OLYMPIC VALLEY
PUBLIC SERVICE DISTRICT
BOARD REPORT

SUBJECT:	Sewer System Master Plan – 20-Year Capital Improvement Plan	**EXHIBIT:**	F-1, 60 Pages
AUTHOR:	Alexa Herring, Assistant Engineer	**MEETING DATE:**	July 29, 2025

RECOMMENDED ACTION: Informational only, no Board action required.

DISCUSSION: Staff has prepared a Sewer Collection System Capital Improvement Plan (CIP) to guide long-term investments in the District's sewer infrastructure. The CIP identifies 17 capital projects over the next 20 years focused on renewing and replacing aging infrastructure, maintaining system capacity and reliability, and ensuring regulatory compliance. The CIP will be incorporated into the District's Sewer Master Plan.

CIP projects were developed with support from the District's consulting engineer, DOWL, and the Operations Department. Project identification relied on recent sewer planning studies, closed-circuit television (CCTV) inspections, and pipeline, lateral, and manhole inspection data collected by the Operations and Engineering Departments. DOWL prepared a technical memorandum identifying asset renewal and replacement projects based on condition assessments of CCTV inspection data from the 2013-2016 Mountain Pipeline inspections and 2019-2022 Pro-Pipe digital panoramic camera inspections. This work was supplemented by detailed manhole inspection data provided by the District. These informed CIP Projects #1-5.

Additional projects, developed by District staff, address operations and maintenance challenges, accessibility issues, and infiltration and inflow (I&I). These include backyard sewer line replacements, system hydraulic improvements, and sewer flow metering. Each project is described in greater detail in the Project Summary Sheets, Technical Memorandum and supporting figures.

The 20-year CIP represents a total investment of $18 million and prioritizes the most critical needs while maintaining long-term affordability and staff capacity. The Finance Department reviewed and approved the proposed project sequencing to ensure alignment with available Sewer Capital funds and the current 5-year Proposition 218 rate structure. All projects will be funded through sewer user rates, with an emphasis on minimizing future rate impacts. The CIP will also help inform future rate studies and be updated periodically to account for cost changes and inflationary trends.

FISCAL/RESOURCE IMPACTS: Sewer CIP projects will be funded by the Sewer Capital account through rate contributions over time.

ATTACHMENTS:

- Sewer 20-Year CIP Presentation
- Sewer Master Plan Support Services Technical Memorandum (DOWL, July 2025)
- Sewer CIP Project Data Sheets
- GIS Exhibits of Capital Projects (DOWL, July 2025)

DATE PREPARED: July 21, 2025

20-Year Sewer Capital Improvement Plan

Board of Directors Meeting

July 29, 2025

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What is a Capital Improvement Plan (CIP)?

A CIP acts as a roadmap for major projects, ensuring they align with our strategic goals and financial capabilities

Key Goals:

- Replace or rehabilitate ageing infrastructure
- Maintain system capacity
- Ensure regulatory compliance and system reliability

Key Takeaways:

- Plan identifies prioritized investments in essential infrastructure
- Project phasing balances urgency, risk, and financial impact
- Timely investments now reduce log-term risks and emergency repair costs

Results:

- 17 projects through FY 2045
- Total investment of $18M over 20-years
- Funded through the sewer capital account via sewer user rates

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Sewer CIP Development Process

- **Review of existing infrastructure Conditions Assessments, maintenance and access issues**
- **Project development – locations and rehabilitation/replacement methods**
- **Development of planning level cost estimates in 2025 dollars utilizing recent bids from similar projects**
- **Sequenced projects over the next 20 years depending on severity, budget impacts, and staff capacity**
- **Projected future costs assuming a 3.5% annual inflation rate**
- **Reviewed proposed CIP with Finance Department to ensure funding availability and long-term affordability**

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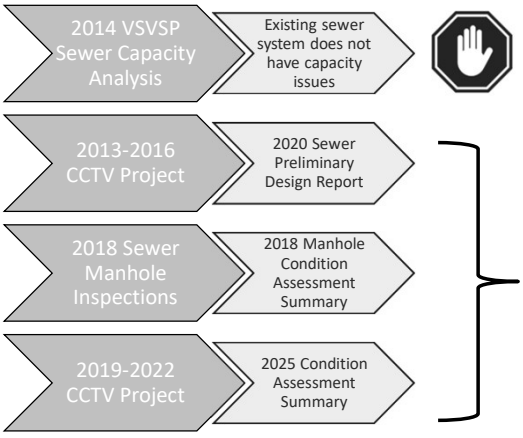
Planning & Project Development: Conditions Assessments

Previous work that informed the CIP:



DOWL reviewed the infrastructure conditions to develop 5 CIP projects based on:

1. Severity of existing conditions
2. Physical location in the Valley

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Planning & Project Development: O&M Improvements

District Engineering staff worked with Operations staff to review O&M issues

Sewer Cleanings
- Areas of increased cleaning frequency

Operator Inspections
- Flow configurations that increase risk of sewer spill
- Observations of inflow & infiltration into the system

Access Limitations
- Pipe and cleanout configurations that limit maintenance abilities
- Obstructions within easements

Engineering staff developed 12 CIP projects:
- Backyard sewer main replacements
- System hydraulic improvements
- Sewer flow metering

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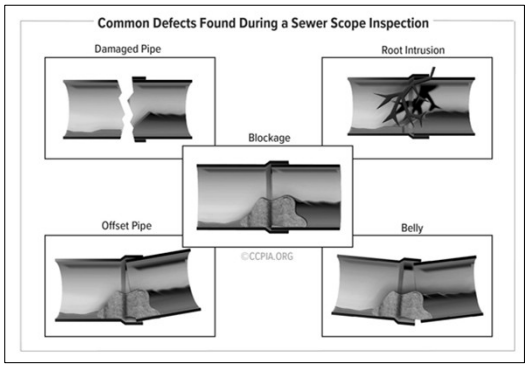
Sewer Issues of Concern

Structural issues in pipelines
- Sags/bellies, broken pipes, joint offsets, and corrosion

O&M issues in pipelines
- Root intrusion, blockage, evidence of inflow & infiltration (I&I), and inaccessibility

Manholes
- Internal corrosion, flow channel issues, evidence of I&I, broken chimneys, frames, or covers



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Project Types & Methods

1. Sewer Pipelines & Manhole Rehabilitation

In-situ Methods:

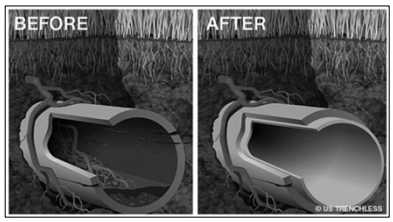
- Cured in Place Pipe (CIPP) lining
- Trenchless joint offset repairs
- Manhole cementitious coating

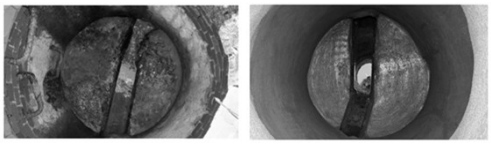
Excavation:

- Pipeline sag repairs
- Manhole replacements

2. Hydraulic (flow) Improvements

3. Flow Metering





Before After

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Project Costs & Prioritization

- 17 CIP Projects
- Planning level costs calculated in 2025 dollars utilizing costs from bid items on similar projects within the District and surrounding areas
- Projects were prioritized over the next 20-years to address the worst conditions first while maintaining long-term affordability and District Staff capacity
- Future planning level costs were calculated using the future value formula assuming an annual inflation rate of 3.5%

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Sewer 20-Year CIP Results

Project Name	Design & Construction Years	2025 Planning Level Cost	Future Planning Level Cost
Sewer Metering Project	2026	$26,026	$26,937
CIP #5 - High Priority Assets	2026 - 2027	$1,494,826	$1,580,988
Snowfall Loop Sewer Improvements	2027 - 2028	$936,725	$1,025,393
CO-A50>>A50 Backyard Sewer Project	2029 - 2030	$400,919	$470,127
CO-A64>>A64 Backyard Sewer Project	2029 - 2030	$564,374	$661,799
CIP #1 - East Area	2031 - 2032	$689,290	$865,848
CO-A22>>A22 Backyard Sewer Project	2033 - 2034	$340,772	$458,547
CO-A70>>A70 Backyard Sewer Project	2033 - 2034	$391,419	$526,699
CIP #3 - Olympic Valley Road	2036 - 2037	$3,229,310	$4,817,828
CO-A47>>A47 Backyard Sewer Project	2038 - 2039	$274,352	$438,460
CO-A54>>A54 Backyard Sewer Project	2038 - 2039	$352,580	$563,481
CO-A41>>A41 Backyard Sewer Project	2038 - 2039	$322,137	$514,829
CIP #4 - West Area	2040 - 2041	$1,076,240	$1,842,519
CO-A28A>>A28 Backyard Sewer Project	2042 - 2043	$293,078	$537,487
CO-A60>>A60 Backyard Sewer Project	2042 - 2043	$278,516	$510,780
CO-A76>>A76 Backyard Sewer Project	2042 - 2043	$267,387	$490,369
CIP #2 - North Area	2044 - 2045	$1,379,420	$2,709,949

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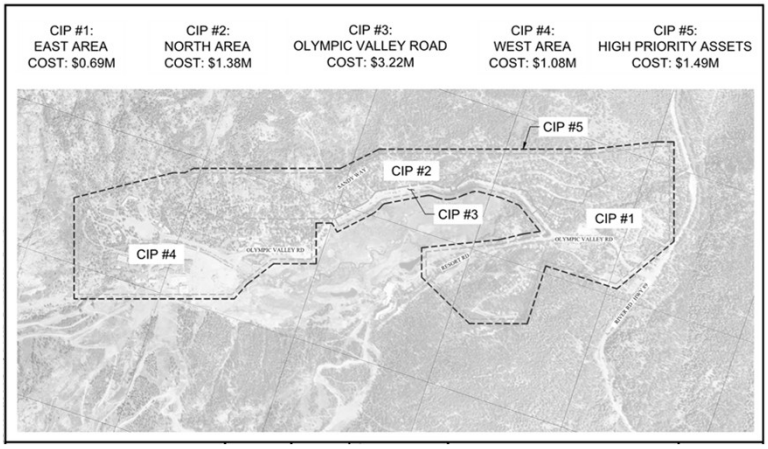
CIP Projects #1-5

Developed to address the most severe issues discovered in Condition Assessment Studies

CIP #1: EAST AREA COST: $0.69M
CIP #2: NORTH AREA COST: $1.38M
CIP #3: OLYMPIC VALLEY ROAD COST: $3.22M
CIP #4: WEST AREA COST: $1.08M
CIP #5: HIGH PRIORITY ASSETS COST: $1.49M



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Backyard Sewer Main Projects

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Snowfall Loop Sewer Improvements

- Historical infrastructure tied into the sewer interceptor caused unfavorable flow conditions
- Removal of (2) existing manholes, replacement of impacted pipelines, CIPP of transmission main section, elimination of sewer creek crossing
- Improvements will reduce the likelihood of a backup or overflow near Washeshu Creek

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CIP Project Summary Sheets

Project Title:	CO-A64>>A64 Backyard Sewer Project
Project Manager:	TBD
Current Phase:	PLANNING
Budget Location:	CAPITAL - SEWER
Design Consultant:	TBD
Const. Contractor:	TBD

Project Description:

Replace and upsize to 6-inch the backyard sewer mains A64>>A63, CO-A64>>A64. Replace manhole A64 with a new manhole and reinstate 1409 Lanny service. Replace CO-A64 with a manhole and plumb existing laterals to the new manhole. Install a new manhole at the midpoint of CO-A64>>A64. Replace (6) property line cleanouts with double wye cleanouts and connect to existing private laterals.

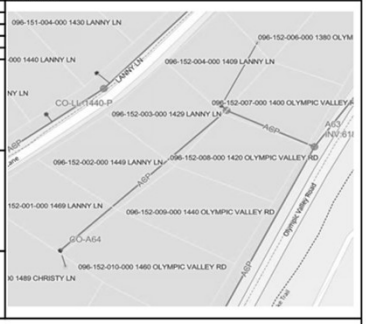
Justification or Significance of Improvement:

Operational improvement with enhanced access for sewer cleaning. Improved sewer capacity that will help minimize sewer overflow potential. Reestablishment of easements by clearing them of obstructions.

Justification Data:

Asset Category:	SEWER
Asset Type:	Collection
Project Type:	Replace
Justification Category:	Age/Condition
Facility Age (Life):	47

Map/Photo:



Project Costs

Phase	FY 2029	FY 2030				Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ 107,939	$ -	$ -	$ -	$ -	$ 107,939
Construction	$ 134,923	$ 418,937	$ -	$ -	$ -	$ 553,860
Total Project Costs	**$ 242,862**	**$ 418,937**	**$ -**	**$ -**	**$ -**	**$ 661,799**
Funding Source(s):						
	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ 242,862**	**$ 418,937**	**$ -**	**$ -**	**$ -**	**$ 661,799**

Project Schedule

Begin Design:	Oct-29
Bid Construction:	Feb-29
Start Construction:	May-29
Complete Construction:	Nov-30

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Rate & Funding Impacts

- Project sequencing was aligned with available funding to achieve long-term affordability
- Next 5-years of projects maintain the current 5-year Proposition 218 rates
- Projects will be funded by the sewer capital account through user rates
- Goal is to minimize rate impacts in the long term
- CIP project costs will be updated during the budgeting process to reflect inflation and construction cost shifts
- Project prioritization outside of the first 5-years can be shifted should they become cost prohibitive in the future

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Questions?

Thank you!

TECHNICAL MEMORANDUM

TO: Olympic Valley Public Service District

FROM: DOWL, LLC

DATE: 7/22/2025

SUBJECT: Sewer Master Plan Support Services

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BACKGROUND

The Olympic Valley Public Service District (District) is currently completing its sewer master plan (Plan). The Plan will include a collection of past planning documents and existing system investigations to prepare a comprehensive capital improvement plan (CIP). While the District is preparing the Plan, it has requested DOWL, LLC (DOWL) to review and prepare an assessment of existing sewer infrastructure video and condition assessments to prepare CIPs that the District can incorporate to support the Plan.

The existing sewer collection system investigations involved multiple efforts completed since 2018 that are consolidated and utilized for the preparation of this technical memorandum. DOWL prepared a technical memorandum in 2020 that represented inspections and findings from evaluating the existing sewer collection system, including complete system closed circuit television (CCTV) video of mains and laterals, inspection of select sewer manholes, preparation of a condition and risk assessment, and development of proposed sewer system rehabilitations and improvements. Since 2020, the District has utilized a new sewer video inspection contractor to perform the sewer system CCTV that includes newer panoramic CCTV equipment resulting in higher video quality data. Additionally, all infrastructure that has been inspected has received condition scoring that meets the National Association of Sewer Service Companies' (NASSCO) scoring for structural and operation & maintenance (O&M) defects.

The District is utilizing all improved, available data in conjunction with applicable data from past efforts to support updating its Plan. The District has requested DOWL to prepare this technical memorandum to review and present all sewer infrastructure scoring, recommend rehabilitation and replacement needs, and assemble proposed project alternatives.

DATA COLLECTION AND ORGANIZATION

The District's sewer mains were inspected by Pro-Pipe with digital panoramic cameras between 2019 and 2022 and subsequently scored each main segment to assign a defect score. All sewer mains were given a score per NASSCO's Pipe Assessment Certification Program (PACP). The District reviewed all sewer mains and assembled a summary table of 383 sewer pipe segments that had a NASSCO score greater than zero. DOWL reviewed the sewer mains from the summary table to form their CIP recommendations.

