



EAST DUNNE HILLSIDE WATER SUPPLY RESERVOIR PROJECT

Fire Prevention Infrastructure Improvement Project

City of Morgan Hill/JOA Meeting
Jackson Oaks Meeting Hall
August 21, 2024 at 6:30pm

City of Morgan Hill Water System Upgrades

► Objectives

- Enhance Fire Fighting Capabilities
 - (Holiday Lakes, Jackson Oaks, Holiday 1, 2, & 3)
- Enhance System Reliability
 - Minimize Outages
 - Sustainable Water Quality
- Provide System Redundancy and Operations Flexibility.

City of Morgan Hill Old Water System



City of Morgan Hill

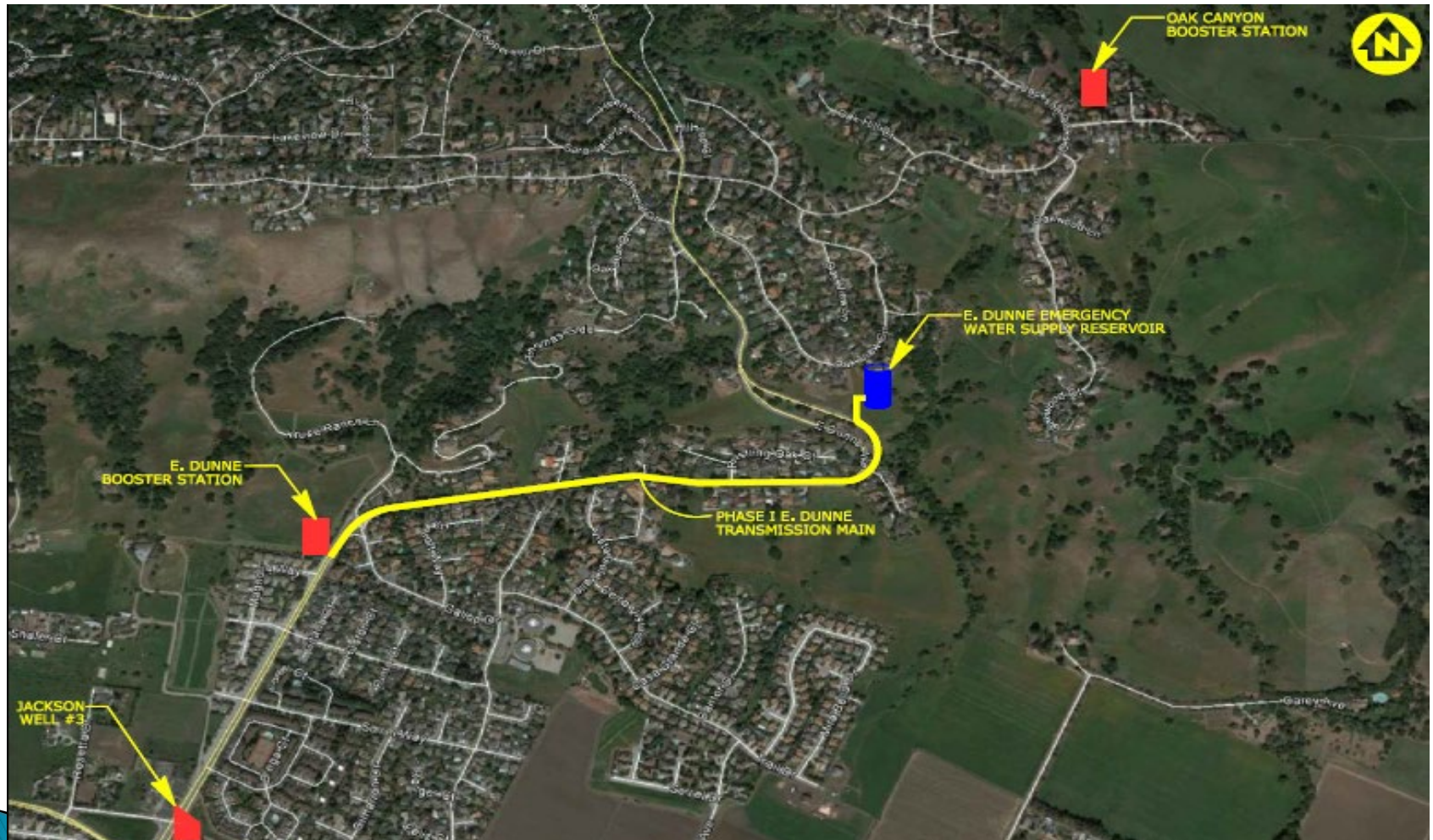
Water System Upgrades

► Improvements include:

- Jackson Oaks Well Rehabilitation–Complete 5/21
- Oak Canyon Booster Station Rebuild–Complete 7/18
- E. Dunne Water Transmission Main Project–Complete 3/17
- E. Dunne Water Reservoir–Starting 9/24
- E. Dunne Booster Station Rehabilitation–Starting 9/24

