
2. FRAME AND COVER SHALL BE CAPABLE OF SUPPORTING H-20 WHEEL LOADING.
3. COVER SHALL HAVE CAST INTO TOP IN 1" HIGH MINIMUM BLOCK LETTERS "VICTORVILLE" OR "CITY OF VICTORVILLE" AND "DRAIN". MANUFACTURER'S NAME OR INSIGNIA SHALL BE CAST INTO BOTH FRAME AND COVER.
4. MACHINE MATING SURFACES OF FRAME AND COVER TO PROVIDE UNIFORM EDGE SUPPORT FOR COVER.
5. PAINT FRAME AND COVER WITH BLACK BITUMINOUS PAINT.
6. APPROVED SUPPLIERS: ALHAMBRA FOUNDRY #1254, NEENAH FOUNDRY #R-1593 AND SOUTH BAY FOUNDRY #SBF1253B.

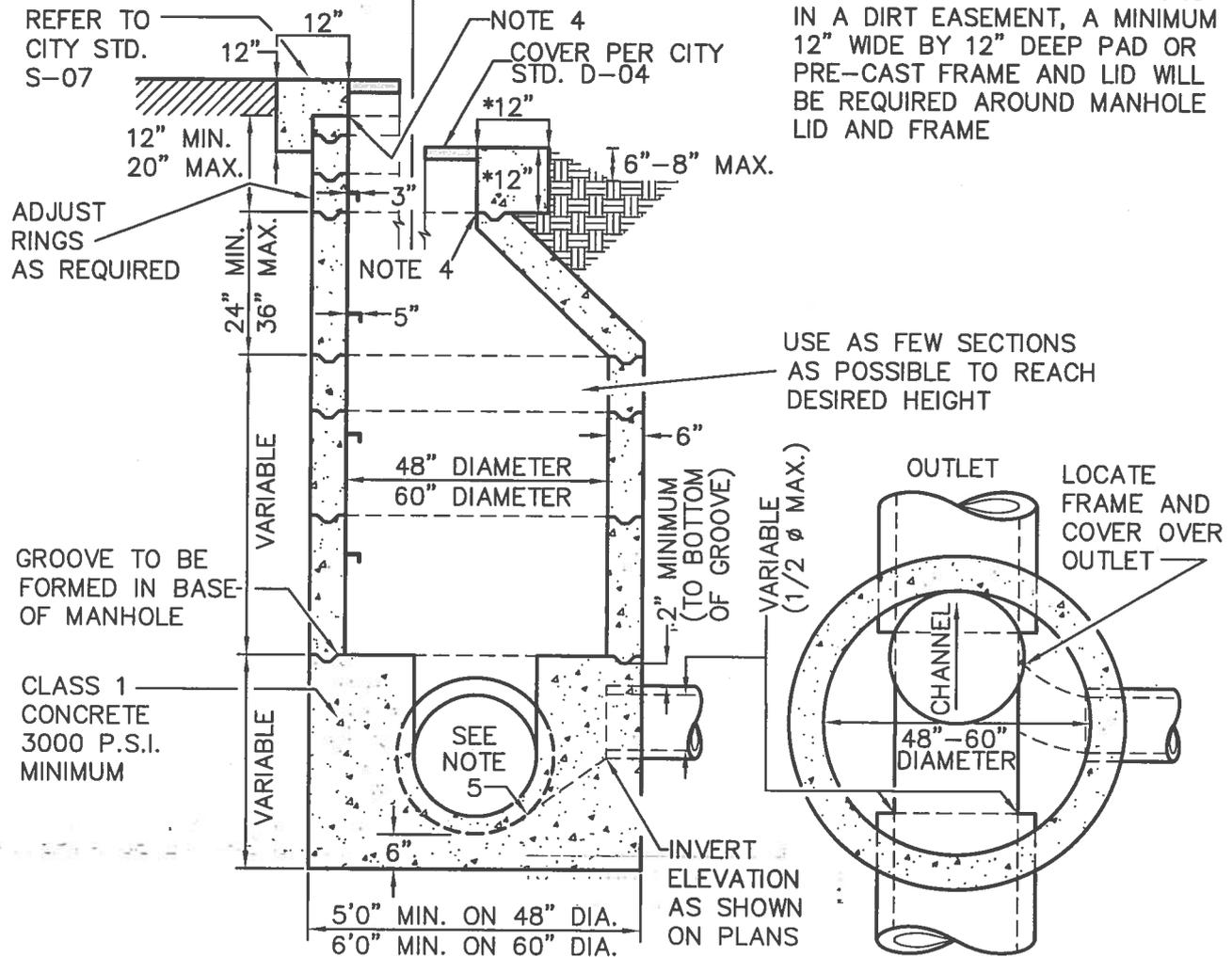
**CITY OF VICTORVILLE - ENGINEERING DEPARTMENT**

REV.	DATE	BY	STORM DRAIN MANHOLE FRAME AND COVER	D-04
	5/18/93	D.G.H.		
1	6/1/07	STAFF	JOHN A. McGLADE, CITY ENGINEER	SHEET 1 OF 1

**DETAIL FOR MANHOLES  
IN PAVED SURFACES**

**DETAIL FOR MANHOLES  
IN EASEMENTS\***

\* IN AREAS WHERE MANHOLE IS IN A DIRT EASEMENT, A MINIMUM 12" WIDE BY 12" DEEP PAD OR PRE-CAST FRAME AND LID WILL BE REQUIRED AROUND MANHOLE LID AND FRAME



**SECTION**

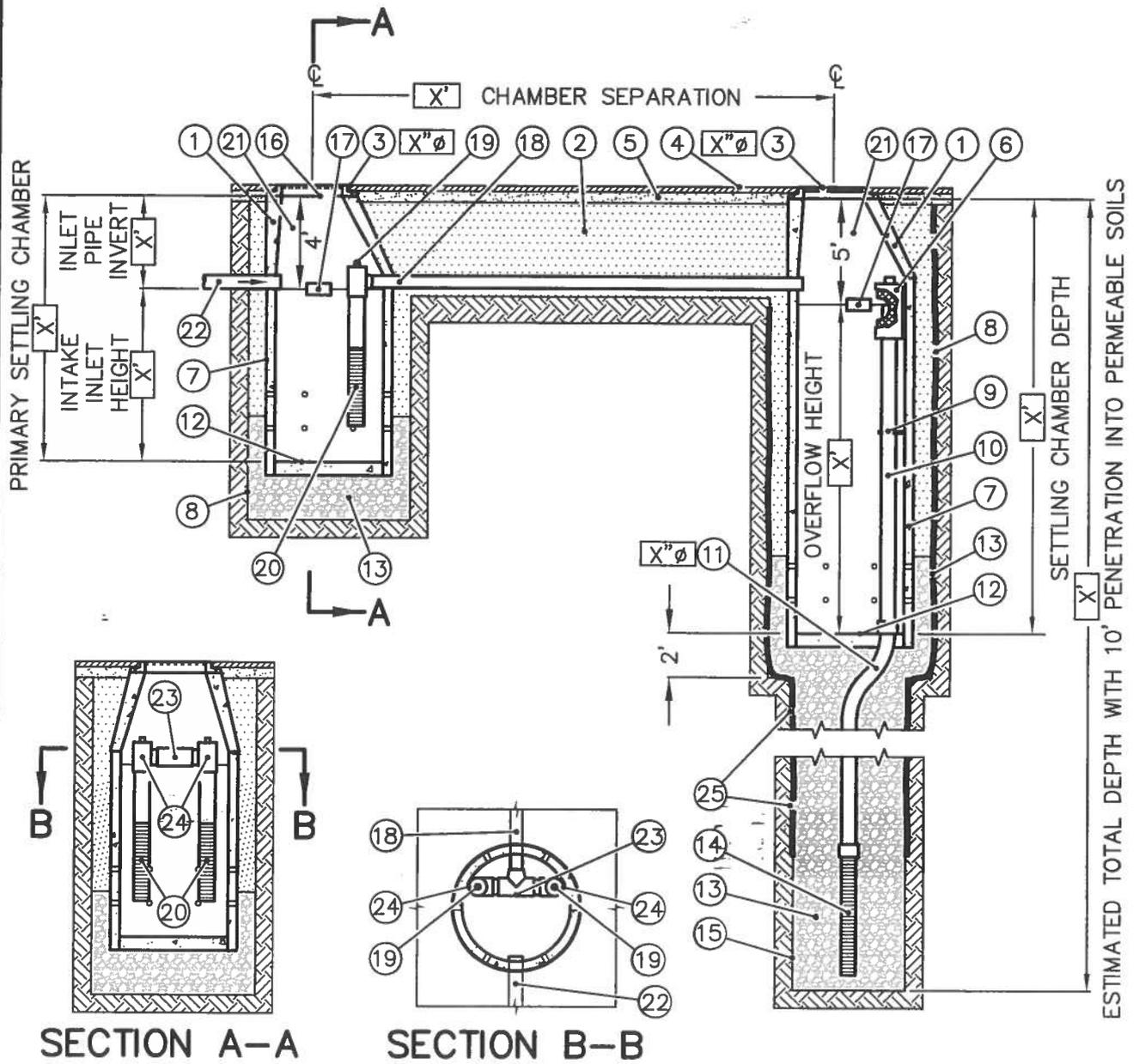
**PLAN**

**NOTES:**

1. ALL SECTIONS TO BE WASHED TO REMOVE ANY LOOSE MATERIAL AND WHILE STILL WET THEY ARE TO BE SET IN 1:3 MORTAR TRIMMED SMOOTH INSIDE AND OUTSIDE AT TIME OF SETTING INCLUDING FRAME, EXCEPT IN NOTE 3.
2. CONCRETE FOR MANHOLE SECTIONS 3000 P.S.I. MINIMUM.
3. ON ALL EASEMENT MANHOLES, THE CONTRACTOR SHALL ANCHOR FRAME TO CONCRETE SECTIONS BY THE USE OF EPOXY OR OTHER METHOD AS APPROVED BY THE CITY ENGINEER.
4. CONCRETE AROUND AND UNDER FRAME SHALL HAVE A MIX IN ACCORDANCE WITH THE SPECIFICATIONS AND SHALL BE CURED WITH WHITE PIGMENTED CURING COMPOUND.
5. INVERT CHANNELS, SHELF AND GROOVE SHALL BE FORMED MONOLITHICALLY WITH THE MANHOLE BASE. NO REWORKING OF CONCRETE WHICH HAS PARTIALLY HARDENED.

**CITY OF VICTORVILLE - ENGINEERING DEPARTMENT**

REV.	DATE	BY	PRECAST STORM DRAIN MANHOLE	D-05
	9/1/75	STAFF		
1	6/1/07	STAFF	JOHN A. MCGLADE, CITY ENGINEER	SHEET 1 OF 1



**NOTES:**

1. CONSTRUCT DRY WELLS PER THE BID SPECIFICATIONS AND PLANS, COMPLETE IN PLACE. DETAILS ARE AS FOLLOWS:

INTERCEPTOR DEPTH = 10 FEET  
 OVERALL DEPTH = 75 FEET  
 SETTLING CHAMBER DEPTH = 18 FEET  
 EFFECTIVE SETTLING CAPACITY = 13 FEET