The District's operations staff worked with DOWL in 2018 to observe and score the condition of 114 aged and high-risk sewer manholes. All manholes were inspected in the field by recording videos and scored to comply with NASSCO's Manhole Assessment Certification Program (MACP) standards. All manhole condition scoring was presented in a summary table to conclude the 2018 project. For purposes of this current project, no additional sewer manhole investigations were performed and the results from the 2018 project were incorporated.

The District had video inspections performed by Pro-Pipe for 385 sanitary sewer laterals within the sewer collection system. After inspection, it was determined that 47 sewer laterals contained defects that were scored in compliance with NASSCO's Lateral Assessment Certification Program (LACP) standards. The

District reviewed all the sewer laterals and assembled a summary table that had a NASSCO score greater than zero. DOWL reviewed the sewer laterals from the summary table to form their CIP recommendations. For purposes of this current project, no additional sewer lateral investigations were performed, and the results from the inspection and review were used.

FINDINGS

After collecting all sewer infrastructure inspection information, DOWL performed a review of the summarized scoring results with the goal of developing multiple CIP projects controlled by budgetary constraints with the District.

With the collection of all videos, inspection reports, and spreadsheets, DOWL performed a quality control review on 300 of the 383 sewer main videos by selecting those with a higher defect score. Of the 300 sewer mains reviewed, 106 sewer mains were found to have defects meeting the need for rehabilitation. The defects included, but were not limited to, corrosion, cracking, fractures, and joint offsets; furthermore, 39 sewer main segments contained sags recommended for replacements to correct the sag and restore a constant slope in support of hydraulic performance and maintenance. The remaining sewer mains, including those not reviewed, were assumed to follow the trend of the lower defect scores and were labeled as not requiring any action for rehabilitation.

The sewer manhole inspection results identified that 48 of the 114 manholes required replacements or rehabilitations based on the noted defects and District's recommendations. Common defects found were surface spalling, visible holes, inflow and infiltration, roots, and cracking. In addition, several manholes involved chimney defects, such as failing and missing grade rings, and approximately 20% of the identified manholes recommended full replacements. Lastly, all other manholes inspected were determined to be in adequate condition not requiring rehabilitation or replacement.

Like the sewer mains, the findings within the sewer laterals were established by the District from the 2019 – 2022 assessment summary log. The common defects consisted of pipe sags, roots, grease, and settled deposits, which identified 12 of the 47 laterals were recommended for rehabilitation. The remaining 35 laterals were recommended for O&M cleaning. Most, if not all, existing sewer laterals do not contain double-wye property line cleanouts, which the District identified as a need for future projects to include.

PLANNING LEVEL COST ESTIMATES

The District's preparation of the Plan required an update to planning level construction costs for sewer infrastructure rehabilitation and replacement. DOWL collected bid tabulations from recent projects performed for public agencies throughout the Tahoe Basin, eastern Sierra, and Truckee Meadows regions and presented them in a spreadsheet. All the information gathered was then reviewed for applicability to the projects expected to be performed by the District for sewer system improvements. Lastly, all costs were organized by typical bid items to present a planning level opinion of probable construction cost that the District and DOWL used for CIP projects. All information was prepared and presented to the District outside of this technical memorandum, but the opinion of probable construction costs was carried over to develop total costs for CIP projects presented in the conclusions.

CONCLUSIONS

After an evaluation of the sanitary sewer system's findings of defects, DOWL identified parameters and recommended rehabilitation and replacement for each category as summarized in Table 1 below and further defined in Appendix C:

Table 1: General explanation of common rehabilitation and replacement methods.

Infrastructure Type	Rehabilitation/ Replacement	Definition
Sewer Main	Cured-In-Place-Pipe (CIPP) Lining	Trenchless rehabilitation of existing pipe by installing a jointless pipe liner within existing pipe. Lateral reinstatement and top hat installations are included.
	Internal Spot Repair	Installation of small segment of CIPP or metal band to address localized defect on pipe.
	External Point Repair	Repair segment of pipe by excavating and correcting defect.
Sewer Manhole	New Manhole	Install new manhole on pipe segment where manhole did not previously exist.
	Manhole Replacement	Replacement of existing manhole that has deteriorated beyond repair.
	Cementitious Coating Rehabilitation	Rehabilitation of manhole with application of coating to interior of structure.
	Chimney Rehabilitation	Correction of chimney (grade rings) of manhole to prevent infiltration and/or maintain its structural integrity.
Sewer Lateral	Lateral Replacement	Replace sewer lateral between sewer main and property line.
	Install Cleanout	Installation of double-wye cleanout on lateral at property line.

All sewer infrastructure that is not identified for rehabilitation and replacement needs should be routinely monitored and cleaned, as required, to maintain an operational system.

In preparation of developing CIP projects, DOWL worked closely with the District to understand timelines and budgets that would shape the size and limits of the proposed sewer projects. The focus for CIP projects was to assemble them efficiently in similar areas of the District and similar construction methods to promote efficiencies. As the projects were developed, the type of construction methods were similar enough that most contractors could complete all work identified, so the focus for CIP projects was grouped by area. The first presentation of CIP projects resulted in four projects, but the District requested the highest priority needs for rehabilitation and replacement be separated into a fifth CIP project that would be prioritized in future planning.

The CIP projects consist of the following and are presented in exhibits under Appendix A:

1. CIP #1 - East Area: The project will rehabilitate 10 sewer mains ranging from 6-inch to 12-inch diameters. Work will include approximately 985 linear feet of CIPP lining, 2 each of short liners, approximately 340 linear feet of external point repair, bypass pumping, pavement restoration, erosion control, and traffic control.

2. CIP #2 - North Area: The project will rehabilitate 26 sewer mains and replace 8 sewer laterals from Navajo Court to Winding Creek Road. Work will include approximately 2,050 linear feet of CIPP lining, 9 each of short liners, approximately 780 linear feet of external point repair, bypass pumping, pavement restoration, erosion control, and traffic control.

3. CIP #3 - Olympic Valley Road: The project will rehabilitate 20 sewer mains and replace 1 sewer manhole along Olympic Valley Road. Work will include approximately 3,000 linear feet of CIPP lining, 2 each of short liners, approximately 1,200 linear feet of external point repair, bypass pumping, dewatering, pavement restoration, erosion control, and traffic control.

4. CIP #4 - West Area: The project will rehabilitate 23 sewer mains and 4 sewer laterals from Granite Chief Road to Christy Lane. Work will include approximately 2,550 linear feet of CIPP lining, 11 each of short liners, approximately 430 linear feet of external point repair, bypass pumping, pavement restoration, erosion control, and traffic control.

5. CIP #5 - High Priority Assets: The project will rehabilitate 27 sewer mains and 37 sewer manholes (including two drop inlet installations and a manhole base repair), replace 8 manholes, and install 2 new manholes. Rehabilitation work will include approximately 4,686 linear feet of CIPP lining, approximately 60 linear feet of external point repair, cementitious coating of manholes, bypass pumping, pavement restoration, erosion control, and traffic control.

Each CIP project area utilized the planning level unit pricing developed for the District, but each project was reviewed for further complexities that would require adjustments to unit pricing. For example, the Olympic Valley Road CIP project area consists of work within Olympic Valley Road which presents increased presence of traffic, groundwater, and other construction efforts. All these impacts will increase costs from traffic control, dewatering, and the resulting decrease in overall production, which are reflected in the opinion of probable construction cost. The total project costs presented for all proposed CIP projects involved a 25% factor for soft costs, which include engineering design, construction management, and other non-construction costs associated with the project and a 20% factor for contingency.

The detailed breakdown for each CIP project's opinion of probable construction costs can be found in Appendix B. The project cost for each CIP project is based on current year costs and does not take account of future inflations. A narrative was developed for each type of replacement and rehabilitation to describe the general installation and methods of completing the work. The narrative summary can be found in Appendix C.

Lastly, each CIP project is presented in a Capital Project Data Sheet for the District's use which summarizes all project elements for quick reference. The Capital Project Data Sheets are included in Appendix D. Note that the project costs for each CIP project are inflated based on its assigned fiscal year.

APPENDIX A: CIP PROJECT EXHIBITS

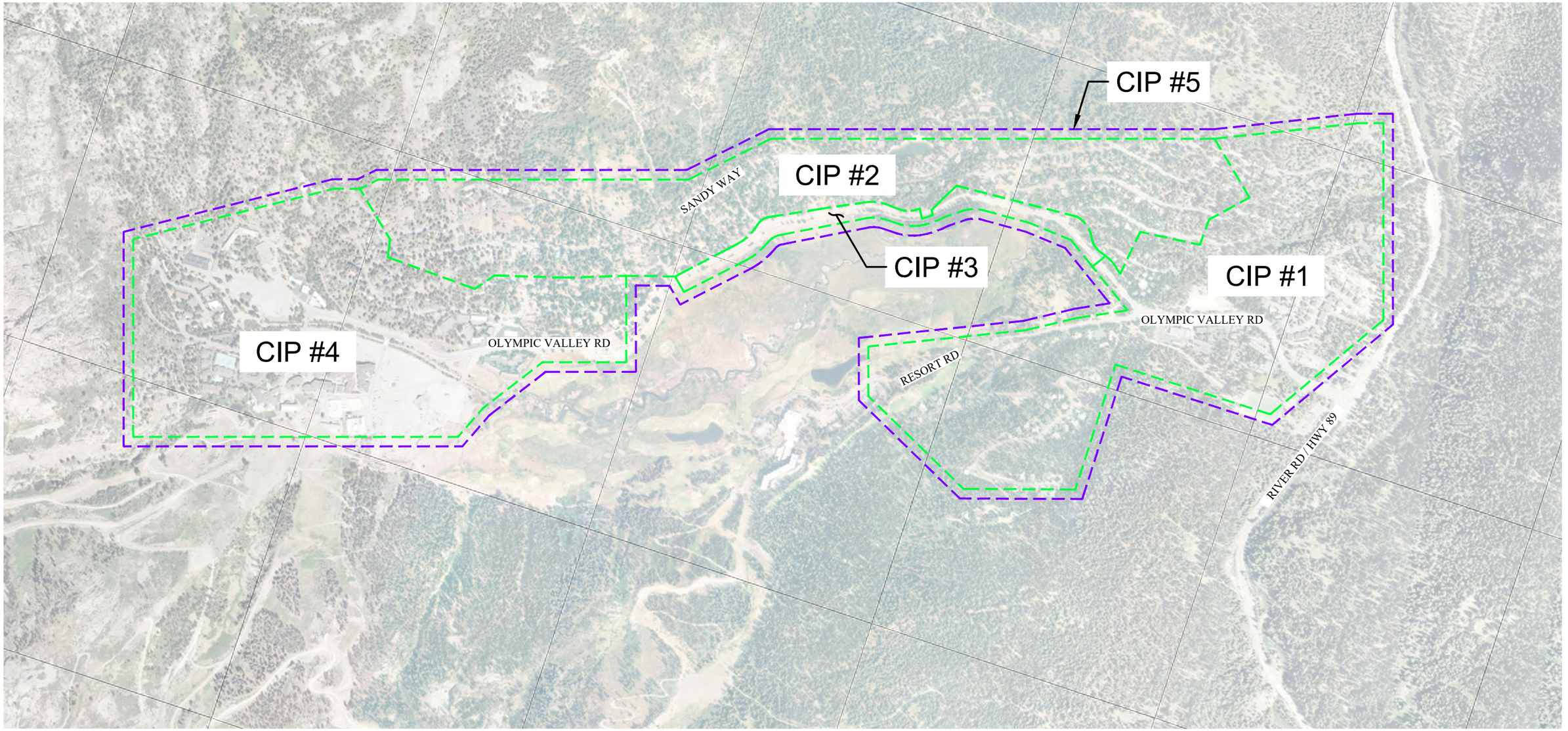
CIP #1:
EAST AREA
COST: $0.69M

CIP #2:
NORTH AREA
COST: $1.38M

CIP #3:
OLYMPIC VALLEY ROAD
COST: $3.22M

CIP #4:
WEST AREA
COST: $1.08M

CIP #5:
HIGH PRIORITY ASSETS
COST: $1.49M



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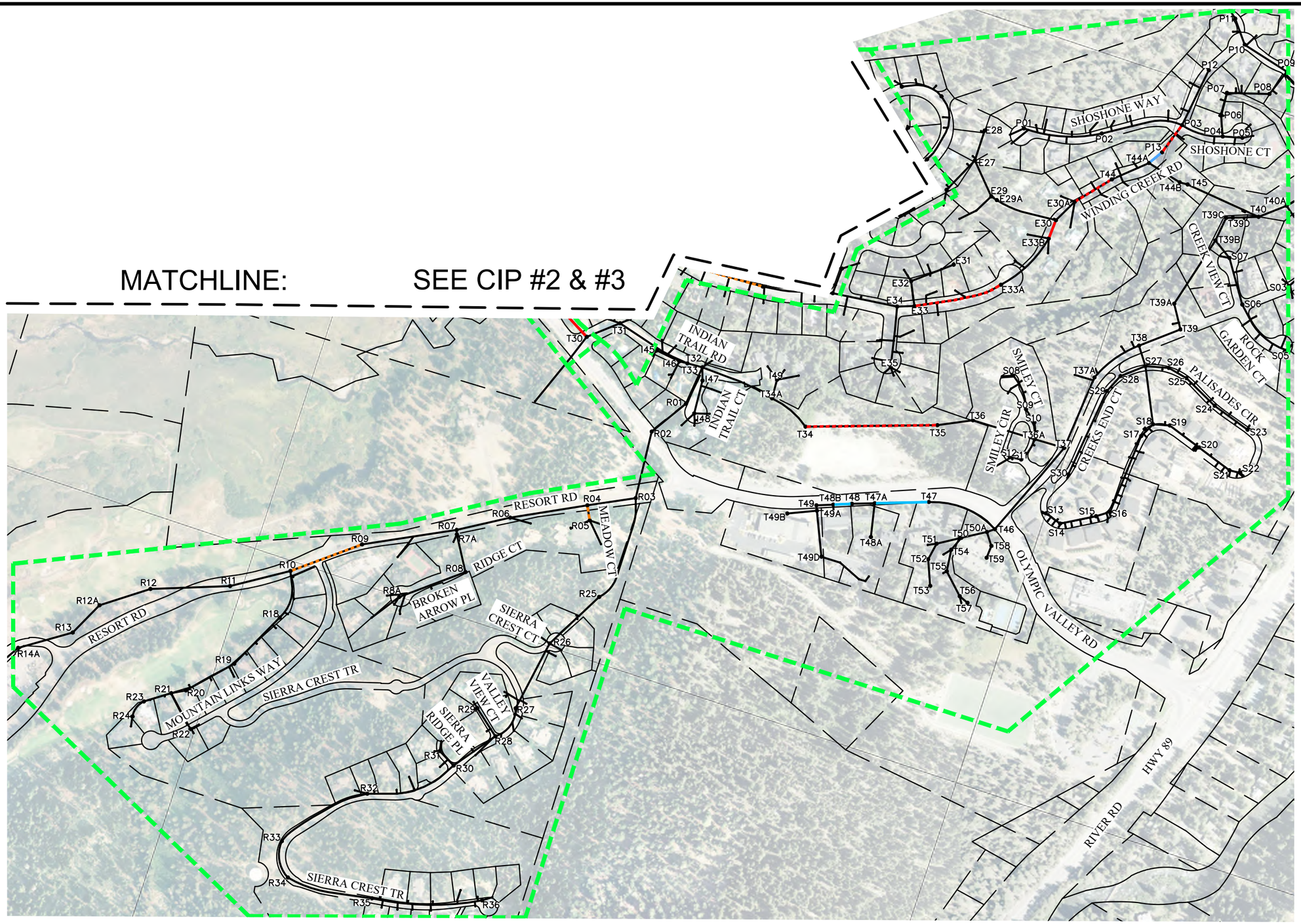
OLYMPIC VALLEY PUBLIC SERVICE DISTRICT
SEWER MASTER PLAN SUPPORT SERVICES
SUMMARY PROJECT MAP AND INDEX