Water System Upgrades

FY 2018/24 Improvements



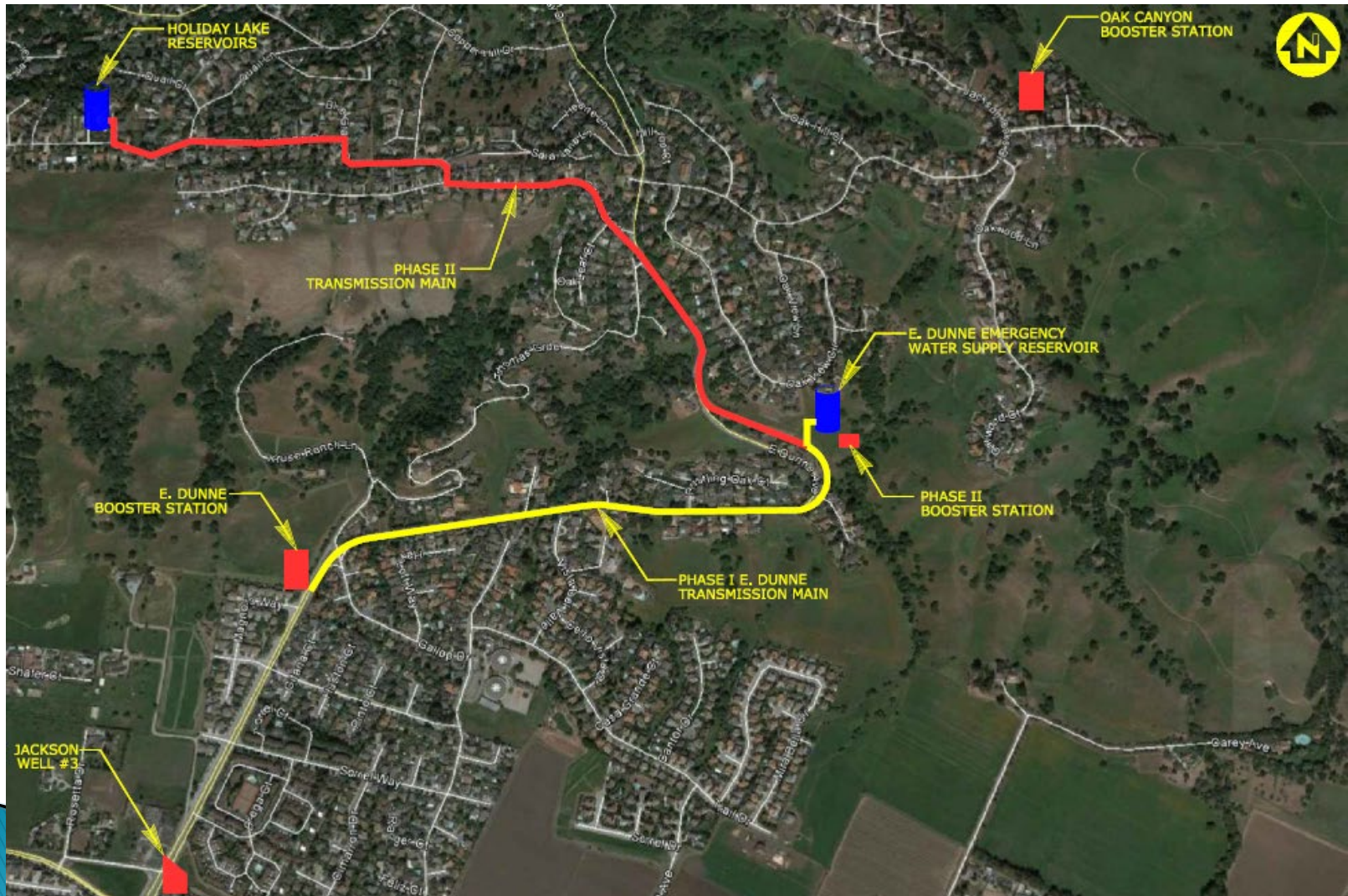
City of Morgan Hill

Future Water System Upgrades

- ▶ Future Phase II Improvements Include:
 - Construct New Transmission Main from Dunne Reservoir to Holiday Lake Reservoirs 1 & 2
 - Construct New Pump Station at E. Dunne Hillside Reservoir
 - Convert High Pressure Existing Piping to Holiday Lake 1 & 2 to back-up (Redundant) use only.