CONNECTOR PIPE = 4"φ  
 OVERFLOW PIPE = 6"φ  
 C.I. RING AND GRATE = 30"φ

**CITY OF VICTORVILLE - ENGINEERING DEPARTMENT**

REV.	DATE	BY	DRY WELL SYSTEM DETAILS	D-06
	9/25/00	J.Z.		
1	6/1/07	STAFF	JOHN A. McGLADE, CITY ENGINEER	SHEET 1 OF 2

**ITEM NUMBERS:**

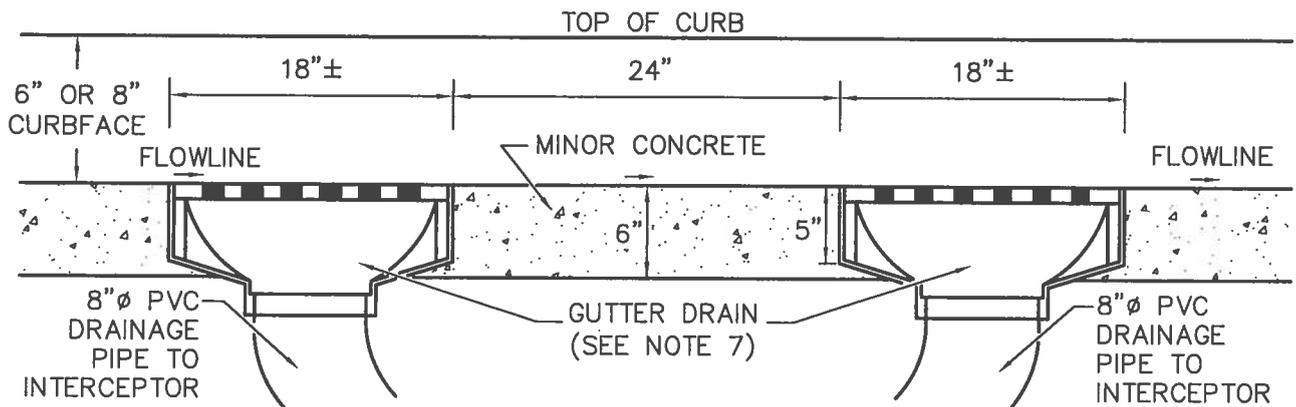
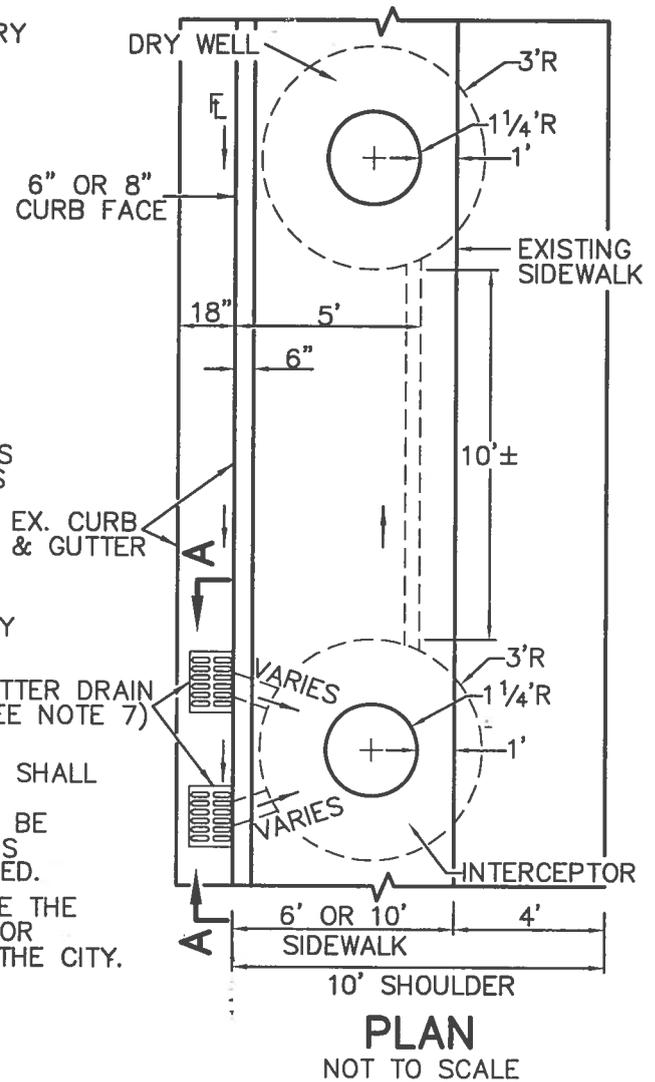
- ① MANHOLE CONE – MODIFIED FLAT BOTTOM. CITY OF VICTORVILLE STD. SS-1, MANHOLE SECTIONS AND CONES COULD BE SUBSTITUTED UPON WRITTEN APPROVAL.
- ② STABILIZED BACKFILL – 2 SACK CONCRETE SLURRY.
- ③ BOLTED RING & GRATE/COVER – DIAMETER AS SHOWN. CLEAN CAST IRON WITH WORDING "CITY OF VICTORVILLE DRYWELL" IN RAISED LETTERS. BOLTED IN 2 LOCATIONS AND SECURED TO CONE WITH MORTAR. RIM ELEVATION ±0.02' OF PLANS, PER CITY STD. D-04.
- ④ GRADED BASIN OR PAVING (BY OTHERS).
- ⑤ COMPACTED BASE MATERIAL (BY OTHERS).
- ⑥ DEBRIS SHIELD – ROLLED 16 GA. STEEL X 24" LENGTH WITH VENTED ANTI-SIPHON AND INTERNAL .265" MAX. SWO FLATTENED EXPANDED STEEL SCREEN X 12" LENGTH. FUSION BONDED EPOXY COATED.
- ⑦ PRE-CAST LINER – 4000 PSI CONCRETE 48" ID. X 54" OD. CENTER IN HOLE AND ALIGN SECTIONS TO MAXIMIZE BEARING SURFACE.
- ⑧ MIN. 6' Ø DRILLED SHAFT.
- ⑨ SUPPORT BRACKET – FORMED 12 GA. STEEL. FUSION BONDED EPOXY COATED.
- ⑩ OVERFLOW PIPE – SCH. 40 PVC MATED TO DRAINAGE PIPE AT BASE SEAL.
- ⑪ DRAINAGE PIPE – ADS HIGHWAY GRADE WITH COUPLER. SUSPEND PIPE DURING BACKFILL OPERATIONS TO PREVENT BUCKLING OR BREAKAGE. DIAMETER AS NOTED.
- ⑫ BASE SEAL – 4" THICK CONCRETE SLURRY.
- ⑬ ROCK – CLEAN AND WASHED 3/8" AGGREGATE.
- ⑭ DRAINAGE SCREEN – SCH. 40 PVC 0.120" SLOTTED WELL SCREEN WITH 32 SLOTS PER ROW/FT. DIAMETER VARIES 96" OVERALL LENGTH WITH COUPLER.
- ⑮ MIN. 4' Ø SHAFT – DRILLED TO MAINTAIN PERMEABILITY OF DRAINAGE SOILS.
- ⑯ FABRIC SEAL – U.V. RESISTANT GEOTEXTILE – TO BE REMOVED BY CUSTOMER AT PROJECT COMPLETION.
- ⑰ ABSORBENT – HYDROPHOBIC PETROCHEMICAL SPONGE. MIN. 128 OZ. CAPACITY.
- ⑱ CONNECTOR PIPE – 4" Ø SCH. 40 PVC .
- ⑲ VENTED ANTI-SIPHON INTAKE.
- ⑳ INTAKE SCREEN – 6" Ø SCH. 40 PVC 0.120" MODIFIED SLOTTED WELL SCREEN WITH 32 SLOTS PER ROW/FT. 48" OVERALL LENGTH WITH END CAP.
- ㉑ FREEBOARD DEPTH VARIES WITH INLET PIPE ELEVATION. INCREASE PRIMARY/SECONDARY SETTLING CHAMBER DEPTHS AS NEEDED TO MAINTAIN ALL INLET PIPE ELEVATIONS ABOVE CONNECTOR PIPE OVERFLOW.
- ㉒ GUTTER DRAIN INLET – 8" SCH 40 PVC, PER CITY STD. D-07.
- ㉓ 6" X 4" REDUCING TEE – SCH. 40 PVC, WITH FLOW REGULATOR.
- ㉔ 6" TEE – SCH. 40 PVC.
- ㉕ NON-WOVEN GEOTEXTILE SLEEVE, MIRAFLI 140 NL. MIN. 6 FT Ø, HELD APPROX. 10 FEET OFF THE BOTTOM OF EXCAVATION.

**CITY OF VICTORVILLE - ENGINEERING DEPARTMENT**

REV.	DATE	BY	<b>DRY WELL SYSTEM DETAILS</b>	<b>D-06</b>
	9/25/00	J.Z.		
1	6/1/07	STAFF	JOHN A. McGLADE, CITY ENGINEER	SHEET 2 OF 2

**NOTES:**

1. ACTUAL LOCATIONS OF INTERCEPTOR AND DRY WELL WOULD BE FIELD DETERMINED BASED ON LOCATION OF UTILITY LINES AND OTHER OBSTRUCTIONS/LANDSCAPING.
2. DIMENSIONS SHOWN ON THIS SHEET WILL BE USED AS A GUIDE ONLY.
3. CONTRACTOR TO CALL U.S.A. AT LEAST 48 HOURS PRIOR TO FIELD DETERMINATION OF DRY WELL AND INTERCEPTOR.
4. CONTRACTOR TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ALL UTILITY LINES AND OBSTRUCTIONS/LANDSCAPING DURING ACTUAL CONSTRUCTION.
5. CONTRACTOR TO RESTORE SITE AS CLOSE AS POSSIBLE BACK TO THE ORIGINAL CONDITIONS AFTER COMPLETION OF WORK.
6. CONCRETE SHALL BE MINOR CONCRETE PER SECTION 90 OF STANDARD SPECIFICATIONS.
7. GUTTER DRAIN DETAIL IS ALHAMBRA FOUNDRY A-1292 GUTTER DRAIN.
8. ALL EXPOSED METAL PARTS SHALL BE GALVANIZED.
9.  $\triangle$  FOR ALL CONSTRUCTION, INLET OPENINGS SHALL HAVE A LAYER OF FILTER FABRIC OVER THE OPENING AND A SAND BAG CHECK DAM AND BE MAINTAINED IN PLACE UNTIL CONSTRUCTION IS COMPLETED AND STREETS HAVE BEEN CLEANED.
10.  $\triangle$  CONTRACTOR HAS TO CLEAN AND REMOVE THE SILT AND DEBRIS BUILDUP IN THE INTERCEPTOR AND DRY WELLS PRIOR TO ACCEPTANCE BY THE CITY.

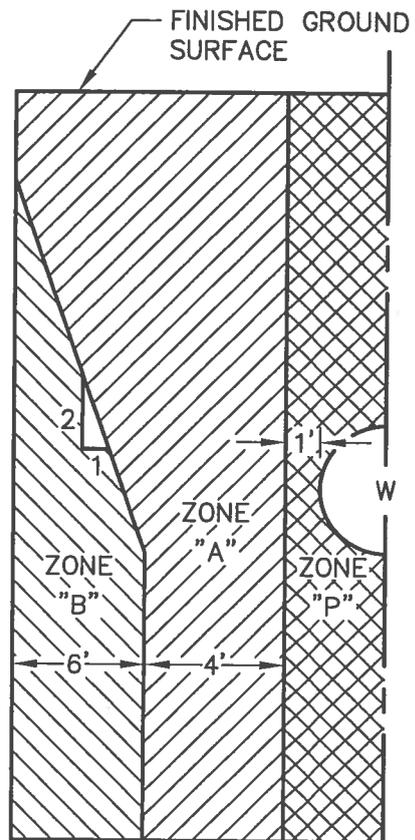
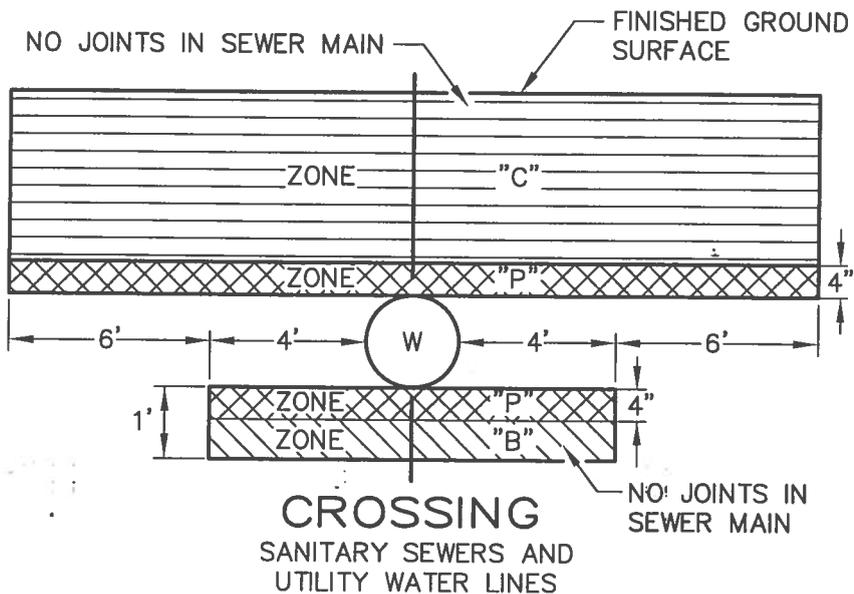


**SECTION A-A**  
NOT TO SCALE

REV.	DATE	BY	CITY OF VICTORVILLE - ENGINEERING DEPARTMENT	
	3/11/02	J.Z.	<b>DRY WELL AND INTERCEPTOR</b>	<b>D-07</b>
$\triangle$	10/1/02	J.Z.		
2	6/1/07	STAFF	JOHN A. McGLADE, CITY ENGINEER	SHEET 1 OF 1

**NOTES:**

- A. (W) INDICATES PRESSURE UTILITY WATER MAIN FOR POTABLE WATER. DIMENSIONS ARE FROM OUTSIDE OF WATER PIPE TO OUTSIDE OF SEWER PIPE.
- B. SEWER LINES SHALL BE INSTALLED AS FAR FROM UTILITY WATER LINES AS POSSIBLE.
- C. IN CASES WHERE THE SEWER LINE CROSSES A WATER LINE, THE LENGTH OF SEWER PIPE SHALL BE CENTERED ON THE WATER LINE.
- D. SEWER BUILDING LATERALS SHALL BE INSTALLED BELOW UTILITY WATER LINES. IF THIS CONDITION CANNOT BE MET, SPECIAL CONSTRUCTION WILL BE REQUIRED, AS SHOWN BELOW.