PROJECT	7363.30566.01
DATE	05/2025

EXHIBIT

MATCHLINE: SEE CIP #2 & #3



LEGEND

- NEW MANHOLE INSTALLATION
- MANHOLE REHABILITATION
- FULL MANHOLE REPLACEMENT
- CHIMNEY REPLACEMENT
- FULL SEWER LATERAL REPLACEMENT
- SEVERE PIPE CONDITION
- SEWER MAIN CIPP LINING
- SEWER MAIN SHORT LINER
- SEWER MAIN SAG REPAIR
- OR
- SAG & LINING REPAIRS

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OLYMPIC VALLEY PUBLIC SERVICE DISTRICT
SEWER MASTER PLAN SUPPORT SERVICES
EAST AREA

PROJECT	7363.30566.01
DATE	05/2025

CIP #1

MATCHLINE: SEE CIP #4

SEE INSET BELOW

CIP #2

CIP #3

SEE INSET ABOVE

CIP #2

CIP #3

MATCHLINE: SEE CIP #1

LEGEND

- NEW MANHOLE INSTALLATION
- MANHOLE REHABILITATION
- FULL MANHOLE REPLACEMENT
- CHIMNEY REPLACEMENT
- FULL SEWER LATERAL REPLACEMENT
- SEVERE PIPE CONDITION
- SEWER MAIN CIPP LINING
- SEWER MAIN SHORT LINER
- SEWER MAIN SAG REPAIR
- OR SAG & LINING REPAIRS

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OLYMPIC VALLEY PUBLIC SERVICE DISTRICT
SEWER MASTER PLAN SUPPORT SERVICES
NORTH AREA & OLYMPIC VALLEY ROAD

PROJECT	7363.30566.01
DATE	05/2025

CIP #2 & #3

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MATCHLINE: SEE CIP #2 & #3

CO-SP-425-P>>W43

CO-GC-242-P >>W55

CO-LL-1720-W>>A03

CO-CL-1520-P>>A55

APACHE CT
WASHOE DR
SANDY WAY
PAIUTE PL
LANNY LN
CHRISTY LN
CHRISTY HILL RD
OLYMPIC VALLEY RD
SHIRLEY CANYON RD
CHAMONIX PL
MARMOT WAY
GRANITE CHIEF RD
VILLAGE EAST
VILLAGE SOUTH
SNOWFALL LOOP

LEGEND

- NEW MANHOLE INSTALLATION
- MANHOLE REHABILITATION
- FULL MANHOLE REPLACEMENT
- CHIMNEY REPLACEMENT
- FULL SEWER LATERAL REPLACEMENT
- SEVERE PIPE CONDITION
- SEWER MAIN CIPP LINING
- SEWER MAIN SHORT LINER
- SEWER MAIN SAG REPAIR
- OR
- SAG & LINING REPAIRS

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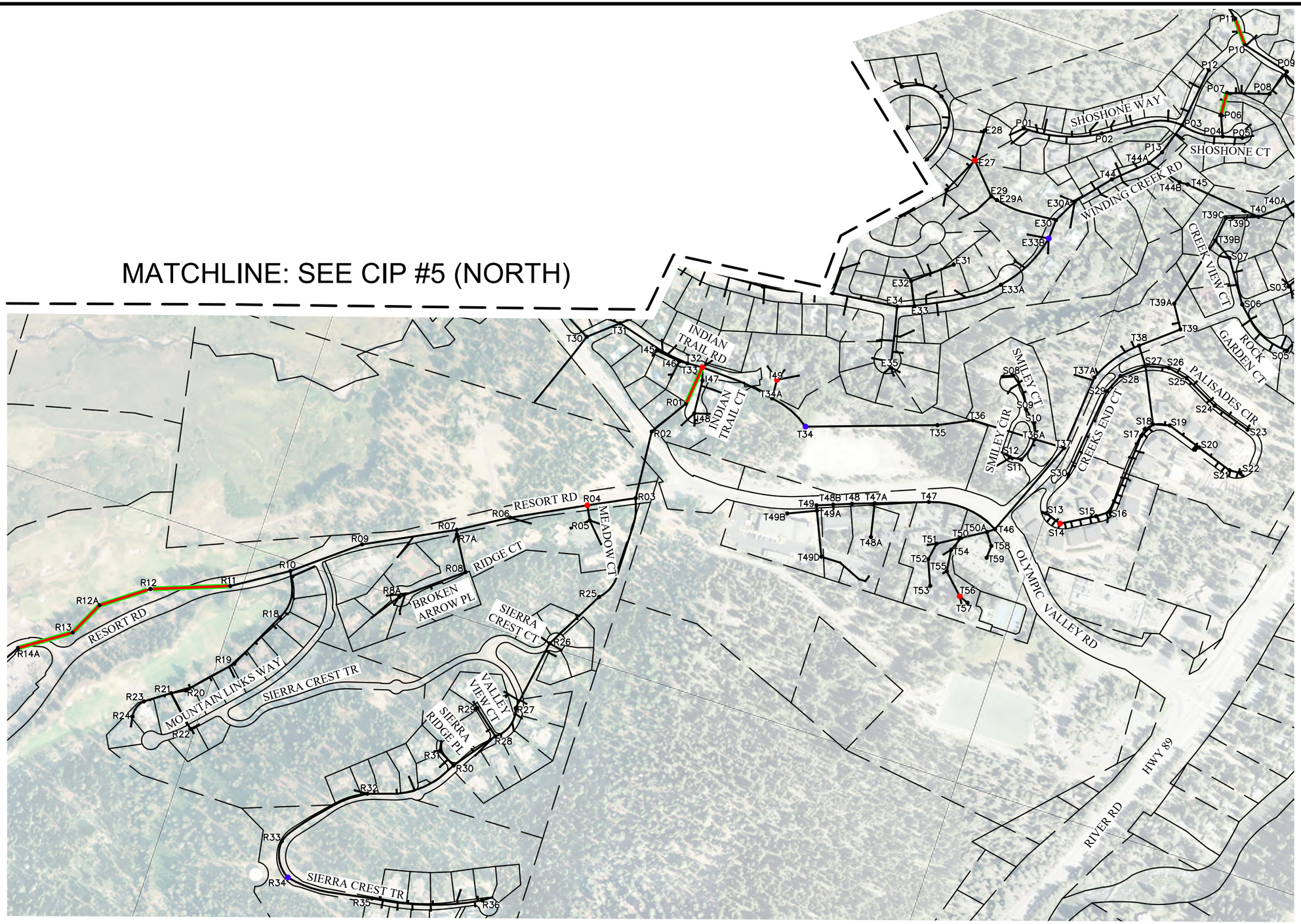
OLYMPIC VALLEY PUBLIC SERVICE DISTRICT
SEWER MASTER PLAN SUPPORT SERVICES
WEST AREA

PROJECT	7363.30566.01
DATE	05/2025

CIP #4

MATCHLINE: SEE CIP #5 (NORTH)



LEGEND

- NEW MANHOLE INSTALLATION
- MANHOLE REHABILITATION
- FULL MANHOLE REPLACEMENT
- CHIMNEY REPLACEMENT
- FULL SEWER LATERAL REPLACEMENT
- SEVERE PIPE CONDITION
- SEWER MAIN CIPP LINING
- SEWER MAIN SHORT LINER
- SEWER MAIN SAG REPAIR
- OR
- SAG & LINING REPAIRS

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OLYMPIC VALLEY PUBLIC SERVICE DISTRICT
SEWER MASTER PLAN SUPPORT SERVICES
HIGH PRIORITY ASSETS

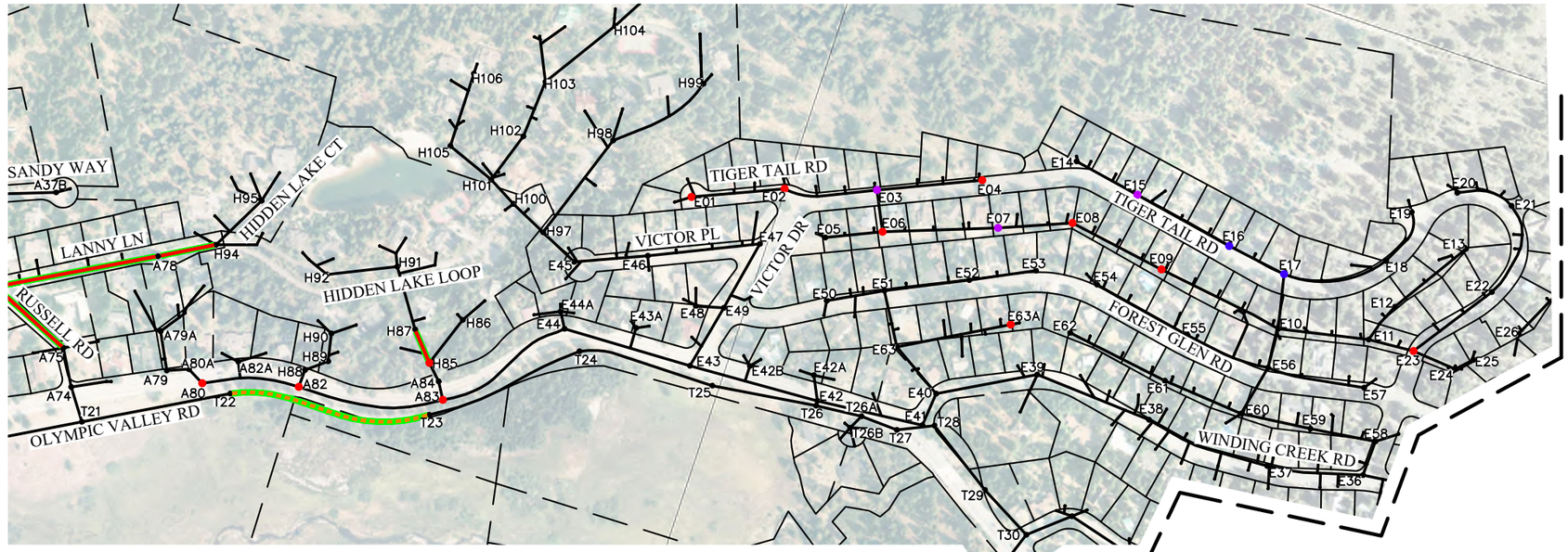
PROJECT	7363.30566.01
DATE	05/2025

CIP #5 (EAST)

MATCHLINE: SEE CIP #5 (WEST)

SEE INSET BELOW

SEE INSET ABOVE



MATCHLINE: SEE CIP #5 (EAST)

LEGEND

- NEW MANHOLE INSTALLATION
- MANHOLE REHABILITATION
- FULL MANHOLE REPLACEMENT
- CHIMNEY REPLACEMENT
- FULL SEWER LATERAL REPLACEMENT
- SEVERE PIPE CONDITION
- SEWER MAIN CIPP LINING
- SEWER MAIN SHORT LINER
- SEWER MAIN SAG REPAIR
- OR
- SAG & LINING REPAIRS

DOWL
WWW.DOWL.COM
5510 Longley Lane
Reno, Nevada 89511
775-851-4788

OLYMPIC VALLEY PUBLIC SERVICE DISTRICT
SEWER MASTER PLAN SUPPORT SERVICES
HIGH PRIORITY ASSETS

PROJECT	7363.30566.01
DATE	05/2025

CIP #5 (NORTH)

J:\63\30566-01\26Plots\26_3 CAD Exhibits\SEWER-EXHIBITS.dwg PLOT DATE 2025-5-15 10:35 SAVED DATE 2025-05-15 10:30 USER: akoo

MATCHLINE: SEE CIP #5 (NORTH)

APACHE CT
WASHOE DR
SANDY WAY
PAIUTE PL
CHRISTY LN
LANNY LN
CHRISTY HILL RD
OLYMPIC VALLEY RD
OLYMPIC VALLEY RD
SNOWFALL LOOP
CHAMONIX PL
SHIRLEY CANYON RD
SHIRLEY CANYON RD
MARMOT WAY
GRANITE CHIEF RD
VILLAGE EAST
VILLAGE SOUTH

LEGEND

- NEW MANHOLE INSTALLATION
- MANHOLE REHABILITATION
- FULL MANHOLE REPLACEMENT
- CHIMNEY REPLACEMENT
- FULL SEWER LATERAL REPLACEMENT
- SEVERE PIPE CONDITION
- SEWER MAIN CIPP LINING
- SEWER MAIN SHORT LINER
- SEWER MAIN SAG REPAIR
- OR SAG & LINING REPAIRS

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OLYMPIC VALLEY PUBLIC SERVICE DISTRICT
SEWER MASTER PLAN SUPPORT SERVICES
HIGH PRIORITY ASSETS

PROJECT	7363.30566.01
DATE	05/2025

CIP #5 (WEST)

APPENDIX B: OPINION OF PROBABLE CONSTRUCTION COSTS

Olympic Valley Public Service District
Sewer Master Plan Support Services
Engineer's Opinion of Probable Construction Cost
CIP #1 - East Area

Estimate by: EYK

Project No. 7363.30566.01
Date: 7/22/2025

QC Check by: MVD
Date: 7/22/2025

BID SCHEDULE - BASE BID

Bid Item	Description	Quantity	Unit	Unit Cost	Total Cost
1	Mobilization/Demobilization (5%)	1	LS	$22,000.00	$22,000.00
2	Temporary Traffic Control (3%)	1	LS	$14,000.00	$14,000.00
3	Temporary Erosion Control (3%)	1	LS	$14,000.00	$14,000.00
4	Bypass Pumping (3%)	1	LS	$14,000.00	$14,000.00
5	Sewer Main 6" CIPP Lining	0	LF	$40.00	$0.00
6	Sewer Main 8" CIPP Lining	441	LF	$45.00	$19,859.40
7	Sewer Main 10" CIPP Lining	0	LF	$50.00	$0.00
8	Sewer Main 12" CIPP Lining	543	LF	$55.00	$29,867.20
9	Sewer Main 15" CIPP Lining	0	LF	$60.00	$0.00
10	Sewer Lateral Reinstatement and Top Hat Installation	6	EA	$2,750.00	$16,500.00
11	6" Sewer Main External Point Repair	3	LF	$600.00	$1,800.00
12	8" Sewer Main External Point Repair	140	LF	$800.00	$112,000.00
13	10" Sewer Main External Point Repair	120	LF	$900.00	$108,000.00
14	12" Sewer Main External Point Repair	80	LF	$1,000.00	$80,000.00
15	15" Sewer Main External Point Repair	0	LF	$1,200.00	$0.00
16	Spot Repair with 6" Short Liner	2	EA	$3,500.00	$7,000.00
17	Spot Repair with 8" Short Liner	0	EA	$3,500.00	$0.00