Water Capital Improvements

Future Improvements



Jackson Oaks Well Rehabilitation

(Online May 2021)



Oak Canyon Booster Station Rebuild

(Online July 2018)



E. Dunne Water Transmission Main Project

(Online in March 2017)



Water Capital Improvements

E. Dunne Booster Station




Water Capital Improvements

East Dunne Hillside Water Supply Reservoir



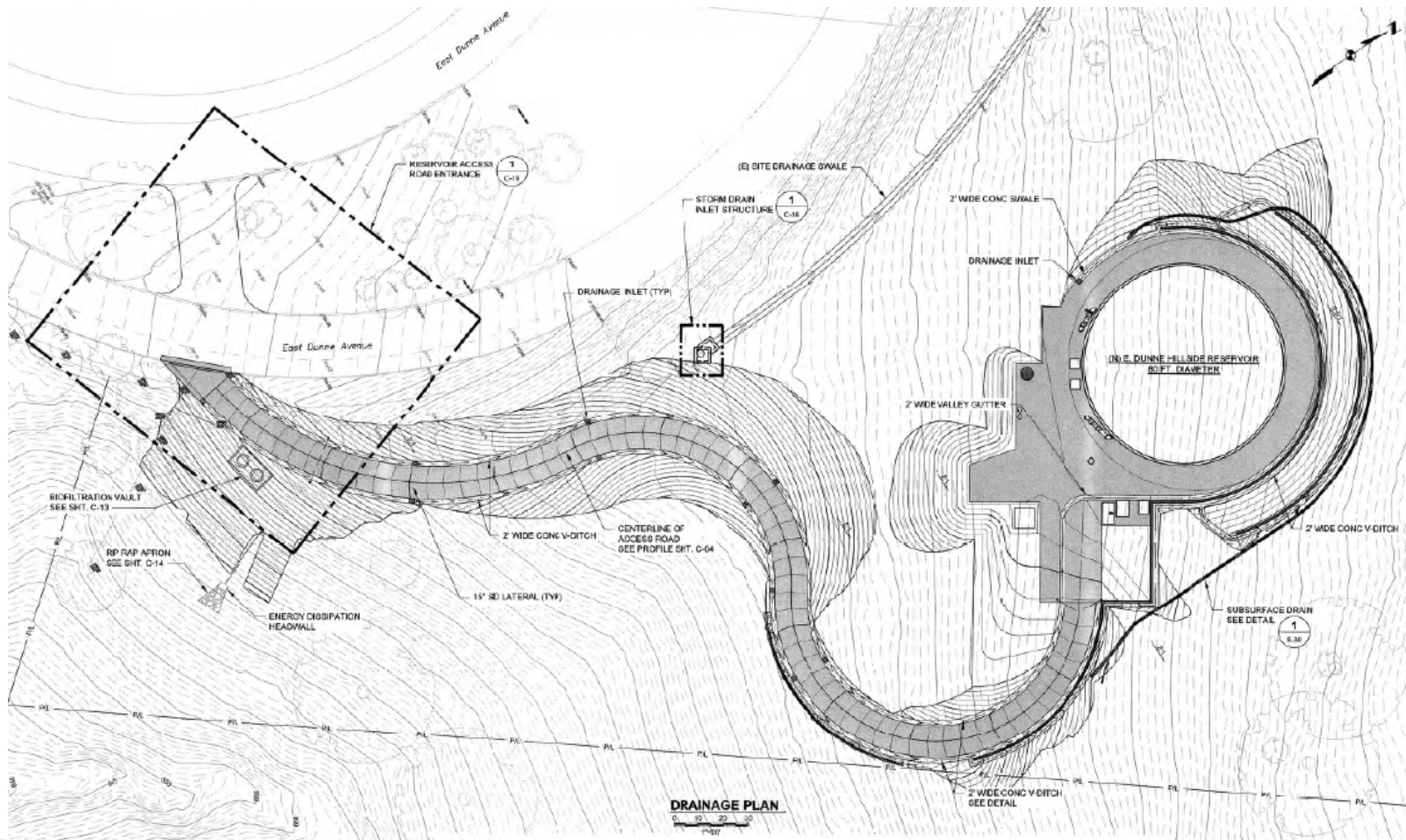
East Dunne Hillside Water Supply Reservoir

► Critical Functions:

- Enhance Fire Protection.
 - Effectively Doubles Water Capacity.
 - Water Capacity Essential to Survive Major Earthquakes, Fires & Catastrophic Emergencies.
 - Adequate Water Supply Essential to Maintain Public Health and Safety.
 - Quick Access to Water Essential to Fire Fighting.
 - Maintaining Water Infrastructure is Essential.
 - Adequate Water Supply and Emergency Water Reserves Are Essential for Public Health and Safety.
 - Provides Critical Redundancies & Improves Reliability.
- 