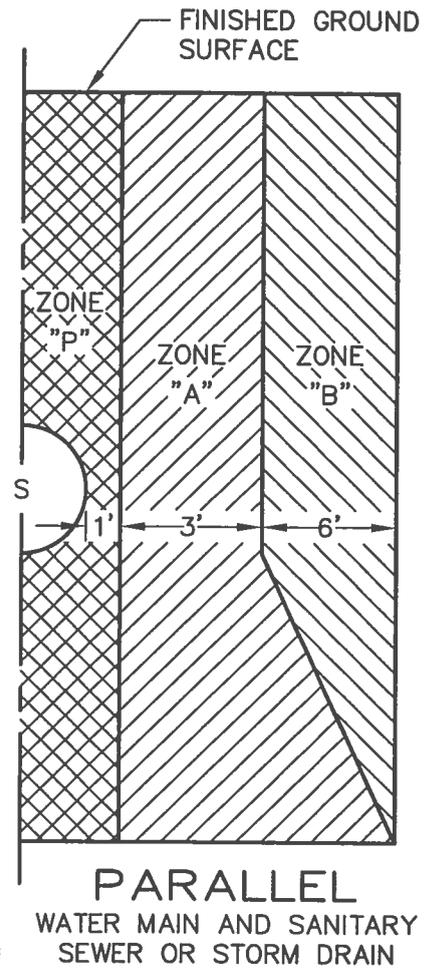
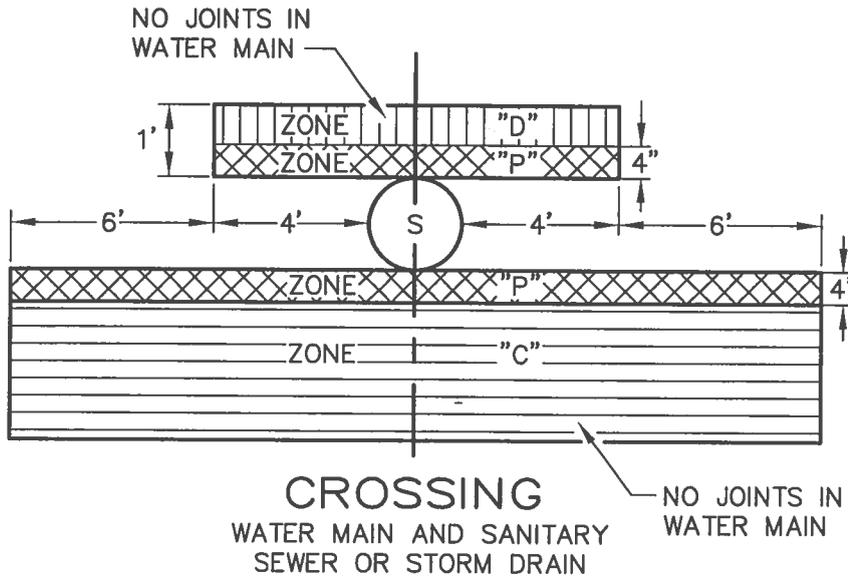
**PARALLEL**  
SANITARY SEWERS AND  
UTILITY WATER LINES

A	SEWER MAINS WILL NOT BE PERMITTED IN THIS ZONE WITHOUT SPECIAL PERMISSION FROM THE DEPARTMENT OF PUBLIC HEALTH, STATE OF CALIFORNIA.
B	WATER MAINS WILL NOT BE PERMITTED IN THIS ZONE WITHOUT SPECIAL PERMISSION FROM THE CITY OF VICTORVILLE.
C	WATER MAINS IN THIS ZONE SHALL BE INSTALLED WITHIN A 1/4-INCH STEEL CONTINUOUS CASING WITH ALL VOIDS BETWEEN SEWER PIPE AND CASING FILLED WITH SAND.
P	ZONE P IS A PROHIBITED ZONE, SECTION 64630 (e) (2) CALIFORNIA ADMINISTRATION CODE, TITLE 22.

CITY OF VICTORVILLE - ENGINEERING DEPARTMENT				
REV.	DATE	BY	SEPARATION CRITERIA FOR EXISTING WATER MAINS FROM NEW SANITARY SEWERS OR STORM DRAINS	<b>W-34</b>
1	8/20/08	STAFF	JOHN A. McGLADE, CITY ENGINEER	SHEET 1 OF 1

**NOTES:**

1. (S) INDICATES SANITARY SEWER MAIN OR STORM DRAIN. DIMENSIONS ARE FROM OUTSIDE OF WATER PIPE TO OUTSIDE OF SEWER OR STORM DRAIN PIPE.
2. WATER SERVICE LATERALS SHALL BE INSTALLED 4" OR MORE ABOVE SEWER MAIN OR STORM DRAIN. IF THIS CONDITION CANNOT BE MET, SPECIAL CONSTRUCTION WILL BE REQUIRED.



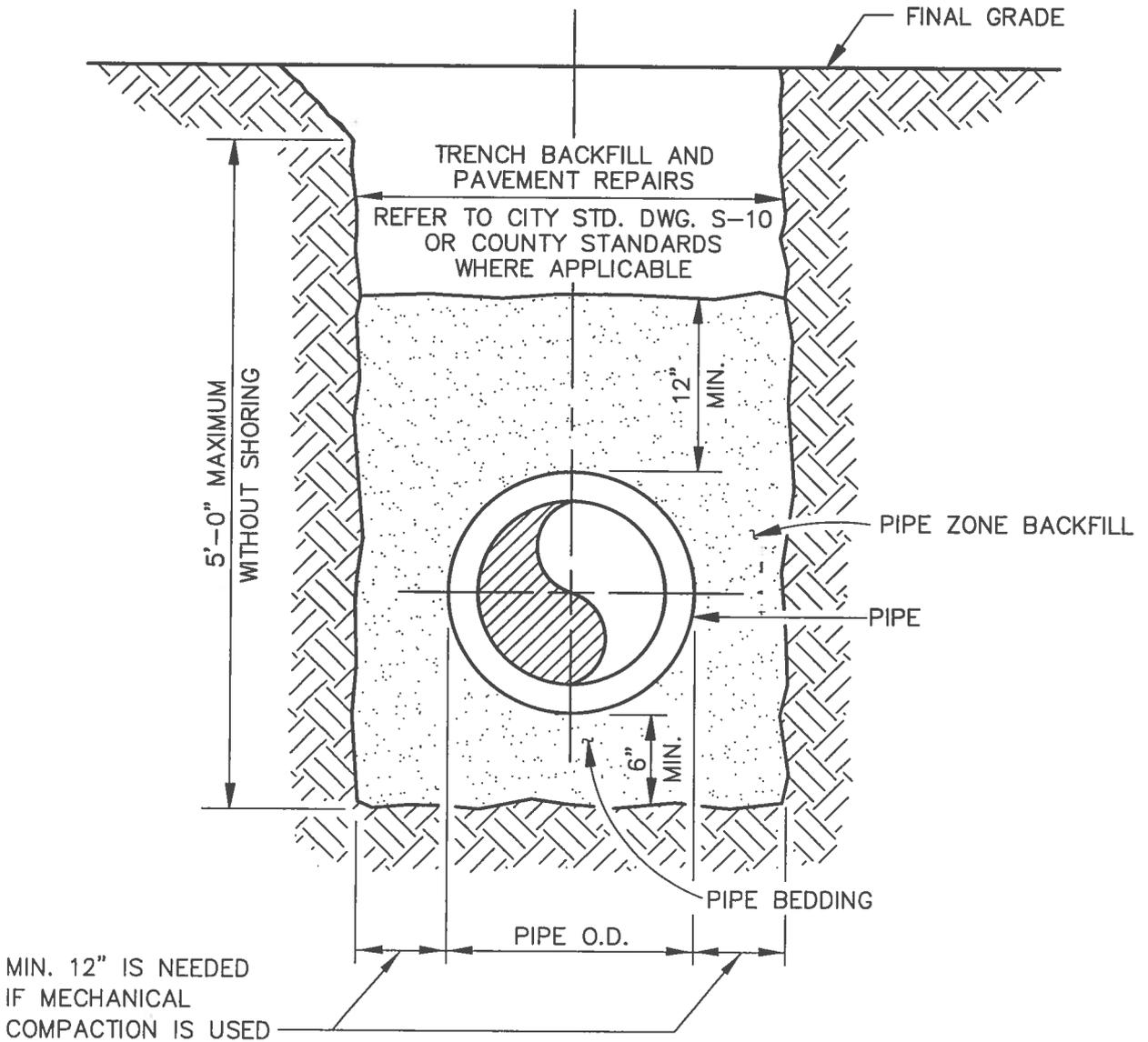
A	WATER MAINS WILL NOT BE PERMITTED IN THIS ZONE WITHOUT SPECIAL PERMISSION FROM THE DEPARTMENT OF PUBLIC HEALTH, STATE OF CALIFORNIA.
B	WATER MAINS WILL NOT BE PERMITTED IN THIS ZONE WITHOUT SPECIAL PERMISSION FROM THE VICTORVILLE WATER DISTRICT.
C	WATER MAINS IN THIS ZONE SHALL BE CONSTRUCTED OF CML&C STEEL PIPE WITH NO JOINTS OR DUCTILE IRON PIPE (CLASS 350 MIN.) WITH HOT DIP BITUMINOUS COATING, INSTALLED WITHIN A 1/4-INCH STEEL WELDED CASING PER STANDARD DRAWINGS W-37 & W-38
D	THE WATER MAIN SHALL HAVE NO JOINTS WITHIN FOUR FEET FROM EITHER SIDE OF THE SEWER OR STORM DRAIN.
P	ZONE P IS A PROHIBITED ZONE, SECTION 64630 (e) (2) CALIFORNIA ADMINISTRATION CODE, TITLE 22.

**CITY OF VICTORVILLE - ENGINEERING DEPARTMENT**

REV.	DATE	BY	SEPARATION CRITERIA FOR NEW WATER MAINS FROM EXISTING SANITARY SEWERS OR STORM DRAINS	W-35
1	8/20/08	STAFF	JOHN A. McGLADE, CITY ENGINEER	SHEET 1 OF 1

**NOTES:**

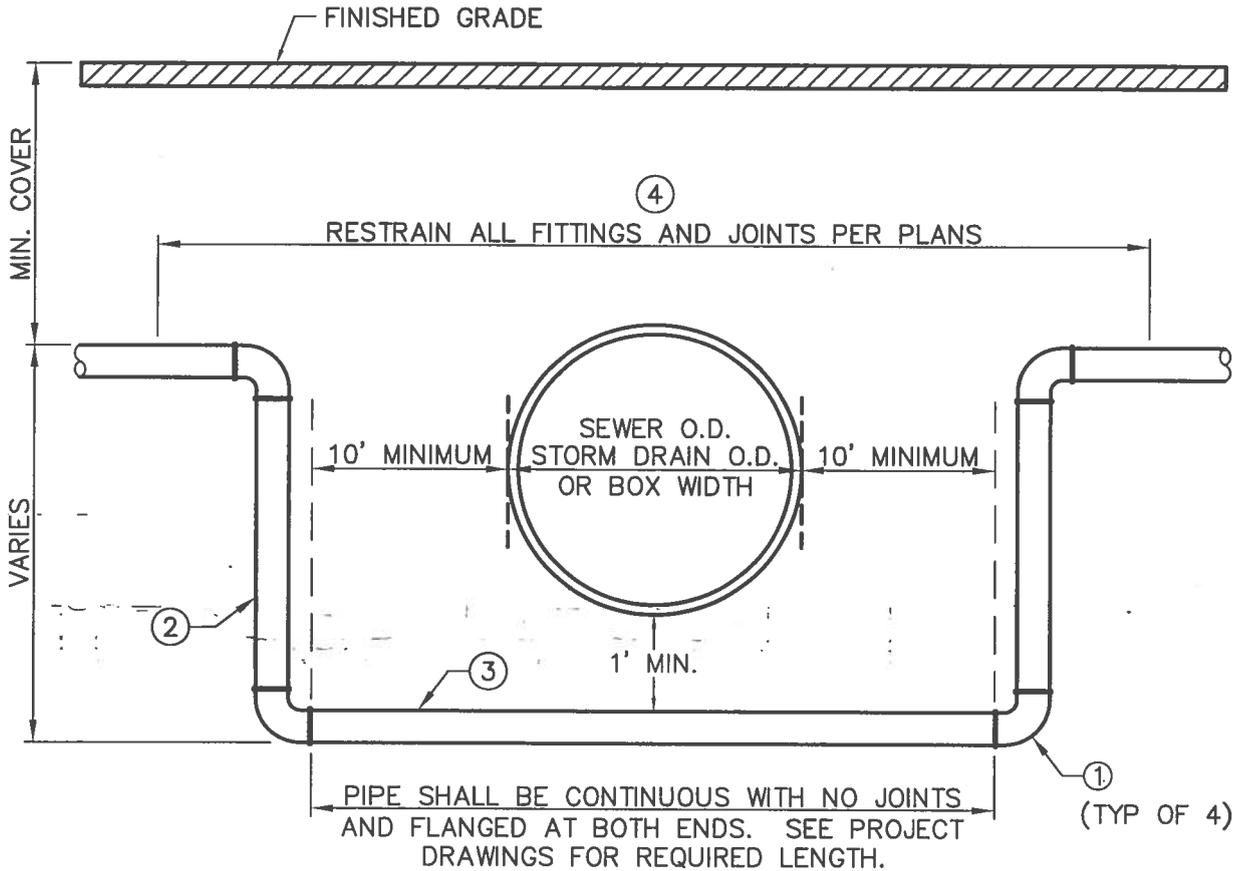
- A. TRENCH PATH SHALL BE STRAIGHT GRADE ACROSS WIDTH, AND SHALL NOT BE CURVED AT CENTER.
- B. COMPACTION TESTING MAY BE REQUIRED AT THE DISCRETION OF THE INSPECTOR.
- C. BACKFILL MATERIAL MAY NOT CONTAIN CLUMPS OR ROCKS GREATER THAN 3 INCHES, ANY DIMENSION.
- D. PIPE BEDDING AND PIPE ZONE BACKFILL MATERIAL SHALL BE COMPACTED TO 85% OF ATSM D-1557-91. MATERIAL SHALL HAVE SAND EQUIVALENT  $\geq 30$ . SELECT MATERIAL FROM EXCAVATION MAY BE USED ONLY WITH APPROVAL FROM INSPECTOR.



CITY OF VICTORVILLE - ENGINEERING DEPARTMENT			
REV.	DATE	BY	<b>TYPICAL TRENCH BACKFILL SCHEMATIC</b>
1	10/20/08	STAFF	JOHN A. McGLADE, CITY ENGINEER
			<b>W-36</b>
			SHEET 1 OF 1

**NOTES:**

- A. THIS STANDARD APPLIES TO UNDERCROSSINGS OF STORM DRAINS & SEWERS LESS THAN 6'-0" IN DIAMETER OR WIDTH, OR AS DIRECTED BY THE CITY. FOR LARGER UNDERCROSSINGS, REFER TO STANDARD DRAWING W-38.
- B. WHEREVER POSSIBLE, WATERLINE SHOULD BE INSTALLED OVER TOP OF SEWER OR STORM DRAIN. DISCUSS MINIMUM COVER REQUIREMENTS WITH THE CITY.