18	Spot Repair with 10" Short Liner	0	EA	$3,500.00	$0.00
19	Joint Offset Spot Repair with 8" SSL Sleeve	1	EA	$4,000.00	$4,000.00
20	Joint Offset Spot Repair with 10" SSL Sleeve	0	EA	$4,000.00	$0.00
21	Full Manhole Replacement (Off-Road)		EA	$23,400.00	$0.00
22	Full Manhole Replacement or New Installation (On-Road)		EA	$27,000.00	$0.00
23	Chimney, Frame, and Cover Rehabilitation		EA	$5,000.00	$0.00
24	Manhole Rehabilitation (Cementitious Coating)		EA	$7,500.00	$0.00
25	Manhole 6" Inside Drop Inlet Installation		EA	$675.00	$0.00
26	Manhole 10" Inside Drop Inlet Installation		EA	$775.00	$0.00
27	Manhole Base Repair		EA	$225.00	$0.00
28	Full Sewer Lateral Replacement with PUE Cleanout		EA	$12,025.00	$0.00
29	Internal Point Repair - Grind Protruding Lateral or Obstruction (Contingent Item)	10	EA	$650.00	$6,500.00
30	Sewer Main/Lateral Deep Cleaning (Contingent Item)	100	LF	$100.00	$10,000.00

Base Bid Total:	**$459,526.60**
Engineering Design and Construction Management (25%):	**$114,881.65**
Contingency (20%):	**$114,881.65**
PROJECT TOTAL:	**$689,289.90**

Olympic Valley Public Service District
Sewer Master Plan Support Services
Engineer's Opinion of Probable Construction Cost
CIP #2 - North Area

Estimate by: EYK

Project No. 7363.30566.01
Date: 7/22/2025

QC Check by: MVD
Date: 7/22/2025

BID SCHEDULE - BASE BID

Bid Item	Description	Quantity	Unit	Unit Cost	Total Cost
1	Mobilization/Demobilization (5%)	1	LS	$44,000.00	$44,000.00
2	Temporary Traffic Control (3%)	1	LS	$28,000.00	$28,000.00
3	Temporary Erosion Control (3%)	1	LS	$28,000.00	$28,000.00
4	Bypass Pumping (3%)	1	LS	$28,000.00	$28,000.00
5	Sewer Main 6" CIPP Lining	1,212	LF	$40.00	$48,486.80
6	Sewer Main 8" CIPP Lining	836	LF	$45.00	$37,626.75
7	Sewer Main 10" CIPP Lining	0	LF	$50.00	$0.00
8	Sewer Main 12" CIPP Lining	0	LF	$55.00	$0.00
9	Sewer Main 15" CIPP Lining	0	LF	$60.00	$0.00
10	Sewer Lateral Reinstatement and Top Hat Installation	14	EA	$2,750.00	$38,500.00
11	6" Sewer Main External Point Repair	618	LF	$600.00	$370,800.00
12	8" Sewer Main External Point Repair	160	LF	$800.00	$128,000.00
13	10" Sewer Main External Point Repair	0	LF	$900.00	$0.00
14	12" Sewer Main External Point Repair	0	LF	$1,000.00	$0.00
15	15" Sewer Main External Point Repair	0	LF	$1,200.00	$0.00
16	Spot Repair with 6" Short Liner	6	EA	$3,500.00	$21,000.00
17	Spot Repair with 8" Short Liner	3	EA	$3,500.00	$10,500.00

18	Spot Repair with 10" Short Liner	0	EA	$3,500.00	$0.00
19	Joint Offset Spot Repair with 8" SSL Sleeve	1	EA	$4,000.00	$4,000.00
20	Joint Offset Spot Repair with 10" SSL Sleeve	0	EA	$4,000.00	$0.00
21	Full Manhole Replacement (Off-Road)		EA	$23,400.00	$0.00
22	Full Manhole Replacement or New Installation (On-Road)		EA	$27,000.00	$0.00
23	Chimney, Frame, and Cover Rehabilitation		EA	$5,000.00	$0.00
24	Manhole Rehabilitation (Cementitious Coating)		EA	$7,500.00	$0.00
25	Manhole 6" Inside Drop Inlet Installation		EA	$675.00	$0.00
26	Manhole 10" Inside Drop Inlet Installation		EA	$775.00	$0.00
27	Manhole Base Repair		EA	$225.00	$0.00
28	Full Sewer Lateral Replacement with PUE Cleanout	8	EA	$12,025.00	$96,200.00
29	Internal Point Repair - Grind Protruding Lateral or Obstruction (Contingent Item)	10	EA	$650.00	$6,500.00
30	Sewer Main/Lateral Deep Cleaning (Contingent Item)	300	LF	$100.00	$30,000.00

Base Bid Total: $919,613.55

Engineering Design and Construction Management (25%): $229,903.39

Contingency (20%): $229,903.39

PROJECT TOTAL: $1,379,420.33

Olympic Valley Public Service District
Sewer Master Plan Support Services
Engineer's Opinion of Probable Construction Cost
CIP #3 - Olympic Valley Road

Estimate by:	EYK
Project No.	7363.30566.01
Date:	7/22/2025
QC Check by:	MVD
Date:	7/22/2025

BID SCHEDULE - BASE BID

Bid Item	Description	Quantity	Unit	Unit Cost	Total Cost
1	Mobilization/Demobilization (5%)	1	LS	$103,000.00	$103,000.00
2	Temporary Traffic Control (5%)	1	LS	$110,000.00	$110,000.00
3	Temporary Erosion Control (3%)	1	LS	$65,000.00	$65,000.00
4	Bypass Pumping (15%)	1	LS	$325,000.00	$325,000.00
5	Dewatering (5%)	1	LF	$110,000.00	$110,000.00
6	Sewer Main 6" CIPP Lining	398	LF	$40.00	$15,900.80
7	Sewer Main 8" CIPP Lining	0	LF	$45.00	$0.00
8	Sewer Main 10" CIPP Lining	0	LF	$50.00	$0.00
9	Sewer Main 12" CIPP Lining	334	LF	$55.00	$18,361.20
10	Sewer Main 15" CIPP Lining	2,222	LF	$60.00	$133,311.00
11	Sewer Lateral Reinstatement and Top Hat Installation	0	EA	$2,750.00	$0.00
12	6" Sewer Main External Point Repair	43	LF	$600.00	$25,800.00
13	8" Sewer Main External Point Repair	540	LF	$800.00	$432,000.00
14	10" Sewer Main External Point Repair	0	LF	$900.00	$0.00
15	12" Sewer Main External Point Repair	0	LF	$1,000.00	$0.00
16	15" Sewer Main External Point Repair	620	LF	$1,200.00	$744,000.00
17	Spot Repair with 6" Short Liner	1	EA	$3,500.00	$3,500.00

18	Spot Repair with 8" Short Liner	1	EA	$3,500.00	$3,500.00
19	Spot Repair with 10" Short Liner	0	EA	$3,500.00	$0.00
20	Joint Offset Spot Repair with 8" SSL Sleeve	0	EA	$4,000.00	$0.00
21	Joint Offset Spot Repair with 10" SSL Sleeve	0	EA	$4,000.00	$0.00
22	Full Manhole Replacement (Off-Road)		EA	$23,400.00	$0.00
23	Full Manhole Replacement or New Installation (On-Road)	1	EA	$27,000.00	$27,000.00
24	Chimney, Frame, and Cover Rehabilitation		EA	$5,000.00	$0.00
25	Manhole Rehabilitation (Cementitious Coating)		EA	$7,500.00	$0.00
26	Manhole 6" Inside Drop Inlet Installation		EA	$675.00	$0.00
27	Manhole 10" Inside Drop Inlet Installation		EA	$775.00	$0.00
28	Manhole Base Repair		EA	$225.00	$0.00
29	Full Sewer Lateral Replacement with PUE Cleanout		EA	$12,025.00	$0.00
30	Internal Point Repair - Grind Protruding Lateral or Obstruction (Contingent Item)	10	EA	$650.00	$6,500.00
31	Sewer Main/Lateral Deep Cleaning (Contingent Item)	300	LF	$100.00	$30,000.00

Base Bid Total: $2,152,873.00

Engineering Design and Construction Management (25%): $538,218.25

Contingency (20%): $538,218.25

PROJECT TOTAL: $3,229,309.50

Olympic Valley Public Service District
Sewer Master Plan Support Services
Engineer's Opinion of Probable Construction Cost
CIP #4 - West Area

Estimate by: EYK

Project No. 7363.30566.01
Date: 7/22/2025

QC Check by: MVD
Date: 7/22/2025

BID SCHEDULE - BASE BID

Bid Item	Description	Quantity	Unit	Unit Cost	Total Cost
1	Mobilization/Demobilization (5%)	1	LS	$35,000.00	$35,000.00
2	Temporary Traffic Control (3%)	1	LS	$22,000.00	$22,000.00
3	Temporary Erosion Control (3%)	1	LS	$22,000.00	$22,000.00
4	Bypass Pumping (3%)	1	LS	$22,000.00	$22,000.00
5	Sewer Main 6" CIPP Lining	1,772	LF	$40.00	$70,888.00
6	Sewer Main 8" CIPP Lining	299	LF	$45.00	$13,473.00
7	Sewer Main 10" CIPP Lining	0	LF	$50.00	$0.00
8	Sewer Main 12" CIPP Lining	0	LF	$55.00	$0.00
9	Sewer Main 15" CIPP Lining	492	LF	$60.00	$29,532.00
10	Sewer Lateral Reinstatement and Top Hat Installation	14	EA	$2,750.00	$38,500.00
11	6" Sewer Main External Point Repair	215	LF	$600.00	$129,000.00
12	8" Sewer Main External Point Repair	100	LF	$800.00	$80,000.00
13	10" Sewer Main External Point Repair	40	LF	$900.00	$36,000.00
14	12" Sewer Main External Point Repair	0	LF	$1,000.00	$0.00
15	15" Sewer Main External Point Repair	80	LF	$1,200.00	$96,000.00
16	Spot Repair with 6" Short Liner	7	EA	$3,500.00	$24,500.00
17	Spot Repair with 8" Short Liner	2	EA	$3,500.00	$7,000.00

18	Spot Repair with 10" Short Liner	2	EA	$3,500.00	$7,000.00
19	Joint Offset Spot Repair with 8" SSL Sleeve	0	EA	$4,000.00	$0.00
20	Joint Offset Spot Repair with 10" SSL Sleeve	0	EA	$4,000.00	$0.00
21	Full Manhole Replacement (Off-Road)		EA	$23,400.00	$0.00
22	Full Manhole Replacement or New Installation (On-Road)		EA	$27,000.00	$0.00
23	Chimney, Frame, and Cover Rehabilitation		EA	$5,000.00	$0.00
24	Manhole Rehabilitation (Cementitious Coating)		EA	$7,500.00	$0.00
25	Manhole 6" Inside Drop Inlet Installation		EA	$675.00	$0.00
26	Manhole 10" Inside Drop Inlet Installation		EA	$775.00	$0.00
27	Manhole Base Repair		EA	$225.00	$0.00
28	Full Sewer Lateral Replacement with PUE Cleanout	4	EA	$12,025.00	$48,100.00
29	Internal Point Repair - Grind Protruding Lateral or Obstruction (Contingent Item)	10	EA	$650.00	$6,500.00
30	Sewer Main/Lateral Deep Cleaning (Contingent Item)	300	LF	$100.00	$30,000.00

Base Bid Total: $717,493.00

Engineering Design and Construction Management (25%): $179,373.25

Contingency (20%): $179,373.25

PROJECT TOTAL: $1,076,239.50

Olympic Valley Public Service District
Sewer Master Plan Support Services
Engineer's Opinion of Probable Construction Cost
CIP #5 - High Priority Assets

Estimate by: EYK

Project No. 7363.30566.01
Date: 7/22/2025

QC Check by: MVD
Date: 7/22/2025

BID SCHEDULE - BASE BID

Bid Item	Description	Quantity	Unit	Unit Cost	Total Cost
1	Mobilization/Demobilization (5%)	1	LS	$48,000.00	$48,000.00
2	Temporary Traffic Control (3%)	1	LS	$30,000.00	$30,000.00
3	Temporary Erosion Control (3%)	1	LS	$30,000.00	$30,000.00
4	Bypass Pumping (3%)	1	LS	$30,000.00	$30,000.00
5	Sewer Main 6" CIPP Lining	1,755	LF	$40.00	$70,214.80
6	Sewer Main 8" CIPP Lining	517	LF	$45.00	$23,283.00
7	Sewer Main 10" CIPP Lining	2,414	LF	$50.00	$120,678.00
8	Sewer Main 12" CIPP Lining	0	LF	$55.00	$0.00
9	Sewer Main 15" CIPP Lining	0	LF	$60.00	$0.00
10	Sewer Lateral Reinstatement and Top Hat Installation	10	EA	$2,750.00	$27,500.00
11	6" Sewer Main External Point Repair	0	LF	$600.00	$0.00
12	8" Sewer Main External Point Repair	0	LF	$800.00	$0.00
13	10" Sewer Main External Point Repair	0	LF	$900.00	$0.00
14	12" Sewer Main External Point Repair	0	LF	$1,000.00	$0.00
15	15" Sewer Main External Point Repair	60	LF	$1,200.00	$72,000.00
16	Spot Repair with 6" Short Liner	0	EA	$3,500.00	$0.00
17	Spot Repair with 8" Short Liner	0	EA	$3,500.00	$0.00

18	Spot Repair with 10" Short Liner	0	EA	$3,500.00	$0.00
19	Joint Offset Spot Repair with 8" SSL Sleeve	0	EA	$4,000.00	$0.00
20	Joint Offset Spot Repair with 10" SSL Sleeve	0	EA	$4,000.00	$0.00
21	Full Manhole Replacement (Off-Road)	3	EA	$23,400.00	$70,200.00
22	Full Manhole Replacement or New Installation (On-Road)	7	EA	$27,000.00	$189,000.00
23	Chimney, Frame, and Cover Rehabilitation	11	EA	$5,000.00	$55,000.00
24	Manhole Rehabilitation (Cementitious Coating)	23	EA	$7,500.00	$172,500.00
25	Manhole 6" Inside Drop Inlet Installation	1	EA	$675.00	$675.00
26	Manhole 10" Inside Drop Inlet Installation	1	EA	$775.00	$775.00
27	Manhole Base Repair	1	EA	$225.00	$225.00
28	Full Sewer Lateral Replacement with PUE Cleanout		EA	$12,025.00	$0.00
29	Internal Point Repair - Grind Protruding Lateral or Obstruction (Contingent Item)	10	EA	$650.00	$6,500.00
30	Sewer Main/Lateral Deep Cleaning (Contingent Item)	500	LF	$100.00	$50,000.00

Base Bid Total: $996,550.80

Engineering Design and Construction Management (25%): $249,137.70

Contingency (20%): $249,137.70

PROJECT TOTAL: $1,494,826.20

APPENDIX C: NARRATIVE SUMMARY

NARRATIVE SUMMARY

SEWER MAIN CIPP LINING

Cured-in-place pipe full lining, measured from inside wall of manhole to inside wall of manhole, is a rehabilitation method for existing sewer mains that does not require excavation or surface restoration. Proper delivery, storage, and handling techniques will be exercised to ensure the product is not torn, punctured, degraded, or otherwise damaged. Prior to pipe rehabilitation, the contractor performs an initial sewer cleaning, and the pipe interior inspected to determine the location of any condition that may prevent the proper installation of the liner. During installation, a resin-impregnated flexible tube is inserted through the host pipe. Methods of curing involve either steam-cured or ultraviolet (UV) light-cured. Steam-cured CIPP uses a curing bladder that inflates the inside diameter of the host pipe using low-head hydrostatic or air pressure, and the steam acts as the heat source to cure the resin. Ultraviolet light-cured CIPP also requires air pressure to inflate the liner tube to its designed diameter, and a UV light source is pulled through the pipe at a rate as defined by the manufacturer to cure the resin tube. If the liner is manufactured with an inner film, this film shall be removed and discarded after curing. Once the liner has fully cured, a video inspection will be performed to visually confirm that the liner meets all specifications.