Reservoir Layout and Grading Plan

East Dunne Hillside Water Supply Reservoir

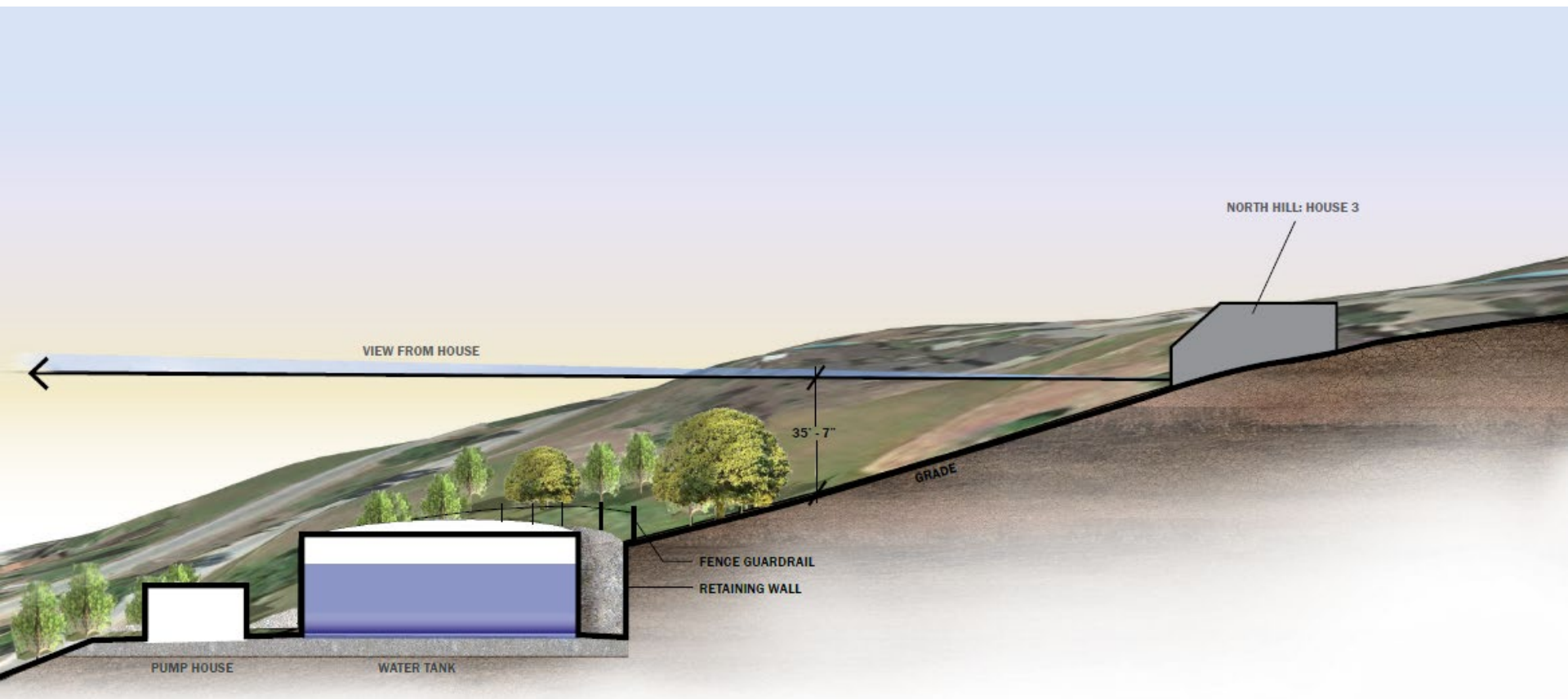


VIEWSHED STUDY

East Dunne Hillside Water Supply Reservoir



East Dunne Hillside Water Supply Reservoir



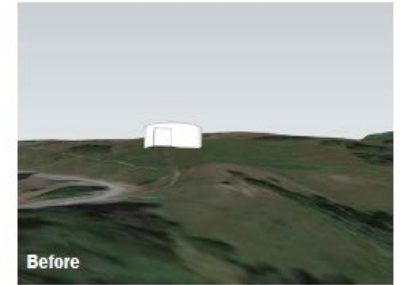
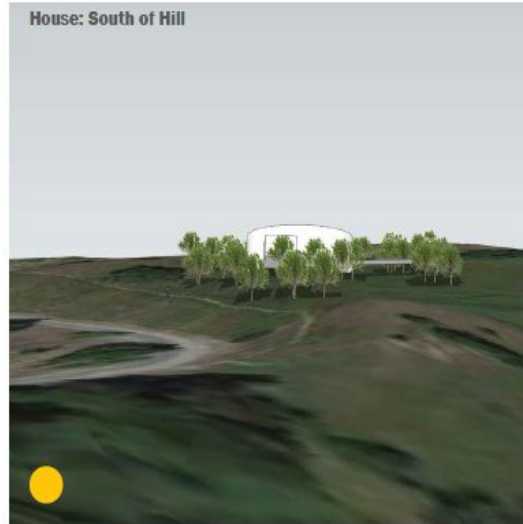
East Dunne Hillside Water Supply Reservoir