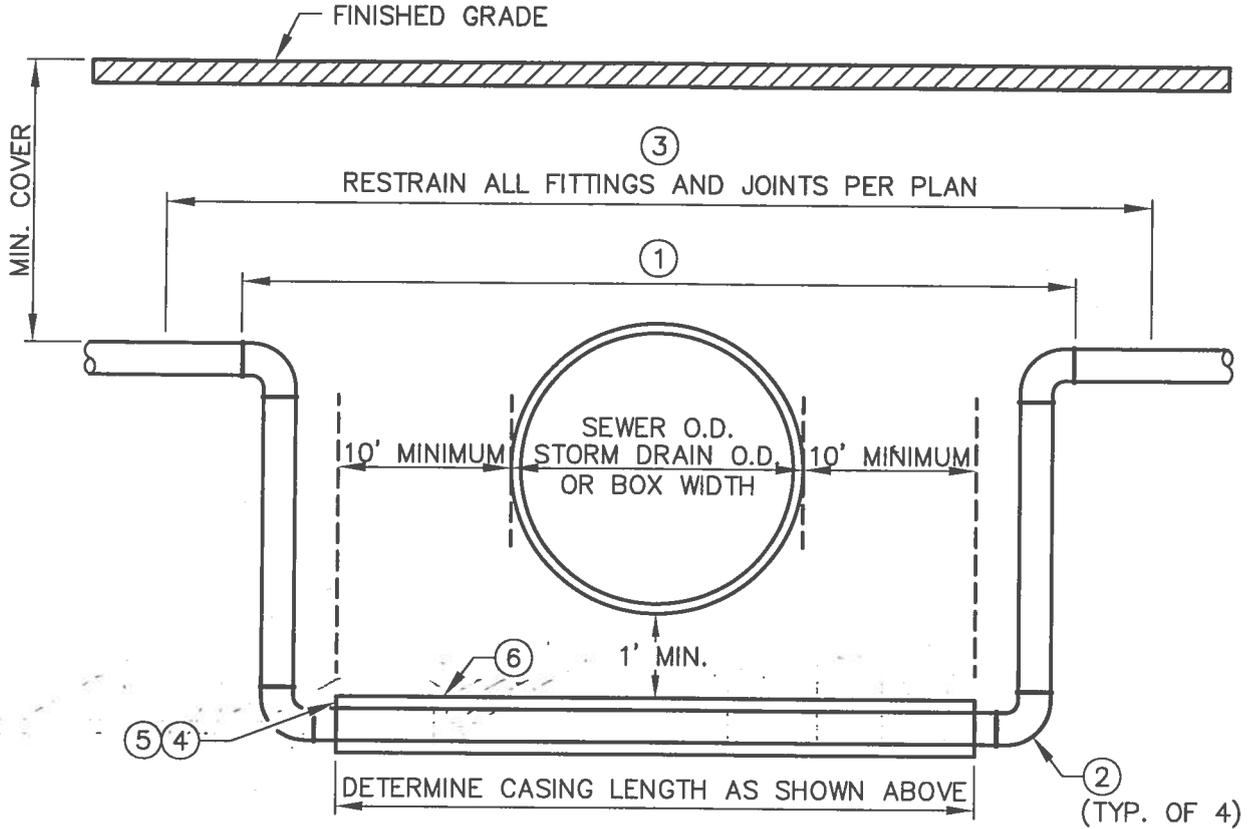


ITEM	DESCRIPTION	APPROVED MATERIAL LIST NUMBER
1	90° BEND	6-C
2	DUCTILE IRON PIPE	1-C
3	CEMENT MORTAR LINED AND COATED STEEL PIPE	1-E
4	JOINT RESTRAINTS	5-A, B, C

CITY OF VICTORVILLE - ENGINEERING DEPARTMENT				
REV.	DATE	BY	CEMENT MORTAR LINED AND COATED (CML&C) STEEL PIPE / SEWER AND STORM DRAIN UNDERCROSSING	W-37
1	8/20/08	STAFF	JOHN A. McGLADE, CITY ENGINEER	SHEET 1 OF 1

**NOTES:**

- A. INSTALL CASING SPACERS WITHIN 1' FROM EACH END OF THE CASING AND 1' FROM EACH BELL JOINT AND AT THE CENTER OF EACH PIPE JOINT. CONSULT MANUFACTURER FOR RECOMMENDED SPACER SIZE.
- B. THIS STANDARD APPLIES TO UNDERCROSSINGS OF SEWERS AND STORM DRAINS GREATER THAN 6'-0" IN DIAMETER OR WIDTH, OR AS DIRECTED BY THE CITY.
- C. WHEREVER POSSIBLE, WATERLINE SHOULD BE INSTALLED OVER TOP OF SEWER OR STORM DRAIN. DISCUSS MINIMUM COVER REQUIREMENTS WITH THE CITY.



WATER MAIN SIZE	MIN. SLEEVE SIZE / WALL THKNS	WATER MAIN SIZE	MIN. SLEEVE SIZE / WALL THKNS
8"	14" / .25"	18"	30" / .25"
12"	18" / .25"	20"	32" / .375"
16"	28" / .25"	24"	36" / .375"

ITEM	DESCRIPTION	APPROVED MATERIAL LIST NUMBER
1	DUCTILE IRON PIPE	1-C
2	90° BEND	6-C
3	JOINT RESTRAINTS	5-A, B, C
4	CASING SPACERS	8-A
5	END SEAL	8-C
6	STEEL CASING	8-B

**CITY OF VICTORVILLE - ENGINEERING DEPARTMENT**

REV.	DATE	BY	STEEL SLEEVE / SEWER AND STORM DRAIN UNDERCROSSING	W-38
1	8/20/08	STAFF	JOHN A. McGLADE, CITY ENGINEER	SHEET 1 OF 1

## **APPENDIX I**

### **MEMORANDUM OF UNDERSTANDING EMERGENCY RESPONSE ASSISTANCE AGREEMENT**

**DRAFT**  
**MEMORANDUM OF UNDERSTANDING**  
**EMERGENCY RESPONSE ASSISTANCE AGREEMENT**

This agreement is made and entered into by those member agencies who have adopted and signed this agreement to provide mutual assistance in times of emergency in accordance with the Joint Powers Agreement 1978 and the amended Service Agreement in 2005; and to provide reimbursement for equipment, supplies and personnel made available on an emergency basis.

All said wastewater agencies being herein referred to collectively as “the parties.”

In consideration of the mutual covenants and agreements hereinafter set forth, the parties agree to provide mutual assistance to one another in times of emergency as follows:

**Article I – APPLICABILITY.** This agreement is available to all member agencies.

**Article II – ADMINISTRATION.** The administration of the Memorandum of Understanding—Emergency Response Assistance Agreement (ERAA) will be through Victor Valley Wastewater Reclamation Authority and each of the member agencies.

The ERAA will be established by representatives from the signatory agencies in the agreement. A chair and co-chair will be elected and act as administrators for the committee. A semiannual meeting shall be held with all member agencies in attendance to address concerns and procedures for requesting mutual assistance.

**Article III – DEFINITION OF EMERGENCY.** “Emergency” means a condition of disaster or calamity arising within the area of operation of the parties, caused by fire, flood, storm, earthquake, civil disturbance, or other condition which is or is likely to be beyond the control of the services personnel, equipment, and facilities of a party hereto and requires mutual assistance.

**Article IV – REQUESTS FOR ASSISTANCE.** Requests for emergency assistance under this Agreement shall be directed to the appropriate designated official(s) from the list of participating member agencies.

When more than one member agency is impacted by a disaster, requests for mutual assistance under this agreement may be channeled through the member agencies to ensure maximum effectiveness in allocating resources to the highest priority needs.

The party rendering assistance under this Agreement is referred to as Lender; the party receiving assistance is referred to as Borrower.

**Article V – GENERAL NATURE OF ASSISTANCE.** Assistance will generally be in the form of resources, such as equipment, supplies, and personnel. Assistance shall be given only when Lender determines that its own needs can be met while rendering assistance. The execution of this Agreement shall not create any duty to respond on the part of any party hereto. A potential Lender shall not be held liable for failing to provide assistance. A potential Lender has the absolute discretion to decline to provide any requested assistance. Resources are to be made available on a loan basis with reimbursement terms varying with the type of resource.

**Article VI – LOANS OF EQUIPMENT.** Use of equipment, such as construction equipment, vehicles, tools, pumps and generators, shall be at Lender’s current equipment rate and subject to the following conditions:

- (a) At the option of Lender, loaned equipment may be loaned with an operator.
- (b) Loaned equipment shall be returned to Lender within 24 hours after receipt of an oral or written request.
- (c) Borrower shall, at its own expense, supply all fuel, lubrication and maintenance for loaned equipment.
- (d) Lender's cost related to the transportation, handling and loading/unloading of equipment shall be chargeable to Borrower.
- (e) In the event loaned equipment is damaged while being dispatched to Borrower, or while in the custody and use of Borrower, Borrower shall reimburse Lender for the reasonable cost of repairing said damaged equipment. If the equipment cannot be repaired, then Borrower shall reimburse Lender for the cost of replacing such equipment with equipment that is of at least equal capability. If Lender must lease a piece of equipment while Lender's equipment is being repaired or replaced, Borrower shall reimburse Lender for such lease costs.

**Article VII – EXCHANGE OF SUPPLIES.** Borrower shall reimburse Lender in kind or at actual replacement cost, plus handling charges, for use of expendable or non-returnable supplies. Other supplies and reusable items that are returned to Lender in a clean, damage-free condition shall not be charged to the Borrower and no rental fee will be charged; otherwise, they shall be treated as expendable supplies.

**Article VIII – PERSONNEL.** Lender will make such employees as are willing to participate available to Borrower at Borrower's expense equal to Lender's full cost, i.e., equal to the employee's applicable salary or hourly wage plus fringe benefits and overhead and consistent with Lender's personnel union contracts or other conditions of employment. Employees so loaned will be under the supervision and control of the Borrower. Borrower shall be responsible for all direct and indirect costs associated with workers compensation claims. Costs to feed and house loaned personnel, if necessary, shall be chargeable to and paid by Borrower. Lender will not be responsible for cessation or slowdown of work if Lender's employees decline or are reluctant to perform any assigned tasks.

**Article IX – REIMBURSEMENT.** The Borrower agrees to reimburse the Lender within 60 days from receipt of an invoice for assistance provided under this Agreement.

**Article X – LIABILITY AND HOLD HARMLESS.** Pursuant to Government Code Section 895.4, and subject to the conditions set forth in Article XI, Borrower shall assume the defense of, fully indemnify and hold harmless Lender, its Directors, Council Members or Supervisors, its officers and employees from all claims, loss, damage, injury and liability of every kind, nature and description, directly or indirectly arising from the Borrower's work hereunder, including, but not limited to, negligent or wrongful use of equipment, supplies or personnel on loan to Borrower, or faulty workmanship or other negligent acts, errors or omissions by Borrower or by personnel on loan to borrower from the time assistance is requested and rendered until the assistance is returned to Lender's control, portal to portal.

Each party hereto shall give to the others prompt and timely written notice of any claim made or any suit instituted coming to its knowledge, which in any way, directly or indirectly, contingently or otherwise affects or might affect them, and each shall have the right to participate in the defense of the same to the extent of its own interest.

**Article XI – Signatory Indemnification.** In the event of a liability, claim, demand, action or proceeding, or whatever kind or nature arising out of the rendering of assistance through this agreement, the parties involved in rendering or receiving assistance agree to indemnify and hold harmless each signatory to this mutual assistance occurrence which is the subject of such claim, action, demand or other proceeding. Such indemnification shall include indemnity for all claims, demands, liability, damages and costs,

including reasonable attorneys' fees and other costs of defense, for injury, property damage and workers compensation.

**Article XII – Worker's Compensation and Employee Claims.** Lender's employees, officers or agents, made available to Borrower shall except as otherwise provided under Labor Code sections 3600.6 be the special employees of Borrower and the general employees of Lender (as defined in Insurance Code 11663) while engaged in carrying out duties functions, or activities pursuant to this Agreement. Borrower will reimburse lender for all costs, benefits, and expenses associated with workers compensation and other claims. Lender is responsible for providing workers compensation benefits and administering workers compensation claims subject to the reimbursement terms of this agreement. Borrower will reimburse Lender for workers compensation costs, benefits and expenses on a quarterly basis or on other terms mutually agreed upon by Lender and Borrower.

**Article XIII – Modifications.** No provision of this Agreement may be modified, altered or rescinded by individual parties to the Agreement. Modifications to this Agreement require a simple majority vote of signatory agencies to the Agreement.

**Article XIV – Termination.** This Agreement is not transferable or assignable, in whole or in part, and any party may terminate their participation in this Agreement at any time upon 60 days' written notice delivered or mailed to the other parties.

**Article XV – Prior Agreements.** To the extent that prior agreements between signatories to this Agreement are inconsistent with this Agreement, all prior agreements for mutual assistance between the parties hereto are hereby superseded.

**Article XVI – Arbitration.** Any controversy or claim arising out of or relating to this Agreement or the breach thereof, shall be settled by arbitration in accordance with the Rules of the American Arbitration Association and judgment on the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof.

**Article XVII – Tort claims.** This Agreement in no way acts to abrogate or waive any immunity or defense available under California Law.