SEWER LATERAL REINSTATEMENT AND TOP HAT INSTALLATION

For sewer mains to be rehabilitated with a liner, an inspection before the installation of the liner is performed to identify and locate all active sewer lateral connections to the main. After the liner is installed in the main, the lateral connections need to be reinstated by cutting out a section of the liner by the use of a robot grinder.

Top hats are installed at each lateral reinstatement to ensure a water-tight connection from the lateral to the rehabilitated sewer main. The top hat is prepared with specified lengths to the crown, which is the portion that lines a section, or all, of the lateral. The brim section is cured against the inner wall of the main to provide seamless protection at the lateral tap and to the end of the crown. Top hats are traditionally cured via ultraviolet light.

EXTERNAL POINT REPAIR

An external point repair involves excavation around an existing sewer main to adjust a major offset joint between pipes and/or a sagged pipe section created by flat sloped trench grades. Once an offset or sag has been fixed, the trench is backfilled and compacted, and any disturbed surface properties is then restored.

INSTALL SHORT LINER

A short liner is used to repair one or more defects in a single location along the sewer main. The liner is typically four feet in length, which is enough to encompass the entirety of the defect(s) being repaired; otherwise, another four-foot segment is installed with a slight overlap of roughly two inches to the previously installed short liner. They are then UV-cured for no more than 15 minutes to complete the work.

JOINT OFFSET SPOT REPAIR WITH STAINLESS STEEL SLEEVE

A joint offset spot repair with stainless steel sleeve is a trenchless method of repairing joint offsets in an existing sewer system. A sleeve is set in place within a sewer main at a minor to medium offset joint, and a packer transports the sleeve to correct the joint offset by expanding itself and the sleeve to create compression against the pipes. The expanded sleeve is mechanically locked in place as the packer deflates and exits the pipe and is sealed on both ends with rubber gaskets to avoid infiltration and exfiltration.

INSTALL NEW SEWER MANHOLE

New manholes over an existing sewer main can be cast-in-place or pre-cast concrete structures. Contractors can cut the upper section of the pipe and use the lower section as the channel for the new manhole, which then the contractor will have to cast-in-place a new manhole base around the pipe. If pre-cast manhole was chosen, then the contractor would have to cut and remove at least 5 linear feet of existing piping, install the new manhole with pups of new piping, and reconnect to existing piping by installing pipe couplings.

FULL MANHOLE REPLACEMENT

Manholes requiring full replacement will involve temporarily plugging or bypassing the inflow as the existing structure is removed, and a new manhole structure will be installed in its place. The work may involve retaining the existing base and channel to maintain the inflow while the manhole components above the base is replaced. This would depend on whether the base is in good condition.

CHIMNEY, FRAME, AND COVER REHABILITATION

Damages to the chimney can be rehabilitated by installation of several technologies, such as mechanical chimney seals, polymer seals, and cured-in-place-manhole (CIPM) chimney liners. The mechanical chimney seal is a rubber sleeve with stainless steel bands to eliminate infiltration and minimize horizontal and vertical movements from external forces from temperature changes to traffic loading. Polymer seal provides a coating to the chimney for protection against infiltration. CIPM liners follows a similar purpose to mechanical chimney seals, but instead with a liner cured into place.

Frame and cover are typically replaced if it is damaged.

MANHOLE REHABILITATION (CEMENTITIOUS COATING)

Cementitious coating will be used to rehabilitate the inner structure of existing manhole structures. The cement coating can seal cracks and enhance corrosion-protection properties, and it has both troweling and spray method applications.

SEWER LATERAL FULL REPLACEMENT WITH PUE CLEANOUT

Sewer laterals with severe damage are to be removed and replaced by excavation, install new pipes from the property boundary to the sewer main connection, and backfill and restoration. A double-wye cleanout assembly would be installed at the property boundary, to allow operators to maintain the portion of the lateral that is owned by the District, and the remaining portion to be maintained by the private property owner.

INTERNAL POINT REPAIR

This contingent item allows work done to the sewer main prior to CIPP lining or other pipe rehabilitation to avoid complications during the rehabilitation. Work includes grinding laterals that are protruding into the sewer main, any obstructions from the lateral stuck in the main, etc.

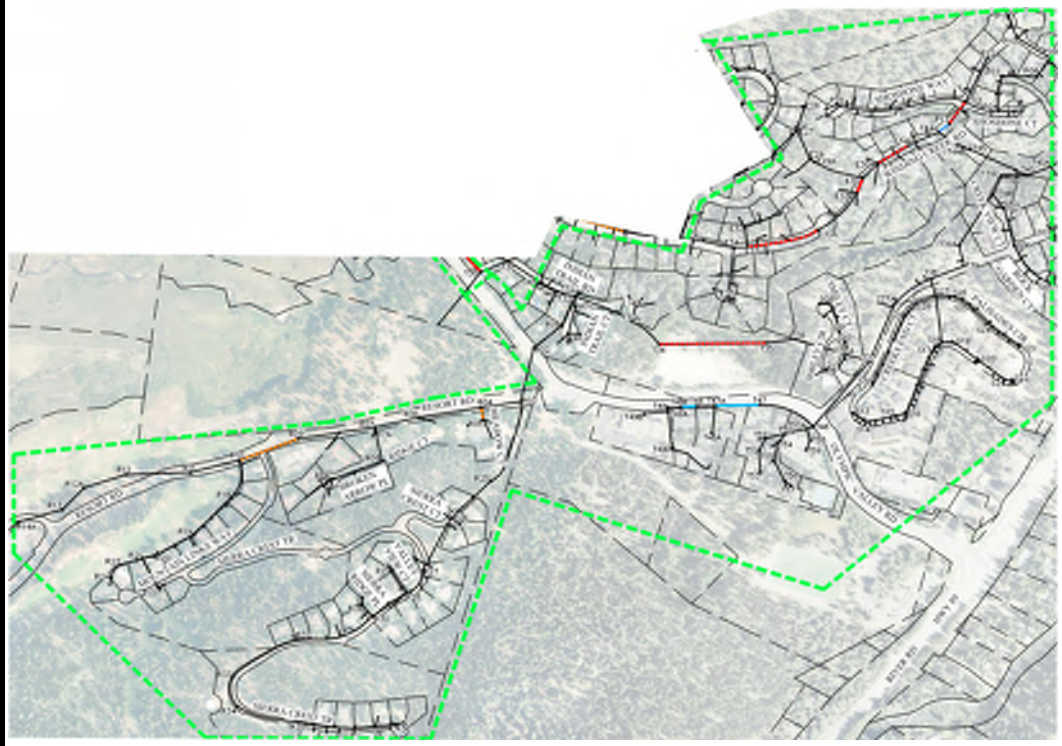
SEWER MAIN/LATERAL DEEP CLEANING

This work is reserved for operations beyond the general cleaning with a jetter through NASSCO's Jetter Code of Practice. This could involve thick root balls, heavy debris, clogs, and other obstructions that would be in the way of rehabilitation work. Operators would require different attachments such as root cutters, chain flail rotaries, and specialized nozzles (wedge nozzles, chisel nozzles, penetrating nozzles, etc.). Executing a higher pressure may also be required, but it will involve the understanding that pipe damage could occur if the pressure is too strong.

APPENDIX D: CAPITAL PROJECT DATA SHEETS

Project Title:	CIP #1 - East Area
Project Manager:	TBD
Current Phase:	PLANNING
Budget Location:	CAPITAL - SEWER
Design Consultant:	TBD
Const. Contractor:	TBD

Map/Photo:



Project Description:

The project will rehabilitate 10 sewer mains ranging from 6-inch to 12-inch diameters. Work will include approximately 985 linear feet of cured-in-place (CIPP) lining, 2 each of short liners, approximately 340 linear feet of external point repair, bypass pumping, pavement restoration, erosion control, and traffic control.

Justification or Significance of Improvement:

In early 2025, the District assessed the conditions of the Olympic Valley sewer infrastructure system recorded between 2019 - 2022. After the evaluation of the sewer mains, structural defects were identified and methods of rehabilitation were determined to address the defects.

Justification Data:

Asset Category:	SEWER
Asset Type:	Collection
Project Type:	Rehab
Justification Category:	Age/Condition
Facility Age (Life):	N/A

Project Costs

Phase	FY 2031	FY 2032				Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ 141,219	$ -	$ -	$ -	$ -	$ 141,219
Construction	$ 176,523	$ 548,106	$ -	$ -	$ -	$ 724,629
Total Project Costs	**$ 317,742**	**$ 548,106**	**$ -**	**$ -**	**$ -**	**$ 865,848**
Funding Source(s):						
	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ 317,742**	**$ 548,106**	**$ -**	**$ -**	**$ -**	**$ 865,848**

Project Schedule

Begin Design:	Oct-31
Bid Construction:	Feb-31
Start Construction:	May-31
Complete Construction:	Nov-32

Project Title:	CIP #2 - North Area
Project Manager:	TBD
Current Phase:	PLANNING
Budget Location:	CAPITAL - SEWER
Design Consultant:	TBD
Const. Contractor:	TBD

Project Description:

The project will rehabilitate 26 sewer mains and replace 8 sewer laterals from Navajo Ct to Winding Creek Rd. Work will include approximately 2,050 linear feet of cured-in-place (CIPP) lining, 9 each of short liners, approximately 780 linear feet of external point repair, bypass pumping, pavement restoration, erosion control, and traffic control.

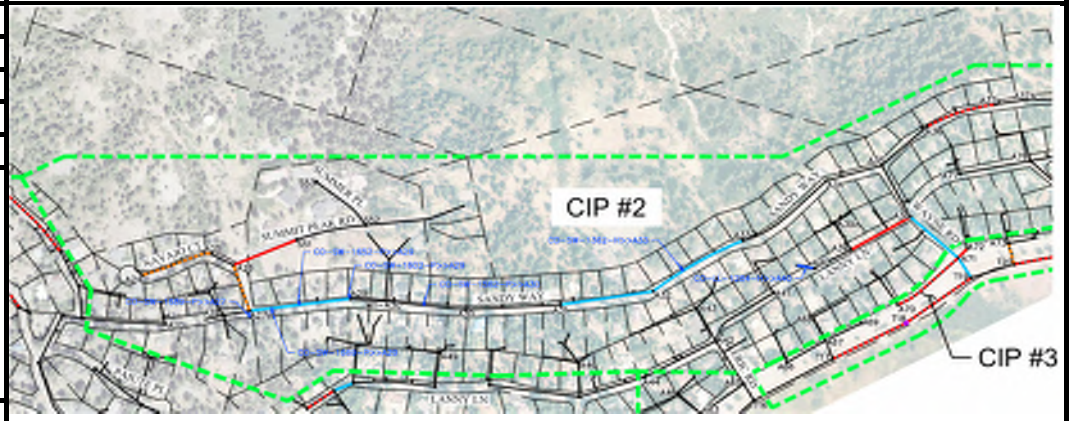
Justification or Significance of Improvement:

In early 2025, the District assessed the conditions of the Olympic Valley sewer infrastructure system recorded between 2019-2022. After the evaluation of the sewer mains and sewer laterals, structural defects were identified and methods of rehabilitation were determined to address the defects.

Justification Data:

Asset Category:	SEWER
Asset Type:	Collection
Project Type:	Rehab
Justification Category:	Age/Condition
Facility Age (Life):	N/A

Map/Photo:



Project Costs

Phase	FY 2044	FY 2045				Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ 441,990	$ -	$ -	$ -	$ -	$ 441,990
Construction	$ 552,487	$ 1,715,472	$ -	$ -	$ -	$ 2,267,959
Total Project Costs	**$ 994,477**	**$ 1,715,472**	**$ -**	**$ -**	**$ -**	**$ 2,709,949**
Funding Source(s):						
	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ 994,477**	**$ 1,715,472**	**$ -**	**$ -**	**$ -**	**$ 2,709,949**

Project Schedule

Begin Design:	Oct-44
Bid Construction:	Feb-44
Start Construction:	May-44
Complete Construction:	Nov-45

Project Title:	CIP #3 - Olympic Valley Road
Project Manager:	TBD
Current Phase:	PLANNING
Budget Location:	CAPITAL - SEWER
Design Consultant:	TBD
Const. Contractor:	TBD

Project Description:

The project will rehabilitate 20 sewer mains and replace 1 sewer manhole along Olympic Valley Road. Work will include approximately 3,000 linear feet of cured-in-place (CIPP) lining, 2 each of short liners, approximately 1,200 linear feet of external point repair, bypass pumping, dewatering, pavement

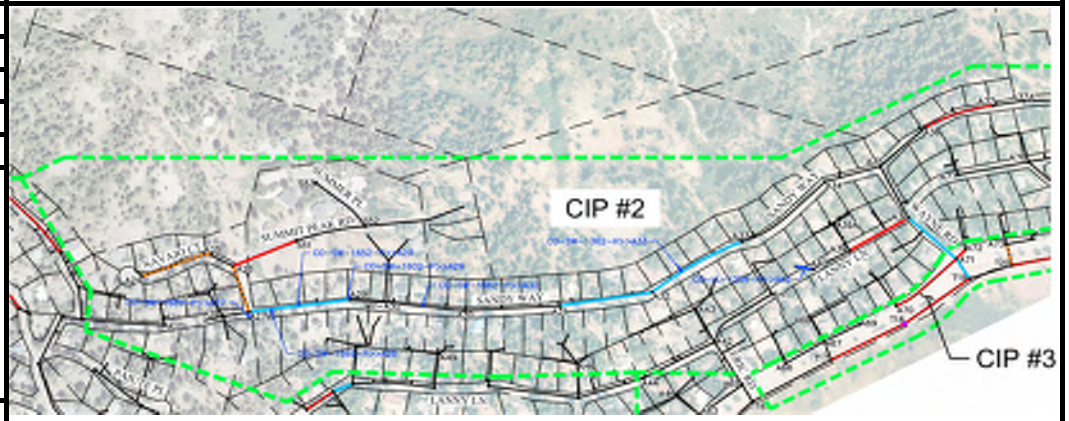
Justification or Significance of Improvement:

In early 2025, the District assessed the conditions of the Olympic Valley sewer infrastructure system. After the evaluation of the sewer mains and manholes, structural defects were identified and methods of rehabilitations were determined to address the defects.