Viewshed - South Along the Road

House: South of Hill



E. Dunne Road Avenue



Before

House: Across E. Dunne Avenue

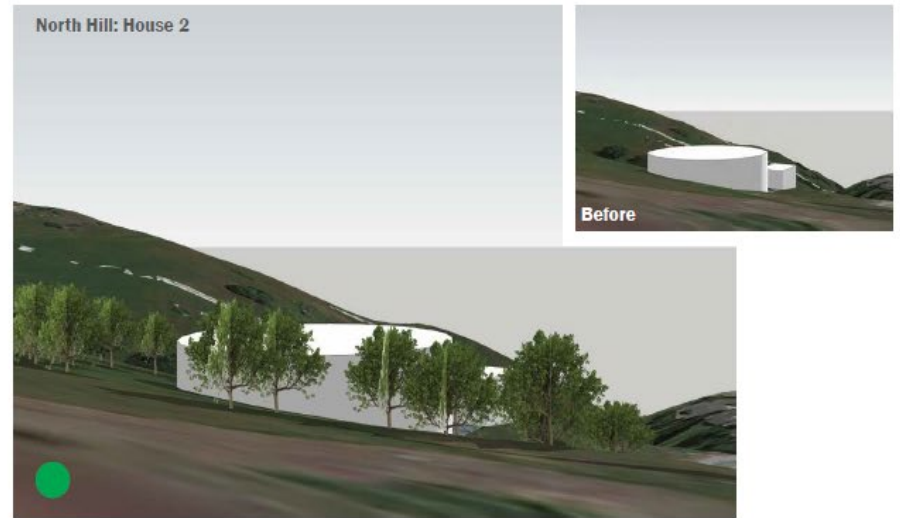


Before

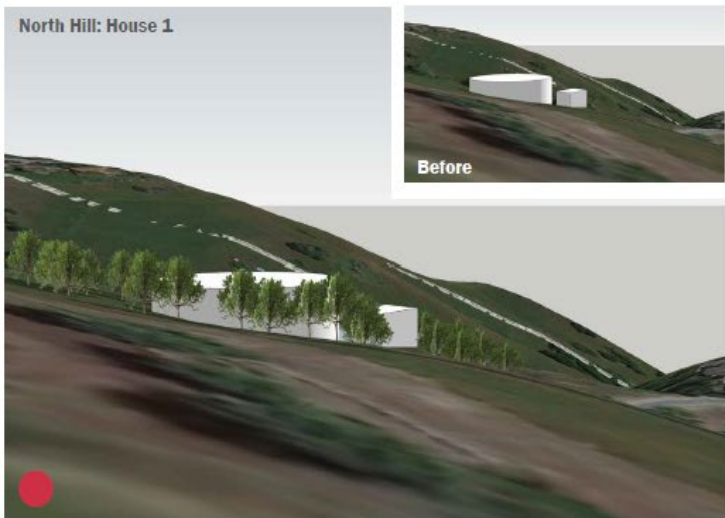
Viewshed - North Hill Above Tank



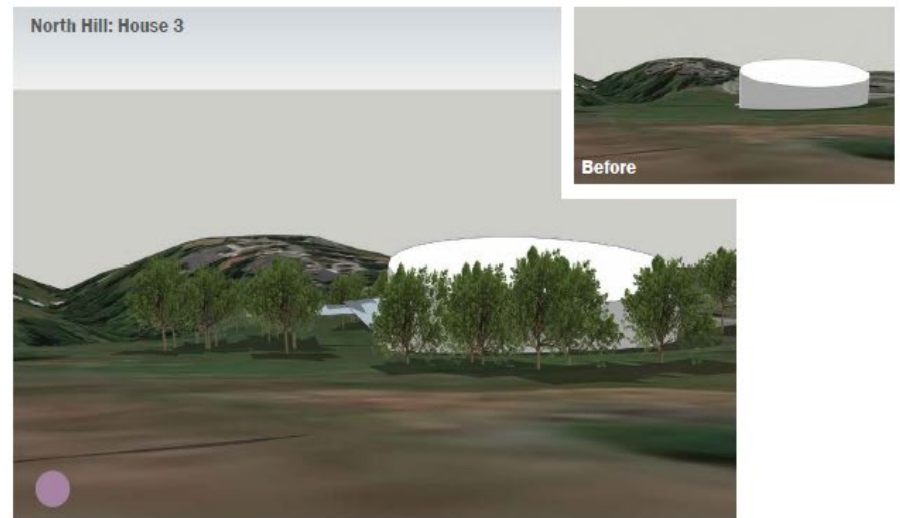
North Hill: House 2



North Hill: House 1



North Hill: House 3



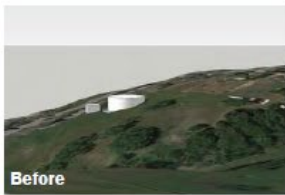
Viewshed - East Hill



East Hill: House 1



East Hill: House 2



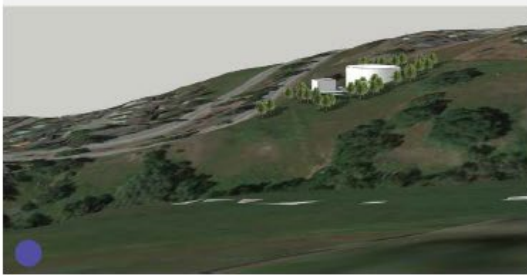
East Hill: House 3



East Hill: House 4



East Hill: House 5