EMERGENCY RESPONSE ASSISTANCE AGREEMENT

Emergency Contact List

Agency Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip Code: \_\_\_\_\_

24-Hr Phone No.: \_\_\_\_\_ Website: \_\_\_\_\_

Primary Emergency Contact:

Name: \_\_\_\_\_ Telephone: ( ) \_\_\_\_\_

Cell Phone: ( ) \_\_\_\_\_

E-Mail: \_\_\_\_\_

Secondary Emergency Contact:

Name: \_\_\_\_\_ Telephone: ( ) \_\_\_\_\_

Cell Phone: ( ) \_\_\_\_\_

E-Mail: \_\_\_\_\_

Emergency Operation Center:

\_\_\_\_\_

## **APPENDIX J**

### **CITY OF VICTORVILLE – PUBLIC WORKS DEPARTMENT SANITARY SEWER SYSTEM PREVENTIVE MAINTENANCE PROGRAM**



## General

The preventive maintenance program is a key element of the City of Victorville's Sewer System Management Plan (SSMP). The goal of the preventive maintenance program is to reduce and eventually eliminate preventable sanitary sewer overflows (SSOs) from occurring within the City's system by establishing routine and predictive maintenance of the sanitary sewer collection system. As a component of the SSMP, the preventive maintenance program provides part of the asset management framework required to operate and maintain the system at its optimal level of performance.

## System Overview

The City operates a sanitary sewer collection system that serves approximately 88,788 residents in a 75 square mile service area. The system consists of about 410 miles of gravity lines and force mains with six pump stations and about 8,100 manholes.

There are approximately 28,000 sanitary sewer laterals within the City. Maintenance and repair of the laterals within the City are the responsibility of the property owner, however, the City provides maintenance and repair services located within the right-of-way upon request, as a courtesy service to the residents of Victorville.

## Preventive Maintenance

The City proactively inspects and cleans segments of the sewer system every month with a goal of inspection and cleaning of the entire system every 7 years. In addition, the City aggressively performs preventative maintenance on high maintenance sewer segments on a 1-, 2-, 4-, 6-, or 8-month schedule, depending on the type of problem. Attachment A contains the *List of Sewer High Maintenance Areas for March 2009*, the list is updated monthly. These sewer segments are improved, repaired, removed, or replaced, as budgets allow.

Public Works and Engineering Staff are currently developing a capital improvement program to address these high maintenance areas and perform the improvements necessary to remove them from the high maintenance list.

## Sewer Line Cleaning Guide

### Equipment

The preferred method of cleaning is the utilization of a high velocity hydro-cleaning and vacuum removal unit (combo unit). A high velocity hydro-cleaning unit may also be used for debris removal, provided that a safe, efficient method at each manhole is incorporated. It is not permissible to pass debris from one manhole to another manhole during the cleaning process.

Hydro-cleaning units or combo units must meet the following specifications to meet the intent of this cleaning guide:

- The hydro unit must be capable of providing an adequate supply of water and have a pump capable of producing adequate pressure and flow to sufficiently scour the pipe sizes being cleaned. All operating controls must be located topside and within easy access for the operator.
- Sufficient length of one-inch high-pressure hydro flushing hose to clean the longest reaches of the collection system (minimum 500 feet recommended) and be equipped with a hydraulically operated hose reel.
- Two or more high velocity cleaning nozzles capable of producing a scouring action from 15 to 45 degrees in all size lines within the City's collection system. Nozzle skids are to be used for the appropriate sized line being cleaned. Nozzle jet orifices must be maintained within manufacturer's recommendations. Nozzles with worn out orifices may not be used.
- At least one root cutter appropriate to the size pipes being cleaned must be available.
- The hydro unit must be equipped with a high-pressure handgun for cleaning manhole walls, channel, benches and cover frames.
- Combo units must have a centrifugal or positive displacement blower vacuum equipment capable of removing all debris at the downstream manhole while hydro flushing operations are in progress.

Flushing or using a sewer ball is permissible provided the operation is conducted safely and in accordance with accepted sewer line cleaning procedures and that all debris is removed from the system.

As may be required, or as an option, mechanical rodding equipment may be used for sewer line cleaning provided that any debris is safely and efficiently removed at the downstream manhole and not passed down the system. If a rod should break in the sewer line, it must be removed. It is not permissible to leave any rodding segments in the sewer line. At a minimum, rodding equipment must meet the following criteria:

- Rodding machine must have continuous or sectional rods capable of extending the entire distance of the line segment being cleaned (minimum 900 feet recommended) and be capable of spinning the rod in a clockwise or counter clockwise direction.
- The rodding machine must be capable of pushing or pulling the rod without rotating the machine.
- The rodding machine must be capable of utilizing any necessary tools such as, but not limited to, root cutters, corkscrews, augers, brushes, swabs, etc., required to properly clean the sewer line.

Regardless of the type of cleaning equipment used, it must be specifically designed and built for sewer line cleaning. Line cleaning equipment must be properly maintained and operated as per manufacturer's recommendations. Equipment that is defective, inoperative, deficient or unsafe cannot be used. Personnel must demonstrate proficiency in the methods used for sewer line cleaning and in the operation of the equipment being used. California Water Environment Association (CWEA) certification may be used to demonstrate operator efficiency.

### **Cleaning Precautions**

When cleaning the sewer system, satisfactory precautions must be taken to ensure that no damage occurs to the sewer lines, and public and private property. When using hydro-cleaning units, nozzle skids are required to prevent accidental entry into the service laterals. Care must be taken to prevent water pressure or head from flooding any properties served by the sewer. All debris is to be removed from the sewer and not passed down through the system. Any broken rods or other equipment must be removed from the system.

All misaligned joints, broken pipes, intruding lateral connections or other defects that prevent the proper cleaning of a line segment must be immediately reported to the Public Works Manager for instructions on how to proceed. Also immediately notify the Manger if large quantities of fresh soil, pieces of pipe, or a blockage that cannot be cleared, is encountered during the cleaning process.

### **Safety Precautions**

While performing sewer line cleaning, personnel must be in compliance with all applicable safety regulations, particularly when manhole entry and traffic control are involved. Adequate traffic control, consistent with City, County or Cal-Trans regulations, must be practiced to prevent injury or property damage. The Public Works Manager must ensure that work crews consist of properly trained and equipped personnel in compliance with the California Code of Regulations, Sections 5156, 5157, and 5158.

### **Line Cleaning Procedures**

Sewer line cleaning is divided into two basic categories, routine scheduled line cleaning and emergency blockage cleaning. For routine scheduled line cleaning crews shall

acquire any required permits or access permission prior to cleaning. This would include access to private properties or easements. Crews should utilize the printed sewer atlas and/or the list of high maintenance areas to schedule routine cleaning. For emergency blockage cleaning, crews must make every effort to respond as quickly as possible to prevent an overflow or if an overflow has occurred, to reduce the quantity of overflow. Emergency blockage cleaning shall be consistent with the City's *Sanitary Sewer Overflow Emergency Response Plan (SSOERP)* in Element 6 of the *2009 Sewer System Management Plan (SSMP)*.

For routine scheduled cleaning, using a combo unit, the unit is normally located at the downstream manhole to jet towards the upstream manhole, thereby pulling any debris to the downstream manhole where it can be removed with the vacuum unit. If no debris is present, then a single pass is considered sufficient. If debris is present, additional passes shall be made until no debris exists, indicating that the line is clean. Should excessive amounts of dirt, gravel, or broken pipe pieces be present in the debris, the crew shall notify the Public Works Manager of a possible pipeline failure.

If the entire length of the pipe cannot be traversed from the downstream manhole, the crew should try from the upstream manhole to the downstream manhole. If this is still unsuccessful, the crew shall notify the Manager of a possible blockage, misalignment, or pipeline failure.

Before moving to the next pipe segment, manholes shall be thoroughly washed with the high-pressure water gun and inspected. Any deficiencies to the manhole structure, channel, bench or ring and cover assembly shall be noted and reported to the Manager. While washing the manhole, care must be taken to avoid spraying nearby vehicles and pedestrians.

Normally, 1 to 3 passes is considered light cleaning, 4 to 6 passes is medium cleaning, and 7 or more passes is considered heavy cleaning. Most routine cleaning is considered light cleaning. If a pipeline segment is being prepared for relining or closed circuit television (CCTV) inspection, a more thorough scouring of the pipeline is required and may require medium to heavy cleaning.

Grease Removal: Should grease buildup be encountered during the cleaning process, the proper equipment shall be utilized to scour the grease from the pipeline and remove it from the system. It is not permissible to breakup the grease and flush it down the system. All areas where grease buildups are encountered shall be noted and reported.

Root Removal: Should a root buildup be encountered during the cleaning process, the proper equipment shall be utilized to cut the roots from the pipeline and remove them from the system. It is not permissible to cut up the roots and flush them down the system. All areas where root buildups are encountered shall be noted and reported.

High Maintenance Cleaning: High maintenance areas within the collection system are where blockages or other problems have historically occurred. These areas are cleaned and inspected more frequently than other areas of the system. Attachment A contains a list of high maintenance areas within the City that are cleaned on a 1-, 2-, 4-, 6-, or 8-month basis. Procedures for cleaning high maintenance areas shall be consistent with normal line cleaning but on a more frequent basis.

**Material Removal and Disposal**

All debris encountered during the cleaning process must be removed from the system, it is not permissible to flush it down from manhole to manhole. Liquids may be carefully drained back into the system. Solid or semi-solid material must be removed and properly disposed of. If debris removal requires entry into a manhole, the process must be consistent with the current Cal-OSHA Confined Space Entry regulations. Debris removed from the system must be taken to the Victor Valley Wastewater Reclamation Authority (VWVRA) Wastewater Treatment Facility for proper disposal and processing.

**Spill Reporting and Handling**

Crews shall not engage in any activity that could result in a sewage spill. This includes, but is not limited to, blocking the normal sewage flow, diverting the normal sewage flow, using improper cleaning equipment, using the cleaning equipment in a manner for which it was not designed, improperly using cleaning equipment, and/or any other process or procedure that would result in sewage being backed up or spilled on public or private property. Should a spill occur, the procedures outlined in the City's SSOERP shall be adhered to, particularly containment and recovery. All required reporting as specified in the SSOERP shall be followed.

## **Sewer Line Inspection Guide**

The purpose of this Sewer Line Inspection Guide is to establish minimum standards for the sewer line closed circuit television (CCTV) inspection of the City's sanitary sewer collection system. Public Works staff is trained in the operation of the CCTV equipment and regularly perform routine inspections of the system. However, in order to provide inspection of the system in a timely manner and to achieve the Department's goal of inspection of the entire system on a 7-year cycle, outside contractors are sometimes used. These service providers, as well as City staff, are expected to provide a level of CCTV inspection in compliance with this Guide.

### **General**

Line cleaning is normally required to ensure proper CCTV inspection of the pipeline interiors. Any such cleaning must be in compliance with the Sewer Line Cleaning Guide. Staff and/or contractor must ensure that no spills occur during the cleaning and inspection process. Activity that is unsafe or that may result in damage to either private or public property must be avoided.

### **Inspection Methods**

There are several inspection methods that may be utilized on a case-by-case basis for sewer system pipelines and manholes. Manual inspections are used to inspect manholes or short lengths of pipe. CCTV inspections without the use of video recording equipment are sometimes used to get a quick look at a potential trouble spot. Although safety and "no spill" procedures and care must always be taken, this guide does not pertain to those types of inspections. This guide is specifically for CCTV inspections that include a video archive to document and allow an internal assessment of the condition of the City's sanitary sewer system pipelines.

### **CCTV Operator Qualifications**

CCTV operators, whether City staff or contractor, must be certified by the National Association of Sewer Service Companies (NASSCO) and must have passed the 3-day Pipeline Assessment and Certification Program (PACP). In addition, supervisors must have experience in videotaping sewer pipeline inspections. Supervisors must also be able to demonstrate the ability to understand all Cal-OSHA requirements, plans, drawings, and specifications as necessary. NASSCO certification shall be the standard for evaluation, data collection, and reporting for CCTV inspections. All work, procedures, personnel training and equipment must be in compliance with current Cal-OSHA specifications.

### **CCTV Equipment**

All of the equipment used by the City or contractor for CCTV inspections must be designed and built specifically for operation within a sanitary sewer system and in compliance with current Cal-OSHA regulations. The camera shall be capable of operating in an atmosphere with 100% humidity and capable of performing pan-and-tilt (minimum 360 x 270 degree rotation) operations. The camera must have illumination sensitivity of 3 lux or less and be capable of focusing from a minimum of

one inch to infinity. Lighting intensity shall be adjustable to minimize reflective glare and to provide a clear, sharp picture of the entire periphery of the pipeline.

Equipment necessary for the movement of the camera through the pipeline shall not interfere with the documentation or inspection process. Camera cables, power cords and ancillary equipment shall be long enough to complete the longest pipeline segment in one direction. A high quality video recording of the inspection shall be created on videotape or digital equipment.

### **Types of CCTV inspections**

There are two types of inspections used by the City to determine pipeline condition, preliminary and standard. The preliminary inspection is normally conducted prior to any cleaning of the pipeline and is used to assess the pipeline in its natural working environment. It is also used to determine the extent of root intrusion, grease buildup, or other blockages. A preliminary inspection may or may not be recorded. The standard inspection, on the other hand, is recorded and is conducted after the pipeline is sufficiently cleaned, it enables a comprehensive evaluation of the pipelines interior condition.

### **Video Recording and CCTV Inspection Report**

Video Recording. The purpose of the video recording is to provide a visual and audio record of problem areas within the collection system pipelines. Recordings are to be continuous between manholes. Do not leave gaps between segments and do not show a single segment on more than one recording.

Use the sewer system atlas to identify each pipe segment (manhole to manhole) on the recording. The voice recording shall identify the current time and date, weather conditions, operator's name, street name, upstream and downstream manhole ID numbers, direction of camera movement, pipeline material, length of pipe segment, pipe size, and recording ID.