Justification Data:

Asset Category:	SEWER
Asset Type:	Collection
Project Type:	Rehab
Justification Category:	Age/Condition
Facility Age (Life):	N/A

Map/Photo:



Project Costs

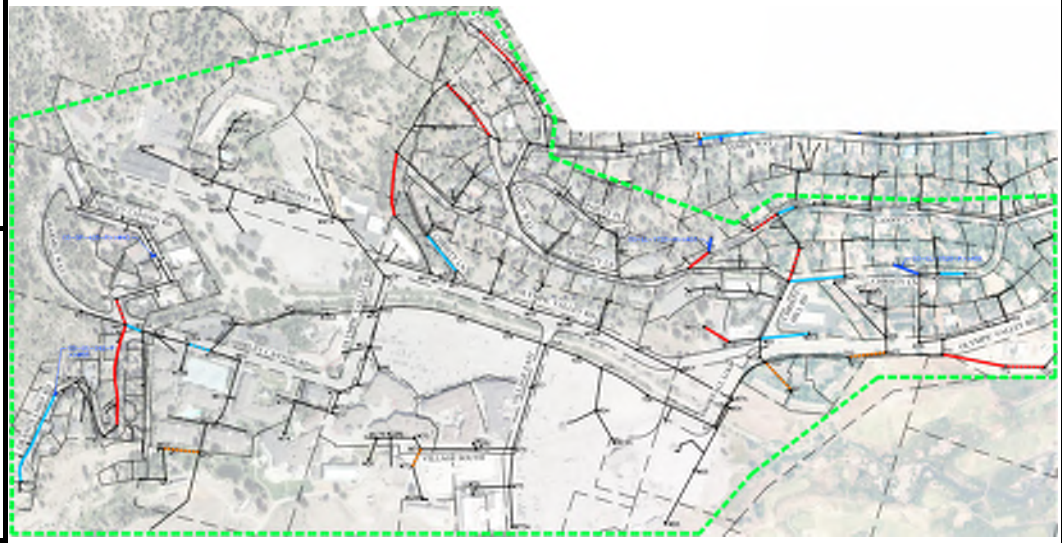
Phase	FY 2036	FY 2037				Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ 785,782	$ -	$ -	$ -	$ -	$ 785,782
Construction	$ 982,228	$ 3,049,818	$ -	$ -	$ -	$ 4,032,046
Total Project Costs	**$ 1,768,010**	**$ 3,049,818**	**$ -**	**$ -**	**$ -**	**$ 4,817,828**
Funding Source(s):						
	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ 1,768,010**	**$ 3,049,818**	**$ -**	**$ -**	**$ -**	**$ 4,817,828**

Project Schedule

Begin Design:	Oct-36
Bid Construction:	Feb-36
Start Construction:	May-36
Complete Construction:	Nov-37

Project Title:	CIP #4 - West Area
Project Manager:	TBD
Current Phase:	PLANNING
Budget Location:	CAPITAL - SEWER
Design Consultant:	TBD
Const. Contractor:	TBD

Map/Photo:



Project Description:

The project will rehabilitate 23 sewer mains and 4 sewer laterals from Granite Chief Rd to Christy Ln. Work will include approximately 2,550 linear feet of cured-in-place (CIPP) lining, 11 each of short liners, approximately 430 linear feet of external point repair, bypass pumping, pavement restoration, erosion control, and traffic control.

Justification or Significance of Improvement:

In early 2025, the District assessed the conditions of the Olympic Valley sewer infrastructure system. After the evaluation of the sewer mains and sewer laterals, structural defects were identified and methods of rehabilitation were determined to address the defects.

Justification Data:

Asset Category:	SEWER
Asset Type:	Collection
Project Type:	Rehab
Justification Category:	Age/Condition
Facility Age (Life):	N/A

Project Costs

Phase	FY 2040	FY 2041				Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ 300,513	$ -	$ -	$ -	$ -	$ 300,513
Construction	$ 375,641	$ 1,166,365	$ -	$ -	$ -	$ 1,542,006
Total Project Costs	**$ 676,154**	**$ 1,166,365**	**$ -**	**$ -**	**$ -**	**$ 1,842,519**
Funding Source(s):						
	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ 676,154**	**$ 1,166,365**	**$ -**	**$ -**	**$ -**	**$ 1,842,519**

Project Schedule

Begin Design:	Oct-40
Bid Construction:	Feb-40
Start Construction:	May-40
Complete Construction:	Nov-41

Project Title:	CIP #5 - High Priority Assets
Project Manager:	TBD
Current Phase:	PLANNING
Budget Location:	CAPITAL - SEWER
Design Consultant:	TBD
Const. Contractor:	TBD

Project Description:

The project will rehabilitate 27 sewer mains and 37 sewer manholes, replace 8 manholes, and install 2 new manholes. Rehabilitation work will include approximately 4,790 linear feet of cured-in-place (CIPP) lining, approximately 60 linear feet of external point repair, cementitious coating of manholes, bypass pumping, pavement restoration, erosion control, and traffic control.

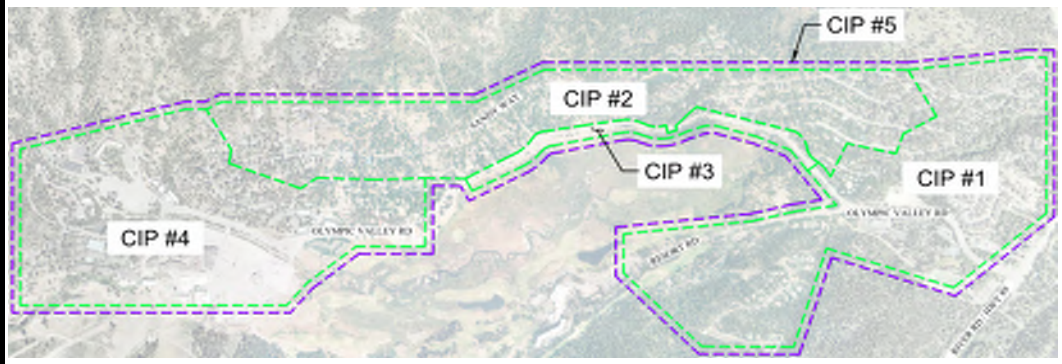
Justification or Significance of Improvement:

In early 2025, the District assessed the conditions of the Olympic Valley sewer infrastructure system. After evaluation of the sewer mains and sewer manholes, structural defects were identified and methods of rehabilitation were determined to address the defects. This project is a consolidation of the most severe pipe conditions throughout the community and all of the manholes requiring attention.

Justification Data:

Asset Category:	SEWER
Asset Type:	Collection
Project Type:	Rehab
Justification Category:	Age/Condition
Facility Age (Life):	N/A

Map/Photo:



Project Costs

Phase	FY 2026	FY 2027				Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ 257,857	$ -	$ -	$ -	$ -	$ 257,857
Construction	$ 322,322	$ 1,000,809	$ -	$ -	$ -	$ 1,323,131
Total Project Costs	**$ 580,179**	**$ 1,000,809**	**$ -**	**$ -**	**$ -**	**$ 1,580,988**
Funding Source(s):						
	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ 580,179**	**$ 1,000,809**	**$ -**	**$ -**	**$ -**	**$ 1,580,988**

Project Schedule

Begin Design:	Oct-26
Bid Construction:	Feb-26
Start Construction:	May-26
Complete Construction:	Nov-27

Olympic Valley PSD
Sewer Capital Improvement Plan - 20 Year
Sewer Master Plan

Inflation	**3.5%**

	July 1 2026	July 1 2027	July 1 2028	July 1 2029	July 1 2030	July 1 2031	July 1 2032	July 1 2033	July 1 2034	July 1 2035	July 1 2036	July 1 2037	July 1 2038	July 1 2039	July 1 2040
Capital Projects	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**FY 2031**	**FY 2032**	**FY 2033**	**FY 2034**	**FY 2035**	**FY 2036**	**FY 2037**	**FY 2038**	**FY 2039**	**FY 2040**
Capital Improvement Projects (CIP)															
CO-A22>>A22 Backyard Sewer Project	$0	$0	$0	$0	$0	$0	$0	$168,274	$290,273	$0	$0	$0	$0	$0	$0
CO-A28A>>A28 Backyard Sewer Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CO-A50>>A50 Backyard Sewer Project	0	0	0	172,524	297,603	0	0	0	0	0	0	0	0	0	0
CO-A47>>A47 Backyard Sewer Project	0	0	0	0	0	0	0	0	0	0	0	0	160,903	277,557	0
CO-A54>>A54 Backyard Sewer Project	0	0	0	0	0	0	0	0	0	0	0	0	206,782	356,699	0
CO-A60>>A60 Backyard Sewer Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CO-A64>>A64 Backyard Sewer Project	0	0	0	242,862	418,937	0	0	0	0	0	0	0	0	0	0
CO-A41>>A41 Backyard Sewer Project	0	0	0	0	0	0	0	0	0	0	0	0	188,928	325,901	0
CO-A70>>A70 Backyard Sewer Project	0	0	0	0	0	0	0	193,284	333,415	0	0	0	0	0	0
CO-A76>>A76 Backyard Sewer Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Snowfall Loop Sewer Improvements	0	376,291	649,102	0	0	0	0	0	0	0	0	0	0	0	0
Sewer Metering Project	26,937	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CIP #1 - East Area	0	0	0	0	0	317,742	548,106	0	0	0	0	0	0	0	0
CIP #2 - North Area	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CIP #3 - Olympic Valley Road	0	0	0	0	0	0	0	0	0	0	1,768,010	3,049,818	0	0	0
CIP #4 - West Area	0	0	0	0	0	0	0	0	0	0	0	0	0	0	676,154
CIP #5 - High Priority Assets	580,179	1,000,809	0	0	0	0	0	0	0	0	0	0	0	0	0
SCADA Upgrade Project (from CoS Study)	25,875	26,781	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Capital Projects	**$632,991**	**$1,403,881**	**$649,102**	**$415,386**	**$716,540**	**$317,742**	**$548,106**	**$361,558**	**$623,688**	**$0**	**$1,768,010**	**$3,049,818**	**$556,613**	**$960,157**	**$676,154**

Note: Project costs are shown in future dollars assuming a 3.5% annual inflation rate

Olympic Valley PSD
Sewer Capital Improvement Plan - 20 Year
Sewer Master Plan

Capital Projects	July 1 2041 FY 2041	July 1 2042 FY 2042	July 1 2043 FY 2043	July 1 2044 FY 2044	July 1 2045 FY 2045	Total	*Notes*
Capital Improvement Projects (CIP)							
CO-A22>>A22 Backyard Sewer Project	$0	$0	$0	$0	$0	$458,547	
CO-A28A>>A28 Backyard Sewer Project	0	197,243	340,244	0	0	$537,487	
CO-A50>>A50 Backyard Sewer Project	0	0	0	0	0	$470,127	
CO-A47>>A47 Backyard Sewer Project	0	0	0	0	0	$438,460	
CO-A54>>A54 Backyard Sewer Project	0	0	0	0	0	$563,481	
CO-A60>>A60 Backyard Sewer Project	0	187,442	323,338	0	0	$510,780	
CO-A64>>A64 Backyard Sewer Project	0	0	0	0	0	$661,799	
CO-A41>>A41 Backyard Sewer Project	0	0	0	0	0	$514,829	
CO-A70>>A70 Backyard Sewer Project	0	0	0	0	0	$526,699	
CO-A76>>A76 Backyard Sewer Project	0	179,952	310,417	0	0	$490,369	
Snowfall Loop Sewer Improvements	0	0	0	0	0	$1,025,393	
Sewer Metering Project	0	0	0	0	0	$26,937	
CIP #1 - East Area	0	0	0	0	0	$865,848	
CIP #2 - North Area	0	0	0	994,477	1,715,472	$2,709,949	
CIP #3 - Olympic Valley Road	0	0	0	0	0	$4,817,828	
CIP #4 - West Area	1,166,365	0	0	0	0	$1,842,519	
CIP #5 - High Priority Assets	0	0	0	0	0	$1,580,988	
SCADA Upgrade Project (from CoS Study)	0	0	0	0	0	$52,656	
Total Capital Projects	**$1,166,365**	**$564,637**	**$973,999**	**$994,477**	**$1,715,472**	**$18,094,696**	

Project Title:	CO-A22>>A22 Backyard Sewer Project
Project Manager:	TBD
Current Phase:	PLANNING
Budget Location:	CAPITAL - SEWER
Design Consultant:	TBD
Const. Contractor:	TBD

Project Description:

Replace and upsize to 6-inch the backyard sewer mains CO-A22B>>CO-A22 and CO-A22>>A22. Replace CO-A22 with a manhole and plumb (3) laterals to the new manhole. Upsize CO-A22B to 6-inch. Replace (4) property line cleanouts with double wye cleanouts and connect to existing private laterals.

Justification or Significance of Improvement:

Operational improvement with enhanced access for sewer cleaning. Improved sewer capacity that will help minimize sewer overflow potential. Reestablishment of easements by clearing them of obstructions.

Justification Data:

Asset Category:	SEWER
Asset Type:	Collection
Project Type:	Replace
Justification Category:	Age/Condition
Facility Age (Life):	47

Map/Photo:

Project Costs

Phase	FY 2033	FY 2034				Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ 74,788	$ -	$ -	$ -	$ -	$ 74,788
Construction	$ 93,486	$ 290,273	$ -	$ -	$ -	$ 383,759
Total Project Costs	**$ 168,274**	**$ 290,273**	**$ -**	**$ -**	**$ -**	**$ 458,547**
Funding Source(s):						
	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ 168,274**	**$ 290,273**	**$ -**	**$ -**	**$ -**	**$ 458,547**

Project Schedule

Begin Design:	Oct-33
Bid Construction:	Feb-33
Start Construction:	May-33
Complete Construction:	Nov-34

Project Title:	CO-A28A>>A28 Backyard Sewer Project
Project Manager:	TBD
Current Phase:	PLANNING
Budget Location:	CAPITAL - SEWER
Design Consultant:	TBD
Const. Contractor:	TBD

Project Description:

Replace and upsize to 6-inch the backyard sewer mains CO-A28B>>CO-A28A and CO-A28A>>A28. Replace CO-A28A with a manhole and plumb (3) laterals to the new manhole. Upsize CO-A22B to 6-inch. Reconfigure service so 1721 Navajo Ct lateral plumbs into CO-A28B>>CO-A28A main. Replace (5) property line cleanouts with double wye cleanouts and connect to existing private laterals.

Justification or Significance of Improvement:

Operational improvement with enhanced access for sewer cleaning. Improved sewer capacity that will help minimize sewer overflow potential. Reestablishment of easements by clearing them of obstructions.

Justification Data:

Asset Category:	SEWER
Asset Type:	Collection
Project Type:	Replace
Justification Category:	Age/Condition
Facility Age (Life):	47

Map/Photo:

Project Costs

Phase	FY 2042	FY 2043				Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ 87,664	$ -	$ -	$ -	$ -	$ 87,664
Construction	$ 109,579	$ 340,244	$ -	$ -	$ -	$ 449,823
Total Project Costs	**$ 197,243**	**$ 340,244**	**$ -**	**$ -**	**$ -**	**$ 537,487**
Funding Source(s):						
	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ 197,243**	**$ 340,244**	**$ -**	**$ -**	**$ -**	**$ 537,487**

Project Schedule

Begin Design:	Oct-42
Bid Construction:	Feb-42
Start Construction:	May-42
Complete Construction:	Nov-43

Project Title:	CO-A50>>A50 Backyard Sewer Project
Project Manager:	TBD
Current Phase:	PLANNING
Budget Location:	CAPITAL - SEWER
Design Consultant:	TBD
Const. Contractor:	TBD

Project Description:

Replace and upsize to 6-inch the backyard sewer mains CO-A50>>A50, CO-A50A>>CO-A50, and CO-SW-1589-P>>CO-A50. Replace CO-A50 with a manhole and plumb (3) laterals to the new manhole. Upsize CO-A50A to 6-inch and install a 6-inch cleanout, CO-A50B. Replace (5) property line cleanouts with double wye cleanouts and connect to existing private laterals.