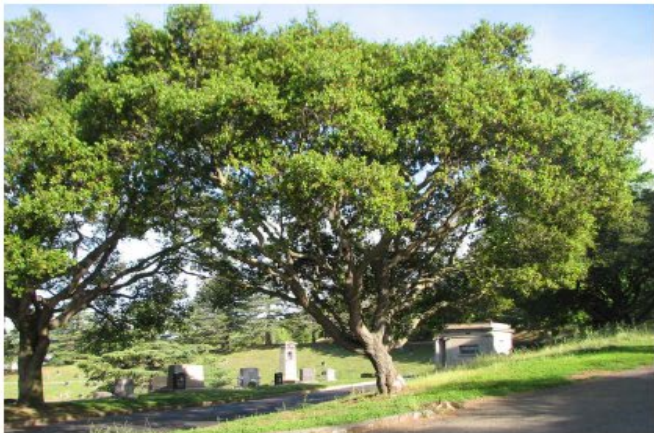


East Dunne Hillside Water Supply Reservoir

Trees



Quercus lobata / VALLEY OAK



Quercus agrifolia / COAST LIVE OAK

Shrubs



Heteromeles arbutifolia / TOYON



Prunus ilicifolia / HOLLYLEAF CHERRY

Grasses/Perennial

PACIFIC COAST SEED MIXES



HABITAT MIX

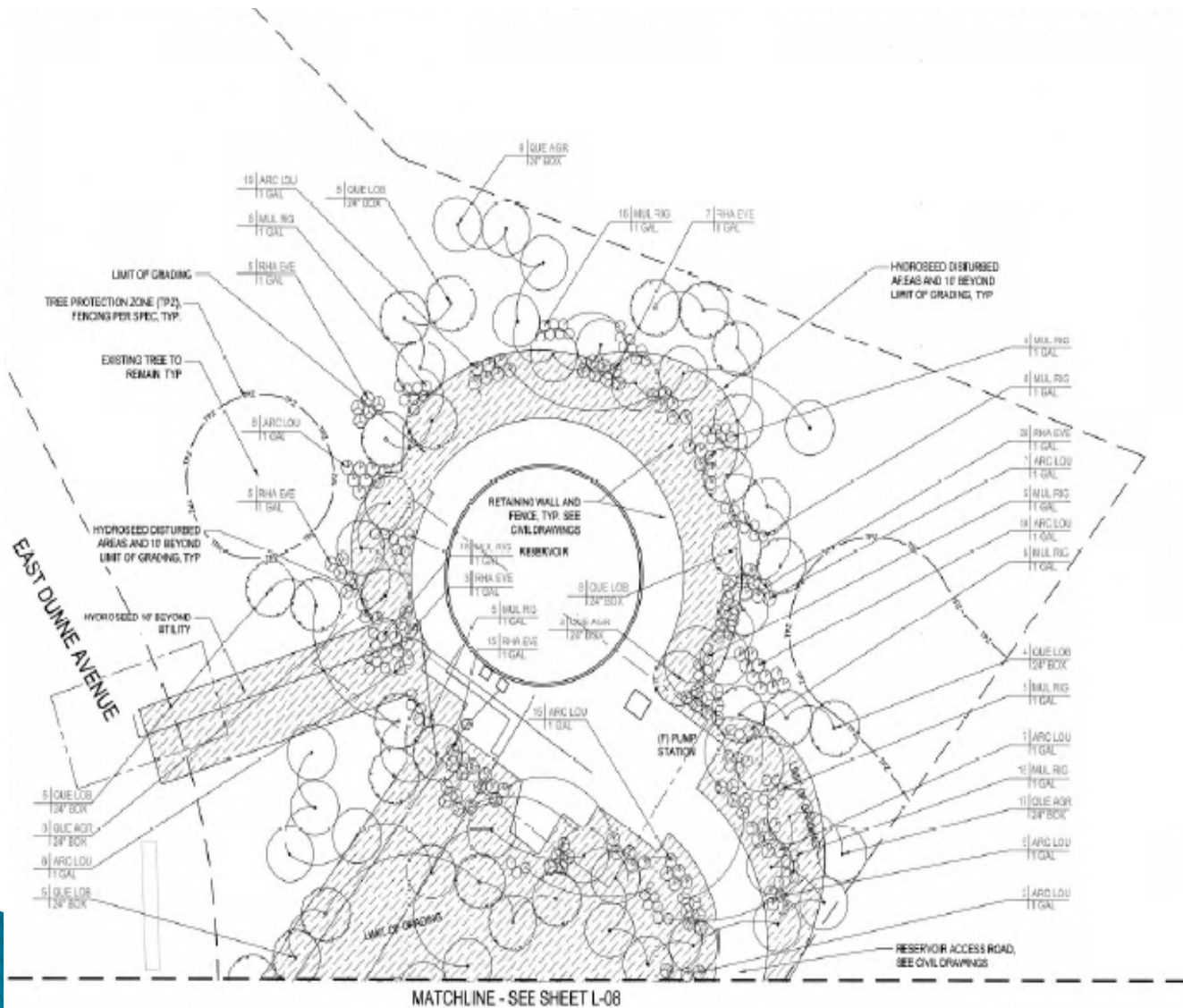
Bromus carinatus / Native California Brome
Elymus glaucus / Blue Wild Rye
Hordeum californicum / California Barley
Festuca idahoensis / Idaho Fescue
Nassella pulchra / Purple Needlegrass
Poa secunda / Native Pine Bluegrass