CCTV Inspection Report. The CCTV inspection report, or log, shall be a written report and shall include segment location (upstream and downstream manhole numbers), street name, date, time, operator's name, pipeline information (size, shape, material, depth, age, slope, joint lengths, etc.), and recording ID. The report shall also include lateral locations, identify broken or missing pipe, descriptions of any defects, and any other relevant information.

Frequency of Inspection. The City regularly inspects and cleans segments of the system on a monthly basis with a goal of inspecting the sanitary sewer collection system at the rate of about 14.25% of the system per year resulting in a 7-year cycle for inspecting and cleaning the entire system. The high maintenance areas listed in Attachment A may require more frequent inspection and cleaning.

### **Infiltration/Inflow Reduction**

Infiltration is groundwater that enters the wastewater system through misaligned pipe joints, manhole connections, porous or broken pipes, or similar openings in the system. Inflow is surface water that enters the sewer system through manhole covers or illegal connections such as footing drains, roof drains, or area drains. Limiting infiltration and inflow is a primary goal of many wastewater utilities as it contributes to the wastewater that must be conveyed through the system, reducing the remaining capacity and adding to treatment costs.

The City of Victorville has determined that, because it is located in an arid region with less than five inches of annual rainfall and low water table, infiltration and inflow generally have little impact on the conveyance system. However, this determination should be verified during the design of future pipelines and pumping facilities.

Preventive Maintenance Program

1 Month	2 Months	4 Months	6 Months	8 Months	Location Note: Most "Early a.m." locations require additional traffic control	Due	Next Flush Date
		12/4/08			43. Mojave Dr. @ Ashley Glen Dr., east to Jeraldo Dr. (EARLY A.M.)		4/4/09
					44. Amargosa Rd. @ Chapparral St. north to Tawney Ridge Ln. east to Topango Rd.	3/21/09	
				8-5-08	45. Mesa Verde Dr. @ Madera St., -Via Posada Dr. @ Mesa Verde Dr., Redrock Rd. @ Via Posada Dr. to Topaz Rd.		4-5-09
					46. 1 <sup>st</sup> M/H W/O Topaz Rd. on La Mesa Rd., west to Shearwater Rd.	3/18/09	
				9-15-08	47. Luna Rd. @ Snowview Rd. to second M/H E/O Topaz Rd.		5-15-09
			11/17/08		48 Cobalt Rd. @ High Desert Rd.		5/17/09
		12/11/08			49. Amethyst Rd. N/O Mica Ave. north to La Mesa Rd <b>Ran Root cutter 12/11/08 (@ LA MESA EARLY A.M.)</b>		4/11/09
				12/1/08	50. La Mesa Rd. @ Cobalt Rd., also LaMesa Rd. @ Jade Rd. east to Sundown Rd.		8/1/09
	2/3/09				51. Wrangler Ln. @ Sundown Rd. east to 2 <sup>nd</sup> M/H @ driveway S/O Wrangler Ct., also Luna Rd. @ Wrangler Ln.		4/3/09
				9-25-08	52. North Star Ave. @ Jade Rd. east to Northgate Dr. <b>CHG'D TO 8 MNTHS. 12-21-05 (M/H @ JADE EARLY A.M.)</b>		5-25-09
					53. <b>Shooting Star Dr. @ Mt. Baldy Way north to North Star Ave. and North Star Ave. @ Galaxy St</b>	3/25/09	
				9-22-08	54. Galaxy St. @ Wagon Wheel Dr. north to Stagecoach Dr.		5-22-09
					55. La Mesa Rd. @ Stagecoach Dr.	3-22-09	
				1/14/09	56. Pacoima Rd. @ Rogers Ln. (on the west) and Manzano Rd. (on the east)		9/14/09
					57. El Evado Rd. @ Hillsborough Dr. and La Mesa Rd. @ El Evado Rd. (LA MESA @ EL EVADO EARLY A.M.)	3-25-09	
				9-11-08	58. Luna Rd. @ Aurora Ave. east to El Evado Rd. (EL EVADO RD. @ LUNA RD. EARLY A.M.)		5-11-09
				9-11-08	59. Amargosa Rd. from V.V.Mall entrance south past Olive Garden (EARLY AM)		5-11-09
		3/2/09			60. 2 M/Hs on King Ranch Rd. W/O Amargosa Rd. to Snake River Dr. to Choike Cherry Dr. to La Mesa Rd. E/O El Rio		7/2/09
				2/12/09	61. Mariposa Rd. N/O Bear Valley Rd. north to Monarch Blvd. then east to 1 <sup>st</sup> M/H (EARLY A.M.)		10/12/09
		2/26/09			62. 11 <sup>th</sup> Ave. @ Winona St.		6/26/09
			2/19/09		63. 5 <sup>th</sup> Ave. N/O Bear Valley Rd. @ Food 4 Less tie-in M/H, north to 1 <sup>st</sup> M/H N/O Tokay St.		8/19/09

Preventive Maintenance Program

1 Month	2 Months	4 Months	6 Months	8 Months	Location Note: Most "Early a.m." locations require additional traffic control	Due	Next Flush Date
		2/26/09			64. 5 <sup>th</sup> Ave. @ Red Cloud Ln. to Squaw Valley Ln. to Softwind Dr. to Silica Dr. to 3 <sup>rd</sup> Ave. (3 <sup>rd</sup> Ave M/H EARLY A.M.)		6/26/09
	2/5/09				65. Hesperia Rd. @ Silica Rd. to M/H in front of Los Robertos Restaurant (EARLY A.M.)		4/5/09
					66. Hesperia Rd. @ Comanche St. north to 90 M/H (on outer roadway)	3/20/09	
	1/5/09				67. Nisqualli Rd. from 1 <sup>st</sup> Ave. east to Hesperia Rd		5/5/09
					68. Sewer easement W/O Landis St, E/O railroad /W/O Ridgecrest N/O Bear Valley Rd CHECK-USE 4 WHEELDRIVE	2-24-09	
					69. Ottawa St. @ Forrest Meadow St. east to Ottawa Place	3/25/09	
					70. Dakota St. @ Chuparosa St. east to 1 <sup>st</sup> M/H W/O Amargosa Rd.	3/19/09	
	2/3/09				71. Fern Pine @ Dos Palmas 4-way manhole		4/3/09
					72. Arrowhead Rd. @ Greyrock south to Ottawa St. Used Root cutter 12/11/08 (Traffic Control Recommended)	2/14/09	
					73. 9 <sup>th</sup> Ave. from Winona St. to Choctaw	3/26/09	
			10/28/08		74. Navarro Dr. @ 3 <sup>rd</sup> M/H w/o Cactus Dr. flush 2 M/Hs upstream to Navarro Ct. M/H		4/28/09
			1/26/09		75. Estate Way to Mojave Dr		7/26/09
		3/4/09			76. E St east of 6 <sup>th</sup> St		7/4/09
			1/21/09		77. Seneca Rd. E/O Park Ave to Park Ave, South in Alley to 1 <sup>st</sup> Manhole		7/21/09
				9-9-08	78. Bear Valley Rd. @ Amethyst Rd. ( Dump Water into TOL Manhole )		5-9-09
					79. Nisqualli Rd. @ Apts. East of Hesperia Rd. (Both laterals)	4/4/09	
				3/3/09	80. Woodbine west from Beauville		11/3/09
				1/7/09	81. Alpine Circle n/o Kirkwood Dr. to Sun Valley Circle		9/7/09
				1/28/09	82. Seneca Rd @ Newporter Apts. Driveway M/H Flush into Apt M/H then west to McArt Rd.		9/28/09
				1/28/09	83. Alta Mesa Rd. from Via Rosa Rd. to Via Puente Rd. to Del Amo Dr. M/H.		9/28/09

Preventive Maintenance Program

1 Month	2 Months	4 Months	6 Months	8 Months		Due	Next Flush Date
<p><i>Location Note: Most "Early a.m." locations require additional traffic control</i></p>							





## General

The preventive maintenance program is a key element of the City of Victorville's Sewer System Management Plan (SSMP). The goal of the preventive maintenance program is to reduce and eventually eliminate preventable sanitary sewer overflows (SSOs) from occurring within the City's system by establishing routine and predictive maintenance of the sanitary sewer collection system. As a component of the SSMP, the preventive maintenance program provides part of the asset management framework required to operate and maintain the system at its optimal level of performance.

## System Overview

The City operates a sanitary sewer collection system that serves approximately 88,788 residents in a 75 square mile service area. The system consists of about 410 miles of gravity lines and force mains with six pump stations and about 8,100 manholes.

There are approximately 28,000 sanitary sewer laterals within the City. Maintenance and repair of the laterals within the City are the responsibility of the property owner, however, the City provides maintenance and repair services located within the right-of-way upon request, as a courtesy service to the residents of Victorville.

## Preventive Maintenance

The City proactively inspects and cleans segments of the sewer system every month with a goal of inspection and cleaning of the entire system every 7 years. In addition, the City aggressively performs preventative maintenance on high maintenance sewer segments on a 1-, 2-, 4-, 6-, or 8-month schedule, depending on the type of problem. Attachment A contains the *List of Sewer High Maintenance Areas for March 2009*, the list is updated monthly. These sewer segments are improved, repaired, removed, or replaced, as budgets allow.

Public Works and Engineering Staff are currently developing a capital improvement program to address these high maintenance areas and perform the improvements necessary to remove them from the high maintenance list.

## Sewer Line Cleaning Guide

### Equipment

The preferred method of cleaning is the utilization of a high velocity hydro-cleaning and vacuum removal unit (combo unit). A high velocity hydro-cleaning unit may also be used for debris removal, provided that a safe, efficient method at each manhole is incorporated. It is not permissible to pass debris from one manhole to another manhole during the cleaning process.

Hydro-cleaning units or combo units must meet the following specifications to meet the intent of this cleaning guide:

- The hydro unit must be capable of providing an adequate supply of water and have a pump capable of producing adequate pressure and flow to sufficiently scour the pipe sizes being cleaned. All operating controls must be located topside and within easy access for the operator.
- Sufficient length of one-inch high-pressure hydro flushing hose to clean the longest reaches of the collection system (minimum 500 feet recommended) and be equipped with a hydraulically operated hose reel.
- Two or more high velocity cleaning nozzles capable of producing a scouring action from 15 to 45 degrees in all size lines within the City's collection system. Nozzle skids are to be used for the appropriate sized line being cleaned. Nozzle jet orifices must be maintained within manufacturer's recommendations. Nozzles with worn out orifices may not be used.
- At least one root cutter appropriate to the size pipes being cleaned must be available.
- The hydro unit must be equipped with a high-pressure handgun for cleaning manhole walls, channel, benches and cover frames.
- Combo units must have a centrifugal or positive displacement blower vacuum equipment capable of removing all debris at the downstream manhole while hydro flushing operations are in progress.

Flushing or using a sewer ball is permissible provided the operation is conducted safely and in accordance with accepted sewer line cleaning procedures and that all debris is removed from the system.

As may be required, or as an option, mechanical rodding equipment may be used for sewer line cleaning provided that any debris is safely and efficiently removed at the downstream manhole and not passed down the system. If a rod should break in the sewer line, it must be removed. It is not permissible to leave any rodding segments in the sewer line. At a minimum, rodding equipment must meet the following criteria:

- Rodding machine must have continuous or sectional rods capable of extending the entire distance of the line segment being cleaned (minimum 900 feet recommended) and be capable of spinning the rod in a clockwise or counter clockwise direction.
- The rodding machine must be capable of pushing or pulling the rod without rotating the machine.
- The rodding machine must be capable of utilizing any necessary tools such as, but not limited to, root cutters, corkscrews, augers, brushes, swabs, etc., required to properly clean the sewer line.

Regardless of the type of cleaning equipment used, it must be specifically designed and built for sewer line cleaning. Line cleaning equipment must be properly maintained and operated as per manufacturer's recommendations. Equipment that is defective, inoperative, deficient or unsafe cannot be used. Personnel must demonstrate proficiency in the methods used for sewer line cleaning and in the operation of the equipment being used. California Water Environment Association (CWEA) certification may be used to demonstrate operator efficiency.

### **Cleaning Precautions**

When cleaning the sewer system, satisfactory precautions must be taken to ensure that no damage occurs to the sewer lines, and public and private property. When using hydro-cleaning units, nozzle skids are required to prevent accidental entry into the service laterals. Care must be taken to prevent water pressure or head from flooding any properties served by the sewer. All debris is to be removed from the sewer and not passed down through the system. Any broken rods or other equipment must be removed from the system.

All misaligned joints, broken pipes, intruding lateral connections or other defects that prevent the proper cleaning of a line segment must be immediately reported to the Public Works Manager for instructions on how to proceed. Also immediately notify the Manger if large quantities of fresh soil, pieces of pipe, or a blockage that cannot be cleared, is encountered during the cleaning process.

### **Safety Precautions**

While performing sewer line cleaning, personnel must be in compliance with all applicable safety regulations, particularly when manhole entry and traffic control are involved. Adequate traffic control, consistent with City, County or Cal-Trans regulations, must be practiced to prevent injury or property damage. The Public Works Manager must ensure that work crews consist of properly trained and equipped personnel in compliance with the California Code of Regulations, Sections 5156, 5157, and 5158.

### **Line Cleaning Procedures**

Sewer line cleaning is divided into two basic categories, routine scheduled line cleaning and emergency blockage cleaning. For routine scheduled line cleaning crews shall

acquire any required permits or access permission prior to cleaning. This would include access to private properties or easements. Crews should utilize the printed sewer atlas and/or the list of high maintenance areas to schedule routine cleaning. For emergency blockage cleaning, crews must make every effort to respond as quickly as possible to prevent an overflow or if an overflow has occurred, to reduce the quantity of overflow. Emergency blockage cleaning shall be consistent with the City's *Sanitary Sewer Overflow Emergency Response Plan (SSOERP)* in Element 6 of the *2009 Sewer System Management Plan (SSMP)*.