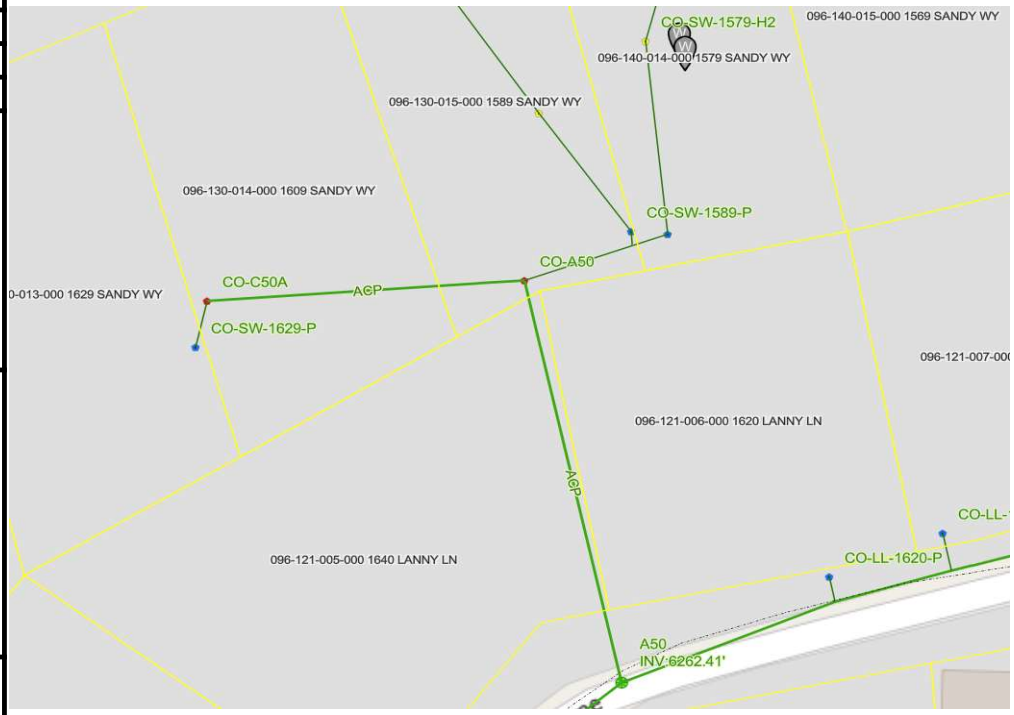
Justification or Significance of Improvement:

Operational improvement with enhanced access for sewer cleaning. Improved sewer capacity that will help minimize sewer overflow potential. Reestablishment of easements by clearing them of obstructions.

Justification Data:

Asset Category:	SEWER
Asset Type:	Collection
Project Type:	Replace
Justification Category:	Age/Condition
Facility Age (Life):	47

Map/Photo:



Project Costs

Phase	FY 2029	FY 2030				Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ 76,677	$ -	$ -	$ -	$ -	$ 76,677
Construction	$ 95,847	$ 297,603	$ -	$ -	$ -	$ 393,450
Total Project Costs	**$ 172,524**	**$ 297,603**	**$ -**	**$ -**	**$ -**	**$ 470,127**
Funding Source(s):						
	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ 172,524**	**$ 297,603**	**$ -**	**$ -**	**$ -**	**$ 470,127**

Project Schedule

Begin Design:	Oct-29
Bid Construction:	Feb-29
Start Construction:	May-29
Complete Construction:	Nov-30

Project Title:	CO-A47>>A47 Backyard Sewer Project
Project Manager:	TBD
Current Phase:	PLANNING
Budget Location:	CAPITAL - SEWER
Design Consultant:	TBD
Const. Contractor:	TBD

Project Description:

Replace and upsize to 6-inch the backyard sewer mains CO-A47>>A47 and CO-A47A>>CO-A47. Replace CO-A47 with a manhole and plumb (3) laterals to the new manhole. Upsize CO-A47A to 6-inch. Replace (4) property line cleanouts with double wye cleanouts and connect to existing private laterals.

Justification or Significance of Improvement:

Operational improvement with enhanced access for sewer cleaning. Improved sewer capacity that will help minimize sewer overflow potential. Reestablishment of easements by clearing them of obstructions.

Justification Data:

Asset Category:	SEWER
Asset Type:	Collection
Project Type:	Replace
Justification Category:	Age/Condition
Facility Age (Life):	47

Map/Photo:

Project Costs

Phase	FY 2038	FY 2039				Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ 71,512	$ -	$ -	$ -	$ -	$ 71,512
Construction	$ 89,391	$ 277,557	$ -	$ -	$ -	$ 366,948
Total Project Costs	**$ 160,903**	**$ 277,557**	**$ -**	**$ -**	**$ -**	**$ 438,460**
Funding Source(s):						
	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ 160,903**	**$ 277,557**	**$ -**	**$ -**	**$ -**	**$ 438,460**

Project Schedule

Begin Design:	Oct-38
Bid Construction:	Feb-38
Start Construction:	May-38
Complete Construction:	Nov-39

Project Title:	CO-A54>>A54 Backyard Sewer Project
Project Manager:	TBD
Current Phase:	PLANNING
Budget Location:	CAPITAL - SEWER
Design Consultant:	TBD
Const. Contractor:	TBD

Project Description:

Replace and upsize to 6-inch the backyard sewer mains CO-A54>>A54 and CO-A54A>>CO-A54. Replace CO-A54 with a manhole and plumb (3) laterals to the new manhole. Upsize CO-A54A to 6-inch. Replace (5) property line cleanouts with double wye cleanouts and connect to existing private laterals.

Justification or Significance of Improvement:

Operational improvement with enhanced access for sewer cleaning. Improved sewer capacity that will help minimize sewer overflow potential. Reestablishment of easements by clearing them of obstructions.

Justification Data:

Asset Category:	SEWER
Asset Type:	Collection
Project Type:	Replace
Justification Category:	Age/Condition
Facility Age (Life):	47

Map/Photo:

Project Costs

Phase	FY 2038	FY 2039				Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ 91,903	$ -	$ -	$ -	$ -	$ 91,903
Construction	$ 114,879	$ 356,699	$ -	$ -	$ -	$ 471,578
Total Project Costs	**$ 206,782**	**$ 356,699**	**$ -**	**$ -**	**$ -**	**$ 563,481**
Funding Source(s):						
	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ 206,782**	**$ 356,699**	**$ -**	**$ -**	**$ -**	**$ 563,481**

Project Schedule

Begin Design:	Oct-38
Bid Construction:	Feb-38
Start Construction:	May-38
Complete Construction:	Nov-39

Project Title:	CO-A60>>A60 Backyard Sewer Project
Project Manager:	TBD
Current Phase:	PLANNING
Budget Location:	CAPITAL - SEWER
Design Consultant:	TBD
Const. Contractor:	TBD

Project Description:

Replace and upsize to 6-inch the backyard sewer mains CO-A60>>A60 and CO-A60A>>CO-A60. Replace CO-A60 with a manhole and plumb (3) laterals to the new manhole. Upsize CO-A60A to 6-inch. Replace (4) property line cleanouts with double wye cleanouts and connect to existing private laterals.

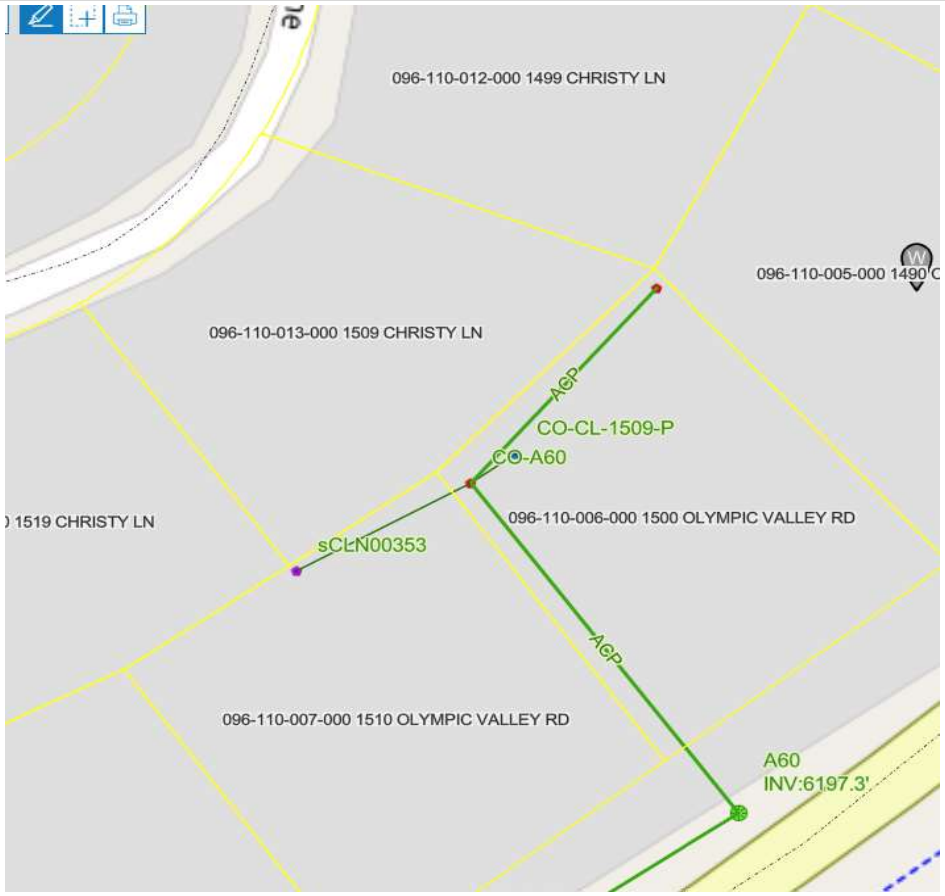
Justification or Significance of Improvement:

Operational improvement with enhanced access for sewer cleaning. Improved sewer capacity that will help minimize sewer overflow potential. Reestablishment of easements by clearing them of obstructions.

Justification Data:

Asset Category:	SEWER
Asset Type:	Collection
Project Type:	Replace
Justification Category:	Age/Condition
Facility Age (Life):	47

Map/Photo:



Project Costs

Phase	FY 2042	FY 2043				Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ 83,308	$ -	$ -	$ -	$ -	$ 83,308
Construction	$ 104,134	$ 323,338	$ -	$ -	$ -	$ 427,472
Total Project Costs	**$ 187,442**	**$ 323,338**	**$ -**	**$ -**	**$ -**	**$ 510,780**
Funding Source(s):						
	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ 187,442**	**$ 323,338**	**$ -**	**$ -**	**$ -**	**$ 510,780**

Project Schedule

Begin Design:	Oct-42
Bid Construction:	Feb-42
Start Construction:	May-42
Complete Construction:	Nov-43

Project Title:	CO-A64>>A64 Backyard Sewer Project
Project Manager:	TBD
Current Phase:	PLANNING
Budget Location:	CAPITAL - SEWER
Design Consultant:	TBD
Const. Contractor:	TBD

Project Description:

Replace and upsize to 6-inch the backyard sewer mains A64>>A63, CO-A64>>A64. Replace manhole A64 with a new manhole and reinstate 1409 Lanny service. Replace CO-A64 with a manhole and plumb existing laterals to the new manhole. Install a new manhole at the midpoint of CO-A64>>A64. Replace (6) property line cleanouts with double wye cleanouts and connect to existing private laterals.

Justification or Significance of Improvement:

Operational improvement with enhanced access for sewer cleaning. Improved sewer capacity that will help minimize sewer overflow potential. Reestablishment of easements by clearing them of obstructions.

Justification Data:

Asset Category:	SEWER
Asset Type:	Collection
Project Type:	Replace
Justification Category:	Age/Condition
Facility Age (Life):	47

Map/Photo:

Project Costs

Phase	FY 2029	FY 2030				Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ 107,939	$ -	$ -	$ -	$ -	$ 107,939
Construction	$ 134,923	$ 418,937	$ -	$ -	$ -	$ 553,860
Total Project Costs	**$ 242,862**	**$ 418,937**	**$ -**	**$ -**	**$ -**	**$ 661,799**
Funding Source(s):						
	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ 242,862**	**$ 418,937**	**$ -**	**$ -**	**$ -**	**$ 661,799**

Project Schedule

Begin Design:	Oct-29
Bid Construction:	Feb-29
Start Construction:	May-29
Complete Construction:	Nov-30

Project Title:	CO-A41>>A41 Backyard Sewer Project
Project Manager:	TBD
Current Phase:	PLANNING
Budget Location:	CAPITAL - SEWER
Design Consultant:	TBD
Const. Contractor:	TBD

Project Description:

Replace and upsize to 6-inch the backyard sewer mains CO-A41>>A41 and CO-A41A>>CO-A41. Replace CO-A41 with a manhole and plumb (3) laterals to the new manhole. Upsize CO-A41A to 6-inch. Replace (5) property line cleanouts with double wye cleanouts and connect to existing private laterals.

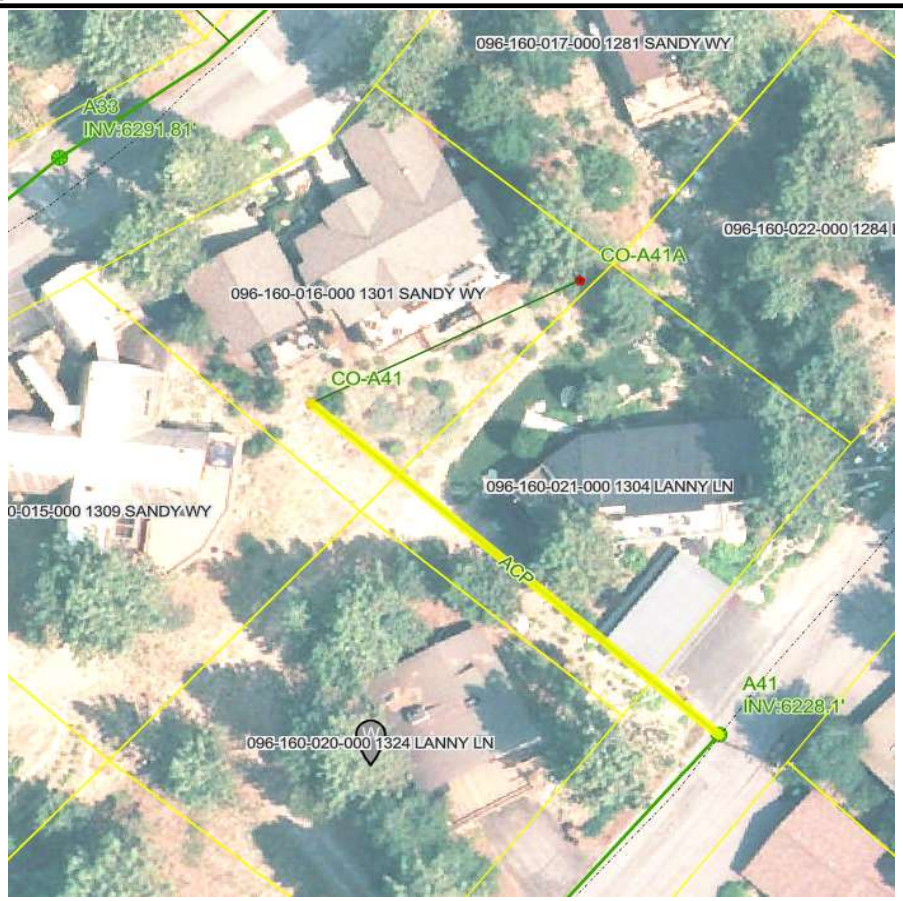
Justification or Significance of Improvement:

Operational improvement with enhanced access for sewer cleaning. Improved sewer capacity that will help minimize sewer overflow potential. Reestablishment of easements by clearing them of obstructions.

Justification Data:

Asset Category:	SEWER
Asset Type:	Collection
Project Type:	Replace
Justification Category:	Age/Condition
Facility Age (Life):	47

Map/Photo:



Project Costs

Phase	FY 2038	FY 2039				Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ 83,968	$ -	$ -	$ -	$ -	$ 83,968
Construction	$ 104,960	$ 325,901	$ -	$ -	$ -	$ 430,861
Total Project Costs	**$ 188,928**	**$ 325,901**	**$ -**	**$ -**	**$ -**	**$ 514,829**
Funding Source(s):						
	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ 188,928**	**$ 325,901**	**$ -**	**$ -**	**$ -**	**$ 514,829**

Project Schedule

Begin Design:	Oct-38
Bid Construction:	Feb-38
Start Construction:	May-38
Complete Construction:	Nov-39

Project Title:	CO-A70>>A70 Backyard Sewer Project
Project Manager:	TBD
Current Phase:	PLANNING
Budget Location:	CAPITAL - SEWER
Design Consultant:	TBD
Const. Contractor:	TBD

Project Description:

Replace and upsize to 6-inch the backyard sewer mains CO-A70>>A70, CO-A70A>>CO-A70, and CO-A70B>>CO-A70. Replace CO-A70 with a manhole and plumb (3) laterals to the new manhole. Upsize CO-A70A and CO-A70B to 6-inch. Replace (5) property line cleanouts with double wye cleanouts and connect to existing private laterals.