CALIFORNIA NATIVE WILDFLOWER MIX

Achillea millefolium / White Yarrow
Clarkia elegans / Elegant Clarkia
Collinsia heterophylla / Chinese Houses
Eschscholzia californica / California Poppy
Gilia capitata / Globe Gilia
Lasthenia glabrata / Goldfields
Layia platyglossa / Tidy Tips
Linum lewisii / Blue Flax
Lupinus densiflorus / Golden Lupine
Lupinus succulentus / Arroyo Lupine
Nemophila menziesii / Baby-Blue Eyes
Phacelia campanularia / California Blue Bells
Triphysaria versicolor / Yellow Owl's Clover

Planting Plan



PLANT LIST

FREES							2004-7
SYMB	QTY	AGER	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING	WATER USE
	36	ONE AGR	<i>Quercus agrifolia</i>	COAST LIVE OAK	24" BOX	AS SHOWN	L
	41	2.00 LOB	<i>Quercus laevis</i>	VALLEY OAK	24" BOX	AS SHOWN	L

SHRUBS

SYMBOL	UNIT	ABBV.	DESIGNER'S NAME	ESTIMATOR'S NAME	DATE	SPACING	WATER USED
	145	ARC LOU	Acropolis Park Louisiana	LOUIS EDWARDS MAZDAHITA	1 GAL	80 0.0	L
	142	RUE PRO	Marquette High	CELESTINE	1 GAL	40 0.0	L
	164	ROCK BAY	Rockwell California	CALIFORNIA CONCRETE	1 GAL	80 0.0	L

HYDROSEEC

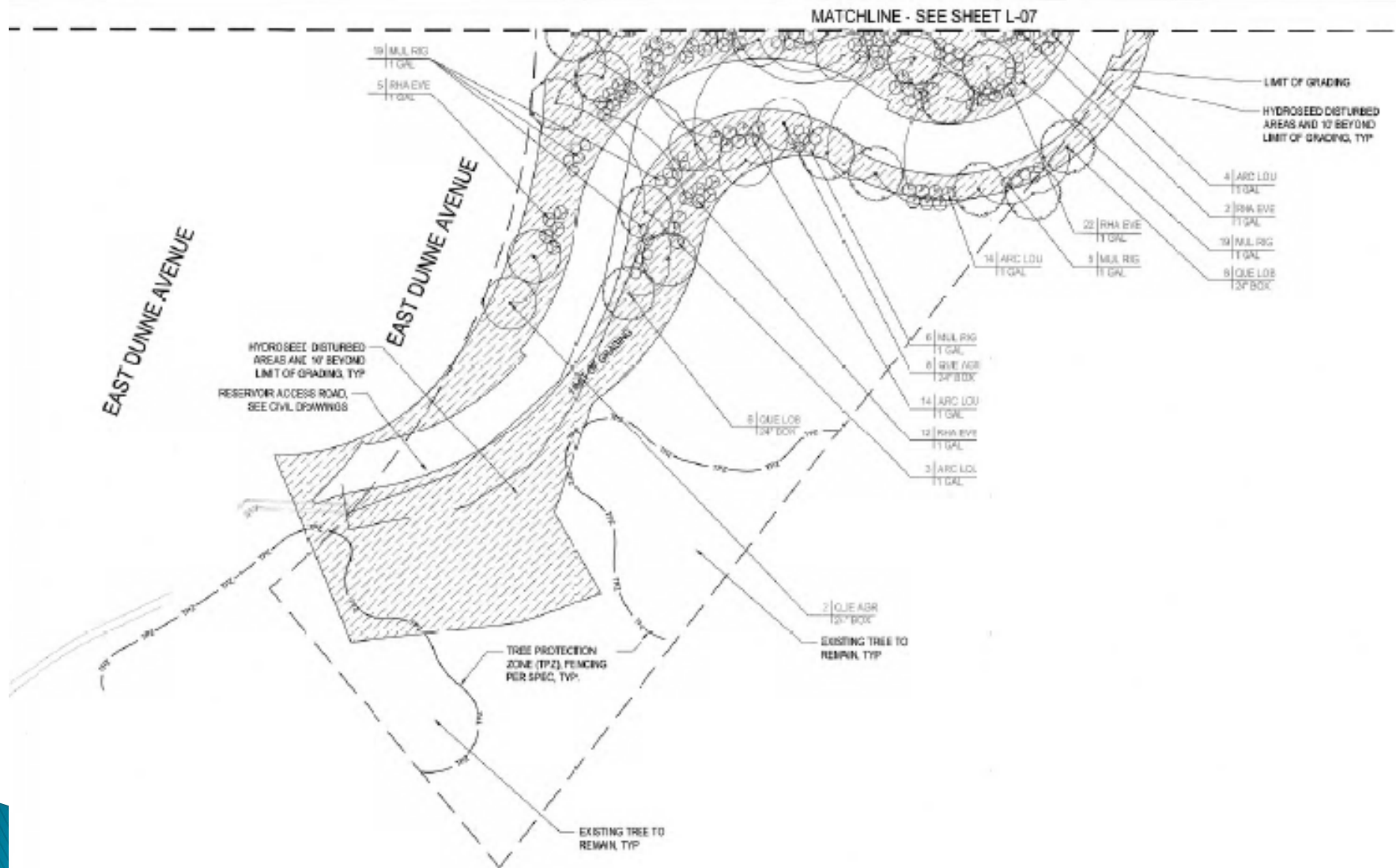
SYMBOL	UNIT	ABOVE	DESCRIPTION	QUANTITY	UNIT	REMARKS	WATER USE
	44.372 OF		SEE SPECOS				VL