For routine scheduled cleaning, using a combo unit, the unit is normally located at the downstream manhole to jet towards the upstream manhole, thereby pulling any debris to the downstream manhole where it can be removed with the vacuum unit. If no debris is present, then a single pass is considered sufficient. If debris is present, additional passes shall be made until no debris exists, indicating that the line is clean. Should excessive amounts of dirt, gravel, or broken pipe pieces be present in the debris, the crew shall notify the Public Works Manager of a possible pipeline failure.

If the entire length of the pipe cannot be traversed from the downstream manhole, the crew should try from the upstream manhole to the downstream manhole. If this is still unsuccessful, the crew shall notify the Manager of a possible blockage, misalignment, or pipeline failure.

Before moving to the next pipe segment, manholes shall be thoroughly washed with the high-pressure water gun and inspected. Any deficiencies to the manhole structure, channel, bench or ring and cover assembly shall be noted and reported to the Manager. While washing the manhole, care must be taken to avoid spraying nearby vehicles and pedestrians.

Normally, 1 to 3 passes is considered light cleaning, 4 to 6 passes is medium cleaning, and 7 or more passes is considered heavy cleaning. Most routine cleaning is considered light cleaning. If a pipeline segment is being prepared for relining or closed circuit television (CCTV) inspection, a more thorough scouring of the pipeline is required and may require medium to heavy cleaning.

Grease Removal: Should grease buildup be encountered during the cleaning process, the proper equipment shall be utilized to scour the grease from the pipeline and remove it from the system. It is not permissible to breakup the grease and flush it down the system. All areas where grease buildups are encountered shall be noted and reported.

Root Removal: Should a root buildup be encountered during the cleaning process, the proper equipment shall be utilized to cut the roots from the pipeline and remove them from the system. It is not permissible to cut up the roots and flush them down the system. All areas where root buildups are encountered shall be noted and reported.

High Maintenance Cleaning: High maintenance areas within the collection system are where blockages or other problems have historically occurred. These areas are cleaned and inspected more frequently than other areas of the system. Attachment A contains a list of high maintenance areas within the City that are cleaned on a 1-, 2-, 4-, 6-, or 8-month basis. Procedures for cleaning high maintenance areas shall be consistent with normal line cleaning but on a more frequent basis.

**Material Removal and Disposal**

All debris encountered during the cleaning process must be removed from the system, it is not permissible to flush it down from manhole to manhole. Liquids may be carefully drained back into the system. Solid or semi-solid material must be removed and properly disposed of. If debris removal requires entry into a manhole, the process must be consistent with the current Cal-OSHA Confined Space Entry regulations. Debris removed from the system must be taken to the Victor Valley Wastewater Reclamation Authority (VWVRA) Wastewater Treatment Facility for proper disposal and processing.

**Spill Reporting and Handling**

Crews shall not engage in any activity that could result in a sewage spill. This includes, but is not limited to, blocking the normal sewage flow, diverting the normal sewage flow, using improper cleaning equipment, using the cleaning equipment in a manner for which it was not designed, improperly using cleaning equipment, and/or any other process or procedure that would result in sewage being backed up or spilled on public or private property. Should a spill occur, the procedures outlined in the City's SSOERP shall be adhered to, particularly containment and recovery. All required reporting as specified in the SSOERP shall be followed.

## **Sewer Line Inspection Guide**

The purpose of this Sewer Line Inspection Guide is to establish minimum standards for the sewer line closed circuit television (CCTV) inspection of the City's sanitary sewer collection system. Public Works staff is trained in the operation of the CCTV equipment and regularly perform routine inspections of the system. However, in order to provide inspection of the system in a timely manner and to achieve the Department's goal of inspection of the entire system on a 7-year cycle, outside contractors are sometimes used. These service providers, as well as City staff, are expected to provide a level of CCTV inspection in compliance with this Guide.

### **General**

Line cleaning is normally required to ensure proper CCTV inspection of the pipeline interiors. Any such cleaning must be in compliance with the Sewer Line Cleaning Guide. Staff and/or contractor must ensure that no spills occur during the cleaning and inspection process. Activity that is unsafe or that may result in damage to either private or public property must be avoided.

### **Inspection Methods**

There are several inspection methods that may be utilized on a case-by-case basis for sewer system pipelines and manholes. Manual inspections are used to inspect manholes or short lengths of pipe. CCTV inspections without the use of video recording equipment are sometimes used to get a quick look at a potential trouble spot. Although safety and "no spill" procedures and care must always be taken, this guide does not pertain to those types of inspections. This guide is specifically for CCTV inspections that include a video archive to document and allow an internal assessment of the condition of the City's sanitary sewer system pipelines.

### **CCTV Operator Qualifications**

CCTV operators, whether City staff or contractor, must be certified by the National Association of Sewer Service Companies (NASSCO) and must have passed the 3-day Pipeline Assessment and Certification Program (PACP). In addition, supervisors must have experience in videotaping sewer pipeline inspections. Supervisors must also be able to demonstrate the ability to understand all Cal-OSHA requirements, plans, drawings, and specifications as necessary. NASSCO certification shall be the standard for evaluation, data collection, and reporting for CCTV inspections. All work, procedures, personnel training and equipment must be in compliance with current Cal-OSHA specifications.

### **CCTV Equipment**

All of the equipment used by the City or contractor for CCTV inspections must be designed and built specifically for operation within a sanitary sewer system and in compliance with current Cal-OSHA regulations. The camera shall be capable of operating in an atmosphere with 100% humidity and capable of performing pan-and-tilt (minimum 360 x 270 degree rotation) operations. The camera must have illumination sensitivity of 3 lux or less and be capable of focusing from a minimum of

one inch to infinity. Lighting intensity shall be adjustable to minimize reflective glare and to provide a clear, sharp picture of the entire periphery of the pipeline.

Equipment necessary for the movement of the camera through the pipeline shall not interfere with the documentation or inspection process. Camera cables, power cords and ancillary equipment shall be long enough to complete the longest pipeline segment in one direction. A high quality video recording of the inspection shall be created on videotape or digital equipment.

### **Types of CCTV inspections**

There are two types of inspections used by the City to determine pipeline condition, preliminary and standard. The preliminary inspection is normally conducted prior to any cleaning of the pipeline and is used to assess the pipeline in its natural working environment. It is also used to determine the extent of root intrusion, grease buildup, or other blockages. A preliminary inspection may or may not be recorded. The standard inspection, on the other hand, is recorded and is conducted after the pipeline is sufficiently cleaned, it enables a comprehensive evaluation of the pipelines interior condition.

### **Video Recording and CCTV Inspection Report**

Video Recording. The purpose of the video recording is to provide a visual and audio record of problem areas within the collection system pipelines. Recordings are to be continuous between manholes. Do not leave gaps between segments and do not show a single segment on more than one recording.

Use the sewer system atlas to identify each pipe segment (manhole to manhole) on the recording. The voice recording shall identify the current time and date, weather conditions, operator's name, street name, upstream and downstream manhole ID numbers, direction of camera movement, pipeline material, length of pipe segment, pipe size, and recording ID.

CCTV Inspection Report. The CCTV inspection report, or log, shall be a written report and shall include segment location (upstream and downstream manhole numbers), street name, date, time, operator's name, pipeline information (size, shape, material, depth, age, slope, joint lengths, etc.), and recording ID. The report shall also include lateral locations, identify broken or missing pipe, descriptions of any defects, and any other relevant information.

Frequency of Inspection. The City regularly inspects and cleans segments of the system on a monthly basis with a goal of inspecting the sanitary sewer collection system at the rate of about 14.25% of the system per year resulting in a 7-year cycle for inspecting and cleaning the entire system. The high maintenance areas listed in Attachment A may require more frequent inspection and cleaning.

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## LIST OF SEWER HIGH MAINTENANCE AREAS FOR MARCH 2009

1 Month	2 Months	4 Months	6 Months	8 Months	Location Note: Most "Early a.m." locations require additional traffic control	Due	Next Flush Date
					1. Borego Rd. from south of A American Self Storage yard north to Seneca. (Changed to monthly 10/30/08 surcharge)	3/4/09	
				8-7-08	2. Park Ave. from Cholame Rd to M/H @ wash to M/H east of Park next to wash (EARLY A.M.)		4-7-09
			1/26/09		3. Park Ave., east of Restaurant Row (along I-15) to MH west of I-15 @ sewer crossing		7/26/09
				12/2/08	4. Kingswood Dr. @ I-15 to Burning Tree Dr.		8/2/09
	2/19/09				5. Burning Tree Dr. second M/H northwest of Candlewood Dr.		4/19/09
					6. Yates Rd. first M/H east of Cypress Ave.	3/17/09	
					7. Valley Center Dr. M/H @ Outer Seventh St. to Sand St.	3/20/09	
					8. Lorene Dr. @ Atstar to Sand St. to Outer Seventh St. north to sewer crossing M/H.	3-8-09	
					9. Alley E/O Seventh St. from Sage St. to sewer crossing M/H then El Dorado Dr. to Molino Dr. to Burning Tree Dr.	3/25/09	
	3/2/09				10. Burning Tree Dr. 5-way M/H S/O Indian Creek Pl. Consult Lead worker first ! HAZARDOUS FLUSH !		5/2/09
					11. La Paz Dr. S/O Hughes @ sewer crossing M/H north to M/H flowing east toward easement to M/H (Changed to monthly 11/12/08 due to SSO) Make sure to flush to M/H in easement	3/24/09	
					12. Camelback Dr. @ Arrowhead Dr	3/20/09	
	2/3/09				13. Pebble Beach Dr. @ Arrowhead Dr. north to M/H @ wash ( S/O Hughes Rd.) RESEAL WASH M/H PICKHOLES.		4/3/09
		2/3/09			14. Hughes Rd. @ Austin Rd. to Pebble Beach Park M/H thru easement to Molino Dr. to Avalon Rd. to Midway.		6/3/09
					15. Mesa Dr. N/O Seneca to Cabrillo to wash M/H Mesa N/O Cabrillo Dr. 1000PSI Do NOT flush 16325Cabrillo	3/20/09	
					16. Seneca Rd. first M/H W/O Harmony Ln. to M/H @ Harmony Ln. to M/H @ Lorene Dr.	3-29-09	
	2/12/09				17. Rodeo Dr. @ Lariat Rd. to M/H N/O City View Dr Used Root cutter 12/11/08 (EARLY A.M.)		4/12/09
			10/6/08		18. Rodeo Dr. M/H @ wash -east thru easement to Lorene Dr. M/H (in resident's driveway) - to Seneca M/H-(shoulder)		4/6/09
					19. Seneca Rd. @ Navarro Dr. to M/H in bridge to M/H in center of Seneca Rd. -east to 90 M/H flowing north	2-26-09	
					20. Seneca Rd. @ Mojave Ln. to M/H @ Outer Hesperia Rd. to M/H @ Hesperia Rd.- (EARLY A.M.)	3-24-09	
				8-6-08	21. Hesperia Rd. & Oro Grande wash @ the Old Bus Barn crossing		4-6-09

Preventive Maintenance Program

1 Month	2 Months	4 Months	6 Months	8 Months	Location Note: Most "Early a.m." locations require additional traffic control	Due	Next Flush Date
				11/17/08	22. Cherry Hill Dr. @ Apple Creek Dr.		7/17/09
3/3/09					23. S. Mojave Dr. @ northwest corner of Irwin School to Center St.		4/3/09
		1/12/09			24. Easement W/O Cullley St. Apts. to 90 M/H. east thru 2 easements between Lacy, Joshua, & Zenda- to Center St.		5/12/09
			10/23/08		25. Greentree Blvd. @ Hesperia Rd. south to Coad Rd. M/H	(EARLY A.M.)	4/23/09
3/3/09					26. Del Rey Dr. @ Del Norte Dr. to Tatum Dr. Use Root cutter as needed to remove grease		4/3/09
					27. Victor St. @ Las Piedras Dr. & Del Rey Dr. to Tatum Ct. then Tatum Rd. from Del Norte Dr. to Tatum Ct.	3/25/09	
		12/11/08			28. Seventh St. @ Tatum Rd.-north to M/H @ Del Taco just S/O Lacy St.	(EARLY A.M.)	4/11/09
				2/12/09	29. Forrest Ave. @ Seventh St. to drop-M/H @ alleyway	(EARLY A.M.)	10/12/09
				8-7-08	30. LaPaz Dr. @ LaCubre Dr.	(EARLY A.M.)	4-7-09
		2/19/09			31. Del Rey Dr. @ Del Rey Ct. north to La Paz Dr.-. north to Avalon Dr.- east.to La Verida Dr.- south to Forrest St.		6/19/09
					32. B.St. alleyway north to D St. @ Eighth St. to Seventh St. to E.St. @ Sixth St.	(FLUSH D ST. EARLY A.M.)	11/25/08
	2/24/09				33. Alley between Sixth St. and Fifth St. from A St. to C St.		4/24/09
				2/3/09	34. Allen St. south of A St. , north to B St. through alleyway		10/3/09
				2/3/09	35. 6 <sup>th</sup> , 5 <sup>th</sup> , 4 <sup>th</sup> , 3 <sup>rd</sup> , & 2 <sup>nd</sup> , Streets between C St. and D St	(SPOT-CHECK THESE MANHOLES)	10/3/09
					36. Condor Rd. @ La Cubre Dr. to wash crossing south of Tern Rd	3/17/09	
		1/15/09			37. Mojave Dr. W/O Condor (north side Mojave) east to junction M/H (south side Mojave), east to Village (EARLY AM)		5/15/09
					38. Barranca Way sewer crossing north of Sueno Ln. under wash to alleyway M/H behind 15647 Village Dr. (2 PIPES)	3/24/09	
			1/29/09		39. Puerta Del Sol Dr. E/O Cazadero Rd. @ wash	(VACTOR SOUTH M/H IN THE EARLY A.M.)	7/29/09
					40. N. Culver Rd. @ Burwood Rd. & M/H E/O wash, thru easement south to Condor, north thru easement to Village Dr.	3/26/09	
				1/26/09	41. El Grande Way @ Foothill Rd. east to El Evado Rd.		9/26/09
				8-26-08	42. Highlander Dr. @ Newcastle Way thru to Loch Lomond Court N/O Hook Blvd.		4-26-09