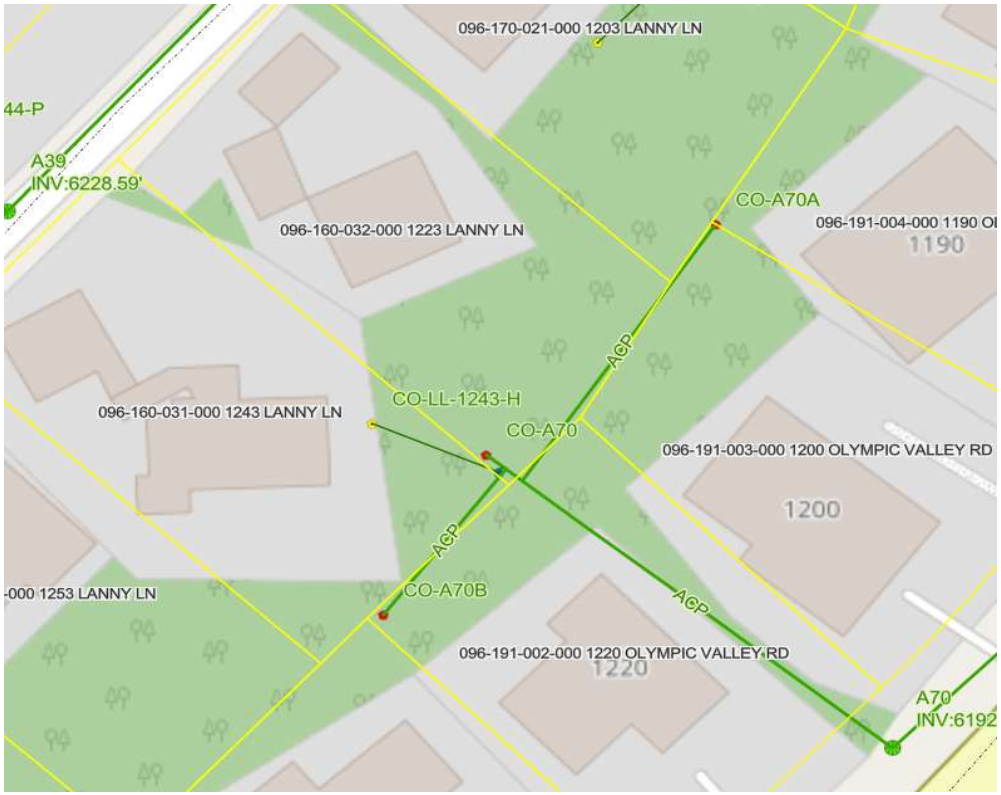
Justification or Significance of Improvement:

Operational improvement with enhanced access for sewer cleaning. Improved sewer capacity that will help minimize sewer overflow potential. Reestablishment of easements by clearing them of obstructions.

Justification Data:

Asset Category:	SEWER
Asset Type:	Collection
Project Type:	Replace
Justification Category:	Age/Condition
Facility Age (Life):	47

Map/Photo:



Project Costs

Phase	FY 2033	FY 2034				Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ 85,904	$ -	$ -	$ -	$ -	$ 85,904
Construction	$ 107,380	$ 333,415	$ -	$ -	$ -	$ 440,795
Total Project Costs	**$ 193,284**	**$ 333,415**	**$ -**	**$ -**	**$ -**	**$ 526,699**
Funding Source(s):						
	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ 193,284**	**$ 333,415**	**$ -**	**$ -**	**$ -**	**$ 526,699**

Project Schedule

Begin Design:	Oct-33
Bid Construction:	Feb-33
Start Construction:	May-33
Complete Construction:	Nov-34

Project Title:	CO-A76>>A76 Backyard Sewer Project
Project Manager:	TBD
Current Phase:	PLANNING
Budget Location:	CAPITAL - SEWER
Design Consultant:	TBD
Const. Contractor:	TBD

Project Description:

Replace and upsize to 6-inch the backyard sewer mains CO-A76>>A76 and CO-A76A>>CO-A76. Replace CO-A76 with a manhole and plumb (2) laterals to the new manhole. Upsize CO-A76A to 6-inch. Replace (3) property line cleanouts with double wye cleanouts and connect to existing private laterals.

Justification or Significance of Improvement:

Operational improvement with enhanced access for sewer cleaning. Improved sewer capacity that will help minimize sewer overflow potential. Reestablishment of easements by clearing them of obstructions.

Justification Data:

Asset Category:	SEWER
Asset Type:	Collection
Project Type:	Replace
Justification Category:	Age/Condition
Facility Age (Life):	47

Map/Photo:

Project Costs

Phase	FY 2042	FY 2043				Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ 79,979	$ -	$ -	$ -	$ -	$ 79,979
Construction	$ 99,973	$ 310,417	$ -	$ -	$ -	$ 410,390
Total Project Costs	**$ 179,952**	**$ 310,417**	**$ -**	**$ -**	**$ -**	**$ 490,369**
Funding Source(s):						
	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ 179,952**	**$ 310,417**	**$ -**	**$ -**	**$ -**	**$ 490,369**

Project Schedule

Begin Design:	Oct-42
Bid Construction:	Feb-42
Start Construction:	May-42
Complete Construction:	Nov-43

Project Title:	Snowfall Loop Sewer Improvements
Project Manager:	TBD
Current Phase:	PLANNING
Budget Location:	CAPITAL - SEWER
Design Consultant:	TBD
Const. Contractor:	TBD

Project Description:

Remove (2) existing sewer manholes W7A and W04 and abandon piping.
Replace 520 LF of 8-inch pipe (W06>>W05 and W05>>W04) with 6-inch pipe and plumb to W05 into T07. Reinstate one lateral.
Replace 265 LF of 10" SDR 35 sewer main (W07>>W7A) to plumb to T08.
Pipeline rehabilitation via CIPP liner to be completed on T08>>T09 (15-inch) and T07>>T08 (12-inch). There is a sag present on T08>>T09 that will be fixed

Justification or Significance of Improvement:

The manhole and pipeline proposed to be modified in this project have an existing configuration that results in backwards sewer flow and flow through sharp changes in direction. These flow conditions can contribute to solids build up and potential blockages or overflows that are mitigated by frequent cleaning. The project would eliminate these flow conditions, drastically reduce the likelihood of a sewer overflow into or near Washeshu Creek, and extend the life of the existing pipelines.

Justification Data:

Asset Category:	SEWER
Asset Type:	Collection
Project Type:	Replace
Justification Category:	Vulnerability/Risk
Facility Age (Life):	n/a

Map/Photo:

Project Costs

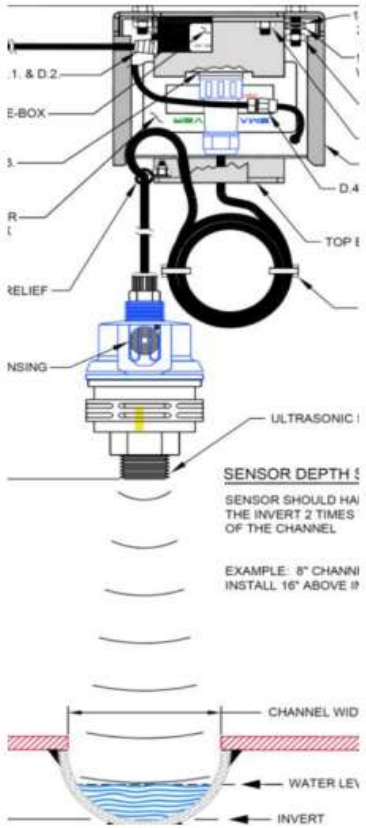
Phase	FY 2027	FY 2028				Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ 167,240	$ -	$ -	$ -	$ -	$ 167,240
Construction	$ 209,051	$ 649,102	$ -	$ -	$ -	$ 858,153
Total Project Costs	**$ 376,291**	**$ 649,102**	**$ -**	**$ -**	**$ -**	**$ 1,025,393**
Funding Source(s):						
	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ 376,291**	**$ 649,102**	**$ -**	**$ -**	**$ -**	**$ 1,025,393**

Project Schedule

Begin Design:	Oct-27
Bid Construction:	Feb-27
Start Construction:	May-27
Complete Construction:	Nov-28

Project Title:	Sewer Metering Project
Project Manager:	TBD
Current Phase:	PLANNING
Budget Location:	CAPITAL - SEWER
Design Consultant:	TBD
Const. Contractor:	TBD

Map/Photo:



Project Description:

Installation of (3) SmartCover Dual Sensor sewer flow meters at the outlet manholes of each of the (3) sewer sub-basins, manholes T06, T25, and R01. All meters would be integrated into the District SCADA system for remote monitoring and include an annual software subscription.

Justification or Significance of Improvement:

Accurate and reliable flow rate and volume measurements are all vital aspects of sewer collection system best management practices. Sewer metering will allow earlier warning of pending flow issues. They will also provide daily flow volume measurements to establish baselines, identify excess infiltration or inflow, and allow operators to monitor the system.

Justification Data:

Asset Category:	SEWER
Asset Type:	Collection
Project Type:	Upgrade
Justification Category:	Best Practice
Facility Age (Life):	n/a

Project Costs

Phase	FY 2026					Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 26,937	$ -	$ -	$ -	$ -	$ 26,937
Total Project Costs	**$ 26,937**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 26,937**
Funding Source(s):						
	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ 26,937**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 26,937**

Project Schedule

Begin Design:	n/a
Bid Construction:	n/a
Start Construction:	May-26
Complete Construction:	May-26

DOWL
https://www.dowl.com

Olympic Valley PSD Sewer Improvements

Backyard Sewer Projects

CO-A76>>A76

CO-A41>>A41

CO-A70>>A70

CO-A47>>A47

CO-A50>>A50

CO-A28A>>A28

CO-A64>>A64

CO-A60>>A60

CO-A22>>A22

CO-A54>>A54

RUSSELL RD

WAYNE RD

LANNY LN

ERIC RD

SUMMIT PEAK RD

NAVAJO DR

NAVAJO CT

APACHE CT

SANDY WAY

WASHOE DR

PAIUTE PL

SUMMER PL

CHRISTY LN

CHRISTY HILL RD

SNOWFALL LOOP

OLYMPIC VALLEY RD

N

1" = 300'

The data contained herein does not represent survey delineation and should not be construed as a replacement for the authoritative source. No liability is assumed by DOWL as to the sufficiency or accuracy of the data.

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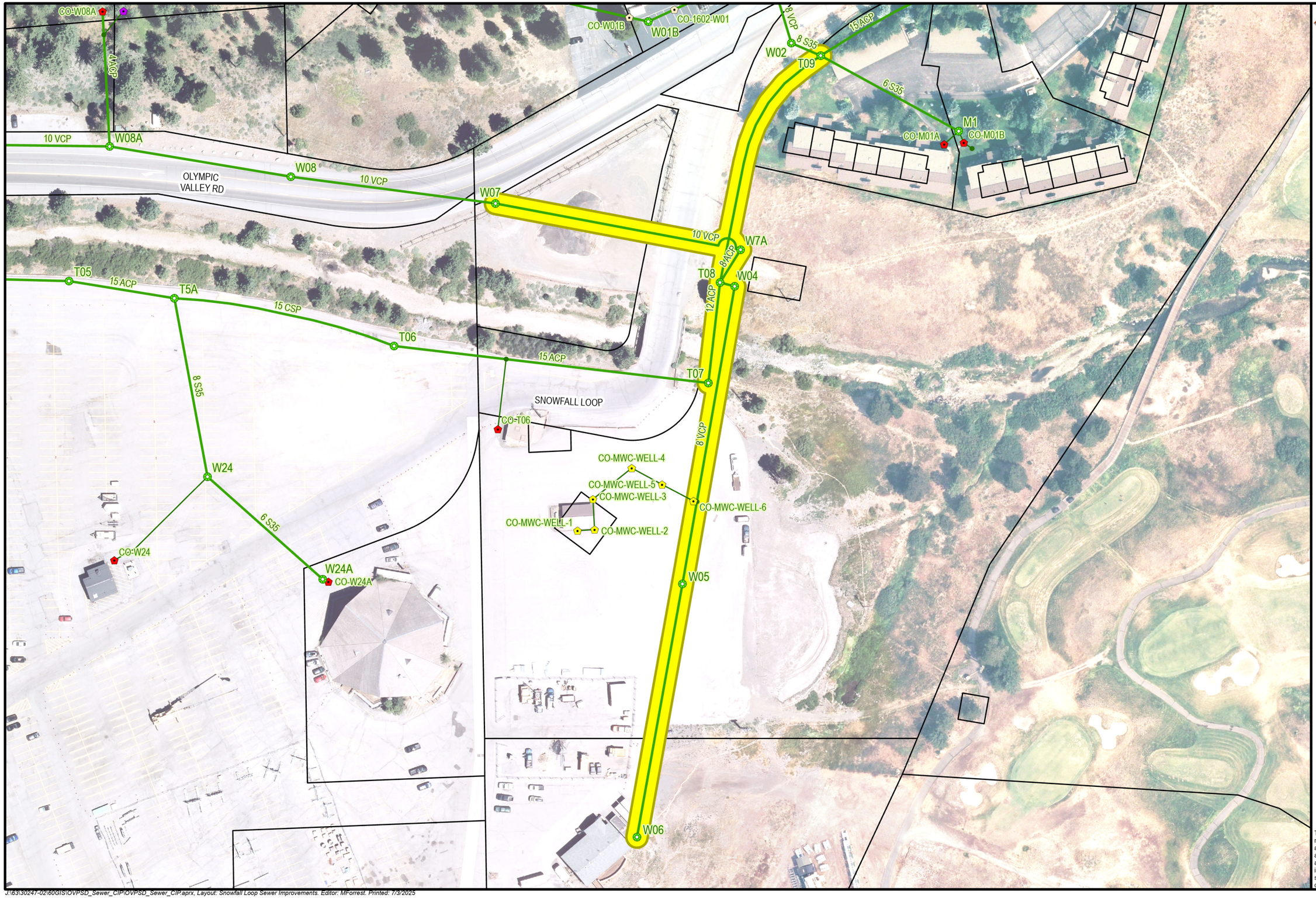

Olympic Valley PSD Sewer Improvements

Snowfall Loop Improvements

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N

1" = 100'

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Olympic Valley PSD Sewer Improvements

Sewer Metering Locations

Manhole #T25

Manhole #R01

Manhole #T06

HIDDEN LAKE LOOP
TIGER TAIL RD
FOREST GLEN RD
VICTOR PL
VICTOR DR
WINDING CREEK RD
MEADOWS END CT
INDIAN TRAIL RD
INDIAN TRAIL CT
HIDDEN LAKE CT
HIDDEN LAKE LOOP
SANDY WAY
LANNY LN
RUSSELL RD
OLYMPIC VALLEY RD
WAYNE RD
RESORT RD
MEADOW CT
RIDGE CT
SIERRA CREST CT
BROKEN ARROW PL
VALLEY VIEW CT
SIERRA RIDGE PL
MOUNTAIN LINKS WAY
SIERRA CREST TR
SUMMER PL
SUMMIT PEAK RD
ERIC RD
NAVAJO CT
NAVAJO DR
PAIUTE PL
LANNY LN
CHRISTY LN
CHRISTY HILL RD
SNOWFALL LOOP

N

1" = 500'

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