WATER USE LEGEND:
 L - LOW WATER USE
 VL - VERY LOW WATER USE

PLANTING NOTES

1. REFER TO SPECIFICATIONS FOR SOIL PREPARATION, PLANTING, AND MAINTENANCE FORS REQUIREMENTS
2. CONTRACTOR TO ORDER TO PLANT LOTS FOR PLANT SIZE AND SPACING USE TRADE JOURNAL SPACING UNLESS OTHERWISE NOTED.
3. PLANT QUANTITIES ARE PROVIDED FOR CONTRACTORS CONVENIENCE ONLY. CONTRACTOR TO VERIFY ALL PLANT QUANTITIES & SPACING IN PLANTING PLANS.
4. CONTRACTOR TO SUBMIT PLANT SAMPLES FOR APPROVAL BY LANDSCAPE ARCHITECT. SEE SPECIFICATIONS.
5. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL UTILITY STRUCTURES, AND IRRIGATION LINES BEFORE DIGGING.
6. SPACE SHRUBS AT 4' X 4' FROM TREES.
7. SEE DETAIL 1 (1) FOR PORCH/PAVE PROTECTOR (EXIST).
8. SEE DETAIL 2 (1) FOR POOF PROTECT ON (POSS).
9. ALL DISTURBED AREAS TO BE REGRASS SEEDS.
10. IRRIGATION CONTROL, NETTING ON SLOPES 1:1 AND GREATER.
11. ALL TREE AND SHRUBS TO HAVE CRUSHED ROCK MULCH EXCEPT BULBULBULBULB.

Planting Plan



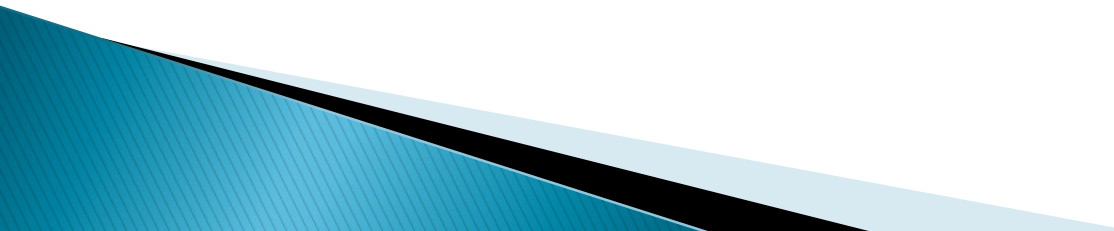
Utility Safety Improvement Plan

Schedule

- ▶ Bid Opening – May 29, 2024
- ▶ Construction Start – September 2024
- ▶ Duration, 2.5–3 years
- ▶ Low Bid – \$8.3M (Azul Works)

FUNDING

\$4M from Urban Grant (Department of Water Resources)



Potential Impacts

- ▶ Construction Noise
 - Typical work hours: 7am to 3:30pm
- ▶ Roadway Impacts
 - Traffic Delays due to:
 1. Product/Material Deliveries
 2. Equipment Mobilization
 3. Daily Worker Vehicles
- ▶ Other Impacts
 - Dust from Excavation
 - Exhaust gas from Equipment
 - Lay down yard–corner of Thomas Grade/Dunne

Contacts and Updates

▶ Project Updates for all City Projects

www.morganhill.ca.gov/2327/The-Scoop

▶ Project Contacts

- General Contact

constructionconcerns@morganhill.ca.gov

- David Gittleson, Project Manager

david.Gittleson@morganhill.ca.gov – 408.779.7271

- Chris Ghione, Public Services Director

chris.ghione@morganhill.ca.gov – 408.782.9154