Preventive Maintenance Program

**LIST OF SEWER HIGH MAINTENANCE AREAS FOR MARCH 2009**

1 Month	2 Months	4 Months	6 Months	8 Months	Location	Due	Next Flush Date
					<i>Location Note: Most "Early a.m." locations require additional traffic control</i>		
					1. Borego Rd. from south of A American Self Storage yard north to Seneca. (Changed to monthly 10/30/08 surcharge)	3/4/09	
				8-7-08	2. Park Ave. from Cholame Rd to M/H @ wash to M/H east of Park next to wash (EARLY A.M.)		4-7-09
			1/26/09		3. Park Ave., east of Restaurant Row (along I-15) to MH west of I-15 @ sewer crossing		7/26/09
				12/2/08	4. Kingswood Dr. @ I-15 to Burning Tree Dr.		8/2/09
	2/19/09				5. Burning Tree Dr. second M/H northwest of Candlewood Dr.		4/19/09
					6. Yates Rd, first M/H east of Cypress Ave.	3/17/09	
					7. Valley Center Dr. M/H @ Outer Seventh St. to Sand St.	3/20/09	
					8. Lorene Dr. @ Atstar to Sand St. to Outer Seventh St. north to sewer crossing M/H.	3-8-09	
					9. Alley E/O Seventh St. from Sage St. to sewer crossing M/H then El Dorado Dr. to Molino Dr. to Burning Tree Dr.	3/25/09	
	3/2/09				10. Burning Tree Dr. 5-way M/H S/O Indian Creek Pl. Consult Lead worker first ! HAZARDOUS FLUSH !		5/2/09
					11. La Paz Dr. S/O Hughes @ sewer crossing M/H north to M/H flowing east toward easement to M/H (Changed to monthly 11/12/08 due to SSO) Make sure to flush to M/H in easement!	3/24/09	
					12. Camelback Dr. @ Arrowhead Dr	3/20/09	
	2/3/09				13. Pebble Beach Dr. @ Arrowhead Dr. north to M/H @ wash ( S/O Hughes Rd.) RESEAL WASH M/H PICKHOLES.		4/3/09
		2/3/09			14. Hughes Rd. @ Austin Rd. to Pebble Beach Park M/H thru easement to Molino Dr. to Avalon Rd. to Midway.		6/3/09
					15. Mesa Dr. N/O Seneca to Cabrillo to wash M/H Mesa N/O Cabrillo Dr. 1000PSI Do NOT flush 16325Cabrillo	3/20/09	
					16. Seneca Rd. first M/H W/O Harmony Ln. to M/H @ Harmony Ln. to M/H @ Lorene Dr.	3-29-09	
	2/12/09				17. Rodeo Dr. @ Lariat Rd. to M/H N/O City View Dr Used Root cutter 12/11/08 (EARLY A.M.)		4/12/09
			10/6/08		18. Rodeo Dr. M/H @ wash -east thru easement to Lorene Dr. M/H (in resident's driveway) - to Seneca M/H-(shoulder)		4/6/09
					19. Seneca Rd. @ Navarro Dr. to M/H in bridge to M/H in center of Seneca Rd. -east to 90 M/H flowing north	2-26-09	
					20. Seneca Rd. @ Mojave Ln. to M/H @ Outer Hesperia Rd. to M/H @ Hesperia Rd. (EARLY A.M.)	3-24-09	
				8-6-08	21. Hesperia Rd. & Oro Grande wash @ the Old Bus Barn crossing		4-6-09

Preventive Maintenance Program

1 Month	2 Months	4 Months	6 Months	8 Months	Location Note: Most "Early a.m." locations require additional traffic control.	Due	Next Flush Date
				11/17/08	22. Cherry Hill Dr. @ Apple Creek Dr.		7/17/09
3/3/09					23. S. Mojave Dr. @ northwest corner of Irwin School to Center St.		4/3/09
		1/12/09			24. Easement W/O Culley St. Apts. to 90 M/H- east thru 2 easements between Lacy, Joshua, & Zenda- to Center St.		5/12/09
			10/23/08		25. Greentree Blvd. @ Hesperia Rd. south to Coad Rd. M/H	(EARLY A.M.)	4/23/09
3/3/09					26. Del Rey Dr. @ Del Norte Dr. to Tatum Dr.	Use Root cutter as needed to remove grease	4/3/09
					27. Victor St. @ Las Piedras Dr. & Del Rey Dr. to Tatum Ct.-then Tatum Rd. from Del Norte Dr. to Tatum Ct.	3/25/09	
		12/11/08			28. Seventh St. @ Tatum Rd.-north to M/H @ Del Taco just S/O Lacy St.	(EARLY A.M.)	4/11/09
				2/12/09	29. Forrest Ave. @ Seventh St. to drop-M/H @ alleyway	(EARLY A.M.)	10/12/09
				8-7-08	30. LaPaz Dr. @ LaCubre Dr.	(EARLY A.M.)	4-7-09
		2/19/09			31. Del Rey Dr. @ Del Rey Ct. north to La Paz Dr.-north to Avalon Dr.- east to La Verida Dr.- south to Forrest St.		6/19/09
	2/24/09				32. B.St. alleyway north to D St. @ Eighth St. to Seventh St. to E.St. @ Sixth St.	(FLUSH D ST. EARLY A.M.)	11/25/08
				2/3/09	33. Alley between Sixth St. and Fifth St. from A St. to C St.		4/24/09
				2/3/09	34. Allen St. south of A St. , north to B St. through alleyway		10/3/09
					35. 6 <sup>th</sup> , 5 <sup>th</sup> , 4 <sup>th</sup> , 3 <sup>rd</sup> , & 2 <sup>nd</sup> , Streets between C St. and D St	(SPOT-CHECK THESE MANHOLES)	10/3/09
					36. Condor Rd. @ La Cubre Dr. to wash crossing south of Tern Rd	3/17/09	
		1/15/09			37. Mojave Dr. W/O Condor (north side Mojave) east to junction M/H (south side Mojave), east to Village (EARLY AM)		5/15/09
					38. Barranca Way sewer crossing north of Sueno Ln. under wash to alleyway M/H behind 15647 Village Dr. (2 PIPES)	3/24/09	
			1/29/09		39. Puesta Del Sol Dr. E/O Cazadero Rd. @ wash	(VACTOR SOUTH M/H IN THE EARLY A.M.)	7/29/09
					40. N. Culver Rd. @ Burwood Rd. & M/H E/O wash, thru easement south to Condor, north thru easement to Village Dr.	3/26/09	
				1/26/09	41. El Grande Way @ Foothill Rd. east to El Evado Rd.		9/26/09
				8-26-08	42. Highlander Dr. @ Newcastle Way thru to Loch Lomond Court N/O Hook Blvd.		4-26-09

Preventive Maintenance Program

1 Month	2 Months	4 Months	6 Months	8 Months	Location Note: Most "Early a.m." locations require additional traffic control	Due	Next Flush Date
		12/4/08			43. Mojave Dr. @ Ashley Glen Dr., east to Jeraldo Dr. (EARLY A.M.)		4/4/09
					44. Amargosa Rd. @ Chapparral St. north to Tawney Ridge Ln. east to Topango Rd.	3/21/09	
				8-5-08	45. Mesa Verde Dr. @ Madera St., -Via Posada Dr. @ Mesa Verde Dr., -Redrock Rd. @ Via Posada Dr. to Topaz Rd.		4-5-09
					46. 1 <sup>st</sup> M/H W/O Topaz Rd. on La Mesa Rd., west to Shearwater Rd.	3/18/09	
				9-15-08	47. Luna Rd. @ Snowview Rd. to second M/H E/O Topaz Rd.		5-15-09
			11/17/08		48. Cobalt Rd. @ High Desert Rd.		5/17/09
		12/11/08			49. Amethyst Rd. N/O Mica Ave. north to La Mesa Rd. <b>Ran Root cutter 12/11/08 (@ LA MESA EARLY A.M.)</b>		4/11/09
				12/1/08	50. La Mesa Rd. @ Cobalt Rd., also LaMesa Rd. @ Jade Rd. east to Sundown Rd.		8/1/09
	2/3/09				51. Wrangler Ln. @ Sundown Rd. east to 2 <sup>nd</sup> M/H @ driveway S/O Wrangler Ct., also Luna Rd. @ Wrangler Ln.		4/3/09
				9-25-08	52. North Star Ave. @ Jade Rd. east to Northgate Dr. <b>CHG'D TO 8 MNTHS. 12-21-05 (M/H @ JADE EARLY A.M.)</b>		5-25-09
					53. <b>Shooting Star Dr. @ Mt. Baldy Way north to North Star Ave. and North Star Ave. @ Galaxy St</b>	3/25/09	
				9-22-08	54. Galaxy St. @ Wagon Wheel Dr. north to Stagecoach Dr.		5-22-09
					55. La Mesa Rd. @ Stagecoach Dr.	3-22-09	
				1/14/09	56. Pacoima Rd. @ Rogers Ln. (on the west) and Manzano Rd. (on the east)		9/14/09
					57. El Evado Rd. @ Hillsborough Dr. and La Mesa Rd. @ El Evado Rd. <b>(LA MESA @ EL EVADO EARLY A.M.)</b>	3-25-09	
				9-11-08	58. Luna Rd. @ Aurora Ave. east to El Evado Rd. <b>(EL EVADO RD. @ LUNA RD. EARLY A.M.)</b>		5-11-09
				9-11-08	59. Amargosa Rd. from V.V.Mall entrance south past Olive Garden <b>(EARLY AM)</b>		5-11-09
		3/2/09			60. 2 M/Hs on King Ranch Rd. W/O Amargosa Rd. to Snake River Dr. to Choke Cherry Dr. to La Mesa Rd. E/O El Rio		7/2/09
				2/12/09	61. Mariposa Rd. N/O Bear Valley Rd. north to Monarch Blvd. then east to 1 <sup>st</sup> M/H <b>(EARLY A.M.)</b>		10/12/09
		2/26/09			62. 11 <sup>th</sup> Ave. @ Winona St.		6/26/09
			2/19/09		63. 5 <sup>th</sup> Ave. N/O Bear Valley Rd. @ Food 4 Less tie-in M/H, north to 1 <sup>st</sup> M/H N/O Tokay St.		8/19/09

Preventive Maintenance Program

1 Month	2 Months	4 Months	6 Months	8 Months	Location Note: Most "Early a.m." locations require additional traffic control	Due	Next Flush Date
		2/26/09			64. 5 <sup>th</sup> Ave. @ Red Cloud Ln. to Squaw Valley Ln. to Softwind Dr. to Silica Dr. to 3 <sup>rd</sup> Ave. (3 <sup>rd</sup> Ave M/H EARLY A.M.)		6/26/09
	2/5/09				65. Hesperia Rd. @ Silica Rd. to M/H in front of Los Robertos Restaurant (EARLY A.M.)		4/5/09
					66. Hesperia Rd. @ Comanche St. north to 90 M/H (on outer roadway)	3/20/09	
		1/5/09			67. Nisqualli Rd. from 1 <sup>st</sup> Ave. east to Hesperia Rd		5/5/09
					68. Sewer easement W/O Landis St., E/O railroad /W/O Ridgecrest N/O Bear Valley Rd <b>CHECK-USE 4 WHEELDRIVE</b>	2-24-09	
					69. Ottawa St. @ Forrest Meadow St. east to Ottawa Place	3/25/09	
					70. Dakota St. @ Chuparosa St. east to 1 <sup>st</sup> M/H W/O Amargosa Rd.	3/19/09	
	2/3/09				71. Fern Pine @ Dos Palmas 4-way manhole		4/3/09
					72. Arrowhead Rd. @ Greyrock south to Ottawa St. <b>Used Root cutter 12/11/08 (Traffic Control Recommended)</b>	2/14/09	
					73. 9 <sup>th</sup> Ave. from Winona St. to Choctaw	3/26/09	
			10/28/08		74. Navarro Dr. @ 3 <sup>rd</sup> M/H w/o Cactus Dr. flush 2 M/Hs upstream to Navarro Ct. M/H		4/28/09
			1/26/09		75. Estate Way to Mojave Dr		7/26/09
		3/4/09			76. E St. east of 6 <sup>th</sup> St		7/4/09
			1/21/09		77. Seneca Rd. E/ O Park Ave to Park Ave. South in Alley to 1 <sup>st</sup> Manhole		7/21/09
				9-9-08	78. Bear Valley Rd. @ Amethyst Rd. ( Dump Water into TOL Manhole )		5-9-09
					79. Nisqualli Rd. @ Apts. East of Hesperia Rd. (Both laterals)	4/4/09	
				3/3/09	80. Woodbine west from Beauville		11/3/09
				1/7/09	81. Alpine Circle n/o Kirkwood Dr. to Sun Valley Circle		9/7/09
				1/28/09	82. Seneca Rd @ Newporter Apts. Driveway M/H Flush into Apt M/H then west to McArt Rd.		9/28/09
				1/28/09	83. Alta Mesa Rd. from Via Rosa Rd. to Via Puente Rd. to Del Amo Dr. M/H.		9/28/09